

MORMON'S
CODEX

MORMON'S CODEX

AN ANCIENT AMERICAN BOOK

JOHN L. SORENSON



NEAL A. MAXWELL INSTITUTE
FOR RELIGIOUS SCHOLARSHIP



DESERT
BOOK

SALT LAKE CITY, UTAH

The publication of *Mormon's Codex* was made possible by generous gifts to the Neal A. Maxwell Institute for Religious Scholarship from many dedicated supporters, including Brad and Ann Botteron, Rondell B. and Joyce P. Hanson, Thomas A. and Cheryl J. Quinn, James E. and Margaret Smith, Lowell and Colleen Sherratt, and Vernon R. and Loretta Rice.

© 2013 The Neal A. Maxwell Institute for Religious Scholarship

All rights reserved. No part of this book may be reproduced in any form or by any means without permission in writing from the publisher, Deseret Book Company, at permissions@deseretbook.com or P. O. Box 30178, Salt Lake City, Utah 84130. This work is not an official publication of The Church of Jesus Christ of Latter-day Saints. The views expressed herein are the responsibility of the author and do not necessarily represent the position of the Church or of Deseret Book Company.

DESERET BOOK is a registered trademark of Deseret Book Company.

Visit us at DeseretBook.com

Library of Congress Cataloging-in-Publication Data

Sorenson, John L., author.

Mormon's codex : an ancient American book / John L. Sorenson.

pages cm

Includes bibliographical references and index.

ISBN 978-1-60907-399-2 (hardbound : alk. paper)

1. Book of Mormon—Evidences, authority, etc. 2. Book of Mormon—Geography. 3. Indians of Central America. I. Title.

BX8627.S6458 2013

289.3'22—dc23

2013006467

Printed in the United States of America

Publisher's Printing, Salt Lake City, UT

10 9 8 7 6 5 4 3

Contents

List of Maps	vii
List of Tables	ix
List of Figures	xi
Foreword	xiii
Preface	xvii

PART 1. ORIENTATION

1. Introduction	3
2. Getting Ready for the Comparisons	16
3. The Book of Mormon in Culture History Terms	26
4. The Early Culture History of Mesoamerica	63
5. The Nature of History in the Book of Mormon	104
6. About Correspondences	109

PART 2. CORRESPONDENCES BY TOPICS

7. Geographical Correspondences	119
8. Two Traditions of Civilization	144
9. Transoceanic Voyages	150

10. Language	173
11. Records and Writing Systems	184
12. Human Biology	233
13. Political Economy	255
14. Society	265
15. Population and Its Distribution	285
16. Material Culture	302
17. Government and Political Processes	362
18. Warfare	381
19. Knowledge Systems	426
20. Ideology and Religion	451

PART 3. CORRESPONDENCES FROM ARCHAEOLOGY AND HISTORY

21. Archaeology and History before 600 BC	499
22. Archaeology and History between 600 and 1 BC, Part 1	528
23. Archaeology and History between 600 and 1 BC, Part 2	579
24. Archaeology and History between AD 1 and 200	634
25. Archaeology and History between AD 200 and 400	666
26. Conclusions	696
Appendix: A New View of Jaredite Geography	709
Bibliography	715
Illustration Credits	801
Index	803

List of Maps

- Map 1. Mormon's map of Book of Mormon lands according to the text
- Map 2. Some Mesoamerican archaeological sites mentioned
- Map 3. Mormon's map showing geographical correspondences
- Map 4. Mesoamerican geographical correspondences to Mormon's map
- Map 5. Plausible Nephite areas in the Valley of Guatemala
- Map 6. Plausible Chiapas arena for the Amlicite battles
- Map 7. Dual pattern of residence at Santa Rosa, ca. 150 BC
- Map 8. Plausible areas of Alma₂'s preaching journey
- Map 9. Plausible sites of the Nephite wars
- Map 10. Plausible setting for the final Nephite wars
- Map 11. Plausible Jaredite lands

List of Tables

Table 3.1. Phases of Jaredite Culture History	28
Table 3.2. Phases of Nephite Culture History	32
Table 4.1. Pre-Classic Chronology	73
Table 9.1. Transoceanic Plant Transfers	153
Table 9.2. Selected Disease Agents That Demonstrate Transoceanic Voyages	159
Table 10.1. Some Lexical Similarities	182
Table 20.1. Shared Traits Documented or Implied in the Book of Mormon	457

List of Figures

Figure 4.1. Barra phase pottery	71
Figure 6.1. The shooting of Vucub Caquix by Hunahpu, an incident from the Popol Vuh shown in the art of Izapa	115
Figure 7.1. Lake Atitlan, Guatemala	134
Figure 7.2. Cerro El Vigía, Veracruz	143
Figure 12.1. Ethnic variety in ancient Mesoamerican human figurine faces	238
Figure 12.2. Light- and dark-skinned people in art at Chichen Itzá	241
Figure 12.3. Maya carved wooden figure with elaborate mustache	243
Figure 16.1. Wheeled platform from Veracruz	353
Figure 16.2. West Mexican wheeled platform	354
Figure 16.3. A Maya <i>sacbe</i> or “cast up” highway	358
Figure 16.4. A 19th-century Ecuadorean raft	359
Figure 18.1. A pointed <i>macuahuitl</i> from Loltun Cave, Yucatan	412
Figure 18.2. Curved double dagger on Kaminaljuyu Stela 11	414

Figure 20.1. Seed growing from the heart	466
Figure 21.1. “Controlled Serpent,” Monument 47, San Lorenzo, Veracruz	521
Figure 22.1a. La Venta Stela 3 as excavated	529
Figure 22.1b. Artist’s reconstruction of Stela 3	530
Figure 22.2. The Alvarado Stela	531

Foreword

TERRYL GIVENS

The heated Book of Mormon controversies of the past have given way to a growing accommodation. Historian Nathan Hatch complained a generation ago that “for all the attention given to the study of Mormonism, surprisingly little has been devoted to the Book of Mormon itself. . . . The pivotal document of the Mormon church, ‘an extraordinary work of popular imagination,’ still receives scant attention from cultural historians.”¹ The publication of the scripture as a Penguin Classic in 2008 signaled an important milestone in the quest for respect and legitimacy of a sort. After all, the series imprint has a well-deserved reputation as “the leading publisher of classic literature,” providing scholarly editions of “the best works from around the world, throughout history.”²

But the accommodation, like all compromises, represents an acceptance of a very limited kind. It is “an important historical document,” explains the Penguin editor.³ “Not everyone may believe its contents,” writes one scholar in a similar vein, “but fewer and fewer can continue to doubt the importance the book holds in American history and culture.”⁴ Given the curt

1. Nathan O. Hatch, *The Democratization of American Christianity* (New Haven: Yale University Press, 1989), 115. It was Gordon S. Wood who referred to it as “an extraordinary work.” “Evangelical America and Early Mormonism,” *New York History* 61 (October 1980): 381.

2. “About Penguin Classics,” Penguin Classics, accessed February 19, 2013, <http://www.us.penguin.com/static/pages/classics/about.html>.

3. Laurie F. Maffly-Kipp, ed., *The Book of Mormon* (New York: Penguin, 2008), vii.

4. Paul C. Gutjahr, *The Book of Mormon: A Biography* (Princeton: Princeton University Press, 2012), 195.

and often rabid dismissals of the book for most of the nineteenth century and a good part of the twentieth, such willingness on the part of academics to countenance the study of the Book of Mormon represents progress. Believing Mormons, however, will note in the contexts cited above the absence of any reference to American religion as an area in which the record is considered to have a meaningful presence.

In a particularly pronounced way, the meaning and value of the Book of Mormon as a religious text are tied to a specific set of historical claims. Some voices have argued that the book's religious value can be divorced from those claims. As "inspired fiction," the argument runs, there is still much spiritual profit to be found in the volume, even if its origins are mired in fraud or delusion rather than grounded in pre-Columbian prophets inspired of God. For a variety of reasons, such efforts at a kind of religious *détente* may be well intentioned, but they are untenable. The book's unambiguous account of its own construction, as well as the historically defined reciprocity between Joseph Smith's own moral authority as a religious leader and the sacred status of the book inseparably wedded to his claims and career, admits of no simple divorce.

Given the fact that the scripture's status as an ancient document and its status as divine word are so inextricably connected, the willingness to bracket questions of the book's claims to ancient provenance is a reasonable expedient in the academic world, where religious texts are rightly studied in isolation from the religious claims they make upon readers. The observed result, then, is the condition that currently prevails: scholars ignore the book's claims to have originated with ancient Israelites in a pre-Columbian setting and emphasize its reception history and reflection of nineteenth-century religious yearnings and preoccupations. The case is different with the Bible. Whether or not God spoke to Moses on Sinai, Jesus resurrected from the dead, or Paul wrote words given him by inspiration, no one doubts the Old World setting and ancient origins of the Old and New Testaments. Until such time as a preponderance of evidence provides comparable historical plausibility for the Book of Mormon's ancient origin, no one can expect scholars to consider the book as anything other than a nineteenth-century cultural artifact.

If such a time is to come, it will arrive in large measure through the

efforts of John Sorenson, who has done more than any Latter-day Saint scholar to shift the terms of the Book of Mormon debates. Taking biblical scholars William Dever and Kenneth Kitchen as his models, he intends to be a Darwin in reverse. If the great scientist made it intellectually respectable to be an atheist, Sorenson aims to make it intellectually respectable for academics to consider the Book of Mormon to be a translation of an authentic ancient American codex, or what he calls “a historically valid record.”

Joseph Smith and his contemporaries found support for the Book of Mormon’s ancient American origin in the writings of amateur antiquarians and explorers of their day—Josiah Priest, Alexander von Humboldt, John Lloyd Stephens, and others. Orson Pratt was confident in asserting New World names for Book of Mormon topographical features, and by 1900, LDS Church leaders had tentatively approved an expedition led by Brigham Young Academy’s Benjamin Cluff to do fieldwork with an objective of finding hard evidence for the scripture’s New World setting. After those previous generations of fits and starts, Hugh Nibley did the most extensive work in establishing the plausibility of the Book of Mormon’s ancient provenance; however, his method was deliberately self-limiting. As he insisted, “If you want proof of the Book of Mormon, you must go to the Old World. You won’t find it in the New World.”⁵

Nibley’s legacy continued in the Foundation for Ancient Research and Mormon Studies, organized by John Welch in 1979 and assimilated in 2001 into what would become Brigham Young University’s Neal A. Maxwell Institute for Religious Scholarship. Welch and a host of scholars largely adopted Nibley’s model of emphasizing textual correspondences between the Book of Mormon and Old World languages, texts, and culture. At the same time, LDS scholars were also actively pursuing New World convergences and contexts, addressing topics from horses and metalworking in pre-Columbian America to Semitic/Uto-Aztec connections. It is safe to say, however, that no one has remotely approached Sorenson in the scope of his project: this present work encompasses hundreds of “correspondences,” or points of “particular similarity” involving geography, chronology, archaeology, biology, and other disciplines, all with an end to establishing

5. Hugh W. Nibley, *Teachings of the Book of Mormon, Semester 1*, lecture 4 (Provo, UT: FARMS, 2004), 35.

a New World setting, rather than merely Old World backgrounds, for the Book of Mormon. Through processing massive amounts of scientific data in twenty-five chapters, Sorenson finds convergences based on literary forms, material culture, and an array of “knowledge systems,” from astronomy to calendar and measurement systems. Health and medicinal practice, warfare, writing, and political systems also constitute his area of study: his range is astounding, and what follows constitutes a veritable encyclopedia of Mesoamerican scholarship. It is a fitting finale to a professional life dedicated to reconciling the commitments of the mind and heart, scholarship and faith.

So influential has Sorenson’s work on Book of Mormon geography been that there is widespread consensus among believing scholars in support of what is now called the “Sorenson model,” which identifies the scripture’s setting with a Mesoamerican locale. A prolific scholar, Sorenson has published more than two hundred books and articles. With the present work, he makes the most comprehensive and compelling case ever presented for the Book of Mormon as a record of real American antiquity. In 1998, the harshest critics of the Book of Mormon were already acknowledging that LDS scholars working on the Book of Mormon were “producing serious research which desperately needs to be critically examined.”⁶ John Sorenson has again upped the ante with what will immediately serve as the high-water mark of scholarship on the Book of Mormon.

6. Carl Mosser and Paul Owen, “Mormon Scholarship, Apologetics, and Evangelical Neglect: Losing the Battle and Not Knowing It?,” *Trinity Journal* 19 (Fall 1998): 184.

Preface

This book presents a wide array of evidence that the Book of Mormon is an ancient historical record that could only have been produced by a writer who lived in Mesoamerica (southern Mexico and northern Central America) many centuries before Spanish explorers reached that area.

Faced with the prospect that this will be my last word on the topic, I feel obliged to bring such closure as I can to my personal investigation (ongoing since 1949) of the relationship of the Book of Mormon to ancient Mesoamerican civilization. I hope that what I have learned will serve as a useful benchmark from which future researchers will press on in further exploration.

I have been assured of the reality of the Book of Mormon as the ancient American record it claims to be since I was young, but my scholarly writing on the topic has been far different than an avowal of that belief. My aim in this book, as in all my writings on the topic, is to illuminate the Book of Mormon and the peoples who are its subjects. Striving to do so has been a fascinating intellectual challenge more than a defense of my faith. I hope that readers will gain from the material presented here a clearer understanding of the nature of the book.

Numerous theories have, of course, been proposed to correlate Book of Mormon geography with the modern map of the Americas. None of these theories have been considered definitive by authorities of The Church of Jesus Christ of Latter-day Saints. In chapters 2 and 7, I explain why I consider only one of those theories—involving a particular area in Mesoamerica—to escape the fatal flaws exhibited by all the others.

Only a few of the influences that have led me to carry on this work can be mentioned here. Especially noteworthy has been the confidence placed in me by Kathryn, my wife for forty-four years until her death in 1991, and later by my wife Helen. Neither of them questioned why I have felt impelled to pursue this task. They, with our families, have sacrificed much while I have been engaged in the effort. I also owe a deep debt to the many scholars whose work I have drawn upon and whose example in seeking truth I have tried to emulate. I also salute a long line of student research assistants as well as helpful colleagues, both professional and amateur, who have shared data, made suggestions, and answered questions for me. For financial, service, and moral support over many years while I have been engaged in this research, I thank Brigham Young University (especially the Neal A. Maxwell Institute for Religious Scholarship and its predecessors and the Religious Studies Center), M. Gerald Bradford, Alison V. P. Coutts, Paul Y. Hoskisson, Mark W. Cannon, and Leon and Randie Reinhart, along with other helpful persons too far back in time to recall specifically.

My gratitude also goes to staff at the Maxwell Institute (Sandra Thorne, Don Brugger, Shirley Ricks, Paula Hicken, Daniel McKinlay, and Matthew Roper, among others) for careful editing of the complex manuscript and associated tasks. Thanks also go to my son Curtis L. Sorenson for preparation of the maps.

I have consciously avoided duplicating valuable points made by Brant Gardner in his multivolume *Second Witness* series on the Book of Mormon in the Mesoamerican setting.¹ His work deserves separate consultation.

1. Brant A. Gardner, *Second Witness: Analytical and Contextual Commentary on the Book of Mormon*, 6 vols. (Salt Lake City: Greg Kofford Books, 2007).

Part 1

ORIENTATION

Chapter 1

Introduction

Who wrote the Book of Mormon? Over the years a great deal of energy has been consumed in trying to answer that question. This study demonstrates that the immediate source for the Book of Mormon was a Mesoamerican native book, or codex, produced by authors who lived in southern Mexico more than 1,500 years ago. Hundreds of statements in the Book of Mormon constitute “Mesoamericanisms”—facts and phrasings that are fully understandable only in terms of the civilization that prevailed in that part of the ancient world before AD 1500. That information could have been provided only by men with a detailed knowledge of the natural setting, history, and social and cultural milieu of southern Mexico and northern Central America gained by prolonged personal experience in that area. No writer in recent centuries could have known enough about the ancient scene to create the Book of Mormon.

The primary method employed in this study will be to compare statements in the text of the Book of Mormon with scholarly reports on the results of archaeological investigations and related scholarly research. The methodological problem this entails is a familiar one. The Book of Mormon belongs to a class of texts that claim or appear to be historical documents and therefore invite comparison with what archaeology and other historical disciplines have revealed about the claimed place and era of origin. If the document in question agrees at a large number of points—as it does in this case—with what the external sources tell us, then the text must be deemed a historically valid record.

The comparisons made here demonstrate that the Book of Mormon

portrays aspects of ancient Mesoamerican civilization with such a degree of accuracy that no simpleminded explanation for the parallels will do. The common scholarly theories for the book's origin hold either that an unschooled but creatively precocious young Joseph Smith in frontier western New York in the 1820s authored the book out of whole cloth or that he copied it from the work of some other person who was more literate than he. But the presence of several hundred Mesoamericanisms cannot be explained by such naturalistic theories of origin. Given those cultural and historical elements that appear in the Book of Mormon, the only acceptable explanation is that Joseph Smith had in his possession a native Mesoamerican codex that he translated into English.

The present book is composed of four parts. This introduction and related preliminary matter make up part 1, "Orientation." It consists of six chapters that discuss topics that prepare readers to deal effectively with the substance of the argument found in parts 2 and 3.

Part 2, "Correspondences by Topics," contains chapters 7 through 20, each of which makes comparisons between the Book of Mormon and scholarly sources in regard to a particular topic, for example, writing systems and records, societal patterns, and warfare.

In part 3, "Correspondences from Archaeology and History," we examine agreements in culture history discernible in both the Book of Mormon and scholarly sources, adding also a time dimension that the topical comparisons lack. This part constitutes chapters 21 through 25. The material treated in part 3 unavoidably overlaps to some degree with that in part 2.

The book ends with a brief chapter, "Conclusions."

A Summary of the Content of the Book of Mormon

The following précis of the historical and cultural content of the Book of Mormon is intended to orient those not familiar with that volume or the story it presents. It incorporates references to plausible real-world locations not mentioned in the Book of Mormon but inferred, especially in chapters 2 and 7, as the actual settings for events the book reports.

The Book of Mormon is a history-with-commentary describing important events among descendants of three parties—Lehites, Mulekites, and Jaredites—who crossed the ocean anciently and dwelled in a "land of

promise” somewhere in the Americas. The primary account was written by Mormon, the last historian-leader of the record-keeping Lehite line, who lived in the fourth century AD. He abstracted, paraphrased, or quoted from older records that he found in the lineage archive he inherited. He also appended a short record of events of which he had personal knowledge. To that composite record he attached a supplementary one (the small plates of Nephi) kept by his ancestors in BC times. His son, Moroni₂, the last survivor of their people, added his own brief observations to conclude his father’s epic record. He also attached a summary of his translation of a history left by the earlier Jaredites.

The Jaredites departed from Mesopotamia in the early third millennium BC. They made their way to the sea (whether the Atlantic or the Pacific is not entirely clear) and from there sailed to the territory that is now southern Mexico. Their history is in the book of Ether, the record of their leading dynastic lineage. This record was translated and abridged by Moroni₂. After a long period of pioneering in the new land, the Jaredites flourished within a civilized order of society only then to decline and finally to become extinct as a society and people near 600 BC.

The Lehites and Mulekites originated from the kingdom of Judah in Palestine immediately prior to the Babylonian conquest of the Jews. In 597 BC the founder-prophet of the Lehites, Lehi₁, was directed by Yahweh/Jehovah, the God of Israel, to flee from Jerusalem. He and his wife were accompanied by their (at least six) children, a freed bondservant, and the family of Ishmael, Lehi₁’s friend or relative. From Jerusalem they traveled through western Arabia to the south coast of that peninsula. There they constructed a ship in which they sailed across the Indian and Pacific Oceans to the west coast of Central America. Rivalry between Lehi’s sons split the group into two factions. Descendants of those groups thereafter maintained bitter relationships under the names “Nephites” and “Lamanites.” Only the former group kept records consistently; Mormon and Moroni₂ were their last historians/scribes. The Nephites were finally exterminated as a social or cultural entity by Lamanite foes around AD 380 in southern Mexico.

The other Israelite party included Mulek, a son of Zedekiah, the last king of Judah (who was taken captive by the Babylonian army in 586 BC). That group (called Mulekites) fled Jerusalem and crossed the Atlantic. We

know very little about their makeup or the route they took. They also settled in southern Mexico near where, and at about the same time as, the Jaredites met their demise early in the sixth century BC. Only fragmentary information is recorded on early Mulekite history, transmitted cursorily through Nephite historians. The Mulekites apparently incorporated some Jaredite survivors and elements of Jaredite culture. At length the Mulekites came under Nephite dominance. Although the Mulekites comprised a larger population than the Nephites, the combined people came to be governed by a Nephite dynasty. The amalgamated Nephites/Mulekites resisted the Lamanites in a long series of wars with varied success until the fourth century AD.

Mormon's record was buried for safekeeping by his son Moroni², around AD 420. Joseph Smith Jr. obtained it in 1827 near his home in western New York State and, over the next few years, translated it into English "by the gift and power of God."¹ It was published and circulated as a religious work starting in 1830. On the order of 100 million copies have been printed since then.

Investigating the Origin of the Book

The question of the origin of the Book of Mormon is not a trivial one for scholars. Hundreds of both popular and scholarly publications have appeared related to this question, and they continue to be issued. However, only a few theories about how the book came into being have been taken seriously by conventional scholars (see chapter 26).

Critics have their own justifications for denying the historicity of the Book of Mormon, but rarely are their doubts based on reliable facts. If the text's content is genuinely historical, it leads to at least two conclusions important to research on America's past: (1) despite the fact that most experts deny the possibility, it would demonstrate that people carrying elements of Old World civilization played a significant role in the development of ancient American civilization; and (2) it would demand that researchers use the Book of Mormon as the largest and oldest historical document known from the ancient New World.

1. "Introduction" and "The Testimony of Three Witnesses," Book of Mormon; Doctrine and Covenants 135:3.

Archaeology has faced problems of the authentication of historical documents from its beginning as a discipline. History has had to deal with similar issues. Heinrich Schliemann, one of the pioneers of archaeology in the 19th century, set the pattern by testing Homer's *Iliad* against the results of his excavations at the site of Hissarlik, which he considered to be ancient Troy. As a result of his work, it has been widely, although not universally, accepted that the site in Turkey might indeed have been Troy and that the epic had a specific historical basis.² Later, biblical archaeologists using Schliemann's method carried on a long series of attempts to connect excavations in the Holy Land with Old Testament history.

In America, attempts have been made to establish through archaeological research the historicity of the Norse epics that report colonization of "Vinland" (apparently in northeastern North America),³ de Soto's account of 16th-century exploration in what would become the southeastern United States,⁴ and the location of Sir Francis Drake's landing in California.⁵ These are only a few examples from a long list of historical enigmas for which attempts have been made to reconcile archaeological facts with historical documents. Despite problems all such efforts have encountered, there is general agreement that historical claims sometimes can be authenticated through archaeology.

A promising model for pursuing the question of the Book of Mormon's connection to ancient Mesoamerica was published in 2001. Archaeologist William Dever used it in *What Did the Biblical Writers Know and When Did They Know It?*⁶ He vigorously attacked the view held by many modern scholars engaged in Bible studies that the Old Testament is largely

2. Trevor R. Bryce, "The Trojan War: Is There Truth behind the Legend?," *Near Eastern Archaeology* 65/3 (2002): 182–95.

3. Helge Ingstad, *The Norse Discovery of America*, 2 vols. (Oslo, Norway: Universitetsforlaget, 1985).

4. Jeffrey P. Brain, "The De Soto Entrada into the Southeastern United States," *Review of Archaeology* 19/1 (1998): 30–35.

5. Edward P. von der Porten, "The Drake Puzzle Solved," *Pacific Discovery* 37 (July/September 1984): 22–26.

6. William G. Dever, *What Did the Biblical Writers Know and When Did They Know It?: What Archaeology Can Tell Us about the Reality of Ancient Israel* (Grand Rapids, MI: Eerdmans, 2001).

historically based fiction written in the late first millennium BC. In the last sentence in his book, Dever insists, "These people, this Israel, must not be written out of history" by the history deniers. His book is successful in redeeming the broad historical status of the Old Testament. Using concrete archaeological finds, he documents certain basic historical facts asserted by the scripture.⁷ Dever took a rather narrow view of "archaeology" to mean specifically excavational data. Moreover, he was determinedly polemical in his style of argument.

More to my taste is a larger work with the same aim but broader evidential scope, Kenneth Kitchen's *On the Reliability of the Old Testament*.⁸ His concern was not so much to refute critics of the historicity of the Bible as simply to "go back to those ancient times and compare the data [of all sorts] in the Hebrew Bible with what we have from its putative world."⁹

Both these superbly informed scholars show that the text of the Hebrew Bible had a basis in historical reality. At point after point, established facts from archaeological discoveries and from textual, historical, linguistic, and epigraphic research demonstrate that the Hebrew text is accurately informed in terms of what scholars now know about life and history in the ancient Near East at the time period the scripture claims. Kitchen's conclusion agrees with Dever's: "The biblical and external phenomena [when compared] show clearly that the [records of] the Hebrew founders bear the marks of reality."¹⁰

Dever builds his argument by identifying "convergences," specific points of agreement between statements in the biblical text and findings by archaeologists. When the sacred written source is supported on a given point by excavational evidence, no explanation for this fact makes sense except that the archaeological datum and the text both refer to the same cultural moment and that the author of the record could not have written as he did

7. Nevertheless, the dispute continues to rage. See Yosef Garfinkel, "A Minimalist Disputes His Demise: A Response to Philip Davies," *Biblical Archaeology Review* 38/4 (2012): 2. This article can be accessed online at <http://www.bib-arch.org/scholars-study/minimalist-response-garfinkel.asp>.

8. Kenneth A. Kitchen, *On the Reliability of the Old Testament* (Grand Rapids, MI: Eerdmans, 2003).

9. Kitchen, *Reliability of the Old Testament*, 499.

10. Kitchen, *Reliability of the Old Testament*, 500.

without intimate, contemporary knowledge of the area documented in his account and of the facts for that time period educed by archaeology.

For example, Dever lists 10 features drawn from the Hebrew scripture that characterized early Israel. These 10 textual points match features (“striking analogies”) observed at digs in ruins of Palestinian villages of the 12th–11th centuries BC, the period covered by the book of Judges.¹¹ The data from the two independent sources—written text on the one hand and archaeological contexts on the other—must, he insists, refer to the same historical situation. Hence, the original text must have been written down in the same time period shown by the archaeological facts. The record could not be so true to fact had it been written centuries later on the basis of traditions alone.

In Dever’s hands, convergences throughout the historical sequence both sharpen the chronology and confirm his general argument. For example, “the many biblical passages that mention city gates—not as part of any deliberate propaganda, but simply offhand—fit remarkably well with excavated gates at a number of sites [in Palestine] of the 10th–7th centuries, and *only* of this period. . . . No writer living [centuries later] could have ‘invented’ [references to] city gates like [these], known only long before.”¹² Using numerous instances of this logic, Dever shows that the historical skeleton whose bones show through in the Hebrew Bible/Old Testament must have been real. The original books of the Hebrew scripture had to have been written by men who were eyewitnesses of the particular historical realities their accounts report or reflect.

Kitchen’s argument is on even broader—that is, more anthropological and hence stronger—ground because he relies less on the always-incomplete data from excavation and more on a wider range of information made available by the complete array of methods used to study the ancient world such as art history, language, and epigraphy, as well as archaeology. Both scholars agree that the historical framework laid out in the Israelite nation’s sacred record is frequently attested by the findings of these historical disciplines.

A somewhat similar method has been employed for the last 50 years to argue for the authenticity of that portion of the Book of Mormon (the

11. Dever, *What Did the Biblical Writers Know?*, 125.

12. Dever, *What Did the Biblical Writers Know?*, 202.

first 7 percent or so of the text) that deals with events in the ancient Near East. Hugh Nibley, first in book form in 1952, discussed parallels between statements in the Nephite scriptural text and data from secular scholarship on life in the ancient Near East, such as forms of poetry, family structure and customs, personal names and place-names, and conditions of travel in the desert.¹³ He made little use of archaeological materials in his comparisons, yet the effect was generally like the results that Kitchen and Dever achieve for the Hebrew record. Over the last half century, Nibley and other Latter-day Saint researchers have pursued this line of inquiry to produce an extensive corpus of ancient Near Eastern scholarship that relates directly to statements in the Book of Mormon.¹⁴

There are formidable problems in this sort of analysis. For instance, even at best, documentary history tells us only in part what actually happened in the past. A historian's or scribe's cultural background, role definition, and access to information limit the value of any historical account he creates; some bias on the part of the author and gaps in his data inevitably emerge at times. What he asserts must always be qualified accordingly. For instance, the biblical narrative about the patriarchs Abraham, Isaac, and Jacob depended on documents or oral traditions that reported only certain, not all, of the facts, and even those traditions may have been massaged by Jacob's tribal descendants as they passed on the stories. These factors explain why Hebrew sources give us only minimal information about the neighboring Canaanites, Philistines, and Amorites, for example. Yet what is said confirms at least the existence of those groups, although it does not characterize them satisfactorily.

Every picture of an ancient society that comes from archaeology is also partial. After all, most of the material archaeologists study was ancient garbage, and there are obvious problems of omission in reconstructing history from it. Few artifacts relevant to what historians prefer to write about were

13. Hugh W. Nibley, *Lehi in the Desert and the World of the Jaredites* (Salt Lake City: Bookcraft, 1952); reprinted in *Lehi in the Desert; The World of the Jaredites; There Were Jaredites* (Salt Lake City: Deseret Book and FARMS, 1988).

14. Some of the most sophisticated work in this genre is summarized in the 2002 volume *Echoes and Evidences of the Book of Mormon*, ed. Donald W. Parry, Daniel C. Peterson, and John W. Welch (Provo, UT: FARMS, 2002).

thrown away or buried intentionally. Furthermore, excavation yields information only by inference.

A good example of these limitations comes from the Aztec empire of Mexico. Stocker pointed out that,

were it not for the written record, conquest as *the* major variable in the expansion of the Aztec state would never have been known [to us]. Aztec history spanned some 200 years, and they conquered 250 major centers. These centers had their own tributaries [dominated communities]; therefore, they in essence conquered approximately 1,000 to 2,500 places. . . . But they placed governors and some of their own population at only eight of these conquered centers. [Only at those eight would there be any archaeological evidence for the Aztec conquest.]

Therefore, without the written record, how could we demonstrate [widespread] conquest? We could not. This likewise means that conquests for the earliest states [those for which we have no written history] cannot be documented in the archaeological record.¹⁵

Furthermore, only a fraction of the material that was left behind by ancient peoples has been preserved and is waiting to be found by archaeologists. Yet with limited resources, all excavators face a huge sampling problem. Take for instance Palestine, one of the areas of the world most intensively worked by archaeologists. As of 40 years ago it was said,

In Palestine alone, of more than six thousand sites [identified], fewer than two hundred have been excavated, and of these only twenty-eight to any major extent. Roughly the same proportion applies to Syria, Jordan, Iraq, and Iran.¹⁶

15. Terry Stocker, "Conquest, Tribute and the Rise of the State," in *Studies in the Neolithic and Urban Revolutions: The V. Gordon Childe Colloquium, Mexico, 1986*, ed. Linda Manzanilla, BAR International Series 349 (Oxford: BAR, 1987), 367; emphasis in original.

16. Donald J. Wiseman and Edwin Yamauchi, eds., *Archaeology and the Bible: An Introductory Study* (Grand Rapids, MI: Zondervan, 1979), 4.

Moreover, the writers add, “only a fraction of the objects retrieved from some sites has been adequately [studied and] published.”

Despite repeated cautions by the most thoughtful archaeologists, most practitioners in that field too readily speak as if their data were complete and their inferences were facts. Three highly reputable archaeologists warn that “the vast majority of archaeologists have been trained to believe that there is inherent meaning in the [archaeological] record, that there are ‘facts’ waiting to be discovered. . . . In reality the record contains no facts.” What has happened is that “through the years, archaeologists have built up a series of inferences about the meaning of the archaeological record [and] . . . these inferences have become so ingrained in archaeolog[ists’] thinking that they are accepted as givens.” Yet “the archaeologist can never know if his or her interpretation of the record is built on a solid foundation of knowledge and understanding or on an insubstantial quicksand of guesses and speculation. . . . In actuality, the ‘facts’ of culture history are interpretations.”¹⁷

In agreement with the epistemological and methodological position espoused by these theorists, this book presents an interpretation at variance with usual pictures of Mesoamerican culture history. It accommodates both facts and interpretations that are used in other systems of archaeological thought but follows no one schema that might be momentarily fashionable.

The Book of Mormon is particularly about what some ancient peoples thought and felt, and reconstructing those things from material remains is decidedly problematic. For example, an archaeologist may loosely call an artifact that has no evident practical function a “ceremonial object,” but even if that loose label should happen to be correct in a general sense, we would not know concretely what the particular item signified in the maker’s or user’s belief system. We would have to have clues from documents or art to conjecture plausibly what an object meant anciently. In contrast, written documents are mostly intended to communicate ideas and meanings. So in large measure it may be impossible to relate our interpretations of “apples” according to the documents to archaeological “oranges” (or, closer to the mark, archaeological “potatoes”).

Because of these sorts of difficulties in interpreting historical and

17. Jeremy A. Sabloff, Lewis R. Binford, and Patricia A. McAnany, “Understanding the Archeological Record,” *Antiquity* 61 (1987): 203–5.

archaeological sources, students of past cultures try to find as much supplementary data as they can to help them interpret ancient significance. That usually requires calling on other disciplines. For example, if the proverbial ceremonial object is shown from mineralogical analyses to have been imported from hundreds of miles away, we can at least add the adjectives *valuable* and *exotic* to *ceremonial*. Moreover, if the object was found in a burial where the skeletal remains were markedly different from bones in typical graves in the area, we would have a basis for inferring that the artifact had been brought there by a foreign people. At best, however, such supplementary information fails to tell us much that is substantive about the values or ideas of the ancients.¹⁸

The use of supplementary disciplines turns modern archaeology into a complex interplay of detailed studies well beyond excavation. It demands cooperation among many sorts of specialists. So to interpret historical documents in the most enlightened way possible may require drawing upon expertise in linguistics, epigraphy, studies of ancient art and iconography, and so on. The range of specialties needed to develop a picture of a past civilization has pushed archaeologists toward the difficulty of the storied blind men facing the task of characterizing an elephant. The difficulties of relating the varied findings make bringing off comparisons such as Dever and Kitchen attempt difficult.

In another important way, comparing the Book of Mormon with archaeological findings is more complicated than in the case where, say, the Bible is the document under comparison. Nobody questions that the

18. A telling case in point is communicated in the archaeology of Nubia, the area up the Nile from Egypt. See William Y. Adams et al., "On the Argument from Ceramics to History: A Challenge Based on Evidence from Medieval Nubia," *Current Anthropology* 20/4 (1979): 727–44. This research found that when extensive archaeological data are compared with the substantial historical record for the area, "a close connection between the two cannot safely be assumed" (p. 727). Thus, "if we were to allow pottery to define the major turning points in Nubian cultural history, . . . each of the major [ceramic groupings] would tell us a different story, and none of these would be historically accurate" (p. 733). For example, the Nubian archaeological record fails to make at all clear the changes (including the instituting of human sacrifice) shown by the documents as having taken place after the waning of Egyptian dynastic influence around AD 350. And of the rapid conversion to Christianity recognized as having taken place in the sixth century AD, archaeology has left no hint.

Hebrew Bible was produced in the Near East and that it describes events and peoples in Palestine and thereabouts. Thus the “where” of the archaeology side of the equation has never been in dispute for the Bible. The archaeological material from which Dever sought convergences came almost exclusively from the work of Syro-Palestinian archaeologists and allied specialists. But the particular location where Book of Mormon peoples dwelt is not so clearly known. We still cannot be certain exactly where the Nephites lived. Those of us who have dealt most extensively with this issue are confident from the evidence in the text that the area is Mesoamerica broadly, but the precise location of the cities referred to in the text is still a matter of probabilities, not certainties. The matter is so important that it demands a detailed discussion (as in chapters 2 and 7). After all, were we to assume an incorrect location for the cultures documented in the Book of Mormon, our search for parallels in the scholarly record would be futile to begin with, for we would be looking at the wrong archaeological data.

Another problem hindering attempts to examine the historicity of the Book of Mormon is its language. We have it only in English translation. We do not even know in what tongue it was written, although an abundance of Hebraisms—stylistic peculiarities of writing in the Hebrew language—have been detected in the English text.¹⁹ These assure us that the Hebrew language was somehow important in composing the record. Moroni₂ tells us that the Nephites called the writing system (i.e., the “characters,” Mormon 9:32) they used “reformed Egyptian,” yet he also says, “None other people knoweth our language” (Mormon 9:34), whatever *language* means in that statement. This alerts us that literary, linguistic, and etymological analyses, which have been so valuable in the field of Bible studies, are of uncertain or limited value in making external comparisons to the Book of Mormon—so far at least.

Yet there is also a unique advantage in the case of the American record, for its primary source, according to itself, was written down in ancient times

19. See Donald W. Parry, “Hebraisms and Other Ancient Peculiarities in the Book of Mormon,” in Parry, Peterson, and Welch, *Echoes and Evidences of the Book of Mormon*, 155–89; and John A. Tvedtnes, “The Hebrew Background of the Book of Mormon,” in *Rediscovering the Book of Mormon*, ed. John L. Sorenson and Melvin J. Thorne (Salt Lake City: Deseret Book and FARMS, 1991), 77–91.

mostly by a single individual, Mormon, drawing upon an ancient archive. His text was never subject to redaction by anonymous editors as was the case with the text of the Hebrew Bible. In addition, the chronology of most of the Book of Mormon text is known within a few years in terms of the book's own calendar, and those dates can be read with considerable confidence in terms of today's calendar.

Despite the significant obstacles to analysis of the type mentioned, the prospects are now reasonably good for comparing the Book of Mormon with results from Mesoamerican archaeology, history, literature, and other studies of that area using the methods exemplified by Dever and Kitchen. A large number of convergences or correspondences between the information from Mesoamerican studies and that from the Book of Mormon are presented in the following chapters. Their number and nature show beyond question that the Book of Mormon had to have come from an ancient Mesoamerican document.

Chapter 2

Getting Ready for the Comparisons

In order to identify or confirm the origin of purported historical documents, scholars look at the degree of similarity they exhibit to texts known to have come from the target society. General, vague similarities have little power to demonstrate a direct relationship. Does information from Homer's *Iliad* agree with what archaeologists find at Bronze Age sites in the Dardanelles region? The answer is yes, although some scholars find the similarities more convincing than others do. Detailed and arbitrary features shared by a text and its supposed historical setting are much more likely to convince skeptics that the two sources of information are more than just coincidentally similar.

Dever's term *convergences* has many synonyms—correspondences, parallels, analogies, similarities, agreements, conformities, counterparts, and congruencies. Each has a slightly different shade of meaning. *Convergence* may suggest distinct processes that end up with similar results; *parallel* connotes a general or unfocused degree of similarity; *analogy* points to likeness in form without any particular historical connection implied between the features compared. The comparisons upon which this book relies will usually be called *correspondences*, in the dictionary sense of “a particular similarity.”¹ Occasionally, synonymous terms will be employed to avoid excessive repetition, but no variation in meaning is intended when that is done.

Before we examine any correspondences, however, it is necessary to establish terms of reference—basic facts about the Book of Mormon and the fundamental elements in the study of Mesoamerican antiquities.

1. *Merriam-Webster's Collegiate Dictionary*, 11th ed., s.v. “correspondence.”

Locating the Book of Mormon Scene

Where were the Book of Mormon lands of the Nephites, Lamanites, and Jaredites located? Without a geography in mind, comparison of external materials with the book's text will lead nowhere useful. Heretofore the study of Book of Mormon geography has mainly consisted of making more or less random guesses as to one modern location or another where events portrayed in the Book of Mormon supposedly took place. For the most part such unsystematic studies have been undertaken after examining only *some* of the 600 references to geography found in the text. That is, a typical investigator peruses a map of the Americas, finds what he or she intuitively to be a correlation, then proceeds to select from the Book of Mormon statements thought to support his correlation of choice. But a valid geography must do more than this. In order to have a realistic hope of establishing a real-world location for Book of Mormon events, one must reconcile *everything* the text says or implies about geography.

While the Nephite account contains hundreds of geographical statements and allusions, at no point does it provide a decisive synthesis or summation of the matter. If the book represents historical reality, the many statements about place should yield a consistent, synthetic picture. In fact, it does. It seems unlikely that this consistency could have been attained unless the author(s) had directly experienced some particular real-world setting, not just an imaginary place.

The geographical scheme that lies behind the text may appropriately be called "Mormon's map." The phrase signifies that the ultimate compiler and editor of the volume, by its own account Mormon, reveals in the text that he had in his mind a detailed map of the territory where the events he recorded took place. Although the map is revealed only piecemeal as the history unfolds, it is detailed because, as we learn from his personal record (the small book of Mormon within his masterwork), he had firsthand experience with most of the area to which his record refers.

The book *Mormon's Map* lays out the textual references and logic for that internally consistent geography.² The result (adapted slightly) is shown as map 1. It is the most accurate version constructed thus far of the geography

2. John L. Sorenson, *Mormon's Map* (Provo, UT: FARMS, 2000).

Mormon had in his mind. Note that the scale of the Nephites' American promised land was of the same order of magnitude—a few hundred miles long—as the territory familiar to their Israelite fathers in and around Old World Palestine, the Holy Land.

Book of Mormon textual references do not allow much leeway in placing geographic features in relation to one another. For instance, arriving at a figure for the separation in miles between the city of Zarahemla and the city of Nephi depends on certain limiting facts about particular journeys. Accounts of travel by groups between the two cities report (or imply) that a party of ancient travelers (at least one time including women, children, and flocks) required about 22 days to make the trip, much of it evidently through mountainous terrain. Assuming (on the basis of travel data from a time before motor vehicles came into use) that such a party would be limited to traveling a certain number of miles per day, we arrive at a plausible total number of miles separating the two, a distance on the order of 180 miles (290 km). No travel account in the text contradicts that distance.

Other map relationships are subject to similar limits. When we reason through all the information in the text about travel, directions, terrain features, bodies of water, and so on, a systematic scheme emerges that represents more or less the actual geography Mormon had in his mind. The book *Mormon's Map* weighs and balances such calculations to come up with the most reasonable arrangement of all the features of Book of Mormon internal geography. In no intentional way does that map depend on any assumed correlation with the external world.³

The basic elements of Mormon's map are these:

- A “narrow neck of land” (Ether 10:20), or isthmus, connected two principal land segments, “the land southward” (Mormon 2:29) and “the land northward” (Helaman 6:6). An “east sea” and “west sea” (Alma 50:8; 52:11) bounded the isthmus on either side. In light of the three voyages from the Old World that were recorded

3. The first rudimentary attempt to draw an internal map—Lynn C. Layton, “An ‘Ideal’ Book of Mormon Geography,” *Improvement Era*, 1938, 394–95—did not appear until the Book of Mormon had been in print for 108 years. In one important sense the study of Book of Mormon geography did not begin until that date.

in the text, we safely assume that the west sea of the Nephites was part of the Pacific Ocean, while the east sea was part of the Atlantic.

- The “land southward” was divided into two portions, a northerly one, called in broad terms “the land of Zarahemla” (Helaman 3:31), and that farther southward, labeled in part “the land of Nephi” (Helaman 5:20). The settlement distribution at the time of the principal events in the first two centuries BC (for which the record gives the most detailed account) had Lamanite peoples in the land of Nephi, Nephites in most of the land of Zarahemla, and the people of Zarahemla (or Mulekites) in territory between the Nephites and the isthmus. In the latter half of their history, the Nephites colonized areas northward from Zarahemla into areas beyond the isthmus.
- The main feature of the land of Zarahemla was the basin of the river Sidon, which was the heart of the land occupied by the Nephites. The river’s headwaters lay in highlands in the land of Nephi in and past a mountainous “narrow strip of wilderness” (Alma 22:27) that separated those highlands from the Sidon basin. Coastal strips on the east and west coasts of the basin, as well as the “land Bountiful” (Alma 51:28) on the southern verge of the isthmus, were also construed as part of the extended land of Zarahemla.
- The land northward was comprised chiefly of highlands to the west and lowlands toward the east sea.
- The Jaredites, the people who were historically earlier than the Nephites, dwelt mainly in the land northward, at least through most of their history, particularly in what the Nephites came to call “the land of Desolation” (Mormon 4:2) because it was largely deforested in their day. It lay immediately northward of the narrow neck. The land of Moron was a key area for the Jaredites throughout their history.
- The names for directions translated in the text as “east,” “west,” “north,” and “south” were culturally nuanced terms that, while

related to today's meanings, cannot safely be assumed to be equivalents of what those four terms mean today.⁴

Beyond these basics, Nephite geography can best be grasped by careful study of map 1 as one reads incident after incident of the narrative.

Having in hand a plausible internal map, we can use it to help locate Nephite lands in the external world. This requires finding a region with dimensions, topography, bodies of water, climate, and archaeological/cultural characteristics that agree with (i.e., do not contradict) the internal map. Any proposed external correlation that fails to agree with salient features on Mormon's map can be eliminated as a flawed solution.

Unfortunately, a thicket of mental underbrush and weeds has grown up to obscure the task of locating the specific venue that the historian Mormon implicitly recognized. Since Joseph Smith first published the Book of Mormon in 1830, scores of theories or correlations have been proposed that purport to place the Book of Mormon events someplace in the Americas.⁵ Inspection of those proposals reveals inconsistencies or contradictions in relation to the Book of Mormon text, often constituting fatal flaws.

Most theories can be eliminated by critically evaluating them using just a few major filters:

1. A hemispheric or continental scope is contrary to the text. Mormon's map cannot possibly be matched by such a large territory as North or South America, let alone by the entire hemisphere. The total extent of lands that Mormon knew about, based on his own words, did not exceed about 600 miles (965 km) in length and half that in width.
2. The configuration of the lands cannot have been modified by catastrophic geological events in the historic past. Ancient geographical features were for practical purposes the same as those we

4. See appendix 1 in John L. Sorenson, *The Geography of Book of Mormon Events: A Source Book*, rev. ed. (Provo, UT: FARMS, 1992), for a detailed explanation.

5. Most of these are summarized in Sorenson, *Geography of Book of Mormon Events*, 37–206.

see today; for example, references to the narrow neck and narrow pass were the same in Moroni₂'s day (at the end of Nephite history) as in the day of Moroni₁ several centuries earlier. No credible evidence exists from real-world research that justifies believing that major physical events have drastically changed the present boundaries of the seas or other major physiographic features in the Western Hemisphere within the period of human inhabitation. In fact, evidence from archaeology contradicts the idea of any major change in the shape or extent of the lands, since archaeological studies in all Western Hemisphere land areas show uninterrupted human occupation over thousands of years.

3. Cultural criteria described in the text must be accounted for in any acceptable theory. Most of the lands about which Mormon wrote were described as having characteristics of advanced civilization, such as "cities." Furthermore, many of the peoples involved were literate; the existence of "many books" (Helaman 3:15) was a cultural feature of note. Only one area in ancient America had cities and books: Mesoamerica.

These points, without need to go down a longer list of criteria, indicate that the land where Book of Mormon history was played out can only have been in Mesoamerica. For several decades no correlation of geography has been given serious consideration among qualified scholars or scientists unless it has placed Mormon's map in that cultural area.

A number of detailed proposals have been offered for regions within Mesoamerica. A key feature of any geographical correlation must include a narrow neck of land connecting two sizable land masses. A few proposals have supposed that the Book of Mormon narrow neck was someplace other than the Isthmus of Tehuantepec, but they uniformly fail to meet other criteria established on the basis of Mormon's text. Moreover, the correct correlation must have a major river run northward through its southerly lands. The only two Mesoamerican rivers proposed so far that might qualify as the Sidon are the Usumacinta and the Grijalva, both located in southern Mexico and part of Guatemala. However, the proposal involving

the Usumacinta River runs into problems—distances, lack of archaeological sites of the right age and type, and types of terrain—that rule it out.

Only one geographical correlation⁶ avoids fatal flaws:

- The narrow neck of land was the Isthmus of Tehuantepec.
- The east sea was the Gulf of Mexico or its component, the Gulf of Campeche.
- The west sea was the Pacific Ocean to the west and south of Mexico and Guatemala.
- The land southward comprised that portion of Mexico and Central America east and south of the Isthmus of Tehuantepec. It was composed mainly of the territory of the Mexican states of Chiapas and Tabasco, together with highland and Pacific coastal Guatemala and perhaps western El Salvador.
- The land northward consisted of those parts of Mexico immediately west and north of the Isthmus of Tehuantepec, involving all or part of the Mexican states of Veracruz, Oaxaca, and Guerrero and limited adjacent areas.
- The river Sidon was the Grijalva River. The city of Zarahemla lay on its west bank in the Central Depression (Grijalva River basin) of Chiapas. The very likely candidate site is the archaeological site of Santa Rosa, which is now inundated by waters backed up by Angostura Dam.
- The city of Nephi was very probably the archaeological site called Kaminaljuyu, which now lies within suburban Guatemala City. In a broad sense the land of Nephi constituted the highlands of southern Guatemala.
- The final battleground where both Jaredite and Nephite peoples met their end was in and around the Tuxtla Mountains of south-central Veracruz.
- The lowland Maya area, including the Yucatan Peninsula, was not

6. These concepts were summarized in my book *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1985). Further treatment of the geography, highlighting a series of correspondences, is in chapter 7 herein.

part of the area where the historical events reported in the Book of Mormon took place.⁷

This correlation is not, of course, definitively confirmed, although increasingly research findings of several sorts enhance its probability. It is possible that no correlation will ever be established in sufficient detail to bring every informed reader of the text to a consensus as to the location of Book of Mormon lands. Various researchers have raised objections to aspects of the picture sketched here, but those objections are based on failure either to read the Book of Mormon text accurately or comprehensively or to understand principles of and facts about physical and cultural geography in general and of Mesoamerica in particular. As far as this book is concerned, the correlation of the real-world map with Mormon's map summarized above remains thoroughly plausible and very probable. No alternative correlation comes close to being plausible. From this point on, I assume that the essentials of the correlation of Mormon's Nephite geography with the external world are settled.

The geography of the Jaredites is less certain. The brevity of the text about their history is such that all analysts have found it either very difficult or impossible to come up with a correlation that is widely accepted.⁸ I now find it desirable to modify my previous interpretation of the Jaredites' territory, yet even the revised details remain not as fully plausible as I could wish. My reinterpretation is spelled out in the appendix.

7. Sorenson, *Ancient American Setting*.

8. The continent-wide correlation that seems to have been assumed by Nibley was based mainly on cultural and historical analogies with medieval Asia rather than on an analysis of the Jaredite text as such. Hugh W. Nibley, *Lehi in the Desert and the World of the Jaredites* (Salt Lake City: Bookcraft, 1952); reprinted in *Lehi in the Desert; The World of the Jaredites; There Were Jaredites* (Salt Lake City: Deseret Book and FARMS, 1988). His Jaredite geography, which he never spelled out in detail, was unrelated to any American archaeological facts, as pointed out in Warren's 1955 review of Nibley's book. Bruce W. Warren, review of *The World of the Jaredites*, by Hugh Nibley, *University Archaeological Society Newsletter* 27 (June 1955): 1–6, reprinted in *Progress in Archaeology: An Anthology*, comp. and ed. Ross T. Christensen, University Archaeological Society Publication 4 (Provo, UT: Brigham Young University, 1963), 88–95.

Book of Mormon Events in Time

Having come to a practical understanding of where the events reported in the Book of Mormon likely took place, we must also clarify their chronological placement, for were we to look for comparisons in archaeological materials of the wrong date, the result would be as questionable as if we were to compare with the wrong area.

Inasmuch as archaeological dating of the material remains of early Mesoamerican cultures is still somewhat approximate, the best we can hope for is a reasonable matchup with Book of Mormon events. In an effort to arrive at the most accurate dating possible for Mesoamerican cultures, I have over the years made a series of assessments of the data.⁹ In "A Mesoamerican Chronology, 2004" I made available in a 65-page manuscript the most comprehensive study to date of the radiocarbon dates for Mesoamerica. This was circulated for comment to a score of the archaeologists concerned with the topic. That study is based on comparative ceramic sequences for some 40 sites or regions, to which is joined a fundamental reevaluation based on the literature on more than 2,000 radiocarbon specimens.

This book will point out Mesoamerican correspondences that date mainly within the period the Nephite record describes, ca. 600 BC to AD 400. The record of the Jaredites reports on a time range that begins at roughly 2800 BC and extends down to just past 600 BC.

In general, the issue of chronology for our purposes here is simpler than the previous paragraphs make it appear. The key question actually is, are there points of agreement between the Book of Mormon text and what is known of ancient American life before Columbus's day? When such points of agreement can be established, it rules out the possibility that a document written in the early 19th century by anybody, let alone by Joseph Smith, could have served as a source for the Book of Mormon, for at that time accurate information was not available about pre-Columbian conditions. In the early 1800s effectively nothing about ancient Mesoamerican culture

9. John L. Sorenson, *A Chronological Ordering of the Mesoamerican Pre-Classical*, Middle American Research Institute Publication 18 (New Orleans: Tulane University, 1955): 43–68; Sorenson, "A Mesoamerican Chronology: April 1977," *Katunob* 9/4 (1977): 41–55; and Sorenson, "A Mesoamerican Chronology, 2004," unpublished monograph (in author's possession).

and history was known, except for bits and pieces in a few obscure academic places. So an unequivocal *no* is the answer to the question, Could anyone by 1830 have written accurate characterizations of life and history in pre-Columbian Mesoamerica? A follow-on question then is, Does the content of the Book of Mormon match what an ancient person or persons with first-hand knowledge of life in ancient Mesoamerica could have produced? The answer to that is definitely *yes*, as this book demonstrates.

Chapter 3

The Book of Mormon in Culture History Terms

The problem of relating historical (documentary) and archaeological (or culture history) materials proves to be complicated. A superior recent treatment of the issues in general terms is Frendo's discussion of the Old Testament in relation to the archaeology of the Levant.¹ This and subsequent chapters briefly treat problems he discusses at length.

Before one can compare the Book of Mormon record with the findings of archaeology, the text needs to be interpreted (or "read") as far as possible in terms comparable to those used by archaeologists. Then, to approach the comparisons from an archaeological point of view, the archaeological findings need to be rendered "historical" enough to make comparison feasible. Chapters 3 and 4 accomplish those tasks to the degree possible in a brief compass.

Historical interpretation of the Book of Mormon account first requires breaking its long trajectory into phases short enough that a somewhat distinctive culture can be plausibly identified as characterizing the lives of the people in each phase. Pivotal dates in the record can serve to mark changes from phase to phase. There are, of course, problems with specifying cultural changes down to a given year or even decade, so the dates have to be considered approximate.

Tables 3.1 and 3.2 summarize the historical high points that can be discerned in the scriptural text. Chronologies are often based on what a text

1. Anthony J. Frendo, *Pre-exilic Israel, the Hebrew Bible, and Archaeology: Integrating Text and Artefact*, Library of Hebrew Bible/Old Testament Studies 549 (New York: T&T Clark, 2011).

tells us of the ages of rulers and the number of years between key events. In the case of the Book of Mormon, incompleteness of the record requires estimates to be made at certain points. The sequence is presented in the manner of archaeological stratigraphy; that is, earlier periods are shown below later ones in the order in which an archaeologist would encounter material remains when digging downward. The tables show the periodization and chronology followed in this book.

The Early Jaredite Phases: Arrival, Building, Conflict (ca. 2800–1640 BC)

The Jaredites' origin story tells of a party who departed from "the great tower" in Mesopotamia, guided by their deity, who directed the leaders, Jared and "the brother of Jared" (Ether 1:33–34). The where and when of this great tower are not clarified in the record, but the phrasing obviously reflects the same tradition as in Genesis 11:1–9, which locates a post-Deluge tower (usually interpreted as a pyramid-temple base, or ziggurat) in "the land of Shinar," or Sumer (Mesopotamia). The tradition says the single prevailing language there was "confounded" and the population scattered. On the basis of this tradition as it is dated according to the Old Testament, we can assume that the Jaredite party originated in Mesopotamia early in the third millennium BC.²

The party seems to have been composed of eight families. They began their journey by moving from Mesopotamia northward (Ether 2:1), but from there no clear geographical referents are recorded. They could have moved either eastward across Central Asia or westward through Europe in order to reach "that great sea which divideth the lands" (v. 13). A course reaching the Atlantic seems less daunting and thus somewhat more likely.³ Their small numbers and long journey must have stripped them of much of

2. Of the 25 or so ziggurats identified so far in Mesopotamia and southwest Iran, few have been investigated carefully, and the earliest date yet assigned is only around 2300 BC. It seems likely, however, that interior constructions in one or more of the ruins will be shown to date somewhat earlier than that. The actual Jaredite departure might turn out to have been nearer 2500 BC than my conjectured 2800 BC.

3. This position is different from the one I held in *An Ancient American Setting for the Book of Mormon*. I explain why in the appendix herein.

Table 3.1
Phases of Jaredite Culture History

Phase	Subphase	Est. Dates (BC)	Historical Markers
Ebb	Late	570	Ether; Coriantumr ₂
	Early	760	Ethem (ruler)
Developed	Late	1025	Com (ruler)
	Early	1365 1390	Hearthom (ruler); Lib's "great city"
Conflict	Late	1640	Levi (ruler)
	Early	1865	Morianton (ruler)
Building	Late	2125	Drought
	Early	2380	Omer; Emer (rulers)
Arrival		2680 2800	Orihah (ruler); Build barges; Depart "great tower"

the (Sumerian?) culture presumably prevalent in the area from whence they came. No hint is given of interaction with or avoidance of other peoples. At the seacoast they built eight unique vessels (watertight enclosed “barges” sans sails) in which they embarked. The vessels were driven toward America solely by strong winds and currents, reaching the continent in 344 days (6:11). The most probable geography of Jaredite settlements suggests their arrival on the east coast of Mexico.

The record further reports that they took from their Near Eastern homeland “flocks . . . of every kind,” “fowls of the air,” “swarms of bees,” and “seeds of every kind” (Ether 2:1–3). Some of the fauna and flora survived the overland trek to be loaded aboard their vessels. When the Jaredites landed, their pioneering economy developed on an agricultural base. Some of the seeds brought from western Asia presumably survived the rigors of the sea journey and proved viable, although local plants may have been more practically useful.

Some elements of the sophisticated culture they began with can be explained on the basis of their cultural origin in Mesopotamia. Writing seems to have begun there in the period of the Uruk culture (3500–3000 BC), several centuries before the departure of Jared and his cohorts. The early script (cuneiform) used in Mesopotamia was evidently of the same general type as Egyptian, Chinese, and Mayan writing. The Jaredites took with them historical/traditional books and also, later, produced their own volumes (Ether 8:9). A knowledge of metalworking, the concept of divinely instituted kingship, and other cultural features also could have been brought from the Old World, but perhaps little more than concepts.

When the initial leaders, Jared and his brother, neared death, the expanding populace installed one of Jared’s sons as king. Under subsequent rulers of his dynasty, while the population continued to grow, warfare began over the question of succession, although later demographic history is only hinted at. In the early centuries the people seem to have been confined to a small area—the land of Moron, “where the king dwelt” (Ether 7:6), or, as it was also called, “the land of their first inheritance” (v. 16). This book assumes that area was in south-central Veracruz.

It was said that the people were “exceedingly fair” in complexion (Ether 7:4; 8:9). Reference to the earliest “city,” named Nehor (nothing is ever said

of any city in Moron), was during a time when the immigrant population must still have been tiny (see the discussion in the appendix). The reference to a city implies a substantial population. That surely means that a native population had become involved with the colonists, the only means of providing sufficient numbers to justify the city designation. In the (estimated) 25th century BC, wars among competitors for the throne reduced the population (of perhaps only the ruling lineage) to fewer than a hundred. One branch of survivors had spread to an area adjacent to the east sea coast (believed to be the Gulf of Mexico). An overview of their geography (see map 11 and the appendix) makes it appear that the land they occupied by this time was nearly as extensive as it ever would be. Nevertheless, after an interval of renewed growth and prosperity, the population was once again reduced (sometime around 2125 BC), this time by severe drought and famine (Ether 9:30).

Demographic constrictions alternated with periods of prosperity during which the people “spread . . . over all the face of the land” and developed such cultural features as “spacious buildings,” “mighty cities,” the use of gold and silver and “precious things,” “prisons,” and various tamed or domesticated animals, some of which were called by names of beasts the founders had been familiar with in the Near East (Ether 9–10). Factions within the ruling lineage fought wars over power.

Little is said about the values and ideological aspects of the culture. On the whole, the record is striking in the near-total absence of mention of priestly elements of the culture, although early Jaredite prophets condemned the people’s “wickedness and idolatry” and before 2300 BC a powerful “secret combination” was established. Remembrance that the right to rule originated overseas continued, at least among the elite.

The Jaredite Middle Phase: Developed (ca. 1640–1025 BC)

In about the 17th century BC, a ruler named Kim suffered the fate known as “captivity,” a version of house arrest (Ether 10:13–14).⁴ The practice also arose wherein rivals for the rulership would each dominate “half the kingdom” (8:2; 10:32; 11:15). This likely means that there were two

4. An earlier king named Kib also “dwelt in captivity” after his kingdom was seized from him (Ether 7:3–7).

different ecological zones and populations and that one habitually fell under the sway of a ruler who could not gain or maintain control of the other.

The Developed phase is treated with surprising brevity. Chronologically and qualitatively, the statements about Jaredite society and culture seem to make that period of time a “classic” era. Perhaps Moroni₂, who translated the brief book of Ether for inclusion in his father’s record of the Nephites, felt that too much detail would be entailed in his short translated record were he to describe the society more fully. Much of the culture of the earlier developmental stages presumably applied to this phase also. Another reason for brevity probably was that the traditional ruling lineage—that is, the line that descended from Jared—was at this time in eclipse, as shown by the number of those who were listed as royal claimants only “in captivity.” There was apparently little that was new and relevant for the lineage historian to report.

The Jaredite Final Phase: Ebb (ca. 1025–570 BC)

Most of what is said in the Jaredite history at this time indicates relative decline and disaster. The size of the population of the kingdom in the final phase of their history is implied in Ether 15. In the early stage of the civil war that went on near the end of the record, “nearly two millions” of the people (Ether 15:2) were said already to have been killed. One must think of the total population shortly before 600 BC in the area of Jaredite settlement as having been as large as several million.

The ultimate battle took place in the vicinity of the “hill Ramah” (Ether 15:11, the same place the Nephites later called the “hill Cumorah,” Mormon 6:6). It wiped out the social, political, and cultural apparatus of the civilization in which the Jaredites were participating. Remnant groups no doubt survived, especially in peripheral areas, but with the integrative core destroyed, only unarticulated elements of the civilization remained to seed societies in the following era.

The Lehite and Mulekite Migration Phase (597–585 BC)

Two parties left the land of Judah in different directions between 597 and 586 BC. Each carried knowledge of elements of the late Iron Age culture of the Levant. One party was led by Lehi₁, a prosperous landowner (possibly

Table 3.2
Phases of Nephite Culture History

Phase	Elapsed "Years"	Est. Dates	Historical Markers
Post-Nephite			
		AD 400	
Conflict			Moroni ₂ , Cumorah, Mormon
		AD 320	
Elaboration			Churches multiply
	"800"	AD 200	
Retrenchment			"-ites" reappear
	"633"	AD 30	Christ appears
Expansion			Alma ₂ /Great War
		90 BC	Judges begin
Nucleation	"476"		Mosiah ₂ Benjamin
		200 BC	Mosiah ₁
Pioneering	"200"		Amaleki Abinadom Jarom
		575 BC	Nephi ₁ , Jacob ₁
Migration			Arrival (west coast)
		597 BC	Depart Jerusalem

also a trader) who resided in the rural hinterland of the city of Jerusalem. Like the prophet Jeremiah, a contemporary, he was antagonistic to the official cult and government of the kingdom of Judah. The second group stemmed from Judah's royal court. The circumstances that crystallized this party's formation and departure are not described, but the group included Mulek, a young son (his father was only 32) of Zedekiah, the last king of Judah. A Babylonian army conquered Jerusalem and took the king prisoner in July 587, but in the process they must have let Mulek and his caretakers slip through their hands, presumably with other refugees from the court.⁵

Lehi, and his family fled from Jerusalem a decade earlier. His life was threatened because, like Jeremiah, he publicly denounced the royal establishment. The party was joined by the family of one Ishmael, bringing the group's total membership to about two dozen. They carried with them a copy of the Torah and began keeping a lineage record. They trekked through western Arabia to the shore of the Indian Ocean. There they built a ship in which they sailed via the Indian and Pacific oceans to eventually land on the west coast of southern Mesoamerica.

The Mulek party evidently crossed the Atlantic Ocean, possibly on a Phoenician ship. After landing, they had passing interaction with the last Jaredite ruler—the sole reported survivor of that people's final civil war. He lived among the Mulekite colonists for some months before dying (Omni 1:21–22). But the two Israelite parties, the Lehites and Mulekites, remained ignorant of each other's presence until about 200 BC. (The Book of Mormon text does not use either name, "Lehites" or "Mulekites," but it is convenient to refer to the respective groupings by those terms.)

The elements of Near Eastern civilization brought by these two immigrant groups were considerable although far from comprehensive. Both parties were composed of people with only limited skills in the overall culture of the land of Judah, as would be the case with any fractional segment of the population extracted from a complex society. For example, it is doubtful that any of them knew anything substantive about pottery making (a commercial activity in their homeland) or constructing major public buildings. In addition, they arrived culturally impoverished, especially in technology, by their arduous journeys (on the order of 9,000 miles [14,485 km] by sea

5. John L. Sorenson, "The 'Mulekites,'" *BYU Studies* 30/3 (1990): 6–22.

for the Mulek party, and for the Lehites an eight-year trek of 1,700 miles [2,735 km] through Arabia followed by a voyage of more than 20,000 miles [32,185 km]). Conceptual patterns of urban and court life and elements of the syncretistic cult current in Jerusalem at the time of departure would more likely have survived among the Mulekites. Depending on what ship and crew Mulek's group joined, the vessel's crew could have brought additional Levantine or Egyptian features. For Lehi's group, there was additional selectivity as Nephi₁, a major gatekeeper for such culture as he bequeathed to his descendants, consciously rejected many of the elitist and cultic aspects of Judah's normative Iron Age culture (2 Nephi 25:1–2).

Between the two immigrant groups, some information in the following categories is likely to have reached Mesoamerica: concepts of astronomy, although nothing very advanced, and common agricultural techniques and information on plants and animals of the Near East, as well as rudiments of that area's animal husbandry methods. Cookery and information about other household activities would have been known by the women (we do not know that Mulek's party even included any women), but we do not know if they as urbanites would have had knowledge or technology to be able to weave or make more than rudimentary garments. The Mulek group brought no records and so were rendered illiterate for several centuries, while among the Lehites only leaders Lehi₁ and his son Nephi₁ are known positively to have been able to read and write, although others were likely to have had that skill as well. They may have had a general acquaintance with Near Eastern iconography and cult matters. The Nephites adhered to a version of the law of Moses, although it is not clear what practices and beliefs were encompassed under that term at the beginning of the sixth century BC. In matters of social control, for both the practical and theoretical sides of government, they would have had little background to rely on, although they did have the Torah as a reference. Their eventual encounters with warfare (Enos 1:23–24; Omni 1:17) likely involved largely experimental or borrowed measures in the new land since the record lacks any indication that the immigrant generation brought firsthand knowledge of warfare with them.

Along with deculturation came the shock of needing to adapt to novel environments—the South Arabian coast (where the party of Lehi may not

even have planted crops), sea travel en route (probably a minimum of two years at sea for Lehi and company and at least one year for the Mulekites), followed by immersion in the moist tropical environment of the Mesoamerican coasts where they landed. The impacts of such changes on their cultural capacities must have been strong.

Profound changes would naturally have been felt by the immigrant parties upon arrival in Mesoamerica. For example, the Lehites brought no animals with them, yet immediately after their arrival they reported the presence of native fauna to which they applied the names of Near Eastern animals that looked similar. Very soon afterward they reported beginning “to raise flocks, and herds, and animals of every kind” (2 Nephi 5:11), and that must have involved technical skills learned from people already living on the scene.

The same thing would have been true of other aspects of the culture. The Lehites reported that soon after landing they “began to plant seeds” brought from the Near East that “did grow exceedingly” (1 Nephi 18:24). However, the historical experience of other colonizing parties around the world shows that although imported species may grow well to begin with, they frequently do not do so in the long run.

Their record later speaks of growing “corn,” that is, maize. Not only was it grown, but it became a principal and even preferred crop (Mosiah 7:22; 9:9, 14). Yet maize was an American plant that would have been unknown to Near Easterners. It was in cultivation thousands of years earlier in the New World. Particular technical knowledge was needed to grow maize successfully, techniques that the Lehites could only have learned from people already familiar with the crop. The same sorts of acculturation phenomena would, obviously, have taken place when the Jaredites arrived in Mesoamerica.

A total population resulting from natural increase alone would have been very small in the immigrants’ early stage—such a population is insufficient to account for activities reported of the colonists. For instance, the Nephite faction built a temple “like unto Solomon’s temple” (2 Nephi 5:16) in the very first generation; at that time there were no more than a half-dozen adult Israelite males in the Nephite group.⁶ That was obviously too

6. John L. Sorenson, “The Composition of Lehi’s Family,” in *By Study and Also by*

few to be an effective workforce no matter how much their version of the temple plan may have been scaled back. Clearly other persons—natives—worked with or under them. Moreover, “wars” between the Nephites and Lamanites (v. 34) would have been nothing more than modest family-sized brawls unless local recruits supplemented the minuscule original numbers on *both* sides.

The amalgamation process surely also went on with the party accompanying prince Mulek. They too found themselves engaged in “many wars” at a time when their numbers derived from the overseas immigrants could only have been tiny (Omni 1:17). It is apparent that their numbers too must have grown by incorporating locals (Jaredite-era survivors) who had come under the influence or domination of this shipload that included Jewish folks probably among others.

Further indication of demographic and cultural mixing is shown in the Nephite assumption that the Mulekites had “corrupted” their original Hebrew speech to the extent that the two groups could not understand each other. Linguistic scientists assure us that in 400 years, the time elapsed since ancestors of both peoples had been speaking the same tongue in Jerusalem, normal processes of language change would probably have left them sharing fully 90 percent of their basic vocabulary, enough to be mutually understandable.⁷ This means that one or the other group, or perhaps both, had adopted a wholly new tongue or tongues, or else had hybridized their former speech into a new creole language.

Synthesis: The Nephite Pioneering Phase (575–200 BC)

Further cultural differences were spurred by evolving political arrangements. Within a year or so after they came ashore, the Lehi group split, occasioned by the death of their patriarch, Lehi₁, and by a dispute among his sons over who should lead. Those who supported son Nephi₁ (they came to call themselves “Nephites”) fled to adjacent highlands to escape their quarrelsome kinfolk who remained in the coastal lowlands (the “Lamanites”).

Faith: Essays in Honor of Hugh W. Nibley, ed. John M. Lundquist and Stephen D. Ricks (Salt Lake City: Deseret Book and FARMS, 1990), 2:174–96.

7. See, for example, Morris Swadesh, “Lexico-Statistic Dating of Prehistoric Ethnic Contacts,” *Proceedings of the American Philosophical Society* 96/4 (1952): 452–63.

The latter group was ruled or dominated by Lehi's eldest sons, Laman₁ and Lemuel. From that point in time until the extermination of the Nephites nearly a millennium later, the two factions—each part ethnic group, part social type, and part nation—were antagonistic toward each other, except for short respites.

The third piece in this cultural and ethnic mosaic consisted of the Mulekites. Following their settlement near the scene of the Jaredites' final destruction (Omni 1:21), they had their own course of political development. It seems likely that they amalgamated with remnants of the Jaredites. We know little about their history until a major component, "the people of Zarahemla," was consolidated under the reign of Nephite ruler Mosiah₁ around 200 BC.⁸

These three populations—Nephites, Mulekites, and Lamanites—were separately engaged in working out viable cultures. Within each, moreover, there probably developed further subcultures based on differing ecological settings. The historical fact of "many wars" among the people who considered Mulek an ancestor likely meant that there were cultural and language as well as political divisions among them. Later, a number of political and social subdivisions (Ishmaelites, Amulonites, Amalekites, Zoramites) were included under the umbrella term *Lamanites*. Even among the Nephites, constant tendencies to internal differentiation appeared (dissenters, king-men, Zeniffites, Zoramites, people of Morianton, people of Ammon, tribes).

Certainly one factor that encouraged this degree of differentiation was the isolation of settled areas from each other due to geography and ecology. The Nephite record speaks of "wilderness" within their "promised land" at least 145 times. Parties were continually fleeing to or wandering in the wilderness between settled lands. One gets the feeling that they considered isolated "islands" of civilization as being scattered in the midst of a virtual sea of wilderness (e.g., Mosiah 23:30–37). However, by AD times such references were more rare, probably because much of the land was by then filled with inhabitants.

We have no primary records from the Lamanites or Mulekites (both groups were probably nonliterate for the most part), and consequently the

8. These people of Zarahemla evidently constituted a channel through which Jaredite-era influence reached the Nephites.

characterization of those peoples in Mormon's record depends on rare, brief statements about them by Nephite historians. The Mulekites are so little spoken of, although they composed a majority of the populace under the Nephite rulers (Mosiah 25:12), that we must suppose they constituted a peasantry who were ignored by the (Nephite) elite levels of society from which the historians came. It is plausible that much of the dissent arising in Nephite society stemmed from such Mulekite quarters.

According to the Nephite record, the governmental and demographic history in the Pioneer phase took the following course. When the faction (of no more than a couple of dozen individuals) fled with Nephi₁ from their coastal location, they moved to a highland valley some distance inland. There they established a settlement that later would become the principal city of a large area. The land and the city were called "Nephi" after the prophet-leader who reluctantly became their king. They followed an agrarian way of life and "did prosper exceedingly" (2 Nephi 5:11). Playing the role of culture hero—that is, a primary originator of the culture (Nephi₁ may have been the only male in his group with significant knowledge of Near Eastern technology)—the leader taught his people to construct buildings and to work in various metals ("precious ores . . . were in great abundance," v. 15).

Nephi₁ crafted two sets of metal plates modeled after flat metallic sheets on which written characters were engraved in the Near East at that time.⁹ On one he began to write a secular history of his kingdom and on the other a sacred history. From the records of those two genres kept over the next 950 years, Mormon eventually edited the volume that was published by Joseph Smith in 1830 as the Book of Mormon. The Lamanite faction, however, had their history only in oral form ("traditions," Alma 24:7), as far as we know.

The Nephite version of Lamanite history describes the Lamanite people from the beginning as "cursed" because of "iniquity" and antagonism to Nephi₁'s rulership. The curse was marked by a "skin of blackness" that "came upon them" to make them "loathsome" to the Nephites so as to

9. H. Curtis Wright, "Ancient Burials of Metal Documents in Stone Boxes," in Lundquist and Ricks, *By Study and Also by Faith*, 2:273–334; and H. Curtis Wright, *Modern Presentism and Ancient Metallic Epigraphy* (Salt Lake City: Wings of Fire, 2006).

prevent the two groups from mixing socially and genetically. In contrast to the lighter-skinned, agrarian Nephites, with their literacy and temple cult, the early Lamanites were characterized in the Nephite record as aggressive mischief-makers, idle wanderers who hunted beasts of prey (2 Nephi 5:21–25) in the wilderness of the west coastal lowlands.

In subsequent generations, the Nephites, still centered in the highlands around the city of Nephi, called their successor rulers “second Nephi,” “third Nephi,” and so forth, using the founder’s name as a title. Thus the people referred to by the title “Nephites” came to constitute all those within the domain of the current “Nephi,” or ruler. They continued nominal observance of the “law of Moses” under prophets and priests despite a good deal of resistance to their leaders’ notion of orthodoxy. Those leaders’ formal religion included worship of Jesus Christ, who was prophesied to be the coming Messiah. The people became rich in things like precious metals and displayed fine workmanship on buildings.

The Lamanites became much more numerous than their rivals. Nothing in the early record assures us that all Lamanites were governed by a single ruler. Their primary geographical position did not remain on the coast, for the bulk of them came to dwell close enough to the upland Nephite territory that wars were frequent and fortifications were erected by the Nephites. Both factions continued their negative stereotyping of each other. The Lamanites were said by Nephite historians to delight in war and bloodshed, to “drink the blood of beasts,” and to have an “eternal hatred” toward their Nephite cousins. They were also said to be “wild, and ferocious,” “dwelling in tents, and wandering about in the wilderness with a short skin girdle about their loins, . . . and many of them did eat nothing save it was raw meat” (Jacob 7:24; Enos 1:20; Jarom 1:6). Their reputed lack of civilized traits does not, of course, comport with conditions that would normally result in superior population growth. They must have had a productive agricultural base to gain and maintain such numbers as they displayed. Moreover, just as the Nephites must have gained population by amalgamation of native peoples, we may suppose the Lamanites would have followed suit (acculturation to a local cult tradition would better account for the “idolatry and filthiness” claimed of them by the Nephites [Enos 1:20] than would sheer ex-Israelite inventiveness).

The historical and cultural framework covering the period from soon after 600 BC until around 200 BC shows three independent groups, each with reputed ancestors (of at least the political dominants) originating in the Near East. Nephites and Lamanites stemmed from the single party of Lehites. Yet, while those two factions hewed to separate historical courses, they were significantly interrelated by processes such as rivalry, emulation, exchange of dissident personnel (e.g., Alma 47:35), and cultural borrowing into a single meta-civilizational tradition with distinct polarities.¹⁰ The Mulekites eventually amalgamated to an even higher degree with the Nephites, but in their beginning stages, each of the three sociocultural groups were largely isolated from each other, pioneering their own adaptations to the environments they encountered.

On the scale of sociopolitical integration often used by social scientists, the Book of Mormon suggests that none of the three pioneering societies in this period was more complex than a simple chiefdom. There were two historical moments that may be seen as exceptions. Had we more detailed information, it might become clear that the earliest Mulekites incorporated significant remnants of Jaredite population and culture into their new colonist society. Similarly, had we a fuller record of the situation in the land of Nephi around the fourth century BC (e.g., compare Jarom 1:7–8), we might learn that those people were organized at a higher level than appearances lead one to suppose.

The early Nephites, as descendants of immigrants from the Near East with some knowledge (from records and traditions) of conditions in that area, had a standard of comparison that informed their perspective on themselves. They experienced xenophobia, cultural isolation, and melancholy. Late in the sixth century BC, one of their historians wrote, “Our lives passed away like as it were unto us a dream, we being a lonesome and a solemn people, wanderers, cast out from Jerusalem, born in tribulation, in a wilderness, and hated of our brethren . . . ; wherefore, we did mourn out our days” (Jacob 7:26). The other two pioneering groups may have felt similar feelings of cultural frustration and isolation.

10. As per David Wilkinson, “Cities, Civilizations, and *Oikumenes*,” *Comparative Civilizations Review* 27 (1992): 51–87; and 28 (1993): 41–72.

The Nucleation Phase of Nephite/Mulekite History (ca. 200–90 BC)

The succinct Nephite record we have for the third century BC speaks of Lamanite military pressure (Jarom 1:6–7, 14; Omni 1:2–3), of the beginning of fortifying cities (Jarom 1:7), of the leaders' warnings about impending destruction ("if they did not keep the commandments," v. 10), and of "many seasons of serious war and bloodshed" (Omni 1:3). By about 275 BC "the more wicked part of the Nephites were destroyed" (v. 5).

This phase began with the departure of Mosiah₁'s party from the Nephite area in the land of Nephi (i.e., highland Guatemala) to relocate some 200 miles (320 km) northwestward in the Sidon/Grijalva River valley in what is now the Mexican state of Chiapas.¹¹ They proceeded through "the wilderness" (western highland Guatemala) and down into the river basin, where they discovered the "people of Zarahemla," descendants of the Mulekites. The two groups united, and "Mosiah was appointed to be their king" (v. 19).

Mosiah₁'s city-state was small demographically and limited politically. The small extent of the newly combined people is shown by the fact that when the Nephites under Mosiah₁ took over rule, the local leader, Zarahemla, did not even bear the title "king." Further, the fact that the place bore the name of this living chief suggests that the settlement as it was then constituted was recent. In all likelihood it was the southernmost point that Mulekite expansion had yet reached as those people spread from the coast of the east sea. One hundred fifty years later, the "most capital parts of the land" (Helaman 1:27) of Zarahemla lay downstream on the Sidon, northward from the capital city. This suggests that the center of population of the ethnic/linguistic group to which the Zarahemla folks belonged lay in the downriver zone.

No further mention is made of any Nephites remaining back in the land of Nephi after the departure of Mosiah₁'s party. Apparently, any who failed to go to Zarahemla with Mosiah₁ were destroyed by or assimilated among the Lamanites.

Within a half century (ca. 150 BC), Lamanite armies descended from

11. The date of this departure is left vague by the text. It may have been somewhat earlier than 200 BC.

the land of Nephi to attack Zarahemla for the first time. King Benjamin personally led the fighting that repelled that attack (Omni 1:24; Words of Mormon 1:12–14). Carried on at a greater distance (upwards of 200 miles [320 km] more) than was involved in wars confined to the land of Nephi, that invasion required much greater logistical sophistication. There must have been increased unification of the Lamanite people under their government, a natural development from the increase in population that the Nephites had already detected among their enemies (Jarom 1:6; Words of Mormon 1:14).

Nephite ethnic bias earlier attributed to the Lamanites a level of savagery that does not agree with the fact that by the middle of the second century BC the Lamanites were ruled by a king whose capital was just coastward from Nephite territory (Mosiah 24:1–2).¹² The Lamanite ruler's domain included multiple local lands with at least three levels of administration (vv. 1–2). The Lamanite court accrued substantial tribute wealth (7:15; 19:26), and soon the king's subject people were burdened by heavy (“grievous,” 7:15) taxation.

The small scale of the Zarahemla polity at this time is frequently signaled in the Nephite record. Around 130 BC, when aging King Benjamin abdicated in favor of his son, Mosiah₂, he planned his farewell to occur at a convocation of all his subjects where he would invest his son with the kingship. The small area involved is confirmed not only by the need for only a single day's notice for the people to assemble, but also by the fact that Benjamin still took pride in supporting his court and administration without assessing taxes, while his successor, Mosiah₂, may have had no courtiers except a small coterie of priests (Mosiah 27:1).

But as the reign of Mosiah₂ began (around 120 BC), two foretastes of the kingdom's increasing complexity were visible. The social system would expand greatly along two dimensions in the coming decades. First, the kingdom consisted of two distinct ethnic bodies that were governed more or less equitably. Second, a colonizing group, the Zeniffites, resettled the old homeland in the land of Nephi, extending Nephite cultural influence far beyond the primary locus around Zarahemla city.

12. John L. Sorenson, *The Geography of Book of Mormon Events: A Source Book*, rev. ed. (Provo, UT: FARMS, 1992), 228, 334.

The record of the Zeniffites shows a good deal about the cultural concepts that were prevalent at Zarahemla when they left. From the time of the reign of local ruler Zeniff through the reign of his son Noah, the pair promoted an expansive notion of a proper kingdom—traditional “rights” (Mosiah 9:6–7), warfare (10:19–20), the king as boastful war chief (10:10, 19; 11:19), claimed superiority over surrounding people deemed of lesser worth (10:12), alliance with a supportive and subsidiary priesthood (11:5–6), vainglorious public works (11:8–13), near-absolute power in judgment (12:9–17; 17:1), and so on.

The Zeniffites also became a channel for introducing elements of Nephite culture into Lamanite society in highland Guatemala. The “priests of king Noah” first became outcasts from among the Zeniffites when they fled from Lamanite aggressors and abandoned their wives and children. Later, as fugitives in the wilderness someplace in or near the land of Nephi, they kidnapped young Lamanite women for wives and in time settled in a land of their own (Mosiah 23:30–35). Before long they became a distinct people under the umbrella of the Lamanite realm, whereupon those outcast priests were “appointed teachers” by the king. As such, one of their chief functions was to teach how “they should keep their record and that they might write one to another.” And “thus the Lamanites began to increase in riches, and began to trade one with another and wax great, and began to be a cunning and a wise people” (24:4, 6–7). That was only one episode in a long process of Nephite-Lamanite cultural interchange.

Exchanges of population between the lands of Nephi and Zarahemla, in both directions, came through movements especially during the Nucleation phase (after about 90 BC; e.g., Alma 43:11ff.; 46–48; 58:30; 62:26–28). The cumulative results of these moves must have been important cultural, genetic, and language modifications.

In summary, movements and developments reported or implied by the Book of Mormon for its Nucleation phase led to increased interaction between formerly isolated localities and peoples, the growth in scale of societies, more complex cultural inventories and ethnic compositions, and the achievement of an incipient civilizational climax.

Expansion Phase (90 BC–AD 30)

Both the Nephite and Lamanite societies are characterized in the record as undergoing political expansion during this period. Already in the previous phase, as we have seen, the Lamanites were coming together under a greater umbrella than before. Two generations of kings bearing the name *Laman* led their people from a center in an unnamed principal land located just coastward from the Nephite highlands to a domination of the minor lands of Shemlon and Shilom and finally the city of Nephi itself (Mosiah 9:6). By ceding the last area to the Zeniffites while maintaining power over them through the tribute payment system, the Lamanite economic and political base was enhanced considerably. The priests of Noah, having found refuge in the highland valley of Amulon, also came under Lamanite political hegemony (23:39). In a short time the land of Helam, settled initially by Alma's group, was also taken over by the Lamanites (23:35–24:9). In each subordinate area the Lamanite monarch "appointed [sub]kings over all these lands," and so that ruler became "king over a numerous people" (24:2–3). When at length the Zeniffites returned to Zarahemla, the city of Nephi once more became the Lamanite capital and was clearly the center of Lamanite society (Alma 22:1), whose core had now shifted up to the highland valley originally settled by Nephi₁.

After a 30-year interval, the Nephite record again lets us glimpse conditions in the Lamanite domain. The four sons of Mosiah₂, the king at Zarahemla, with a small number of other elite young Nephite men, went up to the land of Nephi with the intention of converting Lamanites to their Nephite religion. The prevailing view in Zarahemla was that they were wasting their time ("they laughed us to scorn," Alma 26:23). Some of the Nephites were thinking in terms of a preemptive military strike against the enemy rather than conversion (vv. 23–25).

The picture of governance in Lamanite lands at this time (about 90–80 BC) was of a very extensive territory nominally under allegiance to the Lamanite king seated at Lehi-Nephi.¹³ Several lands beyond those mentioned earlier were specifically named as being part of this polity. A more

13. This is the renamed city of Nephi—very probably Kaminaljuyu, the great archaeological site in the Valley of Guatemala.

nebulous type of symbolic allegiance bound even more distant groups under the king's nominal rule. A rudimentary communication system was in place (Alma 22:27: "the [Lamanite] king sent a proclamation throughout all the land, amongst all his people who were in all his land, who were in all the regions round about, which was bordering even to the sea, on the east and on the west").

In terms of the geography of southern Mesoamerica, this arrangement suggests a Lamanite political structure that brought about a measure of unity over a territory several hundred miles in extent. The nature of the integration is shown by one part of the record that describes subking Lamoni. He was a son of the Lamanite "king over all the land."¹⁴

The unifying ties among the subordinate rulers must have been weak, for in order to communicate his displeasure at Lamoni's behavior, the grand king did not send a message by a courtier but traveled personally to visit his son. One mechanism for royal coordination consisted of the king giving a "feast on that great day when I made a feast unto my sons, and unto my people" (Alma 20:9). The top monarch obviously had substantial power, albeit perhaps more charismatic than administrative; he had a "palace" while subordinate king Lamoni had no more than a "house" (22:1–2; 19:18). An obvious result of these developments was to make the old city of Nephi the central locus of a wide sphere of influence.

The development of a sociocultural sphere of this nature entails a number of processes that are manifest in the Book of Mormon. For example, a significant measure of economic integration arose. The Amulonites' main task as mentors to the Lamanites was to teach literacy, "that they should keep their record, and that they might write one to another. And *thus* the Lamanites began to increase in riches and began to trade one with another and wax great" (Mosiah 24:4, 6–7). Whether all the Lamanites shared a common language is unclear, but it is unlikely inasmuch as the Amulonite

14. Lamoni was a descendant of Ishmael, progenitor of one of the original component tribes of the Lamanite conglomerate, yet his father, the overall king, puzzlingly is nowhere spoken of as an Ishmaelite. Rulership among the Lamanites was implied to have been a privilege of the descendants of Nephi's brother Laman₁ (Mosiah 10:6). Yet another subking (over the land of Middoni) was not said to be Lamoni's "brother" but only his "friend" whom Lamoni thought he could influence by flattery. How descent actually was involved in the governance of the Lamanite kingdom(s) is thus a mystery.

males were actually dissident Zeniffites, and several other groups apparently were incorporated into the Lamanite kingdom involuntarily (v. 2). Their local systems of trade and their various units of measurement would have tended to move toward commonality as a result of trade and a standard system of tribute assessment. The same phenomenon would have occurred in the cult/religion aspect of society. Overall, the result should have been a single, more or less unified culture area.

Nephite society at Zarahemla had also consolidated power and influence, but the result took a very different form. Around 80 BC Alma₂, the high priest, went on a preaching tour “throughout the land.” His aim was to strengthen or establish congregations of the church that his father (Alma₁) had introduced at the capital and that the son headed.

Alma₂'s travels show that the Nephite polity had expanded from its nucleus on the upper Sidon River to now encompass the entire river basin, an area at least ten times as large as Nephite rule had reached a generation earlier. A primary impetus for the expansion was the sudden growth at Zarahemla itself. Limhi, the last Zeniffite ruler, and Alma₁ each arrived from the land of Nephi with a sizable group of followers (Mosiah 24:25; 22:13). Such an abrupt increase in population was accommodated by filling up the land around the city (there was limited arable land except near the river; see Alma 2:34–36; 3:2). Once the space near the capital city was filled up, further increases in population were met by a process of expansion (Mosiah 27:6). A specific example of this pattern was the valley/city of Gideon, where a former military leader of the Zeniffites founded a settlement east of the capital (Alma 6:7). But surely some of the expansion was also channeled into zones where the earlier, presumably Mulekite population had until then existed in some independence from the Nephite king's sovereignty. In the case of the city/land of Ammonihah, 100 miles (160 km) northwest of Zarahemla, the people rebuffed Alma₂, who until recently had been the chief Nephite judge over the land of Zarahemla, saying to him, “Thou hast no power over us [any longer]” (8:12).

Meanwhile, the Nephite population became fragmented along new social fissures. In Benjamin's day the entire population could, through ritual, unify under their charismatic and emblematic ruler and his religious/ethical teachings (Mosiah 5), but internal divisions as much as the arrival of new

populations from the outside threatened to undermine Nephite unity under the rule of the judges who replaced royal government. Already in Mosiah₂'s day there must have been indications of the ideas that would, before long, cause the rise of new religious traditions (see Alma 1 on the new "church"/cult of Nehor and the references in verse 32 to "sorceries," "idolatry," "babblings," "strife," etc.) and the rise of a "separate people as to their faith" (Mosiah 26:1–5).

Under three kings—Mosiah₁, Benjamin, and Mosiah₂—a locality (the immediate land of Zarahemla), a local temple and its Mosaic rituals, a temple priesthood, and associated symbolism combined to bind the Nephite/Mulekite population into a combined political unit of some strength. But by the end of Mosiah₂'s reign, and in the wake of the recent expansion of the population, it would have been clear that bonds had to be forged on new bases if the varied populace was to cohere and endure as a nation.

The new arrangement had the advantage of bringing the adjudicative function of government closer to the local and tribal groups, but at the cost of virtually eliminating any executive function. The result was that the role of the Nephite chief judge was made by default into something like that of a king. Like a monarch, the chief judge led the armies in battle (Alma 2:13–16, 29), was considered to "reign" (4:5), was termed "the great head of our government" (60:24), had effective power to change laws (51:3–4), sat on a throne (60:7, 11, 21), was succeeded by one who had a right by descent to the office (Helaman 1:13), allocated military supplies and manpower (Alma 60:34–35), and was surrounded by a royal court of officers and other functionaries of uncertain utility (30:29; 60:22; 3 Nephi 6:11). What the chief judge did not have behind him at the beginning was empowering tradition, respect, and sanctity that had given full-fledged kings decisive power to do what had to be done when the chips were down.¹⁵

Unlike the Lamanite system of rulership, which operated by arbitrary edict and management by force (Alma 17:20; 47:3), Nephite chief judges

15. Note that before long the ruler/chief judge was called "governor" (Helaman 1:13) while there came to be multiple (area) "chief judges" (3 Nephi 6:19–25). Also note that the sacred artifacts once connected with kingship were passed down from Alma₂ in an unofficial ("church") line, not through the judges (Alma 37:1, 14–16).

were dependent for power on public support, which in turn demanded that a leader employ effectual rhetoric and demonstrate vigorous leadership.¹⁶ Included in Mosiah₂'s new plan for government was an apparatus of regional and local judges to be chosen "by the voice of the people." That would not have meant elections with individuals balloting for competing candidates, as in modern democracy. We can presume that local assemblies whose "voices" chose the judges (Mosiah 29:39) were preexisting social entities (most often kin groups) in which responsible elders heard family heads voice their concerns, after which the elders chose the leader whom they considered to best articulate the interests of the group.

A crucial trial of the capabilities of the new political system soon came. A geographically separate faction, the Amlicites (their leader was Amlici), tried to gain control of the Nephite government and install a king. Their separatism was likely ethnically based—they were probably Mulekites, in broad terms, who thought one of their number ought to enjoy the perquisites of kingship instead of a Nephite judge (they were probably descended from Mulek, a son of Zedekiah, the last king of Judah). The Amlicites were concentrated in a particular zone, probably downriver from Zarahemla, where they were free to mobilize their rebellion (Alma 2:9, 13–15).¹⁷ After the Amlicite rebellion failed to gain power, the most active among the rebels apparently fled to Lamanite territory (vv. 24, 36–37), where they subsequently held a distinct social position.¹⁸

Later, after preliminary armed thrusts out of the land of Nephi attempted but failed to subdue the Nephites to Lamanite dominance, a new charismatic Nephite dissident, Amalickiah, rose to power to try to seize power internally. It is not clear where this man came from within the Nephite domain (i.e., "all the land which was possessed by the people of Nephi," Alma 45:22), but it is most likely that he was of a younger generation within the social and geographical bloc that produced Amlici.

16. See Alma 46:12–29; 50:12. While Moroni₁ was not a judge, his decisive style of military leadership showed what traits gave a leader success.

17. Sorenson, *Geography of Book of Mormon Events*, 230.

18. See J. Christopher Conkling, "Alma's Enemies: The Case of the Lamanites, Amlicites, and Mysterious Amalekites," *Journal of Book of Mormon Studies* 14/1 (2005): 108–17.

Amalickiah had at first a similar goal: to convert the Nephite political system back to a monarchy with him as king. The dissidence of Amalickiah and his cohorts—local judges “seeking for power” (46:4)—seems to have been based in part on a separate cult (46:22–24; 46:1–4). The Amalickiahites were “wroth” about the Zarahemla-based cult (“church”) headed by Alma₂, which was being promoted aggressively throughout Nephite society (45:22) by Alma₂’s son Helaman. The result was that these new dissenters, finding insufficient leverage at home, headed for the land of Nephi to join the Amlicites in sparking Lamanite efforts to conquer the Nephites (whereupon Amalickiah would, his supporters assumed, be made subking over the land of Zarahemla). But by intrigue and assassination among the Lamanites, Amalickiah catapulted himself in a short span of time to the very throne, then immediately began preparations to carry out the conquest of the Nephites.

The next phase of Nephite expansion was actually a defensive reaction to the Amalickiahite/Amlicite/Lamanite threat. A little before 70 BC, the threat appeared so overt and imminent that it necessitated a dramatic centralization of government power among the Nephites. The central figure was Moroni₁, who was made Nephite war chief and was given authority over military defense. His most urgent action was tactical—to fortify formerly vulnerable cities. The report of a preliminary Lamanite attack tells us that “the Nephites had dug up a ridge of earth round about [a certain city] . . . so high that the Lamanites could not cast their stones and their arrows at them that they might take effect, neither could they come upon them save it was by their place of entrance” (Alma 49:4; 50:1–6). Such works “never had been known among the children of Lehi” (49:8).¹⁹

More significantly, Moroni₁ was a keen strategist. He foresaw that the Nephite flank on the east sea was highly vulnerable; he feared that an attack there could allow the Lamanites to obtain control over the narrow neck of land (a mere 80 miles [129 km] or so distant from territory the Lamanites already controlled along that seacoast).²⁰ A related issue was that the people of Bountiful (probably Mulekites), a city near the key narrow pass into the

19. Where Moroni₁ got this concept is unclear; it is, of course, identical to the idea that underlay Mesoamerican fortifications (see chapter 18).

20. Sorenson, *Mormon's Map*, 64–68.

land northward, might form an anti-Nephite bloc together with inhabitants of the lowlands in the southern portion of the land northward, thus reconstituting the geopolitical power center of the isthmian zone in the days of the Jaredites (Alma 50:32, 29). Moroni₁'s fear was that with Nephite inattention to this vulnerable sector, enemy aggression could "lay a foundation for serious consequences among the people of Nephi" (v. 32) by cutting them off from potential retreat or expansion into the land northward. It was specifically these military concerns that pushed Moroni₁ to make a major expansion of Nephite territory: "His armies . . . went forth and drove all the Lamanites [hitherto-ignored squatters] who were in the east wilderness [by the east sea] into their own lands, which were south of the land of Zarahemla" (v. 7). To this newly controlled salient, Moroni₁ sent Nephite colonists from "the land of Zarahemla and . . . the land round about" (v. 9) to occupy the two existing (Mulekite?) cities of Bountiful and Mulek and to establish new Nephite garrisons or colonies. We learn from later history (Helaman 5:14–16; 4:8–10) that this new territory amounted to roughly half the area of Nephite possessions to that point. Thanks to Moroni₁'s foresight, his people were now perhaps on a par with some aspects of the war-making capacity of the Lamanites, although they lagged far behind in population (Alma 49:6; Helaman 1:14; 4:25).

It took about 14 years of conflict for the Nephites to counter Amalickiah's threat (after his death other leaders continued his scheme). But even then the danger continued. Between 40 and 35 BC, fresh dissensions from the Nephite ranks sent more dissidents to the land of Nephi, where they provoked the Lamanites to attack anew. This new campaign succeeded "in [the Lamanites temporarily] obtaining possession of [essentially all] the land of Zarahemla" (Helaman 4:5). Altogether, during the 120-year period of the judges (throughout the entire Expansion phase), Lamanite armies campaigned against the Nephites in the land of Zarahemla 15 times. Clearly, war and the threat of it were major forces in shaping this era of Nephite (and Lamanite) society.

As a result of the "great war" against the Amalickiahite-led Lamanites, the internal division of Nephite society between "freemen" (loyalists) and the internal dissenters was more or less settled. Some, but not all, of the latter decamped and went among the Lamanites. After Amalickiah and his

fellow plotters had fled, there still remained others with the same objective: to restore the monarchy. Dubbed “king-men” by Moroni, and the other loyalists, this faction in opposition to the regime of the judges brought the Nephites to civil war. It occurred in the context of Amalickiah’s imminent invasion.

Authorized by “the voice of the people,” the loyalists sent an army against the royalists’ strongholds, where the rebels were “hewn down and leveled to the earth” (Alma 51:15, 18). Later, renewed rebellion (61:3–5) was crushed by Moroni’s draconian action. The factional leaders were slain (62:8–10), so the king-men were effectively eliminated. There were further individual dissenters, to be sure, but from the point of view of the central Nephite government, the area that had (presumably) successively hatched Amlicites, Amalickiahites, and king-men had apparently been politically neutralized. We hear no further from them as a bloc, although their descendants might have been behind later lesser chicanery.

Thus Nephite expansion filled the entire isthmian portion of the land southward. But their expansion did not stop at the neck. Directly upon the end of the Amalickiahite war (around 50 BC), a substantial body of Nephites emigrated en masse (via land) into the land northward (Alma 63:4). In addition, ships were constructed shortly afterward on the west side of the narrow neck, and that spot became a staging ground for further migrations into the land northward along the west coast (vv. 5–10).

Less than a decade later, “there were an exceeding great many who departed out of the land of Zarahemla, and went forth unto the land northward to inherit the land” (Helaman 3:3, 5). These émigrés included “many of the people of Ammon [refugees located among the Nephites], who were Lamanites by birth.” Subsequent brief statements make clear that they carried with them the essence of civilization as it then existed in the source lands in the south (vv. 8–15).

We may also infer that the Lamanites in their base area (the greater land of Nephi) expanded their influence to adjacent territories. It seems likely that elements of the Lamanite elites from the land of Nephi reached and affected cultures in the distant lowlands (“east wilderness,” Alma 25:5, 8).

Other major realignments took place during the Expansion phase. Cultural, and probably genetic, interchange continued between the main

Lamanite and Nephite centers. Around 25 BC one of the Lamanite invasions took possession of the land of Zarahemla and drove the Nephites to adjacent territory isthmus-ward. Most likely a considerable degree of cultural syncretism (partial amalgamation of two systems of belief) resulted from such developments. (The Nephites were now said to have become “wicked even like unto the Lamanites,” Helaman 4:22.) But quickly a counterforce was brought to bear on the Lamanites in the form of a teaching ministry by Nephite religious leaders that resulted in the conversion of thousands of the enemy to the traditional Nephite church. In the wake of this degree of reconciliation between the two major factions, a general social, political, and economic transformation resulted. Thus, “many of the Lamanites did go into the land northward; and . . . the Nephites did go into whatsoever part of the land they would, whether among the Nephites or the Lamanites. And . . . the Lamanites did also go whithersoever they would . . . ; and thus they did have free intercourse one with another, to buy and to sell, and to get gain. . . . And . . . they became exceedingly rich, both the Lamanites and the Nephites” (6:4–9). Nor were the humbler technologies neglected in this international ambiance: “They did raise grain in abundance, both in the north and in the south,” and “their women did toil and spin, and did make all manner of cloth” (vv. 12–13). In the light of such a generalized description, it is clear that too much could be made of the cultural distinctions between the two major polities at this point in time.

Further commonality in the two societies is found in the form taken by their political economies (see chapter 13 herein). The text repeatedly makes it clear that major settlements were “possessed” by social and military leaders. For instance, as we have seen, Moroni, had caused garrison cities to be founded in the “borders by the seashore” as part of preparing a defense against the threat of Amalickiah’s invasion (Alma 50:7–15). One of the pivotal new cities in that area was dubbed Moroni, apparently named after “him [the chief captain] who first possessed” the place (8:6–7). Others were centers “possessed” by such people as Morianton (50:28) and Nephiah (vv. 14, 37). To possess a place in a political and economic sense in ancient times meant that the people who lived there were obligated to the nominal possessor to provide resources for the support of him and his entourage (note the taxes imposed by King Noah and taxes pointedly and proudly

not collected by King Benjamin; see Mosiah 2:14; 11:3–6). The lordly possessor, in turn, was under an obligation to organize and lead defense, to allocate lands for farming, and to settle disputes. The same arrangement prevailed among the Lamanites (19:28).

It was to take advantage of this structure that around AD 15 Giddianhi, the Nephite dissenter who then led the “secret society of Gadianton” (3 Nephi 3:9), demanded that the governor/chief judge over the Nephites “deliver up [their] lands and [their] possessions” to him and his cronies, in order that “this my people may recover their rights and government” (v. 10). What Giddianhi was really expressing was his intent to possess the cities and receive the traditional tribute wealth. We fail to grasp the essence of Nephite and Lamanite history unless we understand these economic and political dynamics that drove their societies.²¹

As the Book of Mormon narrative approached AD 30, the picture of society throughout the “promised land” occupied by Lehi’s descendants was one of factional fragmentation and perhaps increasing cultural differentiation within a highly variegated set of environments. It was evidently difficult for the component peoples to maintain stable social and cultural conditions.

Despite obstacles to unity, by the end of the Expansion phase Nephite society attained an unprecedented level of political integration. The text reports that “there were many cities built . . . and there were many highways cast up, and many roads made, which led from city to city, and from land to land, and from place to place” (3 Nephi 6:7–8). Furthermore, “some were lifted up unto pride and boastings because of their exceedingly great riches. . . . For there were many merchants in the land, and also many lawyers, and many officers. And the people began to be distinguished by ranks, according to their riches and their chances for learning; yea, some were ignorant because of their poverty, and others did receive great learning because of their riches” (vv. 10–12). This societal complexity was already evident in the immediate land of Zarahemla back around 60 BC; at that time Moroni₁ complained that the central government’s functionaries “sit in idleness while ye are surrounded with thousands of those, yea, and tens of thousands, who

21. John L. Sorenson, “The Political Economy of the Nephites,” in *Nephite Culture and Society: Selected Papers*, ed. Matthew R. Sorenson (Salt Lake City: New Sage Books, 1997), 195–226.

do also sit in idleness” (Alma 60:22). At that point the Nephites were surely at a state level of society and government. The civilization characterizing the lands had come to the same basic sociopolitical configuration as the ancient Old World centers—Egypt, Babylonia, China.

However, according to the Book of Mormon account, the integrative mechanisms proved fragile. At the very moment when the Expansion phase came to an end around AD 30, a new set of Nephite power seekers attempted once again to “establish a king over the land” (3 Nephi 6:30). The system could not bear the strain of the resulting conflict, and the central government utterly collapsed. “The people . . . did separate one from another into tribes. . . . Thus they did destroy the government of the land.” In its place “every tribe did appoint a chief or a leader over them.” A tribe consisted of “kindreds and friends”; therefore “their tribes became exceeding great” (7:2–4). Each tribe occupied a discrete territory probably centered on one city with associated subordinate population centers.

Nothing said or implied about the Lamanites indicates that they were better able to maintain centralized authority than their Nephite cohorts. We actually read little about them in the terse record, but a basic instability in their society had been hinted at earlier. Around 30 BC, one report told of a Lamanite army prowling around the original city/land of Nephi, although they were not then at war with the Nephites (Helaman 5:21). One can surmise that the Lamanites had almost as much difficulty retaining powerful, unified government as the Nephites. Expansion seems to have ended for both Nephites and Lamanites with a sociopolitical whimper.

Retrenchment Phase (ca. AD 30–200)

The major event marking the end of the Expansion phase and the start of the Retrenchment phase was a dramatic, multifaceted natural disaster. The description given by the Nephite historian depicts what appears to be a simultaneous set of earthquakes, volcanic eruptions, lightning storms, lahar flows, and windstorms of unprecedented scope and intensity as far as the record-keeping tradition knew. The key tragedies took place over a three-hour period, but traumatic effects continued to be felt over the next three days. Both the natural and cultural landscapes were massively distorted, and casualties were immense over all the lands occupied by both the Nephites

and Lamanites. This catastrophe took place at the time of the crucifixion of Jesus Christ in Judea in Palestine (3 Nephi 9–10), that is, most likely about AD 30.

Some months after this multiplex event, the historian reports that the resurrected Christ appeared miraculously to a gathering of thousands of Nephite survivors at the city Bountiful, near the isthmus that connected the lands southward and northward. For two days he taught a version of the teachings he had presented in Judea and Galilee, where he had lived and died, but the ministry was accompanied by a number of unique miracles. The 2,500 people who witnessed these events were converted to a revamped way of life.

Old cult forms were explicitly terminated, including all forms of sacrifice and other rites and customs covered by the law of Moses (3 Nephi 15:2–8). In their place, meetings of instruction, support, and exhortation in the modified faith were instituted (4 Nephi 1:12). One feature of the new society was that “every man did deal justly one with another,” and “they had all things common among them; therefore there were not rich and poor” (vv. 2–3). By the time a further generation had passed, “they did build cities again” (vv. 6–7).

Sociocultural forms that were instituted or reinforced included (1) an egalitarian structure in which there were no rank or class differences; (2) the cessation of ethnic and cult divisions in the society; (3) the expansion of “the church,” apparently organized on a congregational basis, as a primary social institution; (5) the presumed continuation of kinship units, but without much of a political role; and (6) the lack of a central government as such, with only the remnant “tribes” remaining.

Within a few years “the people were all converted unto the Lord, upon all the face of the land, both Nephites and Lamanites” (4 Nephi 1:2). That vague geographical expression takes on specific dimensions in the context of the history of the previous generation. For protection from aggressive robbers, “all of them [the population] who were numbered among the Nephites” gathered for refuge in one designated area “in the center of [their] lands” just southward of Bountiful (3 Nephi 3:14, 21). They came “by thousands and by tens of thousands” from over “all the face of the land” (v. 22), from both the land northward and the land southward (4:1) to the

appointed place. It is clear from this description that settlements extended over a considerable territory in the land northward as well as in the greater land of Zarahemla plus the land of Nephi. Thus when 4 Nephi 1:2 says that “the people were all converted . . . upon all the face of the land,” the territory referred to had to have been those same areas, extending 100 or 200 miles (160 or 320 km) on either side of the isthmus.

It is possible that such a dramatic religious phenomenon as the reported appearance of deity from the heavens could have affected people over a much wider cultural area by syncretism, but we would expect that the full consequences were felt only in the territory just characterized.

The institutional changes that spread from Bountiful are depicted as so sweeping that it is fitting to refer to the arrangement as a retrenchment, for it represented a dismantling of many of the cultural features of the preceding era—the class system, the trade economy, the cult. The text we have available is too concise to be much more specific.

Those changes began to be attenuated as the later-born population was removed in time from the epochal events. By around AD 180, some of those of Lamanite descent had “revolted from the church” and taken upon them the traditional factional name of “Lamanites” from their fathers (4 Nephi 1:20). This sign of rebellion against the austere culture of the first and second centuries AD was symptomatic of further change to come. When “two hundred years had passed away; and the second generation had all passed away save it were a few” (v. 22), a quantum break came in the social and cultural sequence.

Elaboration Phase (ca. AD 200–320)

The Book of Mormon text reporting on this phase consists of only a little more than 800 words, but the sketch tells of the crystallizing of profound social and cultural changes: “In this two hundred and first year [according to Nephite reckoning, perhaps about AD 197] there began to be among them those who were lifted up in pride, such as the wearing of costly apparel, and all manner of fine pearls, and of the fine things of the world. And from that time forth they did have their goods and their substance no more common among them. And they began to be divided into classes” (4 Nephi 1:24–26).

This picture recalls conditions in the mature Expansion phase discussed earlier—the wealth differences, social classes, public displays of status differences, and so on. The suddenness of this change makes it appear as if a pent-up tendency to elaborate social differences had simply been on hold while an interval of social equality played itself out, and now this same tendency was reemerging in the late third and early fourth centuries.

Cult differences and competition had been features of the earlier age. Then, during the Retrenchment phase, a single religion of salvation without any competitor institutions had become the dominant vehicle in the culture. Beginning near AD 200, the new mode of jockeying for social superiority renewed the use of religion as a means to mark social differentiation. “The true church of Christ” (4 Nephi 1:26) lost its 170-year-old exclusive position among the Nephites; instead, now “there were many churches [cults] in the land” that were led by “many priests and false prophets.” Those institutions were nominally Christian even though they had modified or abandoned formerly orthodox beliefs and practices (vv. 27–34). A coordinate feature of this religious revival was the elaboration of sacred architecture: “they did . . . continue to build up churches unto themselves, and adorn them with all manner of precious things” (v. 41).

Just before AD 230, the old tribal/ethnic divisions were revived with full force. Lamanites—descendants of great-grandparents who had given up that label 200 years ago—renewed their ancient rivalry with revived Nephites, the “true believers in Christ” (4 Nephi 1:36–39). Just as the former factional labels had been drawn from the latent ethnic memory bank, no doubt some ancient cult practices and elements of mythology were also revived. The text gives specific credit also to the revival of one particular form of social institution—“secret oaths and combinations” (v. 42)—that had undermined the unity of Nephite and Lamanite societies in the late Expansion phase. As earlier, these robbers were linked with seeking wealth in precious metals and widespread trade in other goods (v. 46; compare Helaman 6:9, 11).

From the perspective of the Nephite historians/prophets who kept the record, the entire population in the area of greater isthmian Mesoamerica that was inhabited by Nephites and Lamanites was involved in this rapid transformation of the cultural pattern of the Retrenchment phase. The

report says that “both the people of Nephi and the Lamanites had become exceedingly wicked one like unto another” (4 Nephi 1:45).²²

Conflict Phase (ca. AD 320–400)

Our only information about this phase comes from the personal records kept by Mormon and his son Moroni₂. At the age of 10, Mormon, an elite youth who lived in the land northward, was charged by the previous keeper of the Nephite lineage archive to take up that scribal role when he reached maturity. In his later youth he became a prime military leader among the Nephites, so he was in a key position to record important events affecting his people during his 75-year lifetime. Moroni₂ survived his father by 35 years, completing his father's record and giving us a last glimpse of the on-going Conflict phase.

Over the span of their history, the Nephite center of population or governmental locus moved progressively northward. Beginning in the coastal lowland near the southern limit of their promised land, and under pressure from their Lamanite foes, they moved incrementally over more than nine centuries: from the coastal land of first inheritance to the land of Nephi under Nephi₁, to Zarahemla under Mosiah₁, beyond the city of Zarahemla to encompass the Sidon River basin under Mosiah₂, to a center at the city of Bountiful and extending into the land northward during the Retrenchment phase, and finally to the hills around Cumorah in the Conflict phase. In terms of modern geography, those moves would have been as follows: coastal Guatemala to the Valley of Guatemala, to the upper Grijalva River valley, to Tabasco adjacent to the Isthmus of Tehuantepec, to areas strictly north of the isthmian “line,” and finally to the area around the Tuxtla Mountains.

Mormon was reared in or near the last of those areas. From there he was “carried” in his youth (confirming his elite status) to the land of Zarahemla, presumably to the city of that name. Impressed by the evidences of civilization he saw en route, his youthful observation was that “the whole face of the land had become covered with buildings, and the people were as

22. The geographical position of the Lamanites was, again, southward from that of the Nephites, apparently in their traditional areas in the highlands of the land southward. Lamanite armies eventually came “down” from there to attack the Nephites, as in earlier centuries.

numerous almost, as it were the sand of the sea” (Mormon 1:7). Once again the boundary of Lamanite lands was nearby, apparently near the Guatemala border of today.

No wars had been reported anywhere in the area for three centuries, but the Lamanites now launched attacks on the Nephites, around AD 320, “by the waters of [the river] Sidon” (Mormon 1:8–12), the traditional avenue for Lamanite thrusts out of the land of Nephi. The first attacks were repelled. In a few years Mormon himself became involved in the renewal of war; in his 16th year, “being . . . large in stature,” he was chosen to head an army of Nephites (2:1–2). His appointment was undoubtedly because of his prominent position in the kin-based structure (he noted that he was “a pure descendant of Lehi,” 3 Nephi 5:20) as well as his leadership qualities (“of a sober mind,” Mormon 1:15). Even at age 10 he “began to be learned somewhat after the manner of the learning of [his] people” and was “quick to observe” (v. 2).

But the young commander quickly learned that smart thinking could not make up for lack of manpower. The Lamanites attacked “with exceedingly great power, insomuch that they did frighten my armies” (Mormon 2:3), he wrote. A key element in the attackers’ motivation seems to have been incitement by a secret organization of robbers who “did infest the [Lamanites’] land” (1:18). The Nephite army, frightened and with little will to fight, “began to retreat towards the north countries” from Zarahemla (2:3).

The Nephites’ basic multitribal structure at the time was illustrated by their experience as they retreated. In the land of Angola, Mormon reported that his army “did take possession of the [nominally Nephite] city” and proceeded to fortify it (Mormon 2:4). Apparently the Angolan locals were not of a mind to try to resist the Lamanite/robber force, so the Nephite army had first to “take possession” of the place militarily in order to force the inhabitants to stand with them. Later, in the dismal process of retreat, Mormon tellingly says, “We did gather in our people as much as it were possible” (2:21).

Step by discouraging step they retreated, first apparently through the northwest quadrant of the land of Zarahemla to the “land of Joshua,” in the Pacific coastal lowlands just southward of the narrow neck (Mormon 2:6).

They had temporary military success but little about which to be optimistic. Internally they were plagued by an ominous breakdown of the social fabric, and they were afflicted by “thieves, and the robbers, and the murderers, and the magic art, and the witchcraft” (vv. 10–11). At length their fighting force found itself in the “north countries” (v. 3), beyond the narrow pass, in general terms near Mormon’s home region. All he could do was try to inspire his people to defend themselves against what they now saw could be their extermination (v. 23).

A few years before AD 350, after a particularly disastrous retreat deep into their “north countries,” they forged a three-way treaty with the Lamanites and the armies of robbers, a separate force. That truce temporarily gave the Nephites control of the portion of the land northward adjacent to the narrow pass. Their enemies were allotted control over all the land southward (Mormon 2:28–29).

From the Nephite point of view, the entire Conflict phase was one of contradictions. At the time, Mesoamerican civilization was expanding along certain dimensions, and the Nephite record shows us that this tribe, in the very cockpit of the culture area, was enjoying substantial wealth. They amassed population, built cities, armed and maintained sizable armies, supplied their people in a vigorous military defense despite their relocations, carried on a varied cultic life, and maintained their long literate tradition. (It was late in this phase when Mormon, then custodian of the large library of tribal records, composed his version of Nephite history by drawing upon books passed down from scribes like Nephi₁, the two Mosiahs, both Almas, and the later Nephis.)

At the same time confusion reigned: “And it is impossible for the tongue to describe, or for man to write a perfect description of the horrible scene of the blood and carnage which was among the people, both of the Nephites and of the Lamanites” (Mormon 4:11). By about AD 365, the Lamanites were sacrificing Nephite women and children “unto their idol gods” (v. 14) and the Nephites were acting reciprocally bestial, feeding “women upon the flesh of their husbands, and the children upon the flesh of their fathers,” while warriors cannibalized tortured prisoners (Moroni 9:8–10).

In the final stage of their retreat, all the identifiable Nephites assembled near the hill Cumorah, probably Cerro El Vigía in south-central Veracruz.

They had already fled from previously settled areas, “taking all the inhabitants with them, both in towns and villages” (Mormon 4:22). All the groups not so gathered in “were destroyed by the Lamanites, and their towns, and villages, and cities were burned” (5:5). Eventually the Nephites had nowhere left to retreat. They were very likely near the limit of their colonized zone (in Veracruz) from which they could hope to recruit more strength. Farther north were only non-Nephites, very probably, who would contest entry into their territory. Thus caught between two hard places, Mormon was out of military options. About AD 380 he negotiated with the Lamanite king (nothing more is said about the robbers) on the south to meet for a decisive battle in four years at the hill Cumorah (6:1–5). There the Nephites “had hope to gain advantage over the Lamanites” (v. 4), perhaps because it was near Mormon’s childhood home and he knew the area intimately, or perhaps because the Lamanite supply lines were so extended. The schedule may have had some connection with a calendrical or astral date; it would have been about 400 years since the beginning of the Nephite era—that is, the time of the sign of Jesus Christ’s birth (3 Nephi 2:7–8)—and approaching 1,000 years since the extinction of the Jaredites at that very hill.

When all the remaining Nephites were “gathered in,” the numerically superior Lamanite horde waged battle. In a single day they exterminated all 23 units of the defenders (each nominally of 10,000 men). Only 24 stragglers survived the slaughter and gathered atop the hill Cumorah on the morning after the climactic battle. Two of the survivors were Mormon and Moroni₂ (Mormon 6:11). Subsequently all of those 24 were slain except for Moroni₂ (8:1–2).

In a brief entry in his father’s record, which Moroni₂ made around AD 400 (Mormon 8:6), he reported that to his knowledge he was the lone survivor of his people. He went on: “The Lamanites are at war one with another; and the whole face of this land is one continual round of murder and bloodshed” (v. 8). Clearly, all along the warfare had been about more than the genocide of the Nephites. No doubt complicated economic and political issues were yet unsettled, even after Mormon’s people had been rendered extinct.

Moroni₂’s last entry in the Nephite record came at “more than four hundred and twenty years” (Moroni 10:1) into the Nephite era (i.e., approximately AD 420), shortly before he was ready to bury the record. We can only

tentatively close the Conflict phase at AD 420. Warfare apparently continued after that among the remaining population.

It is vital to remember that the Nephite historians were recording selected events only in the limited geographical areas of concern to them. Because their account in no way denies that different areas had different histories, it would be easy to mistakenly extrapolate the events recorded in the Book of Mormon over too extensive an area.

In chapters 21 through 26, the culture history reviewed in this chapter will be considered in greater detail, and correspondences will be pointed out in the light of Mesoamerican archaeology.

Chapter 4

The Early Culture History of Mesoamerica

This section summarizes Mesoamerican history during the period covered by the Book of Mormon. It lays out the basic culture history of the area and nomenclature needed to keep straight the references to Mesoamerican materials in subsequent chapters.

Mesoamerica is that part of south and central Mexico and northern Central America where the pre-Columbian cultures at the time of the Spanish conquest shared a unique inventory of advanced cultural features.¹ It was the most highly civilized and the only literate area in the ancient New World.

What kind of history can be known for an area whose documents are fairly rare and not particularly historical in content? The vast majority of the data comes from archaeology, but in what sense does excavation yield history? This important question is only rarely discussed by archaeologists. (Some of the following ideas have already been reviewed, but their importance is so great that they bear repeating for emphasis.) The most thoughtful archaeologists realize, with theoretician Lewis Binford, the “logical inadequacy of strict empiricism—the view that the natural world can be clearly apprehended if viewed objectively.”² In the first place, all archaeology is a sampling,³ and “even if a large number of years are spent working on any one site, the recovered sample is often still minuscule and plagued

1. Paul Kirchoff, “Mesoamérica: Sus límites geográficos, composición étnica y caracteres culturales,” *Acta americana* 1 (1943): 92–107.

2. Lewis R. Binford, “Reply,” *Current Anthropology* 24 (1983): 372–73.

3. Stephen. A. Kowalewski, “Scale and Complexity: Issues in the Archaeology of the

by unknowns.”⁴ Moreover, “the vast majority of archaeologists have been trained to believe that there is inherent meaning in the record, that there are ‘facts’ waiting to be discovered. . . . In reality the record contains no facts,” only interpretations that archaeologists carry in their heads. It is the nature of this field of study that “the archaeologist can never know if his or her interpretation of the record is built on a solid foundation of knowledge and understanding or on an insubstantial quicksand of guesses and speculation.”⁵ Thus archaeology yields only a limited kind of history full of ifs.

To interpret the meaning of what they have excavated, archaeologists produce scenarios (i.e., informed guesses) that are sometimes “radically different from what has previously been conceived.”⁶ In the face of their differing interpretations, archaeologists must “prudently . . . weigh the possible alternatives and then reach a judgment as to which is more likely.”⁷ “Ambiguity is a central component of history.”⁸

Numerous cases displaying such ambiguity could be cited, but a couple may suffice. The case of Nubia was given in chapter 1. That area on the upper Nile River between AD 200 and 1550 had a “well-studied archaeological record and also an externally dated historical record mainly from Arab chroniclers.” But some of the most significant political and ideological changes were not reflected in contemporary pottery, while at other times there were radical stylistic changes in the pottery for which no immediate external cause can be discovered. For example, nothing in the Nubian

Valley of Oaxaca,” in *Debating Oaxaca Archaeology*, ed. Joyce Marcus (Ann Arbor: University of Michigan Press, 1990), 211.

4. Arlen F. Chase, “Elites and the Changing Organization of Classic Maya Society,” in *Mesoamerican Elites: An Archaeological Assessment*, ed. Diane Z. Chase and Arlen F. Chase (Norman: University of Oklahoma Press, 1992), 33.

5. Jeremy A. Sabloff, Lewis R. Binford, and Patricia A. McAnany, “Understanding the Archeological Record,” *Antiquity* 61 (1987): 203–4.

6. Bruce G. Trigger, “Archaeology and Epistemology: Dialoguing across the Darwinian Chasm,” *Journal of Archaeology* 102 (1998): 1.

7. Binford, “Reply,” 373.

8. Thomas W. Davis, “Faith and Archaeology: A Brief History to the Present,” *Biblical Archaeology Review* 19/2 (1993): 58.

material remains indicates when the area converted to Christianity, a historical fact of great significance.⁹

In Mesoamerica, Webster believes that “if we had to rely *only* on archaeological materials, we would dismiss as inconsequential one of the most important components [i.e., warfare] . . . of . . . [Maya] society.”¹⁰ Yet Cowgill, drawing on the same set of data, downplayed war as a factor in Maya history.¹¹ The problem, two other scholars believe, is that “archaeological materials often present the interpreter with something of a three-dimensional Rorschach [ink]blot [test]. That is, one may be tempted to find what one expects to find.”¹²

These constraints notwithstanding, it is possible cautiously to infer some support for the commonly held model of Mesoamerica’s archaeological prehistory. It starts with the assumption that the civilization seen in late pre-Columbian times evolved over 10,000 or more years exclusively through the inventive and adaptive efforts of Amerindians whose ancestors arrived from Asia via the Bering Strait. Essentially all cultural patterns manifested among inhabitants of the pre-Columbian New World are supposed to have developed without any direct influence from the Old World. The primary aim of recent Mesoamerican archaeology has been to identify ecological and other mechanistic factors presumed to have determined the course of that evolutionary process. Hardly any orthodox scientist questions this assumption.

But other scenarios or models are possible. The one elaborated in this book offers an alternative theory for the development of civilization in Mesoamerica. Whether it or the normative evolutionary model or some

9. William Y. Adams, “On the Argument from Ceramics to History: A Challenge Based on Evidence from Medieval Nubia,” *Current Anthropology* 20/4 (1979): 727, 733.

10. David Webster, “Warfare and Status Rivalry: Lowland Maya and Polynesian Comparisons,” in *Archaic States*, ed. Gary M. Feinman and Joyce Marcus (Santa Fe, NM: School of American Research Press, 1998), 350–51.

11. George L. Cowgill, “Teotihuacan, Internal Militaristic Competition, and the Fall of the Classic Maya,” in *Maya Archaeology and Ethnohistory*, ed. Norman Hammond and Gordon R. Willey (Austin: University of Texas Press, 1979), 62.

12. Hershel Shanks and Dan P. Cole, eds., *Archaeology and the Bible: The Best of BAR* (Washington, DC: Biblical Archaeology Society, 1990), 1:121.

other position is to be accepted depends on a prudent assessment of what is most plausible, not on mere popularity.

Systematic archaeological research that tells us about the period prior to 1000 BC has been extremely limited, especially in Mesoamerica. What has been discovered from excavation provides glimpses of life for selected early inhabitants. Archaeologists have then extrapolated those bits and pieces to fill in lengthy periods of time and vast areas not yet seriously investigated. The result is a picture of culture history that is like an impressionist painting with disappointingly few brushstrokes, yet it purports to characterize the American (and Mesoamerican) past through thousands of years.

Remains left by early American hunters show that they sometimes pursued and butchered mammoths and other large game. Many of those species later became extinct, so it is assumed that descendants of the earlier hunters then came to subsist on smaller game plus foraged plants and seafood where available. As the climate of Mexico dried out after the Pleistocene (Ice Age), the lifeways of the area's inhabitants are assumed to have followed the same general course as hunters elsewhere in the Americas.

Where the climate was very dry and plant remains have been preserved, archaeological sites are interpreted as displaying a progressive domestication of certain plants, such as primitive maize and squash. Being constantly improved by selection on the part of early farmers, these plants continued as mainstays of native Mesoamerican diet up until modern times.

The period when these living conditions prevailed—previous to 2000/1500 BC, when the Early Pre-Classic (or Early Formative) period began in Mexico—is called by archaeologists the Archaic.¹³ In that era most people lived in seasonal campsites. The artifacts recovered are mainly tools of obsidian or other minerals and occasional fragments of softer goods such as woven mats and food remains. Wooden tools also surely would have been used but have rarely been preserved.

13. Although it speculatively fills in more detail than many archaeologists accept, one of the better overviews of the known cultures in that period is Richard S. MacNeish, "Mesoamerican Chronology: Early Development and the Archaic Period (before 2600 BCE)," in *The Oxford Encyclopedia of Mesoamerican Cultures*, ed. David Carrasco (Oxford: Oxford University Press, 2001), 2:226–36. See also John E. Clark and David Cheetham, "Mesoamerica's Tribal Foundations," in *The Archaeology of Tribal Societies*, ed. William A. Parkinson (Ann Arbor, MI: International Monographs in Prehistory, 2002), 278–339.

The question of continuity or discontinuity from the Archaic phase to the Early Pre-Classic has not been settled. Clark and Cheetham observed, "At most . . . there is a significant . . . discontinuity of nearly a millennium between Late Archaic deposits and later, overlying ceramic ones." Said another way, "There is a substantial chronological gap in most regions between the latest Late Archaic and the earliest Early Formative (Pre-Classic pottery-making farmers)."¹⁴ The usual assumption is that further research will slowly fill in that gap.

The first signs of settled village life based on farming, including the earliest permanent structures, pottery, and other long-lasting artifacts, are not found until almost 2000 BC. This is some 6,000 to 8,000 years later than the corresponding cultural transition to settled life that archaeologists believe occurred in the Old World. That does not mean that significant changes were not taking place in America before 2000 BC. For instance, in a number of areas, both in Mesoamerica and Central America, traces of corn pollen appear (in soil profiles, especially revealed by cores taken from lake sediments) at a time when the ecology of some zones was being modified and forests were apparently partly replaced by cultivated fields. This indicates that sizable plantings of maize had begun to be made in moist lowland areas. Actual settlement sites of these presumed early agriculturalists of 4,000 to 6,000 years ago have rarely been found, but there must be many such hard-to-locate campsites awaiting discovery. The search for remains of this age is very difficult since the sites are small and often deeply buried.

While it is easy enough to speculate about the hypothesized transition from an Archaic stage to one showing the fundamentals of civilization, the devil is, of course, in the details. We have little firm information about what took place. MacNeish, the most famous of Mesoamerican archaeologists to have specialized in study of this era, states the issue frankly:

All in all, the final Archaic Period and/or stage in Mesoamerica poses more questions than answers. Where is the evolution to the rich ceremonial complex of the Formative with its pyramids, figurines, and specialized religious organization? Where is the evidence of the invention and development of the pottery found in the Formative

14. Clark and Cheetham, "Mesoamerica's Tribal Foundations," 286.

period? Where is the good documentation of the shift from the incipient agriculture of the Archaic to the subsistence agriculture of the Formative? . . . Good documentation of the domestication of all Mesoamerican plants is lacking in the incipient agriculture stage, and even the transition from Paleoamerican hunters to Archaic foragers is not adequately understood. In fact, why did the Archaic [even] happen? The development of the Archaic was a complex evolution for which, as yet, we have only tantalizing fragments of the complete picture.¹⁵

Another indication has come to light in recent years that makes us realize how scanty our knowledge of Mesoamerica's early development toward civilization must be. For decades the earliest sites in Peru that show large-scale agriculture, complex art, and cities had been thought to appear only after 1000 BC. Earlier small-village ruins had been discovered in a few coastal areas of that arid land where the resources of the sea seemed to provide an adequate living to technologically simple folk. But in the past 15 years or so, Peruvian archaeologist Ruth Shady Solís and colleagues have discovered large early settlements in river valleys in central Peru that include actual cities. This culture is named after the best-known site, Caral. Radiocarbon dating places Caral's existence between 3000 and 2000 BC.¹⁶ These people used canals to distribute water to their fields from rivers flowing down from the Andes. A population of thousands was supported by crops of cotton, beans, sweet potatoes, fruits, and local grains (but not maize). Fish were traded in from coastal settlements. Large public structures (temples) were constructed. Surprisingly, however, no trace of pottery has been found.

In other parts of Peru at that same time, only a simpler style of life was present. By then farming people in Ecuador, Colombia, Panama, and Brazil had been making pottery for as much as 1,000 years,¹⁷ but without any

15. MacNeish, "Mesoamerican Chronology," 235.

16. Ruth Shady Solís, *La ciudad sagrada de Caral: Supe en los albores de la civilización en el Perú* (Lima: Fondo Editorial y Universidad Nacional Mayor de San Marcos, 1997); and Ruth Shady Solís et al., "Dating Caral, a Preceramic Site in the Supe Valley on the Central Coast of Peru," *Science* 292 (2001): 723–26.

17. Betty J. Meggers, "El origen transpacífico de la cerámica Valdivia: Una reevaluación," *Boletín del Museo Chileno de Arte Precolombino* 2 (1987): 9–31.

other evidence of advanced cultural developments. Discovering the cities of Caral was a total surprise. A find like this warns us that there may still be much to be discovered in both South America as well as Mesoamerica about early civilization.

A major question in connection with these remains is, did those people develop a pristine civilization on the basis of their creative genius alone? Or did the people of Caral, and perhaps other groups yet to be discovered, have the advantage of borrowing basic elements of civilization from people who arrived from the Old World, where the growth of cultures occurred earlier?

The Early Pre-Classic Period

In Mesoamerica what is termed the Pre-Classic or Formative period begins around 2000/1500 BC. *Formative* connotes an early stage in the evolution of social and cultural life that would culminate eventually in a civilized phase. For the early period of settled village life, *Pre-Classic* is actually a more appropriate term because it acknowledges the chronological fact of being prior to the highest level of culture while avoiding any evolutionary implication of how development took place.¹⁸ Many of the sites referred to below are shown on map 2.

Current archaeological data from Mesoamerica indicate that the beginning of sedentary village life based on agriculture actually existed considerably before the 1500 BC date often cited by popular summaries of the area's archaeological history. No later than 2000 BC, some Mesoamerican cultures were at a level of technological and artistic sophistication far beyond what one might think of as pioneering.

For example, on the south coast of Chiapas and along the adjacent Guatemalan coast, Chantuto-period Amerindians at first depended on marine and lagoon resources as mainstays of their subsistence. By about 2000 BC they were living in fixed settlements, cultivating crops, and making pottery of excellent quality. (Since ceramic vessels had been manufactured at sites in Panama and Colombia as much as 2,000 years earlier, it might be

18. A fairly up-to-date, brief overview of the state of research on the Mesoamerican Pre-Classic period is found in David C. Grove, "Mesoamerican Chronology: Formative (Preclassic) Period (2000 BCE–250 CE)," in Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 2:236–43.

that the idea of making fired-clay pots came to this group from the south.) Moreover, when we view the gamut of styles that characterize this Barra ceramic complex (see fig. 4.1), we have to believe that centuries of practice in manufacturing and decorating pots lay behind the skills of those early Mesoamerican craftsmen.

At roughly the same time, two different styles of pottery appeared, one on the Pacific coast near Acapulco¹⁹ and still another in central Mexico.²⁰ Furthermore, near the famous site of La Venta in the Isthmus of Tehuantepec, a third style of pot making had begun,²¹ and there could have been other new traditions that are not yet recognized. Mesoamerica's long-lived custom of making figurines of baked clay first shows up in the form of a single miniature body in human form discovered at Zohapilco in the Valley of Mexico. This object was dated by the radiocarbon method possibly as early as 2900 BC.²²

Some of the cultural features manifested in this early period might have received inspiration from Asia. Meggers and Evans of the Smithsonian Institution and an Ecuadorean colleague, Estrada,²³ proposed 50 years ago that sailors from Japan arrived in Ecuador around 3500 BC, where they introduced pottery manufacturing. The evidence consisted of detailed similarities in decoration between what were considered to be Ecuador's first ceramics (at Valdivia) and Jomon pottery of Japan, where the potter's art began more than 10,000 years ago (or, it now appears, 20,000 years ago in

19. Ellen S. Brush, "The Archaeological Significance of Ceramic Figurines from Guerrero, Mexico" (PhD diss., Columbia University, 1968).

20. Christine Niederberger, *Paleopaysages et archeologie pre-urbaine du bassin de Mexico*, 2 vols. (Mexico City: Centre d'études Mexicaines et Centraméricaines, 1987).

21. William F. Rust III and Barbara W. Leyden, "Evidence of Maize Use at Early and Middle Preclassic La Venta Olmec Sites," in *Corn and Culture in the Prehistoric New World*, ed. Sissel Johannessen and Christine A. Hastorf (Boulder, CO: Westview, 1992), 181–95.

22. Niederberger, *Paleopaysages et archeologie*, 1:135, 273; date calibrated.

23. Emilio Estrada and Betty J. Meggers, "A Complex of Traits of Probable Transpacific Origin on the Coast of Ecuador," *American Anthropologist* 63/5 (1961): 913–39; and Clifford Evans and Betty J. Meggers, "Mesoamerica and Ecuador," in *Handbook of Middle American Indians*, ed. Robert Wauchope et al. (Austin: University of Texas Press, 1966), 4:253–64.



Figure 4.1. Barra phase pottery

China²⁴). When it was first published, the Valdivia proposal was accepted by some influential American archaeologists,²⁵ although vociferously doubted by others. Later, Meggers pointed out another set of Japanese parallels in materials from Colombia dated 1,000 years earlier than Ecuador's Valdivia.²⁶ Nowadays this possible source for American pottery making is ignored by Mesoamerican archaeologists who seem either uninformed about the evidence or find it uncomfortable to face the question.

Archaeologists have adopted a system of nomenclature intended to summarize the cultural characteristics exhibited at Mesoamerican sites over certain periods of time. Generally speaking, the designated periods, such as Early Pre-Classic, Middle Pre-Classic, and Late Pre-Classic, cover too many

24. Xiaohong Wu et al., "Early Pottery at 20,000 Years Ago in Xianrendong Cave, China," *Science* 336 (2012): 1696–1700.

25. Gordon R. Willey, review of *Aboriginal Cultural Development in Latin America*, edited by Betty Meggers and Clifford Evans, *American Anthropologist* 66 (1964): 442–46; and Gordon R. Willey, *An Introduction to American Archaeology* (Englewood Cliffs, NJ: Prentice-Hall, 1971), 2:16.

26. Meggers, "El origen transpacífico."

years to be usefully characterized as wholes. Still, it is impractical to change to an entirely new scheme since so much of the archaeological literature uses—however inexactly—those conventional categories. Here I choose to employ a subdivided scheme of reference that distinguishes the eras in a more historically meaningful way (see table 4.1).²⁷

Culture in the Early Pre-Classic

The exact location of the developmental center of Early Pre-Classic civilization has been vigorously disputed. Some archaeologists claim it was in the Gulf Coast lowlands of the Isthmus of Tehuantepec. This wing of the scholarly community maintains that the foundations must have arisen there because that is where, in later times, the Olmec art style was most visible. The Olmec people (we have no idea what they called themselves; the name *Olmec* was given to the art tradition in modern times) took advantage of rich river-delivered soil and abundant rainfall that allowed productive farming and supported a sizable population that included artists of great skill and creativity, along with other specialists. In a qualitative sense, culture in the Isthmus of Tehuantepec by the end of this stage had reached a level that can be termed *civilization*. That is, it displayed high levels of art and architecture and made use of writing.

However, it is impossible for me to believe that this complexity developed almost from scratch in the three or four centuries (1400/1500 to 1100 BC) allowed by most archaeologists for its rise. We must expect that there are sites yet to be discovered that will extend evidence of the growth of the tradition earlier in time, perhaps by many centuries.

Other scholars maintain that sites in southern highland Mexico are probably the real keys to understanding the rise of civilized life in Mesoamerica. Or perhaps interaction between the resources of highland peoples and skills of the lowland Olmecs spurred the development. Tlatilco, at the western edge of the Valley of Mexico, is a site where Olmec-style artifacts have been found in considerable abundance. Olmec-affiliated highlanders seem to have existed at the same time as the Gulf Coast Olmec

27. For a useful summary of the ways Mesoamericanists have divided and labeled the periods, see Ruben G. Mendoza, "Mesoamerican Chronology: Periodization," in Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 2:222–26.

Table 4.1
Pre-Classic Chronology

Conventional Periodization	Periodization Used Herein	Dates	Historical Markers
Early Classic	Terminal Early Classic	AD 500	Considerable depopulation
	Full Early Classic	AD 400	
	Initial Early Classic	AD 300	Warfare increases; lowland Maya dated stelae begin
Late Pre-Classic	Terminal Late Pre-Classic	AD 200	Serious drought in some places; disruption of many old Pre-Classic cultures
		AD 100	
	Full Late Pre-Classic	AD 1	Natural disaster?; social readjustments
		100 BC	Late Pre-Classic civilization peaks; widespread trade; spread of cultures Climax of El Mirador and Nakbe South Guatemala—Miraflores sphere
	Initial Late Pre-Classic	200 BC	Modified (La Venta) Olmec influences show up at all places
	300 BC		
		400 BC	

Table 4.1 continued

Conventional Periodization	Periodization Used Herein	Dates	Historical Markers
Middle Pre-Classic	Terminal Middle Pre-Classic	500 BC	La Venta abandoned; Kaminaljuyu Providencia period
	Full Middle Pre-Classic		Kaminaljuyu Las Charcas period; La Venta (final) Phase 4
Early Pre-Classic	Initial Early Classic	600 BC	La Venta flourishes
	Terminal Late Pre-Classic	1000 BC 2000 BC	San Lorenzo

people, although the remains left behind in the upland valleys and plateaus do not exhibit the same quality, scale, or scope of sculptural art. Inconveniently, archaeologists have failed to adopt a useful umbrella label for the upland peoples and cultures.

It is probable that by the Early Pre-Classic period, a majority of the foods that Mesoamericans were ever to have and much of the everyday technology of later eras had come into use, although no pyramids or imposing temples have been discovered.

The most spectacular early site discovered so far is San Lorenzo Tenochtitlán, in the heart of the Isthmus of Tehuantepec. It was a great city—Mesoamerica's first of which we know—and it must be considered as such even some centuries before the time of its peak development in the 11th century BC. The inhabitants of the Olmec heartland not only manifested a complex culture with sophisticated art, they also had glyphic writing from which one or more of the later scripts in Mesoamerica developed

(see chapter 11). They also engaged in extensive trade, especially in obsidian (volcanic glass), the “industrial” mineral from which essentially all Mesoamerican cutting tools were manufactured. The question of where they obtained the jade they also worked has only been partially answered; a few limited geological sources are known, but it is likely that there were others as yet unknown to us. They probably also engaged in warfare on a sizable scale. Giant stone human heads up to six feet (1.8 m) in height are thought to be portraits of their leaders in arms. The rise and decline of populated regions and their city centers has been detected clearly enough to convince archaeologists that these peoples must also have had a complex political history that we still only dimly perceive.²⁸

San Lorenzo Tenochtitlán became a major center by 1300 BC or a little earlier: “With the beginning of [its] Chicharras phase, it is as if the people who were to become the San Lorenzo Olmec had arrived. . . . Bearers of Chicharras [period] culture were in large part immigrants into the [isthmus] area.”²⁹ Archaeology gives no hint yet of where they came from, but some area in Veracruz yet to be identified seems likely. These seeds of high culture that were to be elaborated in the next few centuries at San Lorenzo must have developed still earlier fairly close by, in a more or less similar environment. By 1200 BC San Lorenzo was the preeminent settlement in the Gulf Coast lowlands. On the isolated plateau 150 feet (45 m) high and three-quarters of a mile (1.2 km) long that constitutes the main site, impressive dwellings and public structures (temples? palaces?) and at least 40 sculptures of basalt were scattered over an area of several hundred acres extending down near the level of the branch of the Coatzacoalcos River that flowed along one side. At its maximum extent the site occupied more than seven square miles (18 km²) and very probably was governed at the level of a state, the earliest such government known so far in Mesoamerica. Positioned as it was in the heart of the isthmus, San Lorenzo must have been a focus of trade.³⁰

28. One reason that we know little about them is that the number of archaeologists working on Olmec-era sites is tiny compared with, say, those concerned with the later Maya, let alone the far larger number of workers who continue to expand our knowledge of, say, Egyptian archaeology.

29. Michael D. Coe and Richard A. Diehl, *In the Land of the Olmec: The Archaeology of San Lorenzo Tenochtitlan* (Austin: University of Texas Press, 1980), 1:150.

30. Ann Cyphers, *Descifrando los misterios de la cultura olmeca* (Mexico City:

It would be premature to suppose that San Lorenzo was the absolute center of the Olmec region or that the Olmec zone was the prime focus where Mesoamerican civilization first developed. As noted above, while some archaeologists have maintained that the people who developed and elaborated the Olmec art style were responsible for a Mesoamerican “mother culture” that was ancestral to all subsequent Mesoamerican regional cultures, others hold that it is better to speak of “sister cultures” developing in a complex network of creative growth.³¹

Versions of the Olmec art style and ideas underlying its complex symbolism spread widely between 1200 and 1000 bc. Related cultures grew up at centers in the states of Guerrero and Oaxaca to the west; Puebla, the Valley of Mexico, and central Veracruz to the north; and Chiapas and Pacific coastal Guatemala to the east and south. (The area later occupied by Mayan-speaking peoples—the Maya area—was but lightly occupied, if at all, at this time.) The extent to which the spread of Olmec-related culture resulted from processes of colonization, cultural emulation, trade, or even military coercion is unclear. For example, scientists have learned from chemical analysis of the obsidian artifacts utilized at San Lorenzo that the raw material was imported from at least three different geological sources in highland Guatemala and central Mexico, some more than 500 miles (800 km) away.³² Some Olmec influences surely spread via commerce.

Cultures in areas not far away were also active at this time. In the Valley of Oaxaca is a center called San José Mogote, a place much smaller than

Universidad Nacional Autónoma de México, 1995); Ann Cyphers, “Exploraciones arqueológicas en San Lorenzo Tenochtitlan,” in *Memoria del coloquio: Arqueología del centro y sur de Veracruz*, ed. Sara Ladrón de Guevara and Sergio Vásquez Zárate (Xalapa, Mexico: Universidad Veracruzana, 1997), 127–39; and Stacey Symonds, “The Ancient Landscape at San Lorenzo Tenochtitlán, Veracruz, Mexico: Settlement and Nature,” in *Olmec Art and Archaeology in Mesoamerica*, ed. John E. Clark and Mary E. Pye (Washington, DC: National Gallery of Art, 2000), 55–73.

31. David C. Grove, “Stirrup-Spout Bottles and Carved Stone Monuments: The Many Faces of Interregional Interactions in Formative Period Morelos,” in *Archaeology, Art, and Ethnogenesis in Mesoamerican Prehistory: Papers in Honor of Gareth W. Lowe*, ed. Lynne S. Lowe and Mary E. Pye (Provo, UT: BYU New World Archaeological Foundation, 2007), 209–27.

32. Robert H. Cobean et al., “Obsidian Trade at San Lorenzo Tenochtitlan, Mexico,” *Science* 174 (1971): 670.

giant San Lorenzo. The San José period there was comparable in some ways to the culture at San Lorenzo. It was a cultural climax zone for its region, yet it had characteristics of its own that cannot be called Olmec. Because the end of the San José period coincided closely in time with the end of the San Lorenzo period, we conclude that the causes at work determining these historical developments were shared by the two areas, although the actual events in each took their own unique course.

At San Lorenzo Tenochtitlán, and presumably at other not-yet-examined sites in and northwest of the isthmus, the crest of the high cultural development had passed soon after 1000 BC, and the giant site and likely other important settlements were either abandoned or controlled by new hands with a modified culture. In all directions from the isthmus, the next few centuries saw regional power centers arise, each different in cultural details, although overall a degree of similarity prevailed that showed links among the various areas through shared tradition and exchange.

With the decline (or perhaps “fall”) of San Lorenzo, symbolically important features within the city, like sculptured monuments, were systematically destroyed by determinedly vengeful people. The destruction is more likely to have come from internal rivalry among Olmec factions than from invaders. A majority of the figures carved on the hard stone monuments had their faces smashed or were intentionally damaged in other ways. The level of culture at the site in the successor period declined markedly.

Middle Pre-Classic (1000 BC–4000 BC)

The period from about 1000 BC marks the start of the imprecisely defined Middle Pre-Classic.

The sophisticated developments manifested especially at San Lorenzo in its glory days did not have a strong effect on areas to the south of the isthmus, with one exception. About 1200 BC the Pacific coast of Chiapas and Guatemala saw the arrival of the Olmec style, probably carried by people from San Lorenzo who apparently found local elites happy to receive the fruits of the civilization from the north.³³ But when San Lorenzo lost its preeminence, belated Olmecoid influence (possibly carried by refugees

33. David Cheetham and John E. Clark, “Investigaciones recientes en Cantón Corralito: Un posible enclave olmeca en la costa del Pacífico de Chiapas, México,” in *XIX*

from San Lorenzo) penetrated more broadly to other areas south and east of the neck. Lesser centers constructed more or less on the Olmec model then arose throughout parts of Mesoamerica, both on the north and on the south. This spread was not visibly a result of political or military conquest. It could have resulted either from emissaries who used Olmec cultural concepts and symbols to enlighten (or more likely to dominate) local peoples or from local leaders who emulated the Olmec scheme of rulership and economy, adapting versions of the original cultural scheme.

The cultural leadership that had been exercised by San Lorenzo now passed to La Venta, a small site on an island in the swamps of the state of Tabasco, 25 miles (40 km) east of San Lorenzo. At that ceremonial site, some of the glory that San Lorenzo had enjoyed was re-created on a smaller scale (some of La Venta's monuments are exact duplicates of San Lorenzo sculptures).

Beginning about 900 BC, San Lorenzo was reoccupied for 200 years by a much-reduced population bearing a less sophisticated culture, one apparently embodying influences from the south, maybe from Chiapas. Around 700 BC, San Lorenzo seems to have been abandoned for a time. Later, a puny attempt was made at the site to imitate unique features of La Venta. "Perhaps [only] a small group of religious practitioners camped in the [ruins of the San Lorenzo] ceremonial center" at this time.³⁴ What is apparent is that a complex interweaving of historical factors and separate societies about which we have only a vague understanding was being played out there.

A striking innovation in the late culmination of La Venta's history was the construction of what might be the oldest pyramid or man-made hill in Mesoamerica (it has not been excavated, so we do not know its date for sure). Also new in the Terminal Middle Pre-Classic (600–400 BC) were innovative forms of art at La Venta, especially stelae. These massive standing stones were carved to represent scenes of apparent commemorative or historical significance. At La Venta "there are internal indications of outside influences. . . . The stelae of this site represent a radical innovation in the

Simpósio de investigaciones arqueológicas en Guatemala, 2005, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2006), 3–8.

34. Coe and Diehl, *In the Land of the Olmec*, 200.

mode of sculpture, and in the character of its themes.”³⁵ The stelae show “credibly realistic portraits and descriptions of historic scenes,” particularly of human figures with “high, elaborate headdresses, small masked figures in attitudes of violent motion, and [especially] the figure of a bearded man with a conspicuously aquiline [beaked] nose.”³⁶ Covarrubias pointed out that the face of an important figure on Stela 3 who seems to have been carved in Olmec style had been deliberately mutilated, while the man facing him, the bearded person with the prominent nose, was left intact.³⁷ From this fact Proskouriakoff drew the conclusion that the figures represented two “racially distinct groups of people, and that . . . the group of the bearded stranger ultimately gained ascendancy and erased the portrait of the native ruler.”³⁸ This enigmatic figure is the earliest of a series of what have been called “Uncle Sam”- or “Semitic”-looking figures that appear in Mesoamerican art around the late centuries BC.

Perhaps what we are seeing in the final phase at La Venta (600–400 BC) is an instance of a well-known historical process in Mesoamerica that may be called “cultural hijacking.” It consists of new elite who intrude into a region, taking control of a people and its established cultural tradition by usurping symbols to make it appear that they are rightful heirs to leadership. Cases abound both within and beyond Mesoamerica: the Inner Asian Manchus inserted themselves at the top of 17th-century Chinese society, the Hyksos did likewise in Bronze Age Egypt, the Mexica (Aztec) people insinuated themselves into power in the Valley of Mexico in the 14th and 15th centuries AD by claiming descent from the previous Toltecs, to name only a few.

Whatever the specific sequence of events, in less than two centuries from when it reached its most spectacular form, La Venta had been abandoned, many of the monuments had been mutilated, and winds carrying sand from

35. Tatiana Proskouriakoff, “Olmec and Maya Art: Problems of Their Stylistic Relation,” in *Dumbarton Oaks Conference on the Olmec*, ed. Elizabeth P. Benson (Washington, DC: Dumbarton Oaks Research Library, 1968), 121.

36. Proskouriakoff, “Olmec and Maya Art,” 121–22.

37. Miguel Covarrubias, *Indian Art of Mexico and Central America* (New York: Knopf, 1957), 77.

38. Proskouriakoff, “Olmec and Maya Art,” 122; see also Kent V. Flannery, “The Olmec and the Valley of Oaxaca,” in Benson, *Dumbarton Oaks Conference on the Olmec*, 97.

the beach dunes 10 miles (16 km) to the north had covered the abandoned site with a blanket of several feet of sand. Radiocarbon dates on offerings left beneath the sand by visitors to the ghostly place indicate that the death of La Venta took place between 500 and 400 BC. For the next few centuries very little of historical significance happened in the Olmec area of southern Veracruz, although, of course, there would have been scattered survivors left in the region.

Ortíz Ceballos summarizes the rather mysterious history of the Olmec in an instructive way: "This people surprises us with beautiful monumental carvings, like the colossal heads, altars and anthropomorphic figures with their unequalled exquisiteness and mastery; [and] in the work in fine stones, like jade and serpentine. . . . Their eagerness to shape images of such a colossal and grandiose manner tells us of a people avid for power and greatness, but, finally, also with a pride that ended up in their collapse."³⁹

Some cultural forms used among the Olmecs lived on in modified form for nearly 1,000 years more. Over the long span, the theology or worldview—the heart of the culture as shown in art and iconography—no doubt changed, adapting to new circumstances, yet it remained a coherent whole even when, after 1000 BC, we call it "modified Olmec." We see its last remnant at La Venta, but with the abandonment of that key site the system of symbolism and ideas came to a definitive end.

Perhaps attempts were being made to revive some of the ancient notions,⁴⁰ but those who did so were no longer Olmec in a culturally meaningful sense; they only imperfectly echoed the past. The finding of occasional Olmec heirlooms in deposits as late as AD 1500 at the Aztec Templo Mayor⁴¹ tells us nothing about the living culture of 2,000 or 3,000 years earlier.⁴² The death of a cultural tradition sometimes comes with a whimper rather than with a bang.

39. Ponciano Ortíz Ceballos, "Semblanza arqueológica de Veracruz," *Arqueología mexicana* 1/5 (1994): 19; translation is my own.

40. This concept was suggested by John F. Scott, "Post-Olmec Mesoamerica as Revealed in Its Art," *Proceedings of the 41st International Congress of Americanists (Mexico, 1974)* (1976): 380–86.

41. Eduardo Matos Moctezuma, *Treasures of the Great Temple* (La Jolla, CA: ALTI, 1990), 104–5.

42. An instructive historical parallel lies in the demise of the ancient Egyptian cultural

Late Pre-Classic (400 BC–AD 150)

In the next few centuries throughout many parts of Mesoamerica, the fragmentary elements of civilized living that were passed down from the Early and Middle Pre-Classic periods had varied effects. Archaeological data defining the transition to the Late Pre-Classic are too limited to outline events as clearly as we would like. In the Valley of Oaxaca, for example, there seems to be no major direction or tendency evident in the culture toward the end of the Middle Pre-Classic except a state of hostilities among minor rulers.⁴³ Around 500 BC the site of Monte Albán, on an extensive hill in the center of the valley, became the dominant cultural and political strongpoint. Its rise to power imposed a measure of order on nearby petty domains. Overall, Mesoamerica at the transition between the Middle and Late Pre-Classic was divided into a multitude of minor regional powers like that at Monte Albán.

Similar developments can be detected at sites like Cuicuilco in the south end of the Valley of Mexico, on the plains of Puebla to the east of Mexico City, in nearby Tlaxcala state, at Chiapa de Corzo in the Francesa period (ca. 500–250 BC), and in early Maya sites in northern Guatemala and Belize. In the Initial Late Pre-Classic period, we glimpse further examples of chiefdoms or small kingdoms that had brief heydays but could not mount enough influence to dominate more than small territories. Whatever kind of ideological glue the extinct Olmec system had once provided, no equivalent body of beliefs and imagery now provided comparable cultural integration.

It is also possible that difficulties imposed by nature were barriers to

system. Greek and Roman rulers of Egypt in the late BC and early AD centuries “maintained the pharaonic fiction, [by] appearing in Egyptian dress on reliefs or statues and carrying out the old rituals.” But they were no more than Greeks or Romans in masquerade. “Although [they were] paying lip-service to the old ideas and religion, in varying degrees, pharaonic Egypt had in effect died with the last native pharaoh, Nectanebe II in 343 BC.” Peter A. Clayton, *Chronicle of the Pharaohs: The Reign-by-Reign Record of the Rulers and Dynasties of Ancient Egypt* (New York: Thames & Hudson, 1994), 217.

43. Flannery and Marcus refer to the state of affairs in the sixth century BC as “an endemic state of . . . warfare with rival chiefdoms.” Kent V. Flannery and Joyce Marcus, “Borrón, y Cuenta Nueva: Setting Oaxaca’s Archaeological Record Straight,” in *Debating Oaxaca Archaeology*, ed. Joyce Marcus (Ann Arbor: University of Michigan Museum of Anthropology, 1990), 36.

a new era of growth and development. There is some reason to think that natural disasters (perhaps volcanic eruptions or drought) set back the course of development at times. Whatever the causes, from near 500 to 200 BC the broad result seems to have been a landscape of only small-scale societies competing locally for power.

However, contrary to that general tendency, throughout the Terminal Middle Pre-Classic and Initial Late Pre-Classic the inhabitants of the Valley of Guatemala displayed impressive vigor. The complicated story of the southern Guatemalan highlands in this era has yet to be clarified definitively by excavation that provides a clear basis for dating and an unambiguous historical picture of developments; still, what is known is significant.

A shallow lake occupied part of the valley. On its shores a center of interesting cultural development came into being. In a pleasant temperate climate, at about 4,500 feet (1,370 m) elevation and astride the continental divide, the first developments took place that would result in an ancient metropolis. Its ruins today are called by the coined name Kaminaljuyu. In the later BC centuries it would become the most powerful center in southern Guatemala.⁴⁴ The site lies within the area of modern Guatemala City; urban development has left no spectacular ruins as a tourist attraction, yet in its time the ancient city was both precocious and influential.

The earliest traces (consisting only of pottery fragments) left by settled people in the Valley of Guatemala have been assigned to the Arevalo period, probably dating around 1000–900 BC. Several centuries later, pottery, burials, and small platforms on which domestic houses were built represented the Las Charcas period. Scanty material remains indicate that this population existed at a cultural level no more complex than that of rural hamlets; a single site has been identified as a very modest “ceremonial center.”⁴⁵ The dating for Las Charcas remains somewhat unclear. Some archaeologists

44. Carson N. Murdy, “Prehispanic Settlement and Society in the Valley of Guatemala, 1500 BC–AD 1524,” in *Arqueología mesoamericana: Homenaje a William T. Sanders*, ed. Alba G. Mastache et al. (Mexico City: Instituto Nacional de Antropología e Historia, 1996), 2:79–107.

45. Bárbara Arroyo, “The Naranjo Rescue Project: New Data from Preclassic Guatemala” (FAMSI 2007), <http://www.famsi.org/reports/06109/06109Arroyo01.pdf>; and Francisco de León and Juan Antonio Valdés, “Excavaciones en Piedra Parada: Más información sobre el Preclásico medio del altiplano central de Guatemala,” in *Incidents*

speculatively push it back to 1000 BC, but comparison with ceramics from elsewhere in Mesoamerica suggests that it probably dated no earlier than 650 BC, and a dozen carbon-14 dates on Las Charcas remains range only between 375 and 500 BC (see further in chapter 23).

On the Pacific coast nearby, descendants of groups with faint connections to the Olmec era (the Conchas culture) had lost most vestiges of what had been a fairly advanced culture, but there is little trace of the Conchas people after 600 BC. At about that point in time the remaining inhabitants of the coastal lowlands underwent “social paroxysms,” according to Love.⁴⁶ He observes of developments after 400 BC that “the social and cultural mosaic of the Guatemalan highlands and Pacific Coast was complex and dynamic during the Late Pre-classic period, with numerous [small, localized] polities struggling for economic and political prominence.”⁴⁷ Out of those conflicts Kaminaljuyu emerged as “the most imposing southern” society.⁴⁸

The general picture of small chiefdoms with limited growth potential that had prevailed during the Initial Late Pre-Classic (400–200 BC) throughout Mesoamerica changed dramatically in region after region in the Full Late Pre-Classic (ca. 200 BC–AD 50). At this time the area saw the most dramatic spate of civilization building it would ever experience. In some respects the last two centuries BC were at least as “classic” in terms of cultural achievements as the AD 300–900 era that is conventionally labeled *Classic*. Kappelman believes that the era 200–1 BC in southern Guatemala

of Archaeology in Central America and Yucatán: Essays in Honor of Edwin M. Shook, ed. Michael Love et al. (Lanham, MD: University Press of America, 2002), 375–95.

46. Michael Love, “Ceramic Chronology of Preclassic Period [in] Western Pacific Guatemala and Its Relationship to Other Regions,” in Love et al., *Incidents of Archaeology in Central America and Yucatán*, 68.

47. Love, “Ceramic Chronology of Preclassic Period,” 69.

48. Jonathan Kaplan, “From under the Volcanoes: Some Aspects of the Ideology of Rulership at Late Preclassic Kaminaljuyu,” in Love et al., *Incidents of Archaeology in Central America and Yucatán*, 355; and Lynette Heller and Barbara L. Stark, “Economic Organization and Social Context of a Preclassic Center on the Pacific Coast of Guatemala: El Balsamo, Escuintla,” in *New Frontiers in the Archaeology of the Pacific Coast of Southern Mesoamerica*, ed. Frederick Bove and Lynette Heller, Anthropological Research Papers 39 (Tempe: Arizona State University, 1989), 58–59.

“represents the mature expression of complex civilizations.”⁴⁹ Freidel concurs: In the highlands of southern Mesoamerica, “social life and public art reached a peak during the Late Preclassic period (300 BC–AD 100)”; for the rest of pre-Spanish history, the area reverted to “a mosaic of small polities characterized by local art styles.”⁵⁰ That was true not just of highland Guatemala but also of a number of regions throughout southern Mesoamerica.

Exactly what forces lay behind the dynamism seen in the Full Late Preclassic subperiod has not become clear, but telling instances of dramatic developments are abundant. For example, during the second and first centuries BC, the site of El Mirador near the northern border of Guatemala and Mexico became the largest city ever in ancient Mesoamerica,⁵¹ reaching a more spectacular scale of achievement and size than tourist-famous Tikal, 50 miles (80 km) away, would enjoy at its peak centuries later. In fact, the nucleus of the Tikal site took shape during El Mirador’s glory phase.⁵² Large-scale architecture also appeared in the late BC years at Nakbe, near El Mirador,⁵³ and elsewhere nearby. San Bartolo, located near Tikal and made famous recently by the discovery of superb mural paintings there,⁵⁴ was also

49. Julia G. Kappelman, “Reassessing the Late Preclassic Pacific Slopes: The Role of Sculpture,” *Mexicon* 25/2 (April 2003): 42.

50. David A. Freidel, “Civilization as a State of Mind: The Cultural Evolution of the Lowland Maya,” in *The Transition to Statehood in the New World*, ed. Grant D. Jones and Robert R. Kautz (Cambridge: Cambridge University Press, 1981), 191.

51. Ray T. Matheny, “El Mirador: An Early Maya Metropolis Uncovered,” *National Geographic Magazine* 172/3 (1987): 317–39; and Richard D. Hansen et al., “Investigaciones arqueológicas en el sitio Tintal, Petén,” in Laporte et al., *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 683–94.

52. William Coe has said: “By about 100 B.C. the Great Plaza-North Terrace area [the central zone at Tikal] was about as large as it was [going to be] in A.D. 700. The architectural pattern of much of the focal point of the site could well have been conceived and executed at this relatively early date.” Coe, “A Summary of Excavation and Research at Tikal, Guatemala: 1956–61,” *American Antiquity* 27/4 (1962): 504.

53. Donald W. Forsyth, “La cerámica arqueológica de Nakbe y El Mirador,” in *III Simposio de investigaciones arqueológicas in Guatemala, 1989*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 1993), 111–32; and Hansen et al., “Investigaciones arqueológicas.”

54. William A. Saturno et al., “Nuevos hallazgos arquitectónicos y pictóricos en la

flourishing by the second century BC. Furthermore, important elements of lowland Maya culture were now derived directly from highland Guatemala, stimulating development to a complex level.⁵⁵ The prime source of that influence was quite surely Kaminaljuyu itself.

The brilliance of civilization at Kaminaljuyu in the Providencia-Verbena periods (475–100 BC) is becoming more apparent as excavation continues.⁵⁶ De León and Valdés observe: “Archaeological evidence of Providencia times shows that at Kaminaljuyu . . . occupants lived in the section around Lake Miraflores and cultivated [intensively] and engaged in trade. Social organization became . . . complex and great public works of architecture and engineering were made, among which was . . . the huge Miraflores canal, [and] temples for public, religious, and administrative business became larger in volume and higher.”⁵⁷ The public works constructed were especially impressive.

A massive clay wall 25 feet (7.6 m) high was built around a portion of the site early in its history,⁵⁸ and at least part of the “Serpent Mound,” a vast structure more than 3 miles (4.8 km) long and up to 30 feet (9 m) high (it may have been an aqueduct), was erected beginning in the Providencia period (475–200 BC)⁵⁹ (see further in chapter 23). The Kaminaljuyu

Pirámide de las Pinturas, San Bartolo, Petén,” in Laporte et al., *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 571–78.

55. Arthur A. Demarest and Robert J. Sharer, “The Origins and Evolution of Usulután Ceramics,” *American Antiquity* 47 (1982): 819–20; and Freidel, “Civilization as a State of Mind,” 198.

56. Marion Popenoe de Hatch, “New Perspectives on Kaminaljuyú, Guatemala: Regional Interaction during the Preclassic and Classic Periods,” in Love et al., *Incidents of Archaeology in Central America and Yucatán*, 277–96.

57. De León and Valdés, “Excavaciones en Piedra Parada,” 386.

58. Kuniaki Ohi et al., “Los resultados de las investigaciones arqueológicas en Kaminaljuyu,” in *X Simposio de investigaciones arqueológicas en Guatemala, 1996*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1997), 93, 94, 99.

59. Edgar René Ortega et al., “El Montículo La Culebra, Kaminaljuyu: Proyectos de rescate arqueológico,” in *IX Simposio de investigaciones arqueológicas en Guatemala, 1995*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1996), 2:461–76.

development was not without violence, as shown by the existence of the wall and what are reported as burned buildings.⁶⁰

Despite a possible interruption in the cultural progression at the end of the Providencia period, when violence and a slight decrease in population seems to have occurred, high cultural energy continued and may have been enhanced in the Verbena and Arenal periods (ca. 200 BC–AD 50) that followed. Kaplan, for example, is confident that “we have identified at Kaminaljuyu as of approximately 150 BC the development of a powerful complex of dynastic government, [which he thinks had the name] the *lords of sacred blood*, which corresponds with evidence for a major expansion of the city and its commerce.”⁶¹

A culturally integrated zone (which first took form in the Providencia period) stretched from Kaminaljuyu across the Pacific coastal lowlands south and eastward to the hills of western El Salvador. Strong similarities have been found within this area in figurine types, ceramic and sculptural styles, incense burners, stone artifacts, and site layouts, indicating that a rather uniform culture zone extended throughout this area during the Late Pre-Classic (400 BC–AD 50).⁶² This “Miraflores ceramic sphere” is interpreted as reflecting either a political unity, perhaps ruled by a king from Kaminaljuyu, or at least an area-wide sense of ethnic integration—“we are the same people.”⁶³ Furthermore, the symbolism of sculptures found here suggest the likelihood that many of the important ideas basic in the later Classic Maya development in the northern Guatemalan lowlands were foreshadowed by and seeded from the Kaminaljuyu of the Full Late Pre-Classic, with its “huge and eclectic corpus” of art that manifested a “profoundly complex” culture.⁶⁴

60. Ohi, “Resultados de las investigaciones,” 94.

61. Jonathan Kaplan, “El Monumento 65 de Kaminaljuyu y su ilustración de ritos dinásticos de gobierno del Preclásico Tardío,” in Laporte and Escobedo, *IX Simposio de investigaciones arqueológicas en Guatemala, 1995*, 457.

62. Arthur A. Demarest and Robert J. Sharer, “Late Preclassic Ceramic Spheres, Culture Areas, and Cultural Evolution in the Southeastern Highlands of Mesoamerica,” in *The Southeast Maya Periphery*, ed. Patricia A. Urban and Edward M. Schortman (Austin: University of Texas Press, 1986), 218–20.

63. Kaplan, “From under the Volcanoes,” 320.

64. Kaplan, “From under the Volcanoes,” 312–13; and Freidel, “Civilization as a State

Along the upper Grijalva River in Chiapas's Central Depression in the late Guanacaste and Horcones periods (200 BC–AD 50), yet another center of cultural advancement existed.⁶⁵ And in central Oaxaca the limited development of the Monte Albán I period (550 BC–100 BC) was followed by a sharp rise in the level of the society with the onset of Monte Albán II around 100 BC. The Oaxaca advance resulted from immigration of an elite group from the south and east, very likely from Chiapas.⁶⁶ This intrusion probably represents a case of elite cultural hijacking.

Central Veracruz around the site of Tres Zapotes (immediately west and northwest of the Tuxtla Mountains) also became an active center in the second half of the Full Late Pre-Classic period. The Izapan art style, which had been at home before then in the territory from Kaminaljuyu and Izapa through the Central Depression of Chiapas, at this time penetrated all the way to southern Veracruz⁶⁷ and beyond, into parts of the central Mexican highlands.

The Late Pre-Classic developments in many portions of Mesoamerica show that continued major growth of civilization was taking place.⁶⁸ The

of Mind.”

65. Gareth W. Lowe and J. Alden Mason, “Archaeological Survey of the Chiapas Coast, Highlands, and Upper Grijalva Basin,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 2:195–236; and John S. Justeson et al., “The Foreign Impact on Lowland Mayan Language and Script: A Summary,” in *Highland-Lowland Interaction in Mesoamerica: Interdisciplinary Approaches*, ed. Arthur G. Miller (Washington, DC: Dumbarton Oaks, 1983), 155. Richard E. W. Adams, in *The Ceramics of Altar de Sacrificios*, Peabody Museum of Archaeology and Ethnology Papers 63.1 (Cambridge, MA: Harvard University Press, 1971), 157, says, “One of the most elaborate and astounding florescences [of this period] was at Chiapa de Corzo as represented by the Horcones material. Nothing at Altar [de Sacrificios in the Maya area, on which he was reporting] represents nearly the complexity in ceramics or architecture achieved on this time level on the Grijalva River in Chiapas.”

66. Ignacio Bernal, “Monte Albán and the Zapotecs,” *Boletín de estudios oaxaqueños* 1 (February 1958): 4.

67. Michael D. Coe, “Archaeological Synthesis of Southern Veracruz and Tabasco,” in Wauchope and Willey, *Handbook of Middle American Indians*, 3:696–99. See further in chapter 23 herein.

68. The period from 100 BC to about AD 200 has been labeled *Protoclassic* by some archaeologists; however, the proposed definitions or characterizations of that period are so varied and inconsistent that I prefer not to use the ambiguous term at all.

increasing effectiveness of agricultural technology was allowing significant population growth. The repertoire of cultivated plants surely expanded, and the adaptation of the basic crops to new climatic conditions no doubt helped support the growing urban population. Trade, especially in luxury goods, became widespread, and with it came a growing tendency to borrow and share concepts from other cultural centers. For example, in Mound 5 at Chiapa de Corzo in the Horcones period (75 BC–AD 50), a collection of 830 exotic ceramic vessels was uncovered; the decorated pots had been brought from as far away as Oaxaca, the southern Gulf Coast, Guatemala, El Salvador, and the Maya lowlands.⁶⁹

Amid this florescence, societies were becoming more complex internally, with evidence of rank or class structures, wealth, elaborate tombs, and many specialist occupations. Multiple levels of government and other mechanisms of social control were also functioning. Conflict shows up (e.g., in the erection of defensive walls within Monte Albán, perhaps not against external aggressors as much as to isolate the elite from rivals or perhaps from the public at large).⁷⁰ At the same time, special cultural activities such as calendar keeping, producing documents, city planning, and the arts illustrate increased complexity in knowledge, communication, ritual, and values.

No single, overarching cultural philosophy (or worldview) can be detected that was comparable to the body of beliefs thought to have been reflected among the Olmec 1,000 years earlier. Rather, regional patterns of culture tended to prevail over limited territories. For example, one particular cultic arrangement consisted of a stela with a low, carved altar stone in front of it; this feature originated in southern Guatemala,⁷¹ and over centuries it spread to sites as far away as south-central Mexico. Another little complex saw incense burners, in several stylized forms, spread, again slowly, from a

69. Bruce W. Warren, "The Sociocultural Development of the Central Depression of Chiapas, Mexico: Preliminary Considerations" (PhD diss., University of Arizona, 1977), 67–68.

70. Richard E. Blanton and Stephen A. Kowalewski, "Monte Albán and after in the Valley of Oaxaca," in *Supplement to the Handbook of Middle American Indians*, ed. Jeremy A. Sabloff (Austin: University of Texas Press, 1981), 1:98; and Elsa M. Redmond, *A Fuego y Sangre: Early Zapotec Imperialism in the Cuicatlan Cañada, Oaxaca*, Studies in Latin American Ethnohistory and Archaeology 1 (Ann Arbor: University of Michigan, 1983), 9.

71. Arroyo, "Naranja Rescue Project," 19.

center in southern Guatemala to the isthmus. What is known as the Izapan art style likewise spread, perhaps from the ceremonial center at Izapa on the Guatemala/Chiapas border near the Pacific coast, to reach Kaminaljuyu, northern Yucatan, Oaxaca (the Dainzú site), and even the Papaloapan River basin in central Veracruz. The locating of sites whose major constructions and monuments were positioned according to astronomical observations developed nearly everywhere in Mesoamerica, but local variations were quite common. Variation shows up in other aspects of the culture too. For example, the urban center of El Ujuxte in the Pacific lowlands of Guatemala rose to prominence for a time during the Late Pre-Classic, but unlike the proto-Maya center of Takalik Abaj, only 25 miles (40 km) away, Ujuxte produced no sculptures during its brief florescence.⁷²

Presumably language, ethnic, and perhaps factional/political differences distinguished localities from each other, while at the same time forces such as trade or borrowing tended toward integration. Yet such tendencies as there were to share concepts or techniques seem often to have been short-circuited, probably by local factors. The high degree of differentiation and intermixture in culture illustrates the futility of trying to label the various populations of this time period with generalized ethnic names comparable to *Maya* or *Zapotec*.

Terminal Late Pre-Classic (50 BC–AD 50)

Only a few years ago (and still the case in popular books), the period from AD 1 to 200 or 300 was described as an essentially smooth transition from a supposedly simpler “Formative” stage to a suddenly complex “Classic” stage. Actually, the more archaeologists have studied the 400-year period from about AD 1 to 400 (especially the first two of those centuries), the more varied and complicated the historical situation appears.

In the face of that mounting complexity, three scholars recently proposed to begin “the Classic” as early as AD 159 (8.0.0.0.0 in the Maya calendar). At about that time, they believe, a “social and political revolution” took place marked by the “dramatic and conclusive fall” of “the greatest city [ever] known in the Maya Lowlands, El Mirador,” which had existed in a volatile

72. Kappelman, “Reassessing the Late Preclassic Pacific Slopes,” 40.

political climate.⁷³ This interpretation of archaeological history puts the demise of El Mirador before the Classic era as usually construed had even begun! It illustrates the confusion that currently attends efforts to intelligently order and label the major events that took place in Mesoamerica around the time of Christ and immediately afterward. Researchers are striving hard to characterize developments in these “turbulent years” that were “clearly chaotic,”⁷⁴ but they are not yet close to producing a sensible, comprehensive scenario of what went on.

Highland Guatemalan history at the same time is similarly puzzling. During the transition between the Late Pre-Classic and the Early Classic, there “was a period of great disruption: population levels dropped, construction decreased, literacy and [the] carved-stone sculptural tradition disappeared, [and] one ceramic tradition was replaced by another.”⁷⁵ Fortifications and other traces of warfare that belong to this period are now recognized in southern Guatemala, the Maya lowlands, and elsewhere. At least certain moments in this era were marked by “extensive war” accompanied by “profound historical, ideological, demographic and socio-political changes.”⁷⁶ At El Mirador, Hansen reports that the Acropolis had been fortified and a remnant population at one point in time had taken refuge there. Projectile points found atop the huge Tigre pyramid (“six times larger at the base than the next largest structure in the Maya lowlands”)⁷⁷ further

73. Debra S. Walker et al., “Después de la caída: Una redefinición del Clásico temprano maya,” in Laporte et al., *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 659.

74. Walker et al., “Después de la caída,” 667.

75. Geoffrey E. Braswell, “Dating Early Classic Interaction between Kaminaljuyu and Central Mexico,” in *The Maya and Teotihuacan: Reinterpreting Early Classic Interaction*, ed. Geoffrey E. Braswell (Austin: University of Texas Press, 2003), 100.

76. Jeremy Bauer et al., “El pasado Preclásico y monumental de la región Holmul: Resultados de las temporadas de campo 2003 y 2004 in Cival, Petén,” in *XVIII Simposio de investigaciones arqueológicas en Guatemala, 2004*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2005), 207.

77. Bruce H. Dahlin, “Climate and Prehistory on the Yucatan Peninsula,” *Climatic Change* 5/3 (1983): 250.

suggest that warfare led to the abandonment of the place, possibly around AD 150–200.⁷⁸

Lowe and colleagues added another dimension when they noted an extensive series of destroyed or despoiled monuments, some of them along with indications of contemporaneous volcanic events that may have extended all the way from southern Veracruz to El Salvador.⁷⁹ Lowe suggested that the abandoned or damaged monuments may show the rejection of a traditional religious cult that had failed to ward off natural disaster. At Kaminaljuyu, remains from the contemporary Santa Clara period (first and second century AD) were found lying atop a layer of volcanic ash (see details in chapter 24). The period coincided with a drastic population decline, the centuries-old canal system ceased to function, building construction stopped, the long-dominant ritual system (involving figurines, effigy whistles, incense burners, etc.) disappeared utterly, and the practice of erecting monuments also ended.⁸⁰ Bove characterized the transition from the final Pre-Classic period to the Early Classic in southern Mesoamerica as marked by “dislocations and restructuring” of society; to him the changes look like “perhaps the most critical transformation in Mesoamerican cultural development” ever.⁸¹

What a far cry this is from the conventional picture of a smooth developmental transition to a flourishing Classic era.

Not all these conflicting characterizations of what happened could have taken place simultaneously, of course. We have to suppose, for example, that

78. Walker et al., “Después de la caída,” 662–63; Dahlin, “Climate and Prehistory,” 251; compare with Hansen et al., “Investigaciones arqueológicas,” 685.

79. Gareth W. Lowe et al., *Izapa: An Introduction to the Ruins and Monuments*, New World Archaeological Foundation Papers 31 (Provo, UT: BYU New World Archaeological Foundation, 1982), 26–28.

80. Marion Popenoe de Hatch, *Kaminaljuyú/San Jorge: Evidencia arqueológica de la actividad económica en el Valle de Guatemala, 300 a.C. a 300 d.C.* (Guatemala: Universidad del Valle de Guatemala, 1997), 19, 92; Popenoe de Hatch, “New Perspectives on Kaminaljuyú,” 288; Stephan F. de Borhegyi, “Archaeological Synthesis of the Guatemalan Highlands,” in Wauchope and Willey, *Handbook of Middle American Indians*, 2:15, 25–28; and Joyce Marcus, preface to Bove and Heller, *New Frontiers*, xvi.

81. Frederick J. Bove, “Dedicated to the Costeños: Introduction and New Insights,” in Bove and Heller, *New Frontiers*, 9.

the wars noted probably took place before the decline in population. But discerning the full intricacy of the historical phenomena is impossible as yet because of dating problems. Attempts to understand this complex period are still tentative.

The Terminal Late Pre-Classic to Initial Early Classic Transition

What is most salient about the first and second centuries AD is the fragmented nature of the sociopolitical events and actors. The growth and prosperity of major culture centers in the preceding two centuries seemed to hold out the promise of further integration around a handful of major centers in Mesoamerica, but seemingly that was not to be. What did take place, as Dahlin et al. put it, was a collapse of civilization at the end of the Pre-Classic era, involving “severe population reductions, site abandonments, an increasing balkanization [fragmentation] in material culture [patterns], and disruption of interregional communication networks.”⁸² Perhaps that picture is too apocalyptic, but maybe not by much. Examples of sites or regions left in disarray are numerous. The Miraflores ceramic sphere located in southeast Guatemala and western El Salvador ceased to function as a unit; the level of culture at Kaminaljuyu in its Santa Clara period (ca. AD 50; “a time of crisis,” says Valdés)⁸³ may have fallen to the lowest level in the entire millennium and a half between 500 BC and AD 1000. All centers on the Pacific Coast of Guatemala that had passed through some spectacular developments earlier had failed before AD 100 in apparent impoverishment and drastic depopulation.⁸⁴ The lowland Maya area, too, lost cultural and political momentum; the promising brilliance of the Late Preclassic cities of El Mirador, Nakbe, Tintal, San Bartolo, Cival, and Becán dimmed in destruction and abandonment.⁸⁵

Chiapa de Corzo's Horcones period, which saw a Late Pre-Classic

82. Bruce H. Dahlin et al., “Linguistic Divergence and the Collapse of Preclassic Civilization in Southern Mesoamerica,” *American Antiquity* 52/2 (1987): 367.

83. Juan Antonio Valdés, “El proyecto Miraflores II dentro del marco Preclásico de Kaminaljuyu,” in Laporte and Escobedo, *X Simposio de investigaciones arqueológicas en Guatemala, 1997*, 86.

84. Bove, “Dedicated to the Costeños,” 9.

85. Bove, “Dedicated to the Costeños,” 9.

“climax in architecture and tomb sophistication,”⁸⁶ ended in a “violent overthrow”⁸⁷ that saw what appears to be the deliberate torching of a principal building sometime in the first century AD.⁸⁸ The “turbulent” Horcones occupation was followed by a “subdued”⁸⁹ Istmo period with remains of a remarkably different nature.⁹⁰ At Chinkultic, in the mountains near Comitán, Chiapas, a like change took place, probably no later than AD 75. The Izapan art style that had reached that area 100–125 years before was given up in the first century AD when the monuments in that style were smashed and buried.⁹¹

In southern highland Guatemala, actual lowland Maya people seem to have intruded to occupy the area around the site of Takalik Abaj where, judging by monuments in the style of later relief sculptures in the northern lowlands (one dated to AD 126), features of the belief and symbol system that would characterize the lowland Classic Maya culture were in the process of crystallizing.

In fact, Garrison suggests that “we ought to ask whether in reality there was a [visible] transition from the Preclassic to the Classic or if [rather] the periods designated by the archaeologists have not been studied sufficiently” to deserve the distinction implied by the traditional archaeological labels.⁹² Whatever terms we may use, first- and second-century Mesoamerica was unquestionably undergoing a process of societal reorganization. And

86. Bruce W. Warren, “The Central Depression of Chiapas: Its Role within the Evolution of Mesoamerican Civilization” (master’s thesis, University of Arizona, 1969), 21.

87. Gareth W. Lowe, “Burial Customs at Chiapa de Corzo,” in Pierre Agrinier, *The Archeological Burials at Chiapa de Corzo and Their Furniture*, New World Archaeological Foundation Papers 16 (Provo, UT: BYU New World Archaeological Foundation, 1964), 73.

88. Gareth W. Lowe, *Mound 5 and Minor Excavations, Chiapa de Corzo, Chiapas, Mexico*, New World Archaeological Foundation Papers 12 (Provo, UT: BYU New World Archaeological Foundation, 1962), 10; and Warren, “Sociocultural Development of the Central Depression of Chiapas,” 66, 139.

89. Lowe, “Burial Customs at Chiapa de Corzo,” 75.

90. Lowe, “Burial Customs at Chiapa de Corzo,” 73.

91. Joseph W. Ball, *The Archeological Ceramics of Chinkultic, Chiapas, Mexico*, New World Archaeological Foundation Papers 43 (Provo, UT: BYU New World Archaeological Foundation, 1980), 93.

92. Thomas G. Garrison, “La transición del Preclásico Tardío al Clásico temprano en la

after AD 200 much cultural strength was increasingly diverted to military ends.⁹³ Old alliances and patterns of relationships among regions were being recast.⁹⁴ One suggestion is that the possible natural disasters noted earlier could have changed resource and exchange areas and routes to such a degree that important adaptations in trade relations, and thus in prosperity, were necessitated.

Early Classic (AD 200–600)

Throughout southern Mesoamerica, the period from AD 200 to past 400⁹⁵ was marked by a new set of symbols, rites, and beliefs alongside rearranged area relationships. In some cases the changes apparently represented more of a revival or repackaging of old icons and concepts. The modest scale of population or outright abandonment and reduced cultural level to which El Mirador and many other Late Pre-Classic centers descended was accompanied by new vigor at other places. For example, in the northern Maya lowlands at the time when the Late Pre-Classic site of Cival was in large part abandoned, nearby Holmul seems to have picked up the slack in the neighborhood, particularly in the construction of rich Early Classic tombs.⁹⁶ In fact, “throughout the Central Lowlands there was an increase in royal tombs”⁹⁷ after AD 150, which was perhaps evidence that a new political pattern was emerging, one featuring stronger dynasties as counteraction to the relative political vacuum that apparently characterized the immediate past. Garrison suggests that environmental degradation, part natural but

zona intersticio de Xultun y San Bartolo en Petén,” in Laporte et al., *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 269.

93. Walker et al., “Después de la caída,” 662; Hansen et al., “Investigaciones arqueológicas,” 683, 685; and Francisco Estrada-Belli et al., “Las épocas tempranas en el área de Holmul, Petén,” in Laporte et al., *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 639.

94. For example, Popenoe de Hatch, *Kaminaljuyú/San Jorge*, 94–97.

95. A concise but incomplete overview of the period is provided by Geoffrey G. McCafferty and David Carrasco, “Mesoamerican Chronology: Classic Period (250–900 [CE]),” in Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 2:243–48.

96. Estrada-Belli et al., “Las épocas tempranas,” 646.

97. Walker et al., “Después de la caída,” 663.

part perhaps due to destructive agricultural practices, put stress on entire ecological regions “in an environment of little elbow room.”⁹⁸

In the Valley of Guatemala, too, a new structure of society arose. The canal system that for centuries had supported exceptionally rich agricultural production at Kaminaljuyu had ceased functioning, presumably because the lake whose water it once had tapped dried up. In the Early Classic Aurora period (AD 200–400), which followed the disastrous Santa Clara interval, a new ceramic tradition came on the scene. This development featured modest public buildings of a somewhat different style than before and marked a renewed, though limited, step upward in sophistication after the nadir of Santa Clara.

Meanwhile, at Chiapa de Corzo, the Jiquipilas period (AD 200–350) reflected “a time of pomp and ceremony in keeping with the [incoming Early Classic] tradition common elsewhere in Mesoamerica at the time.” This was in “rather sharp contrast to the subdued nature of the preceding Istmo phase.” The Jiquipilas period featured tombs that were “relatively extravagant and [with] frequently imported furniture.”⁹⁹ Nevertheless, this too was a “turbulent period” that was “indicative of a restive socio-political-religious situation” in which an “attitude of irreverence for both the dead and for certain conventions” was manifest.¹⁰⁰ This widespread failure of the civilization at large to move decisively ahead after the general debacle of the transitional Terminal Late Pre-Classic in the first and second centuries AD must have been due to factors felt over an extensive area.

One of the most discussed possible causes for the instability in this period is climate change. Several archaeologists have suggested at least some role for this factor. Twenty-five years ago, Dahlin drew attention to substantial evidence for drought having spread from the north of Yucatan southward throughout most of the peninsula, starting late in the Pre-Classic. “Early Classic declines [in water supply] are the rule,” he claimed.¹⁰¹ Furthermore, he inferred “a high level of warfare” from a pattern of defensive earthworks found across much of central Yucatan, which may have been due to efforts to

98. Garrison, “La transición del Preclásico Tardío,” 271.

99. Lowe, “Burial Customs at Chiapa de Corzo,” 75.

100. Lowe, “Burial Customs at Chiapa de Corzo,” 75, 73.

101. Dahlin, “Climate and Prehistory,” 259.

keep drought-impelled northern peoples from invading the areas to the south that were not suffering as drastically.¹⁰² Garrison gives updated and extended data supporting Dahlin's notion of climatic causation.¹⁰³ He also hypothesizes that the Early Classic centers that prospered were those in the best geographical situations in terms of water supply and that the rise of more powerful rulers in the Early Classic was connected to their subjects' belief that those rulers were especially favored by the divine powers who controlled the rains.

Nor were natural stresses limited to southern Mesoamerica. For example, the Acapulco area of west Mexico suffered drought at the same time.¹⁰⁴ Furthermore, it appears that volcanic eruptions (either nearby or elsewhere in the world) could have been a trigger for drought in Mesoamerica, according to Gill and Keating.¹⁰⁵ The years AD 150–250 have been identified “as a period of increased volcanic activity [worldwide]. . . . In the Maya Lowlands, this was the period of the Preclassic Abandonment which devastated the Maya area.”¹⁰⁶

Related factors would have been entrained behind shifting natural forces. Clark and Hansen note that “many of the societies that flourished during the Late Preclassic came to an abrupt end at 200 AD, attributable to

102. Dahlin, “Climate and Prehistory,” 259.

103. Garrison, “La transición del Preclásico Tardío,” 271; and Karl J. Lorenzen, “New Discoveries at Tumben-Naranjál: Late Postclassic Reuse and the Ritual Recycling of Cultural Geography,” *Mexicon* 21/5 (1999): 98–107.

104. Martha E. Cabrera Guerrero, *Los pobladores prehispánicos de Acapulco: Proyecto arqueológico renacimiento* (Mexico City: Instituto Nacional de Antropología e Historia, 1990), 25–26; and William H. Folan and Burma H. Hyde, “Climatic Forecasting and Recording among the Ancient and Historic Maya: An Ethnohistoric Approach to Epistemological and Paleoclimatological Patterning,” in *Contributions to the Archaeology and Ethnohistory of Greater Mesoamerica*, ed. William J. Folan (Carbondale: Southern Illinois University Press, 1985), 18ff.

105. Richardson B. Gill and Jerome P. Keating, “Volcanism and Mesoamerican Archaeology,” *Ancient Mesoamerica* 13 (2002): 125–40. There could have been at least one eruption at this time in the Tuxtla Mountains; see Robert S. Santley and Philip J. Arnold III, “Prehispanic Settlement Patterns in the Tuxtla Mountains, Southern Veracruz, Mexico,” *Journal of Field Archaeology* 23/2 (1996): 231.

106. Richardson B. Gill, *The Great Maya Droughts: Water, Life and Death* (Albuquerque: University of New Mexico Press, 2000), 287, citing Louis A. Scuderi, “Tree-Ring Evidence for Climatically Effective Volcanic Eruptions,” *Quaternary Research* 34 (1990): 67–85.

diverse causes: environmental degradation and onerous demands (taxes), or social unrest. Together with the history of sudden abandonment of sites, we find evidences of warfare, especially in the form of fortifications, and [as shown in art] the practice of taking trophy heads. . . . This indicates that at the dawn of the Classic period, the decadence of the cities in some regions was accelerated by conflicts and conquests.”¹⁰⁷ The evidence for substantial warfare at this time is increasingly apparent.¹⁰⁸

It is now obvious that population declined on a large scale through most of southern Mesoamerica, not only in the Terminal Late Preclassic but continuing into the Full Early Classic, and the level stayed low for a period in nearly every area, at least south and east of Tehuantepec.¹⁰⁹ Moreover, geographically extensive political institutions are not clearly visible in the Early

107. John E. Clark and Richard D. Hansen, “Tiempo Mesoamericano IV: Preclásico Tardío (400 AC–200 DC),” *Arqueología mexicana* 8/46 (2000): 19.

108. For references to “extensive war” and “monumental defensive systems,” see David L. Webster, “Defensive Earthworks at Becán, Campeche, Mexico: Implications for Maya Warfare,” Middle American Research Institute Publication 41 (New Orleans: Tulane University, 1976), 86; David Webster, *The Fall of the Ancient Maya: Solving the Mystery of the Maya Collapse* (London: Thames & Hudson, 2002); and Bauer et al., “El pasado Preclásico,” 206.

109. Central Chiapas: Lowe and Mason, “Archaeological Survey,” 202; western Chiapas: Pierre Agrinier, “La cultura zoque en la Depresión Central de Chiapas en la época Clásica,” in *La época Clásica: Nuevos hallazgos, nuevas ideas*, ed. Amalia Cardos de Mendez (Mexico City: Museo Nacional de Antropología, 1990), 470; Pacific coastal Guatemala: Michael Love et al., “La cerámica de El Ujuxte, Retalhuleu: Un estudio preliminar,” in *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1995), 19–24; Honduras: Claude F. Baudez, “Southeast Mesoamerican Periphery: Summary Comments,” in *The Southeast Maya Periphery*, ed. Patricia A. Urban and Edward M. Schortman (Austin: University of Texas Press, 1986), 334; southern Veracruz: Paula H. Krotser, “Veracruz: Corredor hacia el sureste,” in *Interacción cultural en México central*, ed. Evelyn C. Rattray et al. (Mexico City: Universidad Nacional Autónoma de México, 1981), 178–79; Maya lowlands: Arthur A. Demarest, “Proyecto El Mirador de la Harvard University, 1982–1983, VII: Conclusiones y especulaciones,” *Mesoamerica* 7/5 (1984): 144–45; Rio Azul area: Richard E. W. Adams, *Río Azul: An Ancient Maya City* (Norman: University of Oklahoma Press, 1999); and the isthmus: Stacey Symonds, “Reconocimiento intensivo regional en San Lorenzo Tenochtitlan,” in *Memoria del Coloquio: Arqueología de centro y sur de Veracruz*, ed. Sara Ladrón de Guevara and Sergio Vásquez Zárata (Xalapa, Mexico: Universidad Veracruzana, 1997), 123.

Classic; all seem specific to certain regions or localities. A political mosaic of minor states thus characterizes the period, although alliances could have allowed larger groupings to emerge temporarily. In fact, if it were not for rich tombs that reveal sophisticated artistic and craft work and the ability of elites to command substantial resources, we could question whether much of the Early Classic period is properly labeled “classic” at all, for sizable public works were not at all common then.

Warfare continued, probably in part because of conflicts over access to agricultural resources. Once some political centers achieved a considerable state of military preparedness, pressure would have been strong for all their neighbors to emulate that condition for the sake of survival. The resulting arms race would have no inherent limit in scale. Tikal’s vast fortification system of ditches and embankments is now known to have reached a total length of more than 18 miles (30 km), although the work was never finished.¹¹⁰ (While the chronology of that huge construction activity is still unclear, it is likely to have begun in the Terminal Preclassic.) In any case, Webster concluded in his influential 1976 monograph that “in the 5th century AD the lowlands probably were a complicated political mosaic with intermittent conflict, shifting alliances, extensive economic interrelationships, and regional florescence all contributing to the picture.”¹¹¹ There is no reason to believe that other areas of southern Mesoamerica were in any different condition.

In other words, the Early Classic turned into a panorama of cultural high and low points and of demographic pulls and pushes. While certain centers reached a level of major artistic and economic development, those achievements tended to be localized; at the same time other localities were at much lower points of development and prosperity.

In the area to the north and west of the Isthmus of Tehuantepec, conditions were different, although the fact that only a handful of sites that belong to this era have been studied leaves any interpretation questionable. Most notable among the excavated sites is massive Teotihuacán in the Valley

110. David Webster et al., “Nuevos trabajos e interpretaciones de los terraplenes de Tikal: Segunda temporada de campo,” in Laporte et al., *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 695–96.

111. Webster, “Defensive Earthworks,” 105.

of Mexico. The picture revealed by excavations there shows that, beginning in the last century BC, the community was just one village in the process of becoming a town among a gaggle of others in the basin of Mexico. Then came an amazing spurt of energy at that one particular spot. Teotihuacán's Tzacualli period (about 25 BC–AD 200) saw the laying out of an ambitious master plan for what would become Mesoamerica's second-largest metropolis (after El Mirador), and the first phase of a vast building program started. Details of the process of city building in the early AD centuries are still unclear.

By AD 150 a preliminary version of the giant Pyramid of the Sun was being constructed. By AD 200 most of the city's major public structures had been completed. No significant slowing of growth has been detected prior to about AD 475–500; the center of the city seems to have burned at that time.¹¹² We simply cannot tell why the kind of social and political disturbances that took place in southern Mesoamerica during the AD 100–400 interval failed to impact the comparatively smooth developmental process of Teotihuacán during this period.

The political and social culture of the metropolis was much different than that of the south. No trace can be seen of powerful individual lords or rulers—no images and no glorious tombs. It may be that government was by a council (perhaps representing different ethnic groups) rather than by a single ruler. External influence, more likely by trade than by coercion, was exerted from an early date. A sizable quantity of green-colored obsidian (which comes only from Pachuca, 50 miles [80 km] north of the big city) shows up in a tomb at Altun Há in Belize, along with Teotihuacán dishes dated to about AD 200–250.¹¹³ Furthermore, an “enormous quantity” of the same green mineral reached Balberta, a city in the Pacific coastal lowland of

112. Frederick J. Bove, “The Terminal Formative–Early Classic Transition,” in *The Balberta Project: The Terminal Formative–Early Classic Transition on the Pacific Coast of Guatemala*, ed. Frederick J. Bove et al. (Pittsburgh: University of Pittsburgh Latin American Archaeology, 1993), 183, citing a personal communication from the late D. Wolfman.

113. Evelyn C. Rattray, “El barrio de los comerciantes en Teotihuacan,” in *Investigaciones recientes en el área maya, XVII mesa redonda: San Cristobal de Las Casas, Chiapas, 21–27 Junio 1981* (Mexico City: Sociedad Mexicana de Antropología, 1984), 1:148–49; and Irwin Rovner, “Implications of the Lithic Analysis at Becán,” paper presented at the annual meeting of the Society for American Archaeology, 1972.

Guatemala, around AD 250.¹¹⁴ A relatively new chemical test promises to clarify the question of whether actual Teotihuacanos were present at southern sites.¹¹⁵

A definitive power connection between southern Mesoamerica and Teotihuacán did not take place until later. About AD 375 a distinct complex of Teotihuacán culture appeared in the Escuintla area on the Pacific slope of Guatemala,¹¹⁶ and by AD 425 a strong enclave of Teotihuacanos was established at Kaminaljuyu. A stela at Uaxactun in the northern Maya lowlands that dates to AD 377 shows a figure dressed in highland Maya garb and carrying weapons and insignia of Teotihuacán. This character, whose name is sometimes translated as Curl Snout, was the first of a series of figures with central Mexican credentials who penetrated selected areas in the Maya lowlands as hijackers of rulership in cities there.¹¹⁷

Just what political tools they brought that allowed them to usurp power is a subject of dispute among scholars. Suggestions range from a particular new military weapon or a unique political strategy to an ideology of rule that gave them authority superior to that of other claimants. There is no convincing evidence for a Teotihuacán "empire." It seems that instead of holding dominion over a total territory, leaders there took the easier course of structured exploitation. As long as provincial subordinate lords refrained from rebellion and paid the tribute/taxes demanded of them by their

114. Federico Fahsen, "Kaminaljuyú y sus vecinos," in *XIII Simposio de investigaciones arqueológicas en Guatemala, 1999*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2000), 58; and Bove, "Dedicated to the Costeños."

115. Christine D. White et al., "Testing the Nature of Teotihuacán Imperialism at Kaminaljuyú Using Phosphate Oxygen-Isotope Ratios," *Journal of Anthropological Research* 56 (2000): 535–58.

116. *Piezas maestras mayas: Patrimonio del Museo Nacional de Arqueología y Etnología de Guatemala*, Galería Guatemala 3, ed. Luis Gustavo Jurado Duarte (Guatemala: Fundación G & T, 1996), 103.

117. Clemency C. Coggins, "An Instrument of Expansion: Monte Albán, Teotihuacan, and Tikal," in *Highland-Lowland Interaction in Mesoamerica: Interdisciplinary Approaches*, ed. Arthur G. Miller (Washington, DC: Dumbarton Oaks, 1983), 49–68; and David Stuart, "'The Arrival of Strangers': Teotihuacan and Tollan in Classic Maya History," *P.A.R.I. Online Publications, Newsletter* 25 (1998), http://www.mesoweb.com/pari/publications/news_archive/25/strangers/strangers.html.

overlords, locals were allowed to govern according to traditional customs under a veneer of Teotihuacán iconography.

Some scholars think that Teotihuacano intruders might have been prospectors¹¹⁸ or adventurers out to make their personal or lineage organization's fortune rather than being representatives of the Teotihuacán state. Moreover, some people bearing cultures of the lowland Maya, Monte Albán, and Veracruz areas actually lived with their transplanted customs within enclaves in the Teotihuacán metropolis. It is assumed that they were merchants or commercial agents. In the fifth century AD the population of Teotihuacán may have been between 100,000 and 125,000.¹¹⁹

Whatever economic and political mechanisms were involved, in the latter half of the Early Classic period the culture of Teotihuacán came to have tremendous, though highly uneven, influence throughout much of Mesoamerica, from the Tropic of Cancer on the north to Copan, Honduras, on the south. Yet beyond the Valley of Mexico, that influence was apparently based on neither political nor military power until after perhaps AD 375. For example, in the state of Tlaxcala, only a few score miles away from the big city, in the period from AD 100 to 650 local peoples (city-states) continued mostly undisturbed by their giant neighbor. Teotihuacán maintained full control of only a narrow corridor through Tlaxcala and Puebla,¹²⁰ probably a protected route for merchant groups.

During the Early Classic, other major sites and regions north and west of the Isthmus of Tehuantepec were also experiencing more questionable conditions than is often supposed under the heading *Classic*. The site of Cholula on the plains of Puebla to the east of the Valley of Mexico rose to urban status at about the same time as Teotihuacán, although not to quite as spectacular a level. Cholula's culture had much in common with that of Teotihuacán, although details of the religious cult varied. It is unclear

118. David A. Freidel et al., "Early Classic Maya Conquest in Words and Deeds," in *Ancient Mesoamerican Warfare*, ed. M. Kathryn Brown and Travis W. Stanton (Walnut Creek, CA: Altamira, 2003), 214–15.

119. Evelyn C. Rattray, "A Regional Perspective on the Epiclassic Period in Central Mexico," in Mastache et al., *Arqueología mesoamericana*, 1:216.

120. Angel García Cook, "The Historical Importance of Tlaxcala in the Cultural Development of the Central Highlands," in Sabloff, *Supplement to the Handbook of Middle American Indians*, 1:263–69, 276.

whether Teotihuacán controlled Cholula politically. El Tajin in northern Veracruz also became a large urban center, but not until the latter part of the Early Classic. At Monte Albán, Teotihuacán elites are pictured as being on the scene after AD 400, but there is no clear evidence of major changes in culture that would have resulted from anything like a conquest.¹²¹

At and around Tres Zapotes, at the western foot of the Tuxtla Mountains of southern Veracruz, a sizable center arose in the Full Late Pre-Classic. At that time a stela was carved that bore a date read as 31 BC. Not much reliable excavation has been carried out there, but it is apparent that extensive settlements were built thereabouts, especially in the period 50 BC–AD 150.¹²² Of the area just north of Tres Zapotes, Coe said, “One may drive for 11 km along the road passing . . . near . . . Lerdo de Tejada and never be out of sight of mounds.”¹²³ Recently Loughlin reported that this same zone exhibits “an almost continuous distribution of architectural features and surface artifact scatters across the landscape,”¹²⁴ although we are not certain of their date. This portion of southern Veracruz has abundant sculptures in the Izapan style that was most at home in Chiapas, and most likely the impetus for this dense pattern of settlement came from there beginning in the first century BC. However, details of the archaeological sequence in this Veracruz area for the period 100 BC–AD 400 remain murky.¹²⁵

Our survey of the archaeological history of Mesoamerica from around 2000 BC to AD 400 has revealed interesting spurts of growth in advanced culture interspersed with static social conditions or even substantial shrinkage. The variety of recent interpretations based on these studies warns us not to suppose that even the major outlines of Mesoamerican history for this period are yet settled. What we understand of the trajectory of the area's history is changing as we learn more details. Instead of the conventional

121. See Bernd Fahmel Beyer, “La época Clásica en Monte Albán vista a través de su arquitectura,” in Cardos de Mendez, *La época Clásica*, 61–70.

122. Michael L. Loughlin, “Recorrido arqueológico El Mesón,” FAMSI, 2003, <http://www.famsi.org/reports/02058/index.html>.

123. Coe, “Archaeological Synthesis,” 679.

124. Loughlin, “Recorrido arqueológico El Mesón.”

125. Philip J. Arnold III, “An Overview of Southern Veracruz Archaeology,” *Ancient Mesoamerica* 5 (1994): 215–21; and Santley and Arnold, “Prehispanic Settlement Patterns.”

notion of a continuous evolutionary development from simple/little/local to complex/huge/area-wide, what we now see looks increasingly like History with a capital *H* of the same sort we know from the Old World, with all the complexities that implies.

We terminate our survey of Mesoamerican archaeological history partway into the Early Classic. The era that followed was also exceedingly complex, right up until the arrival of the Spaniards. Anthropologist Claude Levi-Strauss caught something of the essence of Mesoamerican history over at least the last 1,000 years before the Europeans came: "I ask the historian to look upon Indian America as a kind of Middle-Ages that lacked a Rome: a confused mass that emerged from a long-established, doubtless very loosely textured syncretism, which for many centuries . . . contained . . . [both] centers of advanced civilization and savage peoples, centralizing tendencies and disruptive forces."¹²⁶ But the era beyond the early portion of the Early Classic is of little concern for the purpose of this book, since those events are beyond the time range of the Book of Mormon.

126. Quoted in Terrence Kaufman, "Areal Linguistics and Middle America," in *Native Languages of the Americas*, ed. Thomas A. Sebeok (New York: Plenum, 1977), 2:84.

Chapter 5

The Nature of History in the Book of Mormon

The Book of Mormon is often called a history, but readers may be puzzled as to what kind of history it contains. The record starts as a memoir of Nephi₁, who lived at ancient Jerusalem as a young man. He begins it in “the first year of the reign of Zedekiah, king of Judah” (1 Nephi 1:4, 598–597 BC). Thereafter historical references were occasionally incorporated in the record as successor scribes added their writings, yet many readers find that the book’s religious teachings are so obtrusive that the sequence of events seems less than clear. Furthermore, the coverage is hugely uneven. Sixty-two percent of the Book of Mormon text deals with one 160-year period (130 BC–AD 30), while events of the next three centuries are treated tersely in only four pages—less than 1 percent of the text. The record is obviously not a history as that term is normally used today.

In general terms, the volume resembles such ancient historical accounts as that of Abraham and his descendants as recorded in the Old Testament or Torah. The intent of this kind of record is not primarily to tell of a sequence of events that happened at a given time and place, it is to record influential events and actors that shaped the development of a particular social group—usually a kin-based one—and to explain and justify its relationships to other groups. Carmack usefully characterized these “lineage histories” in ancient Guatemala as “charters of the existing social order.”¹ Reynolds interpreted the Nephite record as quasi-political. “The great political question among

1. Robert M. Carmack, *Quichean Civilization: The Ethnohistoric, Ethnographic, and Archaeological Sources* (Berkeley: University of California Press, 1973), 18.

the [primary] Book of Mormon peoples was ‘Who has the right to rule?’”² The choice was between Nephi₁ and his descendants or Laman₁, Lehi’s oldest son, and his descendants. “Nephi carefully constructed [his record],” wrote Reynolds, “to convince his own and later generations that the Lord had selected him over his older brothers to be Lehi’s successor,” and later historians in his line repeated and bolstered that pro-Nephi₁ argument.

The Jaredite record, under the title “The Book of Ether,” displays even more clearly the highly selective nature of this sort of history. That book encapsulates the origin story of Jared’s lineage, lists the sequence of rulers or claimants to the throne among them, and draws moral lessons from the group’s uneven history and demise. The limited scope of historical information it involves is illustrated by the capsule account of one King Levi, who, we are told, “did make war against the king of the land, by which he did obtain unto himself the kingdom. And after he had obtained unto himself the kingdom he did that which was right in the sight of the Lord; and the people did prosper in the land; and he did live to a good old age, and begat sons and daughters” (Ether 10:15–16). From such snippets of historical documentation, it is barely possible to make out a dynastic sequence, let alone a general historical narrative.

Also of interest is what the record omits. We learn almost entirely of the descendants of Jared, although his was but one out of probably eight lineages involved (Ether 1:6–32; 3:1; 6:14–16). Descendants of the “brother of Jared,” who was founder of another prominent lineage, are ignored in the book, except for one unnamed man who was counted an interloper (Ether 11:17) by the record keeper, who was obviously of Jared’s line. Almost the entire history is cryptic in the extreme. Thus we read: “When Hearthom had reigned twenty and four years, behold, the kingdom was taken away from him. And he served many years in captivity, yea, even all the remainder of his days. And he begat Heth, and Heth lived in captivity all his days” (Ether 10:30–31), and so on for five more generations. The account clearly was centered on the line of kings (descended from Jared) whom the lineage historians considered legitimate, even though those kings may not have

2. Noel B. Reynolds, “Nephi’s Political Testament,” in *Rediscovering the Book of Mormon*, ed. John L. Sorenson and Melvin J. Thorne (Salt Lake City: Deseret Book and FARMS, 1991), 220–21.

ruled in fact. The historians at this point paid little attention to what was actually going on among the people; their concern was to document the captive claimants to the throne who were of the nominal royal line.

This ethnocentric form of historiography is not quite so obvious, but still is dominant, with the Nephite writers many centuries later. For example, the people of Zarahemla were said to outnumber the true Nephites (Mosiah 25:2), yet the record keepers devote only some 500 words in the entire book to the Mulekites. Why? Because that demographic majority was counted by the historians as not playing any significant role in defining or challenging the hegemony of the Nephite rulers; hence they were ignorable in the eyes of the record keepers.

So Book of Mormon historians were not “value-free” recorders of events, as some modern historians claim to be. Moroni₂ announced on the title page of his father’s volume that the history he completed after his father’s death aimed to shape the opinions of its readers: “to show unto the remnant [of his people] what great things the Lord hath done for their fathers” (Book of Mormon title page).

Historical documents with equally limited intentions are well known from Mesoamerica. For example, the *Popol Vuh*, a book written by native Americans of highland Guatemala, had an equally restricted aim. Las Casas described the native codices as written in “figures and characters by which they could signify everything they desired.”³ He termed them “books of the state,” for they contained precedents for public matters of religion and government. The office of record keeper among the Quiché Maya was transferred patrilineally—in the father’s line—as was the Nephite office. All major political-descent groups among the Quiché Maya had such records and official scribes.⁴ The resulting books also served as symbols of importance to the ruling elite. “They gave information on past or future events and local or distant places, but also were themselves symbols of the political and religious authority of their owners.”⁵

Controlling the records as a means of controlling history and the ethnic

3. Bartolomé de las Casas, *Apologética historia de las Indias*, Nueva Biblioteca Autores Españoles 13 (ca. 1540; Madrid: Bailly, Bailliere e hijos, 1909).

4. Carmack, *Quichean Civilization*, 16.

5. Dennis Tedlock, “Mayan Books in Community and Nation: From the Postclassic

memory was common in Mexico. Davies observed, “The Aztecs wrote their own version of history to edify rather than to inform.” Historical records maintained in the hands of political dominants were subject to manipulation; the elites realized that uncontrolled historical records could be dangerous to the ruling dynasty. “The famous burning of certain books by [Aztec leader] Itzcoatl was hardly an isolated case, and the Maya were surely not alone in ritually destroying [some of] their carved texts. I am more than ever convinced the codices were destroyed at intervals and history was then rewritten to suit the ruler of the day.”⁶ Both the Mexica [Aztec] tribe and the rival people of Texcoco “won” when they came into conflict, depending on which source one reads.

The Nephite record was made by scribes from the upper strata of society. That meant that they reflected upper class, not commoners’, interests in what they chose to include or omit. No doubt the historians’ sources for factual information ultimately were fellow elites. So we find ethnic and class bias mirrored in what was written down. Davies further noted about Mexican histories, “We encounter a disconcerting degree of in-built bias and have to face the fact that Mesoamerican sources are seldom unprejudiced in their account.”⁷ Neither are the inscribed stone monuments from earlier times unbiased. Sanders saw “the strong likelihood that the ‘histories’ [recorded on stone] were deliberately manipulated for political ends” and thought “much of Mesoamerican political ‘history’ consists of outright propaganda.”⁸ Stone too, as well as other scholars, sees ideological manipulation rather than historical facts predominating in the record provided by the monuments.⁹

to the Present,” paper delivered at the 44th International Congress of Americanists, Manchester, 1982.

6. Nigel Davies, “The Aztec Concept of History: Teotihuacan and Tula,” in *The Native Sources and the History of the Valley of Mexico*, ed. Jacqueline de Durand-Forest (Oxford: BAR, 1984), 207.

7. Nigel Davies, *The Toltec Heritage: From the Fall of Tula to the Rise of Tenochtitlán* (Norman: University of Oklahoma Press, 1980), 14.

8. William T. Sanders, “The Epiclassic as a Stage in Mesoamerican Prehistory: An Evaluation,” in *Mesoamerica after the Decline of Teotihuacan, A.D. 700–900*, ed. Richard A. Diehl and Janet C. Berlo (Washington, DC: Dumbarton Oaks, 1989), 216.

9. Andrea Stone, “Disconnection, Foreign Insignia, and Political Expansion:

Bias against the Lamanites is visible in the Book of Mormon. Ammon recalled with distaste what the Nephites at Zarahemla had told him and his companions when they proposed to go preach to the Lamanites: “Do ye suppose that ye can bring the Lamanites to the knowledge of the truth? Do ye suppose that ye can convince the Lamanites of the incorrectness of the traditions of their fathers, as stiff-necked a people as they are; whose hearts delight in the shedding of blood; whose days have been spent in the grossest iniquity?” (Alma 26:24–25).¹⁰ Equal bias by the Lamanites against the Nephite political and ideological tradition convinced the latter faction that their enemies would, if they could, “destroy our records and us, and also all the traditions of our fathers” (Enos 1:14).

Overall, in purpose and social functions as well as in selectivity of coverage, the Book of Mormon as a record is typical of the lineage histories of antiquity. Neither the Nephite nor other accounts of the past were history in the modern sense. Both were meant to serve narrower purposes—that is, to defend, justify, and glorify a line of rulers and their achievements and values.

Teotihuacan and the Warrior Stelae of Piedras Negras,” in Diehl and Berlo, *Mesoamerica after the Decline of Teotihuacan*, 153–72.

10. Compare Jacob 3:5 and Mosiah 9:12; see further in John L. Sorenson “The Book of Mormon as a Mesoamerican Record,” in *Book of Mormon Authorship Revisited: The Evidence for Ancient Origins*, ed. Noel B. Reynolds (Provo, UT: FARMS, 1997), 433–35.

Chapter 6

About Correspondences

The text of the Book of Mormon can be compared with the findings of Mesoamerican scholarship at several levels. As an example, consider the story of the climactic battle in the land of Cumorah in which the Nephites were exterminated. Mormon's text says that the Nephite forces were organized in armies of 10,000 men (e.g., "Limhah . . . with his ten thousand; and Jeneum . . . with his ten thousand," etc., Mormon 6:14). According to Bernal Díaz, the Tlaxcalan forces whom Cortez met on his approach to the Aztec capital were organized into five armies: "of the followers of the old Xicotenga . . . there were ten thousand; of another great chief . . . another ten thousand; and of a third . . . there were as many more."¹ This comparison is interesting, although the single parallel does not constitute a particularly compelling evidence for a connection.

However, when additional related correspondences are considered, we are justifiably more impressed. So we note the action of Moroni, a chief commander of the Nephite armies, who mustered forces by writing an inspiring motto on a piece torn from his coat. He "fastened it upon the end of a pole" and "went forth among the people" (Alma 46:12, 19), assembling loyalists to his cause. They responded by arming themselves and running together to follow his command (v. 21). Bernal Díaz reported that Tlaxcalan

1. *Bernal Díaz del Castillo: The Discovery and Conquest of Mexico*, trans. Alfred Maudslay (New York: Farrer, Straus and Cudahy, 1956), 129. "In both Assyrian annals and the Old Testament, . . . 10,000 is used to denote an army." Donald J. Wiseman, "Archaeology and the Old Testament," in *Archaeology and the Bible: An Introductory Study*, ed. Donald J. Wiseman and Edwin Yamauchi (Grand Rapids, MI: Zondervan, 1979), 38.

commanders led their men to battle with a “great standard” or flag on a pole strapped to their backs.² This sounds like substantially the same custom.

Elsewhere we learn that “warriors serving under [a Mesoamerican military leader] were conceptualized in a kinship framework as ‘sons.’”³ We then note with interest Helaman₁ and the 2,000 youthful warriors whom he led and considered “my little sons” (Alma 56:39).

At this point we begin to sense that a complex of correspondences could exist between Mesoamerican martial customs and those reported in the lengthy warfare sections in the Book of Mormon (see further in chapter 18).

All parallels are not, of course, equal. Some are so striking that we cannot imagine them having originated independently by chance, while others appear less focused. But even the latter sort can be impressive when they appear along with other features in cultural complexes; in such circumstances we are justifiably reluctant to accept the correspondences as mere coincidental likenesses. Determining how persuasive a correspondence might be is no absolute thing. Similarities placed by different observers into different patterns may either persuade or fail to persuade other observers that historical links provide the explanation for the similarities. Scholars have discussed at length just what makes evidence in the form of correspondences or parallels most convincing in showing a direct tie between one area or culture and another.⁴

Scholars who see important cultural links in history between areas far apart are called “diffusionists” by the more orthodox, doubting majority. Most historians, archaeologists, and geographers fall into the latter category—“independent inventionists” or “cultural isolationists.” They believe that the

2. Hubert H. Bancroft, *Native Races of the Pacific States* (1875; repr., San Francisco: Bancroft, 1883), 2:412.

3. Robert M. Carmack, “Toltec Influence on the Postclassic Culture History of Highland Guatemala,” in *Archaeological Studies in Middle America* (New Orleans: Tulane University, 1970), 80.

4. For example, Stephen C. Jett, “Diffusion versus Independent Development: The Bases of Controversy,” in *Man across the Sea: Problems of Pre-Columbian Contacts*, ed. Carroll L. Riley et al. (Austin: University of Texas Press, 1971), 5–53; David H. Kelley, “Diffusion: Evidence and Process,” in Riley et al., *Man across the Sea*, 60–65; and Joseph Needham and Lu Gwei-Djen, *Trans-Pacific Echoes and Resonances; Listening Once Again* (Singapore: World Scientific, 1984).

occurrence of a very similar cultural feature in two distant areas is satisfactorily explained by assuming that the human mind operates in about the same manner around the world; if a technique, behavior, or idea could be developed in one location, they say, it could arise again in a second location. Little thought seems to have been given by such theorists as to how many times we could expect to find the same feature invented—exactly twice, or ten times, or a hundred? However, independent, duplicate inventions of cultural features of even moderate specificity, while often inferred, have rarely been factually demonstrated.

On the contrary, diffusionist scholars suppose that man is basically imitative—that is, rather uninventive—and hence duplicate inventions are inherently improbable. For them, what is convincing evidence for a historical connection between two areas comes down to a judgment that a historical connection is a more likely explanation for particular correspondences than independent invention. Kelley maintained that “strong evidence” consists of identifying “petty details” that human experience suggests to be so arbitrary that it is highly doubtful they would occur to multiple human minds.⁵ An example might be finding that a certain game was played in two areas far apart—say, Africa and Oceania—with detailed rules and equipment nearly identical. Such a case would constitute convincing evidence to many that some direct connection is called for. Jett favors evidence in the form of complexes of articulated traits. “The greater the degree to which [multiple] traits . . . cluster in space and time in separate parts of the world, the lower is the probability of their having arisen independently in the two areas.”⁶

Sometimes a transfer of culture from one area to another turns out to have been a matter of “stimulus diffusion” rather than of direct transfer.⁷ That is, the communication process has moved only an idea, not a package complete with details as practiced in the area of origin. For instance, the notion of decorative tattooing on a person’s face could spread to a new area by transfer of the basic idea, while the particular stylistic forms used on the second scene would be substantially different from the original. There may never have been a case in ancient times where the totality of a cultural

5. Kelley, “Diffusion: Evidence and Process,” 64.

6. Jett, “Diffusion versus Independent Development,” 41.

7. Alfred L. Kroeber, “Stimulus Diffusion,” *American Anthropologist* 42 (1940): 1–20.

pattern was diffused successfully, as existing preferences, social attitudes, and differences in resources between any two linked areas would give the notions received from abroad some degree of novel adaptation.

Difficulties may arise in proving cases of diffusion, but in certain instances no rational person can doubt a connection. For example, Stewart has reported a case where the characteristics are so bizarre that it seems beyond question that the complex he refers to was not invented independently. He reports a traditional tale from Guatemala in which a visitor visits a strange land. The local inhabitants are suspicious of his motives and decide to kill him. While constructing a house, he digs a deep hole in which a large post is to be placed, but he wisely takes the trouble to excavate a chamber in the side of the hole. His enemies dump the post into the hole, intending it to kill him, but he escapes by slipping into the side chamber.⁸ This story is told in essentially identical form in just two places in the world—in Guatemala and in certain islands in Micronesia. The details are so arbitrary and so far beyond any logic that the correspondence defies any explanation that the tale was an invention that sprang up twice from supposed “universal processes of the human mind.”⁹ It seems obvious that some person from Guatemala reached the islands and there told the story, or else an islander came to Central America and found interested listeners there.

The objective of this book is not primarily to consider the question of diffusion from one place to another, but we must employ the same sort of reasoning. Here the concern is whether a text that claims to record the history of an area—the Book of Mormon—is directly connected to the historical record that consists of the results of 150 years of archaeological research. One view of any similarities would be that they coincidentally reflect situations, events, or phrasings that only *appear* to correspond. In that view the documentary record would be similar to archaeological findings only by chance. A second and opposing view is that the two records correspond

8. Joe D. Stewart, “A Consideration of the Posthole Murder Motif,” in *Diffusion and Migration: Their Roles in Cultural Development*, ed. P. G. Duke et al. (Calgary, Canada: University of Calgary Archeological Association, 1978), 226–35; and Stewart, “Ethnohistorical Implications of a Mythological Theme in Micronesia and Mesoamerica,” *Canadian Journal of Anthropology* 4/1 (1984): 23–37.

9. Fred W. Voget, “Man and Culture: An Essay in Changing Anthropological Interpretation,” *American Anthropologist* 62 (1960): 946.

because they are about the same events, people, or cultures. For one to be persuaded of the second interpretation, he or she must find that the mind cannot conceive of the two records (textual and archaeological) having recorded such arbitrary, detailed, and specific similarities by sheer coincidence.

Not infrequently we are uncertain what date to assign a feature we are comparing. A case in point involves a custom found in Mexico when the Spanish conquistadors arrived there. The Aztecs would build large wooden racks in the center of a dominated community upon which they mounted the skulls of enemy casualties of their war of conquest. Presumably a subject people would be inhibited in rebelling against their conquerors as long as they saw each day in their community such a vivid display advertising the harsh fate of rebels. But was this only a late custom thought up by the Aztecs, as was once thought? No. The practice apparently had a long history only recently clarified. Excavation in the 1980s at a site in northern Oaxaca that dates between 300 BC and AD 200 has revealed the fallen remains of just such a skull rack.¹⁰ The two instances of this cultural feature, the Aztec and the early Oaxacan, can now be seen to span almost a millennium and a half. Many aspects of culture are probably equally stable and conservative, but because Mesoamerica has few surviving written records, our knowledge of much of the ancient culture, especially in the area of ideas and beliefs, is limited. For that reason Mesoamericanist scholars commonly project back in time many features of the conceptual systems documented by the Spaniards from the period of their conquest. We shall do the same.

A further example of how long features of ideology can endure involves a theme noted in the *Popol Vuh*, the sacred record of the Quiché Maya people of highland Guatemala. In it we read of ancient Hero Twins who confronted a variety of underworld enemies, such as the bird deity Vucub Caquix (in English, Seven Macaw). One of the Twins, Hunahpu, is said to have defeated Seven Macaw by shooting the bird with a blowgun as it perched in a tree. In the course of their confrontation, the bird tore off Hunahpu's forearm. The written version in the *Popol Vuh* was recorded in a European-style book sometime around 1550, but it is likely to have been

10. Elsa M. Redmond, *A Fuego y Sangre: Early Zapotec Imperialism in the Cuicatlan Cañada, Oaxaca*, *Studies in Latin American Ethnohistory and Archaeology* 1 (Ann Arbor: University of Michigan, 1983), 28–29, 129 fig. 49.

derived from a pre-Columbian hieroglyphic manuscript. Yet the story of Hunahpu and Vucub Caquix is plainly illustrated on a painted Classic Maya vase¹¹ dating to the first century AD, and the story was already known as early as the second or third century BC, for it is also shown on Stela 25 from Izapa (see fig. 6.1).¹² Thus a specific belief is documented by archaeology as persisting among the Maya for as much as 1,800 years. This sort of conservatism exhibited in many aspects of Mesoamerican culture makes it likely that those elements that prevailed when the Spaniards arrived—especially in the areas of ritual, beliefs, and myths—can confidently be projected back in time.

All this means that while we do not have direct access to records detailing ancient Mesoamerican beliefs, late sources, even sources from the period when the Spaniards arrived, give us important information about the past. This fact proves invaluable as a basis for our search for correspondences between ancient Mesoamerican civilization and the 1,600-year-old Book of Mormon.

In this volume, correspondences vary between two levels of persuasiveness. Some correspondences are so specific that there seems to be no explanation for their occurrence in both the Book of Mormon and data from archaeology or anthropology other than that some literal historical sharing must have occurred. Other correspondences are somewhat less striking, yet given the context provided by the strongest correspondences, it seems very likely that those that are less focused also are best explained as the result of direct historical connection rather than by a mental inventionism.

One other methodological qualification needs to be noted. Some social and cultural correspondences that follow are drawn from various regions within Mesoamerica. Ideally, one could hope to find reports of those features from zones thought to represent actual lands inhabited by Book of Mormon peoples. Unfortunately, severe limits on the range of information available from archaeology and related sources within those particular regions

11. David A. Freidel et al., *Maya Cosmos: Three Thousand Years on the Shaman's Path* (New York: William Morrow, 1993), fig. 2.7.

12. V. Garth Norman, *Izapa Sculpture: Part 1, Album*, New World Archaeological Foundation Papers 30 (Provo, UT: BYU New World Archaeological Foundation, 1973), plate 42.



Figure 6.1. The shooting of Vucub Caquix by Hunahpu

do not allow us to establish such specific correspondences. Fortunately, Mesoamerica is a “culture area” in which there was wide occurrence of cultural patterns throughout most, if not all, of the area. Even though recorded traditions or archaeological findings so far fail to document particular details in every region, it is assumed by scholars that many of those features were known generally throughout most or all of Mesoamerica. Thus I draw upon correspondences from wherever in the culture area certain features or traits happen to be known. This legitimate research stance is applied cautiously throughout archaeological and cultural studies worldwide.

Part 2

CORRESPONDENCES BY TOPIC

In this section, correspondences between the Book of Mormon and data on Mesoamerica are identified according to sociocultural topics.

Chapter 7

Geographical Correspondences

The geographical background of the Nephite record is revealed in information that the writers included only incidentally in their accounts. Some 600 statements in the record reflect the lay of the promised land. When these statements are exhaustively examined, they reveal that Mormon and all the earlier record keepers shared all or parts of the same mental map of their land. Some writers were directly acquainted with more areas and more details about the geography than others, but their statements never contradict one another. This consistency of information indicates that the authors had firsthand experience of a specific physical scene. Most notably, Mormon, the principal military commander of the Nephites during their final century and the author/compiler of the book, operated over most of that space and gave us particularly comprehensive map information.

The general “land of Nephi” was an upland physiographic unit. It is invariably said to be reached by traveling “up,” both from “the borders by the west sea” and from the land of Zarahemla. Consistency is also shown in references to the “river Sidon.” Its waters were considered to originate in a mountainous “narrow strip of wilderness” through which parties passed when going from Nephi to Zarahemla or vice versa. In early Nephite history, movements of parties within the land of Nephi were frequently through intervening and widespread “wilderness,” as though islands of civilization formed an archipelago scattered in a sea of uninhabited wilderness. In general, but not necessarily at every point in the text, the term *wilderness* connoted a forested area, judging by people’s ability to hide or get lost in it.

In later parts of the narrative, the population had, of course, filled in more of the once-uninhabited areas and wilderness is less frequently mentioned.

Because of the consistency with which features of the internal geography are mentioned, the book holds out the prospect that we can discover the actual physical geography based on statements in the text. In that case we then may be able to identify where in the real world the events of the record were played out. That step requires, first of all, a synthesis of the internal geographical data. One such synthesis is summarized in chapter 2 and appears in greater detail in two previous books, *The Geography of Book of Mormon Events* and *Mormon's Map*.¹

Chapter 2 also summarized the next step—identifying the area in the New World that fits best the text-based geography. The most crucial data in making that correlation relates to the advanced cultural nature of the Nephites' area as sketched in the text. There are many statements about cities, and even "great cities," in the world of the Nephites. Large-scale wars were carried on; the size of the forces engaged means that the total population ranged upward to a few million. The historically documented groups were often literate; books were kept in multiple scripts.

It is evident that the Nephite lands were the home of a civilization. That being so, the area would have to be located in the civilized part of the ancient New World. Given also that a critical feature of their physical world was a narrow neck of land (isthmus) bounded by oceans, no geographical correlation can qualify except Mesoamerica or a portion of it, for only there were large cities, major populations and wars, and books found anciently around an isthmus. But more specifically, where within Mesoamerica can the record and its peoples have been located? Correspondences between physical details in Mesoamerica and in the Book of Mormon allow us to pin down the area involved.

Distances in Book of Mormon Geography

The physical data needed to place Mormon's map in the real world starts with the spatial dimensions of the territory the Nephites considered theirs. Journeys recorded in the book give us an approximate measure of distances.

1. John L. Sorenson, *The Geography of Book of Mormon Events: A Source Book* (Provo, UT: FARMS, 1992); and Sorenson, *Mormon's Map* (Provo, UT: FARMS, 2000).

Particularly valuable for this purpose is the account of the journeys that Alma¹'s people took (Mosiah 23:1–4; 24:20–21, 24–25) in moving between the city/land of Nephi and the land of Zarahemla. In total the trip consumed about 22 days, mostly through mountainous terrain. By comparing that movement with the pace of parties of somewhat similar size in the mountains of Mesoamerica as reported in the centuries since the Spanish conquest, we arrive at an approximate measure in terms of miles.

The best estimate for the distance of such a journey is 180 miles in a straight line.² Using that figure as a standard to establish the distances involved in other journeys, we arrive at a series of estimated dimensions for the entire area where the events in the Book of Mormon occurred. The distance from the city of Nephi to the hill Cumorah, the site of the final Nephite battle—the Dan to Beersheba, as it were, of Nephite geography—was probably around 500 miles.³ The width of the land southward occupied by the Nephites seems to have been about 200 miles maximum. Along the borders by the east sea in the land southward, the maximum extent of Nephite territory was only some 85 miles; on the west sea side, the distance could not have been less than about 350 miles between the isthmus and the southernmost land mentioned by Lehite scribes, which is where the immigrant party first landed. The Nephite-occupied zone in the land northward probably did not far exceed 100 miles beyond the “line” across the neck.

A second datum from the Book of Mormon confirms these dimensions. When King Limhi ruled over the Zeniffites in the land of Nephi, he sent a party to try to locate Zarahemla, from where their ancestors had come three generations before (Mosiah 8:7–8). The explorers were lost in the “wilderness” but at length reached the area in the land northward where the Jaredites had lived and were killed off. Upon their return to the land of Nephi, they reported that the ruins they had encountered must have been those of Zarahemla, which they thought had been destroyed. Actually, they bypassed Zarahemla and all the Nephite-Mulekite settlements. They had traveled through the narrow neck to the Jaredite area around the hill Ramah, the same hill as the Cumorah of the Nephites. On such a trek, they

2. John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1985), 9–10; and Sorenson, *Mormon's Map*, 55–58.

3. Sorenson, *Mormon's Map*, 56–58.

could not possibly have traveled more than a few hundred miles and still believed they had only reached Zarahemla. (They had in fact passed through the “narrow neck” without realizing that they were no longer in the land southward, where Zarahemla was.)

With dimensions and cultural characteristics like those just pointed out, the land of promise of Lehi’s descendants fits comfortably in central and southern Mesoamerica, extending on both sides of the Isthmus of Tehuantepec. No other location qualifies.

Objections have been raised that this correlation (or any correlation that takes the Isthmus of Tehuantepec as the narrow neck) must be in error because of two supposed failings: (1) the actual width of the isthmus is too great to qualify as a “narrow” neck; and (2) this correlation fails to label directions accurately; that is, the isthmus is oriented more nearly east–west than some people expect between lands that the text labels “northward” and “southward.” These criticisms have been dealt with before;⁴ they prove not to be justified.

The adjective *narrow* is, of course, a subjective term. We cannot establish absolute limits on the basis of such a term alone. The account of Limhi’s exploring party establishes that a party of “diligent” men could pass twice through the “narrow neck” without realizing the fact. This clearly says something important about how “narrow” the neck was and was not.⁵

In Alma 22:32 we learn that the width of the narrow neck was “a day and a half’s journey for a Nephite, on the line” (more or less across the isthmus) that separated the land Bountiful in the land southward from the land Desolation in the land northward.⁶ Nowhere in the text is any

4. Sorenson, *Ancient American Setting*, 16–17, 29–30; and Sorenson, *Geography of Book of Mormon Events*, appendix C.

5. John J. Williams, *The Isthmus of Tehuantepec, Being the Results of a Survey for a Railroad to Connect the Atlantic and Pacific Oceans* (New York: Appleton, 1852), 139–40, reported that the isthmus on the Gulf of Mexico side appeared as a vast forested plain when the countryside was viewed from the occasional random peak. That is, the sea could not be seen from inland. It would have been possible for Limhi’s explorers to pass through the Isthmus of Tehuantepec without detecting that it was a “neck” at all.

6. Helaman 4:7 reports a different fortified line. In length it was “a day’s journey for a Nephite, on the line which they had fortified and stationed their armies to defend their north country.” Some writers on Book of Mormon geography have mistakenly supposed

definite criterion given for plausibly translating “a day and a half’s journey” in terms of miles. If the “line” was a large river, as is logical enough, perhaps “a Nephite” traveled by watercraft down the stream. Or the travel referred to could have been made by a series of messengers traveling on an established courier route. The Aztecs, as well as the Incas of Peru, used messengers on established routes to run from post to post conveying messages or special goods. They traveled as much as 300 miles per day.⁷

Given such a range of possible travel distances, the Nephite “day and a half’s journey” would not be implausible for the actual distance across the Isthmus of Tehuantepec of about 118 miles from salt water to salt water.⁸

that this line also went across the narrow neck, but the wording makes clear that this was not so, for verses 5 and 6 state that the Nephite forces had only been driven “into the land of Bountiful” and made their stand in “the land which was near the land Bountiful,” that is, still in the land southward and short of the narrow neck. This defense line ran “from the west sea, even unto the east,” but not to the east sea. The defense line probably stretched from the west sea eastward to terminate at impassable mountains along the Continental Divide.

7. Victor W. von Hagen, *The Desert Kingdoms of Peru* (London: Weidenfeld and Nicolson, 1964), 130, 176; Francesco Saverio Clavigero, *The History of Mexico* (1590; London: 1787), 1:345–46; and Ross Hassig, *Trade, Tribute, and Transportation: The Sixteenth-Century Political Economy of the Valley of Mexico* (Norman: University of Oklahoma Press, 1985), 32.

8. Matthew Roper, “Travel across the ‘Narrow Neck of Land,’” *Insights* 20/5 (2000): 2. (This newsletter of the Neal A. Maxwell Institute for Religious Scholarship, Brigham Young University, can be accessed online at <http://maxwellinstitute.byu.edu/publications/insights/>.) The nominal width of 132 miles across the isthmus is from beach to beach, but the effective distance of Alma 22:32 must have been less. “A Nephite” would be concerned to go only between important settlements that could have been some distance inland from the sea. Moreover, according to the natural history data included in John C. Spear, “Report on the Geology, Mineralogy, Natural History, Inhabitants, and Agriculture of the Isthmus of Tehuantepec,” in Robert W. Shufeldt, *Reports of Explorations and Surveys, to Ascertain the Practicability of a Ship-Canal between the Atlantic and Pacific Oceans by the Way of the Isthmus of Tehuantepec* (Washington, DC: Government Printing Office, 1872), 102, 104, until around 1820 the lagoon on the Pacific side “covered a much larger tract of country than . . . now,” for since that time the beach has been “continually advancing and encroaching on the sea along this shore.” That is, the distance from beach to beach used to be somewhat shorter. On the Pacific side of the isthmus, the extensive Laguna Superior stretches inland 16 miles from the extreme outer beach, further reducing the effective ancient width. All told,

Directions

Some students of the subject have supposed that the modern European system of cardinal directions (north, south, east, west) seems so obvious and universal that the “north,” “south,” “east,” and “west” of the Book of Mormon text must coincide with modern directions. But an examination of the logic about direction systems in various cultures, ancient and modern, contradicts that assumption.⁹

No single direction scheme is universally obvious for every culture. Around the world, hundreds of schemes of logic and labels have been used to establish and identify directions. Historical tradition rather than any semantic logic exerts the strongest influence on direction terminology.¹⁰ It might be thought that the North Star, Polaris, is an unfailing indicator of “north,” the direction to the earth’s polar axis, yet astronomers know that because of the phenomenon known as precession, Polaris was not in a position as a “north star” during the period from about 1500 BC to perhaps AD 1000.¹¹ Moreover, one might argue that “east” is always reckoned from the point where the sun rises, but the sun rises at exact cardinal east on only two days each year.

Various peoples have labeled in very different ways the points on the horizon where the sun rises or sets at marker days such as the solstices. To the Aztecs of central Mexico, “the directions south, east, north, and west were viewed not as distinct points, but as quadrants. . . . The entire realm of horizontal space was, therefore, divided into quarters” rather than being defined in terms of four cardinal points.¹² The Maya had the same notion.

it is not implausible that the distance a Nephite had to travel across the narrow neck at the time of Alma 22 could have been effectively little more than 100 miles.

9. See Sorenson, *Geography of Book of Mormon Events*, appendix C, for a full discussion.

10. Cecil H. Brown, “Where Do Cardinal Direction Terms Come From?” *Anthropological Linguistics* 25 (1983): 121–61.

11. *Merriam-Webster’s Collegiate Encyclopedia 2000*, s.v. “Polaris”; also astronomer Hollis R. Johnson’s “The Pole Star and North” (unpublished manuscript, May 1977).

12. Frances F. Berdan, *The Aztecs of Central Mexico: An Imperial Society* (New York: Holt, Rinehart, and Winston, 1982), 122.

Hanks says, "It is clear that the cardinal points are defined as regions."¹³ Tedlock agrees for the Quiché of highland Guatemala,¹⁴ and Vogt emphatically states that none of the contemporary Maya directions are precisely equivalent to our Western notion of horizontally fixed cardinal points.¹⁵ Watanabe argued that the Mayan languages lack terms for the cardinal directions,¹⁶ while Brotherston said that "except for those in Yucatec [Mayan], . . . Indian words for direction do not even *suggest* a system of our cardinal points. . . . Talking of the four cardinal points of the Mesoamerican world as if they were [the same as] ours actively hinders appreciation of its science and its art."¹⁷

The concept of "quarters of the land" is found in the Book of Mormon, as it was in the ancient Near East.¹⁸ At one point in time the Nephites "began to scatter abroad upon the face of the earth, yea, on the north and on the south, on the east and on the west, building large cities and villages in all quarters of the land" (Mosiah 27:6). The Book of Mormon refers to "four quarters" six times (1 Nephi 19:16; 22:25; 3 Nephi 5:24, 26; 16:5; Ether 13:11).

At present, the cultural sources behind the ideas and terminology of the Book of Mormon direction system partially elude us, although general parallels are reminiscent of both the Near East and portions of Mesoamerica. In the Near East, sometimes directions were set by solar astronomy and based

13. William Hanks, *Referential Practice* (Chicago: University of Chicago Press, 1990), 299.

14. Barbara Tedlock, *Time and the Highland Maya* (Albuquerque: University of New Mexico Press, 1992), 176.

15. Evon Z. Vogt, "Cardinal Directions and Ceremonial Circuits in Mayan and Southwestern Cosmology," *National Geographic Society Research Reports* 21 (1982): 487.

16. John M. Watanabe, "In the World of the Sun: A Cognitive Model of Mayan Cosmology," *Man* 18 (1983): 720.

17. Gordon Brotherston, "Mesoamerican Description of Space, II: Signs for Direction," *Ibero-amerikanische Archiv* 1 (1976): 41, 59 (emphasis in original).

18. John L. Sorenson, "The Settlements of Book of Mormon Peoples," in *Nephite Culture and Society: Collected Papers*, ed. Matthew R. Sorenson (Salt Lake City: New Sage Books, 1997), 136–37; and M. O'Connor, "Cardinal-Direction Terms in Biblical Hebrew," in *Semitic Studies in Honor of Wolf Leslau*, ed. Alan S. Kaye (Wiesbaden, Germany: Harrassowitz, 1991), 2:1153, refers to "the basic ancient Near Eastern view of the cosmos as being made up of four quadrants or quarters."

on close attention to where the sun was located on the horizon on solstice days. Directions in some cultures of Mesoamerica depended on sighting certain stars as they arose above the horizon.¹⁹ Even the use of earth magnetism played a role in setting directions at times.²⁰ There was no single system for determining and labeling directional quadrants in either the Near East or Mesoamerica, but rather a number of options. For example, the model prevailing in ancient Israel defined east by supposing that the observer faced the position of sunrise on the horizon on a day midway between December 21 and June 21; the other directional quadrants were then labeled, in turn, “to the back” (west), “on the right hand” (south), and “on the left hand” (north). But even in that system, references were not straightforward. In the Hebrew scriptures, for example, “the land of the north generally refers to Babylon,”²¹ which is actually east, while to the Babylonians the Persian Gulf toward their south-southeast was called “the sea of the rising sun.”²²

Sumerian, Babylonian, and Assyrian direction terminology was actually based on the prevailing winds in Mesopotamia. Winds were conceptualized as blowing from the northwest (considered “north”), the northeast (“east”), southeast (“south”), or southwest (“west”) quadrants. Their maps

19. James W. Dow, “Astronomical Orientations at Teotihuacan: A Case Study in Astro-Archaeology,” *American Antiquity* 32 (1967): 326–34; José Fernandez, “A Stellar City: Utatlán and Orion,” paper presented at Time and Astronomy at the Meeting of Two Worlds, Warsaw, Poland, 1992; and Philip P. Arnold III, “Fertility,” in *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*, ed. David Carrasco (Oxford: Oxford University Press, 2001), 1:405.

20. Peter D. Harrison, “Ancient Maya Architecture,” in *Maya: Treasure of an Ancient Civilization*, ed. Flora S. Clancy et al. (New York: Harry N. Abrams, Albuquerque Museum, 1985), 84–96; Bernd Fahmel Beyer, “El empleo de una brújula en el diseño de los espacios arquitectónicos en Monte Albán, Oaxaca, México: 400 A.C.–830 D.C.,” *Revista española de antropología americana* 23 (1993): 29–40; John B. Carlson, “Lodestone Compass: Chinese, or Olmec Primacy?,” *Science* 189 (1975): 753–60; and Vincent H. Malmström, “Knowledge of Magnetism in Pre-Columbian Meso-America,” *Nature* 259 (1976): 390.

21. Roger N. Carstensen, “The Book of Zechariah,” in *The Interpreter’s One-Volume Commentary on the Bible* (Nashville: Abingdon, 1971), 505.

22. Eckhard Unger, “Ancient Babylonian Maps and Plans,” *Antiquity: A Quarterly Review of Archaeology* 9 (1935): 321.

were drawn with what we call northwest at the top.²³ In one Egyptian system, an observer faced up the Nile River (south),²⁴ and north was at his back. However, in the Fayyum oasis to the west of the Nile, directions were reckoned on local landmarks; south and north were 45 degrees askew from the Nile-based system.²⁵ Obviously there was no universal, or even general, system of cardinal directions in use anciently in the area from which Lehi's party came. In fact, Brown concluded on the basis of comparative vocabulary that there is "little basis for proposing any great antiquity for any cardinal direction term" anywhere.²⁶

Book of Mormon direction terminology in America derived from a Lehite cultural framework, and we have little information about the exact nature and logic of that aspect of the culture.²⁷ We can be sure that Nephite "north" or "northward" made reference to a direction, probably a quadrant, and that was an approximation to our north, although it did not match exactly what our term means (or else why add the suffix *-ward* at all?). But of the semantic niceties of Nephite directions in their promised land, we cannot be sure.

23. Unger, "Ancient Babylonian Maps and Plans," 319–20; and Samuel H. Hooke, *Babylonian and Assyrian Religion* (Norman: University of Oklahoma Press, 1963), 42.

24. William J. Hamblin, "Directions in Hebrew, Egyptian, and Nephite Language," in *Reexploring the Book of Mormon*, ed. John W. Welch (Salt Lake City: Deseret Book and FARMS, 1992), 183–86.

25. Horst Beinlich, *Das Buch vom Fayum* (Wiesbaden, Germany: Harrassowitz, 1991), 1:302–6, drawn to my attention by John Gee.

26. Brown, "Where Do Cardinal Direction Terms Come From?," 122.

27. In *An Ancient American Setting for the Book of Mormon*, 39, I proposed how Israelite immigrants to the Pacific coast of southern Mesoamerica might have adapted the Hebrew direction system to the geographical peculiarities of their newly colonized area. Since the Hebrew term for westward was *yamah*, meaning "toward the sea," in everyday usage the newcomers would refer to the direction of the sea at their backs as *yamah*. But of course the coast in that area, unlike the eastern coast of the Mediterranean, would have lain actually to the *southwest*. If the other three terms of the scheme were then applied, "to the fore," the Hebrew term for east, would also be skewed by about 45 degrees from the system as applied in the Levant, and "on the right hand" (south) as well as "on the left hand" (north) would also fit the geographical facts of the area. Thus "the east" of the Popol Vuh would correctly refer to the Gulf coast/Campeche area; see Adrián Recinos et al., trans., *Popol Vuh: The Sacred Book of the Ancient Quiché Maya* (Norman: University of Oklahoma Press, 1950), 68–69.

General Configuration and Characteristics of the Lands

Map 3 is a version of Mormon's map as established on the basis of the text of the Book of Mormon (see map 1) but positioned direction-wise to compare with map 4, which shows Mesoamerica. The dual display shows a congruence sufficient to make sense of Nephite historical geography in the real world. Mormon's uplands, lowlands, isthmus, rivers, and other features agree closely enough with similar features in Mesoamerica that the correspondence is visually striking.²⁸

Writers on geography have usually interpreted this overall configuration as an hourglass shape. However, no description in the text hints at the form of the northerly or southerly extremities.

Other broad correspondences between Mormon's map and the geography of Mesoamerica come readily to mind:

1. The presence of an upland sector composed of a cluster of "hills" near the east sea and not far northward from the narrow neck coincides with the Tuxtla Mountains area.
2. The land southward, which extended from the isthmus/neck along a mountain range, was divided generally in two parts—an elevated land of Nephi (corresponding to highland Guatemala) and a northerly sector, called the land of Zarahemla, at intermediate elevation (essentially the Central Depression of Chiapas).
3. Every indication from the text is that the climate was tropical or semitropical. No reference or hint is ever given regarding the presence of cold, snow, or ice, but exhausting heat and tropical fevers are noted (Alma 51:33; 46:40), and many people went about almost naked (Mosiah 10:8; Alma 43:20).

28. 2 Nephi 10:20 reflects Nephite thinking: "We are upon an isle of the sea." Similarly, until 1523 Yucatan was considered an island, "since on three sides it is surrounded by the sea." Alfred M. Tozzer, ed. and trans., *Landa's Relación de las Cosas de Yucatan: A Translation*, Peabody Museum of American Archaeology and Ethnology Papers 18 (Cambridge, MA: Harvard University, 1941), 3. Following similar logic, Harvey noted that a Moorish noble referred to "this island of Spain." L. P. Harvey, "Yuse Banegas: Un moro noble en Granada bajo los reyes católicos," *Al-Andalus* 21 (1956): 301.

More Specific Points of Geographical Correspondence

A large number of specific geographical correspondences between Book of Mormon and external Mesoamerican features are also apparent. Each feature is designated in the text below by a capital letter within brackets (the letters *I* and *O* have been skipped). On maps 3 and 4, corresponding letters (unbracketed) show plausible locations.

[A] Nephite writers spoke of the land northward and the land southward as being separated by a defensible “line” directly at the narrow neck (Alma 22:32; 50:11; 3 Nephi 3:23). Southward from that line, at least in the area of the narrow pass, the land was a forested wilderness considered by Jaredites living on its north to be a game preserve (Ether 10:21). Northward the ecology must have been significantly different, for “the whole face of the land [there] . . . was covered with inhabitants” (Ether 10:19, 21). The “line” that could be defended would most plausibly be the large Coatzacoalcos River. It runs into the Gulf of Mexico, constituting a natural border between the territory northward and southward. Drucker has described the dramatic ecological contrast at that point as a “sudden change from the rolling red earth hills of Minatitlán [northerly from the river], which are a gradually descending extension of the foothills of the Tuxtla Mountains, . . . [in contrast] to the flat swamp plain [southward], just barely above sea level.”²⁹

[B] A highly specific correspondence occurs in the case of the “narrow pass which led . . . into the land northward” (Alma 50:34; at Mormon 2:29, looking in the opposite direction, it was called the “narrow passage which led into the land southward”). This pass provided the Nephites with their only feasible, or at least the only practical, route northward. That the language the text uses referred to a particular physical feature and not to the isthmus as a whole is evident in the tale involving the dissident Nephite leader Morianton. He tried to lead his followers through this pass into the land northward. Loyalist Nephite leaders feared this troublemaker might form a bloc that would limit the ability of the Nephites to retreat through the isthmian zone to escape their Lamanite enemies. In light of this threat, a Nephite military force hastened to the pass’s exact entrance, where they

29. Philip Drucker, *La Venta, Tabasco: A Study of Olmec Ceramics and Art* (Washington, DC: Smithsonian Institution, 1952), 4.

knew they would intercept the fleeing party as they approached on a converging route (Alma 50:32–35).

The critical role the “narrow passage” played in Nephite (and Jaredite) geopolitics was emphasized again three years later when a Lamanite army came northward intending to seize the strategic gateway. Adroit generalship headed off the leader of this force, Amalickiah, “as he was marching forth with his numerous army that he might take possession of the land Bountiful, and also the land northward” (Alma 51:30; compare 52:9, “that point”). And 400 years later the situation arose again—a Lamanite army was kept at bay by Nephite defense of this same narrow pass (Mormon 2:29). Apparently there was no other useful access via the isthmus to the Nephites’ “north country” (Helaman 4:7; Mormon 3:5–6).

Under premodern conditions of travel in the Isthmus of Tehuantepec area, there existed a precise correspondence to the “narrow pass” of the Book of Mormon. A US Navy survey party closely examined the isthmus in 1851 to determine a feasible route for an interoceanic railroad. In their report they described a “gravelly ridge” rising 150–200 feet above the nearby Coatzacoalcos River flatlands that were massively overflowed each rainy season.³⁰ The ridge’s southeastern terminus lay at a point called by the Spaniards Paso Nuevo (“new passage”), where the formation reached the river east of the city of Minatitlan. That point is the only place on the southeast side where land remains above the annual flood.³¹ The ridge runs westward from the river for over 30 miles (52 km) to near the community of Acayucan. It provided, and still constitutes, the only flood-free, year-round transportation route through the isthmus in a southward–northward direction. The pre-Columbian travel route traversed this formation as does the modern highway and railroad between central Mexico and Tabasco.

[C] Nephite colonists could “spread forth” on a route near the east sea (Atlantic coast) via the narrow pass into the land northward (Alma 63:4; Helaman 3:3–5). In contrast, there seems to have been no practical land route northward along or near the coast on the west side of the isthmus. Rugged hills reach the ocean along part of the 150-mile stretch of Oaxacan coastline in that correlated area. That explains why Nephite colonists living

30. Williams, *Isthmus of Tehuantepec*, 33–34.

31. Williams, *Isthmus of Tehuantepec*, 52–53.

near the west sea used ships to get to coastal settlements in the land northward (Alma 63:5–8) and why they depended on such vessels for continuing communication and supply (Helaman 3:10, 14).

The area of the land northward immediately beyond the narrow pass was called by the Nephites the land of Desolation. In the first century BC that area was deforested “because of the many inhabitants who had before inherited the land” (Helaman 3:3, 5–6), or so thought the historian. It was also considered a cursed area (3 Nephi 3:24). According to Berdan,³² of their four quadrants, the Aztecs considered the north sector (on the left hand for a person facing the sunrise) to be dry and barren. The notion probably descended from a much-older belief reflecting the virtually worldwide idea that the left hand was unlucky or cursed.³³

[D] On a number of geographical grounds, the archaeological site of Santa Rosa on the upper Grijalva River qualifies as the location of the city of Zarahemla.³⁴ Ruins of the former city are now submerged by waters backed up behind the Angostura Dam. Anciently the center was heavily dependent for subsistence on farming an area of highly fertile soil just upstream.³⁵ According to a Book of Mormon report of a first-century-BC battle that took place on the bank of the river Sidon, just above the city of Zarahemla, “the people were afflicted . . . for the loss of their fields of grain, which were trodden under foot and destroyed by the Lamanites” in the course of the battle (Alma 4:2). Such dire results from a single battle incident would be unlikely anywhere except in the narrow riverine agricultural setting of Santa Rosa (see chapter 16 herein for a fuller discussion).

[E] The Valley of Guatemala and its ruined ancient metropolis that goes by the modern name *Kaminaljuyu* correlate in many ways with the Book of Mormon (immediate) land and city of Nephi.³⁶ King Noah built there a

32. Berdan, *Aztecs of Central Mexico*, 122–23.

33. Charles E. Osgood, “The Cross-Cultural Generality of Visual-Verbal Synesthetic Tendencies,” *Behavioral Science* 5 (1960): 146–49.

34. Sorenson, *Ancient American Setting*, 152–57, 197–98.

35. Gareth W. Lowe, *Archaeological Exploration of the Upper Grijalva River, Chiapas, Mexico*, New World Archaeological Foundation Papers 2 (Orinda, CA: New World Archaeological Foundation, 1959), 43–45, 49–52.

36. Sorenson, *Ancient American Setting*, 141–48.

“very high tower” (pyramidal mound structure), from the top of which he could “overlook the land of Shilom, and also the land of Shemlon” (Mosiah 11:12). Sight lines from Kaminaljuyu to lands throughout the valley fit all the requirements for that royal viewing point. The text also discusses in considerable detail journeys and battles in the land of Nephi that conform in even fine points with the situation of Kaminaljuyu in the valley.³⁷ Archaeological details to be discussed later (chapter 23) further support placement of the city of Nephi at Kaminaljuyu.

The “wilderness” around Nephi had to have been forest. When the Zeniffites under King Noah “did flee into the wilderness” (Mosiah 19:9) to escape a Lamanite army coming upon them, the men could have escaped without their women and children by fleeing “farther into the wilderness” (v. 23). It is clear that “the wilderness” was immediately adjacent to the city (compare 22:6). Later, a Lamanite force was lost in the forest wilderness in that vicinity “for many days,” unable to find the way back home (23:30). When the Spanish conqueror Alvarado came into highland Guatemala, people in the settlements fled to escape subjugation; he sent parties to pursue them but could not apprehend them “on account of the great thickness of the forests.”³⁸

Of considerable interest is another correspondence, though it lacks a precise geographical focus that can be shown on the map. When Alma₁'s people fled to the “land of Helam,” they came upon an uninhabited valley where they settled (Mosiah 23:3–4). It was said to be “a very beautiful and pleasant land, a land of pure water.” For certain ceremonies conducted by the Maya people, it was necessary to obtain special ritual water, called *zuhuyha* (meaning “uncontaminated, virgin, fresh”), from underground.³⁹ It seems significant that Alma₁ wrote so pointedly of the “pure water” of the land of Helam. That expression sounds very Mesoamerican. Of the two

37. Sorenson, *Ancient American Setting*, 167–71.

38. Lawrence H. Feldman, *Papers of Escuintla and Guazacapan: A Contribution to the History and Ethnography of South-Eastern Guatemala*, Occasional Publications in Mesoamerican Anthropology 7 (Greeley: University of Northern Colorado, 1974), 9–10.

39. J. Eric S. Thompson, *The Rise and Fall of Maya Civilization* (Norman: University of Oklahoma Press, 1966), 192, 268, 275.

most plausible locations for this land,⁴⁰ one has water that “gushes out of an opening in the base of the Cuchumatanes Mountains” near an ancient ruin,⁴¹ while at the other possible location, some 20 miles away, springs “gush forth from beneath massive limestone beds” of the same mountains.⁴² The Maya would consider water from such a source to be “pure.”

[F] According to Ether 15:8, a large area of water (called Ripliancum, meaning “to exceed all”) formed a barrier to military movement farther northward from a point a little north of the cluster of hills near the east sea in the land northward. This Jaredite watery area evidently coincides with the complex of estuaries that receives the discharge from the Papaloapan River system into the Gulf of Mexico in central Veracruz. The nature and scale of that system (Mexico’s second-wettest drainage area) would block any flight northward of an armed force, in agreement with the account in the Jaredite text.

[G] About 35 miles west of Guatemala City lies Lake Atitlan, at about 5,100 feet (1,555 m) elevation⁴³ (see fig. 7.1). Its position in relation to other places named in the text, its size, and other criteria have led to a consensus among a number of students of the Book of Mormon that this lake can be identified as the “waters of Mormon” (Mosiah 18:4–8, 30; Alma 5:3).⁴⁴ Mosiah 18:30 reports of the waters of Mormon, “How beautiful are they to the eyes of them who there came to the knowledge of their Redeemer.”⁴⁵

In recent years the likelihood of this correlation has been strengthened by dramatic new archaeological information. Benítez and Samayoa

40. Sorenson, *Ancient American Setting*, 180–82.

41. A. Ledyard Smith, *Archaeological Reconnaissance in Central Guatemala*, Publication 608 (Washington, DC: Carnegie Institution, 1955), 11.

42. Felix Webster McBryde, *Cultural and Historical Geography of Southwest Guatemala*, Institute of Social Anthropology Publication 4 (Washington, DC: Smithsonian Institution, 1945), 32.

43. McBryde, *Cultural and Historical Geography*, 132–33.

44. Sorenson, *Ancient American Setting*, 176–77, 223–25.

45. Jorge L. Tamayo with Robert C. West, “The Hydrography of Middle America,” in *Handbook of Middle American Indians*, ed. Robert C. West (Austin: University of Texas Press, 1964), 1:114, report that it is “often said to be the world’s most beautiful lake.”



Figure 7.1. Lake Atitlan, Guatemala

first reported ruins of stone buildings under the waters of the lake.⁴⁶ They dubbed the site “Samabaj.” The remains found were 55 feet (17 m) beneath the present surface of the water some 500 feet off the south shore. According to Dunn, the bottom shelves out beneath the water from the south side halfway across the lake, then drops precipitously,⁴⁷ and it is on a portion of this shelf that Samabaj sits.

The site contains a pyramid and at least 10 monuments (altars and uncarved stelae). The stelae are of the same type as those found at highland sites that date to the Middle and Late Pre-Classic periods (600 BC–AD 200). In their discussion of the remains, Medrano and Samayoa conclude that “because of the intact state of the [ruins at Samabaj] . . . , it is inferred that the level of the water rose suddenly, submerging the island [to which the site

46. Henry D. Benítez and Roberto Samayoa, “Samabaj y la arqueología subacuática en el lago de Atitlán,” in *XIII Simposio de investigaciones arqueológicas en Guatemala, 1999*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2000), 2:849–54.

47: Henry Dunn, *Guatemala, or, the Republic of Central America, in 1827–8* (London: James Nisbet, 1829), 305.

is confined] some 2,000 years ago.”⁴⁸ Several hypotheses, all involving a volcanic event in the area, have been offered to explain this catastrophic rise in the lake level. Further underwater archaeological work is planned to clarify the habitation situation at that period.

A precise Book of Mormon correlation to this phenomenon is reported in Alma 21:1–2 and 3 Nephi 9:7. Around 90 BC, a city named Jerusalem was built by Lamanites and dissident Nephites not far from the city of Nephi. An aquatic feature near this Jerusalem was a body of water called the “waters of Mormon” (Mosiah 18:30; Alma 21:1).⁴⁹ Around AD 25–30, during the catastrophic destruction that took place among the Lehites at the time of the death of Jesus Christ in Palestine, this city was overwhelmed by “waters . . . [that came] up in the stead” of the city (3 Nephi 9:7) in a matter of hours. The geographical correlation followed in this book plausibly places the city of Jerusalem on the south shore of Lake Atitlan. The near agreement in time between the flooding described in the Book of Mormon city and the rise of the lake waters over Samabaj, as well as the seemingly abrupt manner of that rise, is striking. This correspondence is not simply an interesting minor parallel between text and nature; rather, it offers dramatic support for the overall geographical correlation that places the land of Nephi in highland southern Guatemala.

The natural catastrophe event reported in the Book of Mormon has been studied by scientists interested in the possibility that the physical phenomena described in the text might be externally documented. They have pointed out a number of ways in which details included in the Nephite record agree with the effects of earthquakes and eruptions that occurred in Central America and elsewhere.⁵⁰ Most statements about natural conditions contained in the scriptural account have parallels in disasters historically reported in Central America. This generalized agreement cannot be

48. Sonia Medrano and Roberto Samayoa Asmus, “Samabaj: Un sitio subacuático en el lago de Atitlan,” in *XXIII Simposio de investigaciones arqueológicas en Guatemala, 2009*, ed. Bárbara Arroyo et al. (Guatemala: Ministerio de Cultura y Deportes, 2010), 335–45.

49. Sorenson, *Geography of Book of Mormon Events*, 224.

50. Bart J. Kowallis, “In the Thirty and Fourth Year: A Geologist’s View of the Great Destruction in 3 Nephi,” *BYU Studies* 37/3 (1997–98): 136–90; and references in Sorenson, *Ancient American Setting*, 320–23.

specifically located on a map, as with others we are presenting; nevertheless, it is noteworthy.

[H] One interesting sidelight from the Nephite account is the tale of a man named Hagoth (Alma 63:5–8). Around 60 BC this “exceedingly curious” fellow built “an exceedingly large ship” on the coast of the west sea at the isthmus (“narrow neck”). Several other vessels were built there at the same time. These were sailed along the coast northward transporting colonists and supplies. Of particular interest here is the location of Hagoth’s shipbuilding facility.

The geographical correlate in Mexico for such an enterprise is somewhere on one of two large lagoons, Laguna Inferior or Laguna Superior, on the Pacific side of the Isthmus of Tehuantepec. These extensive inlets⁵¹ connect with the Gulf of Tehuantepec in the Pacific Ocean by a small gap in the coastal barrier. The protection afforded by these generally placid arms of the sea would have been ideal for Hagoth’s shipbuilding activity. Spanish conquistador Cortez started a shipyard in that very area.⁵² Timber from the forests in the middle of the isthmus is of excellent quality for shipbuilding. Williams noted of the region that timber from the mountains could be floated down the Chicapa River to the lagoons and used “for the construction of wharves, docks, ships, or other building purposes.”⁵³

The form of Hagoth’s ship is not reported, but it may well have been somewhat like the large rafts made of balsa logs from Ecuador that in pre-conquest times sailed as far north as west Mexico,⁵⁴ probably often with

51. Anciently, they were even more extensive, according to Matthew Wallrath, “Excavations in the Tehuantepec Region, Mexico,” *Transactions of the American Philosophical Society* 57/2 (1967): 9–10.

52. The exact site has yet to be discovered. See Max L. Moorhead, “Hernán Cortés and the Tehuantepec Passage,” *Hispanic American Historical Review* 29 (1949): 370–79.

53. Williams, *Isthmus of Tehuantepec*, 93.

54. Robert C. West, “Aboriginal Sea Navigation between Middle and South America,” *American Anthropologist* 63 (1961): 133–35; Presley Norton, “El señorío de Salangone y la liga de mercaderes: El cartel spondylus-balsa,” *Miscelanea antropológica ecuatoriana* 6 (1986): 131–43; Jorge G. Marcos, “De ida y vuelta a Acapulco con mercaderes de Mulla,” in *Arqueología de la costa ecuatoriana: Nuevos enfoques*, ed. Jorge G. Marcos (Guayaquil, Ecuador: Escuela Politécnica del Litoral; Corporación Editora Nacional, 1986), 163–96; and Michael D. Coe, “Directions of Cultural Diffusion,” *Science* 155 (1967): 185–86.

a stopover in the Tehuantepec zone. Balsa trees that grow in the isthmus could have been used for building some rafts.⁵⁵

[J] The west sea coast of Zarahemla was isolated from the Sidon valley (Alma 22:28, “on the west *of* the land of Zarahemla, in the borders by the seashore”).⁵⁶ Most of that narrow west sea littoral was never settled or defended by the Nephites, apparently long being left to a few harmless Lamanites (compare Alma 22:28). In the area’s culture history, the west coast of Chiapas constituted just such a little world separate from the Grijalva basin across the cordillera.

[K] The east sea of the Nephites was, of course, part of Atlantic Ocean waters, where the “city of Mulek” marked the point of arrival of the Mulekites from Palestine. Lehi’s party, on the other hand, arrived via the west sea to the land of their “first inheritance” (Alma 22:28; 1 Nephi 18:23) on the Pacific coast.

[L] The cordilleran mountain chain on the west of the Sidon River basin was a formidable obstacle. Ammon’s Lamanite refugees, pacifists whom the Nephites were concerned to shield from their vengeful brethren, were settled toward the west side of the basin in the land of Melek (Alma 8:3). The Nephites seem to have had no concern that a Lamanite army would cross over the mountains from the west coastal strip to get at the Ammonites, even though they had every opportunity to attempt that as their armies twice passed north via the coastal zone.⁵⁷

[M-1] There were only two practical ways for Lamanite armies on the west sea coast to reach the interior basin. One was via a pass over the

55. Moorhead, “Hernán Cortés,” 372. Incidentally, the Huave Indians, who live in fishing villages adjacent to Laguna Inferior, had a tradition that their ancestors came from Peru, undoubtedly by such rafts. Wallrath, “Excavations in the Tehuantepec Region,” 14.

56. Sorenson, *Geography of Book of Mormon Events*, 243.

57. Sorenson, *Geography of Book of Mormon Events*, 340 top, 243–44; compare Carlos Navarrete, “The Pre-Hispanic System of Communications between Chiapas and Tabasco (Preliminary Report),” in *Mesoamerican Communication Routes and Cultural Contact*, ed. Thomas A. Lee Jr. and Carlos Navarrete, New World Archaeological Foundation Papers 40 (Provo, UT: BYU New World Archaeological Foundation, 1978), 81–85. The barrier is shown in especially dramatic fashion in the photograph of a model of the Grijalva basin’s western limit in Lowe, “Archaeological Exploration,” fig. 63; compare Alma 16:2; 25:2; 35:13; 49:1.

mountain range west of the city of Ammonihah (Alma 16:2; 25:2; 49:1). [M-2] There was a second pass on the extreme southwest of the basin (see Alma 56:31–32), but the rugged terrain there would have made for a longer and more difficult journey. The Lamanites never attempted any move toward the land of Zarahemla between the two passes, but twice they came over the west wilderness mountains farther north to attack the city of Ammonihah (Alma 16:2–3, 9; 49:1). In Chiapas, only two routes led from the west coastal lowlands inland. One was above the site of Izapa, crossing the sierra and then dropping down toward the upper Grijalva River.⁵⁸ The other, the one in common use, was farther north and ran from Arriaga, not far from the sea, to reach the Cintalapa wing of the Central Depression with its ruined city of Mirador (Ammonihah). The correspondence is patent.

[N] Another correspondence consists in the fact that almost all ancient settlements in the Central Depression of Chiapas existed on the west side of the Grijalva River. A prolonged slope from the west brought the river's tributaries down from the Sierra Madre de Chiapas, while the east side of the basin rose quite abruptly from near the east bank of the river.⁵⁹ The Nephite account contains an obvious parallel to this arrangement. We are told that the river ran "by," not through, the land of Zarahemla (Alma 2:15; compare vv. 17–20 and 26).

[P] Accordingly, the hill Amnihu, on which the battle with the Amlicites was first fought (Alma 2:15), began its rise just east of the river, and the land thereabouts continued rising to the elevated land of Gideon, less than 20 miles from the river.⁶⁰ We can understand on the basis of this picture why only one Nephite city, Gideon, is ever mentioned clearly as located directly on the east of Zarahemla. This condition is met precisely by a geography that designates the Grijalva River as the Sidon.

[Q] Most of the area to the east of the Sidon basin was for the most part pictured by the Nephites as a wide, virtually impassable wilderness. When Lamanite armies tried to attack the Nephite settlements, they never approached from the east. Instead they were forced to go "round about" in

58. Lowe, "Archaeological Exploration," figs. 63, 64.

59. Shown clearly in Lowe, "Archaeological Exploration," 12, fig. 3.

60. Sorenson, *Ancient American Setting*, 150, 154; and Sorenson, *Geography of Book of Mormon Events*, 231.

the wilderness, passing from the east sea in a long march to get to what they thought of as a vulnerable point near the headwaters of the Sidon (Alma 43:22–33).⁶¹ This wilderness correlates with the eastern drainage from the highlands of Chiapas through the Lacandon area and adjacent forest. To go to or from the Gulf of Campeche through difficult-to-penetrate wilderness made it preferable to go around that obstacle.

[R] The area described as the “borders by the east sea” was a sizable lowland zone north and east of the core land of Zarahemla. The Nephites first occupied this coastal zone when faced with a military threat in that sector (Alma 50:6–9), but 40 years later the area had become so important to their normal interests that it constituted one-half of all Nephite-occupied territory in the land southward (Helaman 4:8, 10, 16; 5:14–16). The expansion northward that this rising importance of the “borders by the east sea” indicates was progressive, for in 60 more years the Nephites’ cultural/demographic center had become Bountiful, the city at the isthmus (3 Nephi 11:1ff.).⁶²

In physiographic terms, it is likely that the extensive east sea “borders” zone encompassed the delta of the Sidon River; only on such a plain (no hills or elevations are ever mentioned thereabouts in the Book of Mormon) is the flatland condition met. Actually, no direct reference in the text suggests where the big river reached the sea, but of course, with the continental divide to the west, the mouth of the biggest stream of concern to the Nephites had to flow into the east sea. Failure of the text to relate any Nephite encounters with the river in its lower course correlates with the fact that the Nephite-held east sea coast in the land southward was on the order of only 85 miles long.⁶³ The “line” that Moroni₁ fortified on these borders as

61. Sorenson, *Geography of Book of Mormon Events*, 255–56.

62. No indication is given in the Nephite account of who the first settlers of Bountiful were (the first mention is at Alma 22:29). It is plausible to suppose that the people there were Mulekites descended in part from Jaredite survivors. Coe and Diehl comment that because of an unusually beneficial moisture regime, harvests in the isthmus “are therefore bountiful.” This might be reason enough for the descriptive name, *Bountiful*, that the Nephites attached to the area. Michael D. Coe and Richard A. Diehl, *In the Land of the Olmec: The Archaeology of San Lorenzo Tenochtitlan* (Austin: University of Texas Press, 1980), 1:19.

63. Sorenson, *Geography of Book of Mormon Events*, 285–86.

defense against Lamanite aggressors (Alma 50:11, 13) logically would have been the lower course of the Sidon (although it might have shifted elsewhere in the delta at other times as distributaries in a delta are wont to do).⁶⁴

The plain of Tabasco corresponds in location and in its described and implied nature with Mormon's "borders by the east sea." The *Popol Vuh*, the sacred book of the Quiché Maya, refers to the Gulf Coast of Tabasco (and Campeche) as "the borders of the sea,"⁶⁵ and the area was also called "the east,"⁶⁶ although in modern directional terms in relation to Chiapas it appears to be north.

Furthermore, "the borders by the east sea" became integrated with the (greater) land of Zarahemla (see, for example, Alma 50 and Helaman 5:14–16) for social and economic purposes. In comparison, Lee observed that the lowlands of Tabasco, the Chiapas highlands, and the Central Depression of Chiapas at times in the past formed a substantially integrated symbiotic region in cultural and economic terms,⁶⁷ in essentially the same manner as the Book of Mormon portrays the land of Zarahemla coming together with the east sea borders.

[S] The highlands of Nephi were separated from the land of Zarahemla by what the Nephites called a "narrow strip of wilderness" (Mosiah 7:4; Alma 22:27). It began near the west sea coast and ended up at or near the east sea. Judging by the difficulties faced by parties when they traveled across this strip going between Zarahemla and Nephi, it was formed by rugged mountains (Mosiah 9:3; Alma 17:7).

[T] This agrees with the fact that the headwaters of the Sidon were located in that strip (Alma 22:29; 43:22). The narrow strip of wilderness on Mormon's map correlates with the band of peaks at the head of the Grijalva

64. René R. Gadacz, *Pre-Spanish Commerce in the Gulf Coast Lowlands of Mexico* (Calgary: Western Publishers, 1979), 50, reminds us that in the Tabasco flatlands (this very area) political and ethnic boundaries were frequently rivers.

65. Recinos, Goetz, and Morley, *Popol Vuh*, 68–69, 207.

66. Robert M. Carmack, "Toltec Influence on the Postclassic Culture History of Highland Guatemala," in *Archaeological Studies in Middle America* (New Orleans: Tulane University, 1970), 52–92.

67. Thomas A. Lee Jr., "The Historical Routes of Tabasco and Northern Chiapas and Their Relationship to Early Cultural Developments in Central Chiapas," in Lee and Navarrete, *Mesoamerican Communication Routes*, 49.

River basin along the present Guatemala-Chiapas border (including the volcano Tacaná, Central America's tallest peak). The headwaters of the Grijalva, like the Sidon, originate in this band of mountains.

Farther toward the Nephites' "sea east," the wilderness strip of Nephite reference continues to mark a boundary between Nephite and Lamanite territories; there it was not composed as much of rugged mountain peaks as simply of uninhabited wilderness, as described in item [Q] above. The barrier was breached at one point by an army after making a long trip "round about" to find the spot. Alma 43:22–26 describes a Lamanite force approaching the land of Manti by this unconventional route, but this is the only recorded instance.

[U] In the same geographical area as the previous two correspondences, we see a further parallel having to do with ethnicity of the population. Until a few centuries ago, the main part of the Grijalva River reached the sea at a point about 90 miles east of the Coatzacoalcos River, near Laguna Mecoacán.⁶⁸ Mayan-language speakers habitually occupied the area to the east of that point and users of Mixe-Zoquean tongues to the west. The same transition zone apparently prevailed as far back as the first or second century BC, for Sisson⁶⁹ determined that most pottery at sites near Laguna Mecoacán shared characteristics with pots to the east, where, according to the earliest Spaniards, Mayan-language speakers lived. Sisson found that ceramics at some sites westward of the boundary were affiliated with those of the Isthmus. The transition zone probably varied over time, but only a little. Still-older ceramics distinguished Olmec sites from those to the east at about the same boundary. Lowe described the ethnic division in these terms: "Early Mesoamerica east of the Isthmus of Tehuantepec was divided rather neatly between . . . two language families, the Mayan to the east and north and the Mixe-Zoque to the west and south of a diagonal line running from about Villahermosa, Tabasco, through central Chiapas and the border of southwestern Guatemala," although "the Mixe-Zoque and Maya appear

68. France V. Scholes and Dave Warren, "The Olmec Region at Spanish Contact," in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 3:776.

69. Edward B. Sisson, "Settlement Patterns and Land Use in the Northwestern Chontalpa, Tabasco, Mexico: A Progress Report," *Cerámica de cultura maya* 6 (1970): 41–54.

to have seesawed back and forth somewhat across much of this [border] area."⁷⁰ He argued that this interaction zone was the scene of long-lasting, contentious rivalry between the linguistic neighbors.⁷¹

This transition or conflict zone reflects remarkably well the boundary separating Nephites and Lamanites through the period between the second century BC and the fourth century AD, according to the Book of Mormon. If we suppose, with good reason, that the mass of folk population under Lamanite dominance consisted of Mayan-language speakers, and that Mulekites, who constituted the bulk of the Nephite population (Mosiah 25:2), probably spoke a Mixe-Zoquean tongue, like the Olmec, then this zone of contention documented in Mesoamerican history agrees with the line where Lamanite expansionism collided with the Nephites' defense of their traditional territory.

[V] Another geographic nuance is found in captain Moroni's reference to the Nephite capital, Zarahemla, as being in "the heart of our country . . . surrounded by security" (Alma 60:19; compare Helaman 1:24–27). The correspondence of the Central Depression of Chiapas with the core ("heart") land of Zarahemla is obvious and striking.

[W] Finally, the hill where the end came for the Jaredites, who called it Ramah, and the location of the last battle of the Nephites at the same hill (they called it Cumorah), have a highly likely correspondence to Cerro El Vigía (see fig. 7.2), an outlier on the northwest of the Tuxtla Mountains. In overall location and in a dozen other features, the textual information in the Book of Mormon agrees with the geographical situation.⁷²

The geography of Jaredite lands is a topic that demands separate treatment (see appendix). The brevity of the text on this matter means that possible correspondences can be only tentative, although plausible. No correlations of Jaredite lands to the modern map are listed here as definite

70. Gareth W. Lowe et al., *Izapa: An Introduction to the Ruins and Monuments*, New World Archaeological Foundation Papers 31 (Provo, UT: BYU New World Archaeological Foundation, 1982), 10–11.

71. Gareth W. Lowe, "The Mixe-Zoque as Competing Neighbors of the Early Lowland Maya," in *The Origins of Maya Civilization*, ed. Richard E. W. Adams (Albuquerque: University of New Mexico Press and School of American Research, 1977), 197–248.

72. David A. Palmer, *In Search of Cumorah* (Bountiful, UT: Horizon Publishers, 1992).



Figure 7.2. Cerro El Vigla, Veracruz

correspondences, although suggestive possibilities are pointed out in the discussion in the appendix.

Further general geographical correspondences could be explicated, but those already given are sufficient to demonstrate that the correspondences between Mormon's text and the geography of Mesoamerica go far beyond coincidence. The correlation of both large-scale and localized geographical features between the two sources is so marked that geography has to be seen as a major class of confirmatory correspondences along with others presented in this book. It would have been impossible for a person not acquainted personally with conditions in the Mesoamerican area to produce an account that portrays the geography as Mormon's book does. This complex of correspondences alone assures us that isthmian Mesoamerica was the scene where Book of Mormon history was played out.

Chapter 8

Two Traditions of Civilization

One of the most common explanations for the origin of the Book of Mormon holds that Joseph Smith created the book on the basis of his local knowledge environment. In that case, one would have expected him to establish a more modest historical account than what he published. That is, lightly and almost entirely at second hand, he would have described Indians like the tribes known in his rural New York home where he grew up in the 1820s. Instead, in the book he published we read of full-fledged civilizations located in tropical America.

The idea that there was any ancient “civilization” in the Western Hemisphere was contrary to notions commonly held in Smith’s area in his day, and for that matter, it was contrary to the views of the entire Western world of the time. That there had existed ancient civilizations far to the south of the United States did not dawn on even sophisticated scholars or readers until the 1840s. In 1841 explorer John Lloyd Stephens published the first American edition of his sensational account of the discovery of ruined cities in Central America (*Incidents of Travel in Central America, Chiapas, and Yucatan*). As Stephens’s biographer explained, “The acceptance of an ‘Indian civilization’ demanded, to an American living in 1839 [when Stephens’s book came out in London], an entire reorientation, for to him an Indian was one of those barbaric, half-naked te-pee dwellers against whom wars were constantly waged [on the American frontier]. . . . Nor did one ever think of calling the other indigenous inhabitants of the continent

‘civilized.’ In the universally accepted opinion [of that day], they were like their North American counterparts—savages.”¹

Smith and his cohorts were just as surprised by what Stephens brought to light as was the contemporary public. Apparently, early believing readers of the Book of Mormon—including even Joseph Smith—had not paid enough attention to the book’s descriptions of the setting where Nephite history was played out to fully realize the implied level of civilization that now seems obvious when we read the text. The book relates that the people it tells about dwelled in “cities,” and even “great cities.” They practiced intensive agriculture to support the large populations implied. They wrote in books. A complex social structure was described in the Book of Mormon that involved numerous specialist roles.² There were multiple social classes and at least three levels of social rank. Major public structures of high symbolic significance were erected, and at times state-level governments existed. By the fourth century AD, part of the core land “had become covered with buildings” (Mormon 1:7). Commerce was on an extensive scale. Mass warfare occurred that involved up to hundreds of thousands of people. It took decades for believers in the Book of Mormon to come to understand the level of civilization that prevailed among the peoples whose history the volume relates.

Not until the 20th century did secular scholars grasp the scale and intensity of the cultural development that took place anciently in southern Mexico and northern Central America. Their understanding is based on evidence from archaeology, a scientific discipline that did not exist until near the beginning of the 20th century. Even broad outlines of the culture, geography, and history of lands to the south of the United States were not sketched out until the 1920s. The label *Mesoamerica* for the area of highest civilization was coined less than 70 years ago.³ That happened during a time of growing realization that there had existed societies in Mexico and Central

1. Victor W. von Hagen, *Maya Explorer: John Lloyd Stephens and the Lost Cities of Central America and Yucatán* (Norman: University of Oklahoma Press, 1947), 75.

2. See the description in Alma 60:22 of society at the Nephite capital city, where leaders “sit in idleness” surrounded with “tens of thousands” who “also sit in idleness,” or 3 Nephi 6:11, which speaks of “many lawyers, and many officers.”

3. Paul Kirchoff, “Mesoamérica: Sus límites geográficos, composición étnica, y caracteres culturales,” *Acta americana* 1 (1943): 92–107.

America that deserved to be studied systematically by archaeologists and historians. It has become evident over recent decades that that civilization had developed over the course of more than 3,000 years.

Qualitatively, the civilization is now seen to have been on a par in many respects with civilizations in the ancient Old World. For example, Griffin believes that the extremely early (1400 BC?) Xochipala culture of central Mexico produced small sculptures “as powerful, moving, and inventive as anything” known elsewhere in the world and that “the Olmec were possibly the greatest lithic [stone work] technicians of the ancient world.”⁴ Aztec metalworkers were praised effusively by a 16th-century European who was an expert jeweler. Concerning the specimens from Mexico that had been brought to Spain, he said, “[They were] marvelous works of art. . . . I remain astounded at the subtle skill of the men of those distant lands. I really cannot say enough about the things which were before my eyes.”⁵ Similarly short of appropriate words was Cortez, who reported to the Spanish king, “I know . . . [I] will hardly be believed because even we, who see [these sights] here with our own eyes, are unable to comprehend their reality.”⁶

It is a significant correspondence that the Book of Mormon, which was published at a time when secular sources could not provide even rudimentary knowledge of conditions in ancient Mexico and Central America, describes the lands where its peoples dwelled as more or less similar in geographical and cultural terms with the only area of the ancient New World that qualified as civilized. What is more, the history the Book of Mormon relates was divided into two major segments that again agree remarkably well with what archaeology has disclosed about the Mesoamerican past during the period described in the volume.

According to the Book of Mormon, immigrant parties brought to Mesoamerica the seeds of two cultural traditions. The earlier of the two was

4. Gillett G. Griffin, “Olmec Forms and Materials Found in Central Guerrero,” in *The Olmec and Their Neighbors: Essays in Memory of Matthew W. Stirling*, ed. Elizabeth P. Benson (Washington, DC: Dumbarton Oaks, 1981), 214, 216.

5. Durero, quoted in Alfonso Caso, “Lapidary Work, Goldwork, and Copperwork from Oaxaca,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 3:930.

6. Michael D. Coe, *America's First Civilization* (Washington: American Heritage, 1968), 12.

reported succinctly in the book of Ether. Early in the third millennium BC, the group called the Jaredites departed from Mesopotamia where the “great tower” (Ether 1:33) was located. The route they took to reach the ocean is so briefly and vaguely described that we cannot be sure whether it was the Pacific or the Atlantic Ocean that they reached. In any case, they constructed vessels in which they crossed to the New World in “three hundred and forty and four days upon the water” (Ether 6:11).

Their descendants, in conjunction with implied native inhabitants of the land, developed a tradition of civilization centered not far from the Isthmus of Tehuantepec (the narrow neck of land of the Book of Mormon record). This tradition lasted through various convolutions until shortly after 600 BC. The culminating centuries for that civilization were approximately 1400–1000 BC; then decline followed. In their last years, major wars developed that led to the extinction of the Jaredite dynastic line and destruction of the sociopolitical structure and key elements of the accompanying culture.

The text’s second cultural tradition originated with a pair of parties who, unknown to each other, left the kingdom of Judah in southwestern Asia soon after 600 BC. Each of the parties carried elements of Iron Age Near Eastern civilization with them. In their newfound land, after four centuries of separation, a portion of one of the groups, the Nephites, and part of the second, the people of Zarahemla (Mulekites), came together in southern Mesoamerica under a Nephite dynasty (Omni 1:13–19). The Mulekites served as a partial bridge between what remained of Jaredite and Nephite cultures. The history of the latter shows that they incorporated certain Jaredite cultural elements ranging from mundane features like crops to a system of measures, personal names, and beliefs.⁷

Because both Jaredite and the combined Nephite/Mulekite lifeways derived to a significant degree from the ancient Near East, although at different times and from different places of origin, we would expect considerable

7. See John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1985), 214–15; Sorenson, “The ‘Mulekites,’” *BYU Studies* 30/3 (1990): 6–20; and Sorenson, “Fortifications in the Book of Mormon Account Compared with Mesoamerican Fortifications,” in *Warfare in the Book of Mormon*, ed. Stephen D. Ricks and William J. Hamblin (Salt Lake City: Deseret Book and FARMS, 1990), 425–44.

correspondence in ideas and behavioral patterns between the transplanted branches from the Near Eastern tree of culture. However, the immigrant parties landed in different areas and must have acculturated in different ways as they accommodated to their respective environments and native Amerindian host cultures.

Even after the end of the Nephite historical era (ca. AD 400), a great deal of the culture from the Nephite era must have continued on among their successors, “the Lamanites” and “robbers,” both of whom shared much with the late Nephites (see Mormon 8:9; Moroni 1:2; 9:24).

A sequence similar to that reported in the Book of Mormon can be seen in Mesoamerican culture history. First came an early cultural tradition that archaeologists increasingly recognize as achieving a civilization level. Its best-known manifestation is the Olmec art style. That, however, was only the best-known segment of a wider tradition (one with no accepted name) that is visible beginning in the second millennium and persisted only to around 600 BC or a little later. At about that date this early civilization met its demise. The sociopolitical linchpin seems to have been lost; certain features continued in attenuated and scattered form among populations that followed, but these were clearly the work of transitional remnants, and the cultural configuration differed from region to region while a second tradition took form.

This second pattern in Mesoamerican culture history was dominant from 500/400 BC until the early AD centuries. After that, it continued in modified form through the so-called Classic and Post-Classic eras. A major distinction from the tradition of the Olmec era is that the later pattern is more elaborately and obviously “religious,” that is, priestly in structure and ceremonial in performance. For the Olmec era, matters of worship and symbolism seem to have been in the hands of charismatic individuals—mainly shamans or medicine men—rather than of priests acting as formal community representatives. What are thought of as temples and ceremonial architectural complexes in the later tradition became not just significant but absolutely central to social life, and myth and sacred meanings came to permeate all aspects of Mesoamerican life. The centrality of religion in Mesoamerican cultures actually continued not only to AD 400 (when the Book of Mormon record ended) but right up to the coming of the Spaniards

soon after AD 1500. As Nicholson puts it, "All aspects of what are usually considered by anthropologists to be the religious aspect of a culture were richly developed."⁸

In broad terms, the history depicted in the Book of Mormon parallels remarkably well the sequence of the two grand patterns or traditions that characterized Mesoamerican culture history. The first becomes visible in what archaeologists call the Early Pre-Classic period, which includes the Olmec and contemporaneous developments, together with the elaborations that followed during the Middle Pre-Classic era. The second tradition can be seen in the Late Pre-Classic, which, when fully developed, became the later cultures that we know under regional labels like *Maya*, *Zapotec*, *Teotihuacán*, and so on.

8. Henry B. Nicholson, "Religion in Pre-Hispanic Central Mexico," in *Handbook of Middle American Indians*, ed. Gordon F. Ekholm and Ignacio Bernal (Austin: University of Texas Press, 1971), 10:395.

Chapter 9

Transoceanic Voyages

According to the dominant interpretation of New World history, claims for transoceanic voyaging and diffusion are at best treated as “dubious and debatable.”¹ In this light, how is it possible to consider the Book of Mormon, which reports three ocean-spanning voyages, to correspond with scholarly findings in any way?

Most American archaeologists have been obtuse in recognizing and evaluating evidence that civilization in the New World might have originated in part from stimuli that came from the historical Old World. This chapter will show that the generally accepted or scientifically orthodox view is out of date and that recent research has robbed the American-isolationist paradigm of its credibility.

The new evidence for voyages between the continents falls under four categories: (1) flora and fauna transfers, (2) disease transfers, (3) traditions about voyaging, and (4) ancient watercraft capability. A fifth category, linguistic evidence, is treated separately in chapter 10, and a sixth, based on cultural comparisons, is discussed especially in chapter 20.

What we learn from each category is that the evidence for voyagers crossing the ocean to and from America is abundant, although unacknowledged by conventional scientists. When the evidence is taken as a whole, it is now conclusively established that ancient voyagers were not only capable

1. Gordon R. Willey and Jeremy A. Sabloff, *A History of American Archaeology* (San Francisco: Freeman, 1980), 172; for more sweeping negatives, see Stephen Williams, *Fantastic Archaeology: The Wild Side of North American Prehistory* (Philadelphia: University of Pennsylvania Press, 1991).

of making trips across the oceans, they actually did so with some frequency. The three cases of transoceanic crossings recorded in the Book of Mormon fit in this category of correspondences.

Flora and Fauna as Evidence for Transoceanic Voyaging

Since the year 2000, examination of an extensive body of scientific literature has revealed evidence that nearly 100 species of plants were present in both the Eastern and Western Hemispheres prior to Columbus's first voyage to the Americas. The evidence comes from archaeology, historical and linguistic sources, ancient art, and botanical studies of plant distribution. The data also suggest that as many as 35 other plants deserve further research in this regard and might yet be added to the list.

The biological duplications cannot be due merely to natural processes. The exact same species never evolves a second time in a second area.² Nor do mechanisms at work in unassisted nature allow the successful transmission or transplantation of plants across an ocean. Support for transoceanic exchange is added when we find that some plants are used in the same cultural manner by people an ocean apart and even have similar-sounding names. In fact, in the case of plants like the agave, pineapple, or sweet potato, each of which reproduces vegetatively rather than from seeds, it is inconceivable that wind, currents, or seed-carrying birds could ever account for their transoceanic transfer; and what is known of the reproduction of seed-bearing plants also rules out their effective movement across thousands of miles of ocean.

Furthermore, over 50 plants of American origin have been shown to have names in South Asia in the Sanskrit language. Sanskrit was in use in ancient India until about AD 1000. The presence of those names means that the American plants arrived in South Asia from across the ocean early enough to be given a local name while the Sanskrit language was still in vernacular use; later Sanskrit was used only in sacred, fossilized contexts. This fact is supported by art representations, old textual references, and archaeological finds of certain species that provide confirmatory evidence

2. Stephen J. Gould, "In the Mind of the Beholder," *Natural History* 103 (1994): 22–23.

that the organisms had been carried by ship to Asia between 2000 BC and AD 1000.³

The only plausible explanation for these and related findings is that a substantial number of voyages crossed the oceans in the interval between the sixth millennium BC and Columbus's voyage of discovery. Our growing knowledge of early navigators and their accomplishments gives confidence that vessels and nautical skills capable of facilitating such long-distance travels had in fact been developed in ancient times. Of the plants shared by both hemispheres, 10 species were definitely brought to Mesoamerica from the Old World. This evidence agrees generally with what the Book of Mormon reports about transoceanic voyages. For additional species the evidence for transfer to Mesoamerica rather than to elsewhere in the New World is significant though not definitive.

Rather than burden readers here with a complete listing, table 9.1 gives only a selection of plants to illustrate the variety and abundance of the evidence.⁴

3. John L. Sorenson and Carl L. Johannessen, *Scientific Evidence for Pre-Columbian Transoceanic Voyages to and from the Americas*, Sino-Platonic Papers 133 (Philadelphia: Department of East Asian Languages and Civilizations, University of Pennsylvania, 2004); Sorenson and Johannessen, "Biological Evidence for Pre-Columbian Transoceanic Voyages," in *Contact and Exchange in the Ancient World*, ed. V. H. Mair (Honolulu: University of Hawai'i Press, 2006), 238–97; and Sorenson and Johannessen, *World Trade and Biological Exchanges before 1492* (New York and Bloomington, IN: iUniverse, 2009).

4. See Sorenson and Johannessen, *World Trade and Biological Exchanges*.

Table 9.1
Transoceanic Plant Transfers

Species Name	Common Name
<i>Agave americana</i>	agave
<i>Amaranthus</i> spp.	amaranths
<i>Anacardium occidentale</i>	cashew nut
<i>Ananas comosus</i>	pineapple
<i>Arachis hypogaea</i>	peanut
<i>Cannabis sativa</i>	hashish
<i>Capsicum annuum</i>	chili pepper
<i>Carica papaya</i>	papaya
<i>Cocos nucifera</i>	coconut
<i>Cucurbita moschata</i>	butternut squash
<i>Datura metel</i>	datura, jimsonweed
<i>Erythroxylon novagranatense</i>	coca
<i>Gossypium</i> spp.	cotton
<i>Helianthus annuus</i>	sunflower
<i>Ipomoea batatas</i>	sweet potato
<i>Musa</i> x <i>paradisiaca</i>	banana, plantain
<i>Ocimum</i> spp.	basil
<i>Phaseolus vulgaris</i>	kidney bean
<i>Tagetes erecta</i>	marigold
<i>Zea mays</i>	corn, maize

The table gives only species for which there is conclusive evidence of transfer across an ocean. Even this listing is deceptively short. A single species of beans is cited, but actually three different species, all of American origin, have been excavated by archaeologists in India at sites dating as early as 1600 BC. Moreover, the American peanut has been found in multiple

Chinese excavations from as early as 2800 BC. Other species are documented in art, such as the annona tree, whose distinctive fruit was sculpted on an Indian temple dating to the second century BC, while chili peppers are shown in other Asian art venues by the Middle Ages. Ancient word lists and sacred texts or botanical handbooks show further evidence of other plants from the opposite hemisphere. Transoceanic voyaging in both directions obviously had a long history.

Until recently, no more than a handful of these plants had even been suggested by archaeologists or botanists as possibly having been moved across the ocean, even though in some cases the relevant information had long been accessible. Orthodox scholars' failure to recognize this evidence can only be credited to stubborn adherence to the de facto rule that no one pays attention to evidence that "everybody knows cannot exist." Culture historians hereafter must recognize that ships crossed the oceans thousands of years ago, as Mormon's account says of the Jaredites, Lehites, and Mulekites.

What has been learned from studies of animal species is equally sure. At least six creatures (including the American turkey)⁵ existed in pre-Columbian times on both sides of the oceans that separate the Americas from the Old World.⁶

The case of the domestic chicken is particularly informative. The fowl originated in Southeast Asia, but for years a handful of scientists who doubted the prevailing isolationist orthodoxy asked in vain, Were chickens also in the New World before the arrival of the Spaniards? Distinctive features exhibited by fowl from East and Southeast Asia had been observed in chickens kept by various South American native peoples, and early Spanish historical records seemed to confirm the presence of the chicken, *Gallus gallus*, soon after the conquest if not before.⁷ Johannessen and colleagues found that a particular

5. Sándor Bökönyi and Dénes Jánossy, "Adatok a pulyka kolumbusz előtt Európában előfordulásához," *Aquila: A Magyar Ornithologiai Központ Folyóirata* 65 (1953): 265–69.

6. Sorenson and Johannessen, "Biological Evidence for Pre-Columbian Transoceanic Voyages"; and Sorenson and Johannessen, *World Trade and Biological Exchanges*.

7. George F. Carter, "The Chicken in America: Spanish Introduction or Pre-Spanish?," in *Across before Columbus? Evidence for Transoceanic Contact with the Americas Prior to 1492*, ed. Donald Y. Gilmore and Linda S. McElroy (Edgecomb, ME: New England Antiquities Research Association, 1998), 151–60; Carter, "Pre-Columbian Chickens in America," in *Man across the Sea: Problems of Pre-Columbian Contacts*, ed. Carroll L. Riley et al. (Austin:

variety, the black-boned, black-meated chicken, was used within the last half century in curing rituals (although not for food) among Amerindian groups in Guatemala, where the curative practices involving the fowl were very similar to those of East Asia.⁸ How old the practices (as well as the birds) actually are is uncertain, but they could be pre-Columbian in origin.

All uncertainty about the pre-Columbian presence of chickens was laid to rest recently by two forms of evidence, one linguistic and the other archaeological, that appear to establish beyond question that the chicken was known among ancient inhabitants of Mexico. The ancient Proto-Mixe-Zoquean language of southern Mexico (hypothesized to have been used by the ancient Olmec people) has been partially reconstructed on the basis of lexicons from descendant languages. A name for chicken emerged in that reconstruction. The word is distinct from names for turkey or other fowls.⁹ This appears to be good evidence that the Old World chicken arrived on ships to Mesoamerica long ago. Furthermore, to anchor the case, archaeologists recently found chicken bones in a Classic Maya site.¹⁰

Two other organisms also testify to early contact across the ocean. *Alphitobius diaperinus*, known in English as the lesser mealworm, has been found with Egyptian mummies dating to the New Kingdom (ca. 1350 BC), and it has also been excavated from Roman sites in both Britain and Egypt.¹¹ Riddle and Vreeland reported the same worm associated with Peruvian

University of Texas Press, 1976), 178–218; and Ricardo E. Latcham, *Los animales domésticos de la América pre-Colombiana*, Museo de Etnología y Antropología Publication 3 (Santiago, Chile: Cervantes, 1922), 1–199.

8. Carl L. Johannessen, “Folk Medicine Uses of Melanotic Asiatic Chickens as Evidence of Early Diffusion to the New World,” *Social Science and Medicine* 15D (1981): 427–34; and Carl L. Johannessen, Wayne Fogg, and May Chen Fogg, “Distributional and Medicinal Use of the Black-Boned and Black-Meated Chicken in Mexico, Guatemala, and South America,” *National Geographic Society Research Reports* 17 (1984): 493–95.

9. Søren Wichmann, *The Relationship among the Mixe-Zoquean Languages of Mexico* (Salt Lake City: University of Utah Press, 1995), 76, 276.

10. Wendy G. Teeter, “Animal Utilization in a Growing City: Vertebrate Exploitation at Caracol, Belize,” in *Maya Zooarchaeology: New Directions in Method and Theory*, ed. Kitty F. Emery, Cotsen Institute Monograph 51 (Los Angeles: University of California, 2004), 177–87.

11. Paul C. Buckland and Eva Panagiotakopulu, “Rameses II and the Tobacco Beetle,” *Antiquity* 75 (2001): 554; Eva Panagiotakopulu, *Archaeology and Entomology in the*

mummies.¹² Furthermore, *Stegobium paniceum*, “the drugstore beetle,” was also present in Peru, as it was in Egypt and in Bronze Age Britain. Peruvian mummy bundles that contained both the beetle and the mealworm have come from three different sites and were radiocarbon dated from the 1st to the 13th centuries AD.

The fact that these insects were associated with mummies in both Peru and Egypt raises the question of whether the mummification complexes in the two areas were historically related. Other remarkable cultural facts deserve to be woven into the picture before we can decide definitively how and when transoceanic voyages were involved in the parallels. There is no question that the insects were transferred—and they were unquestionably shipborne—but there is obviously much more to learn about the relationship between Egypt and South America and the sharing of customs for disposing of the dead.

Over the last 15 years, research has also established (despite attempts to explain away the evidence) that tobacco (*Nicotiana tabacum*), a plant native to America, was consumed by ancient Egyptians. The practice went on for at least 1,400 years, from as early as 1200 BC. Chemical analyses of mummies have demonstrated actual consumption of this plant millennia before Columbus's discovery of America.¹³

American-originated tobacco was used in India many centuries ago; it had ancient names in Sanskrit as well as in Arabic and Persian, and the water-cooled smoking pipe (*hookah*) used in India in recent centuries for

Eastern Mediterranean: Research into the History of Insect Synanthropy in Greece and Egypt, Archaeological Report 836 (Oxford: BAR, 2000), 16.

12. Jeanne M. Riddle and James M. Vreeland, “Identification of Insects Associated with Peruvian Mummy Bundles by Using Scanning Electron Microscopy,” *Paleopathology Newsletter* 39 (1982): 7.

13. Svetla Balabanova et al., “Was Nicotine Known in Ancient Egypt?,” *Homo* 44/1 (1993): 92–94; for an indispensable survey of the literature, see Stephen C. Jett, “Nicotine and Cocaine in Egyptian Mummies and THC in Peruvian Mummies: A Review of the Evidence and of Scholarly Reaction,” *Pre-Columbiana: A Journal of Long-Distance Contacts* 2/4 (2002): 297–313; compare Sorenson and Johannessen, *World Trade and Biological Exchanges*, 292–95.

tobacco smoking appears in art long before Europeans could have taken the plant there.¹⁴

Chemical tests show traces of coca (from *Erythroxylon novagranatense*, the source of cocaine, a South American plant) in a number of Egyptian mummies.¹⁵ In addition, and equally mysterious, chemical traces of *Cannabis sativa*, the hashish or marijuana of the Old World, have also been found in Peruvian mummies.¹⁶

There is so much information on transoceanic plant exchange that we can do no more here than skim over a few highlights.¹⁷ For instance, among the plants known in Asia were those of the Mesoamerican dietary core—maize, beans, and squash, plus chili peppers and perhaps tomatoes. All reached South and East Asia from America. The occurrence of maize in Asia used to be strongly denied by conventional botanists, but it is now well documented by illustrations of corn ears in hundreds of sculptures at temples in south and central India. In those scenes, ears of corn are shown held in a particular formal position by (usually) voluptuous females. This art dates between AD 100 and 1300.¹⁸

Investigators of ancient American cultures have a lot of historical unraveling to do before answers to the question of what these contacts had to do with the development of Mesoamerican civilization become clear. Some of that research will be facilitated when archaeologists, geographers, and cultural anthropologists take a more careful, sympathetic look at the vast body of evidence from comparative cultural studies.¹⁹ Orthodox students of this

14. Jaweed Ashraf, "The Antiquity of Tobacco (*Nicotiana tabacum*) in India," *Indica* 22/2 (1985): 91–101.

15. Franz Parsche et al., "Drugs in Ancient Populations," *Lancet* 341 (1993): 503.

16. Parsche et al., "Drugs in Ancient Populations"; and "Evidence of the Alkaloids Cocaine, Nicotine, Tetrahydrocannabinol and Their Metabolites in Pre-Columbian Peruvian Mummies," *Eres (Serie de Arqueología)* 5/1 (1994): 109–16.

17. See Sorenson and Johannessen, *World Trade and Biological Exchanges*, for a full treatment.

18. Carl L. Johannessen and Wang Siming, "American Crop Plants in Asia before A.D. 1500," *Pre-Columbiana: A Journal of Long-Distance Contacts* 1/1 (1998): 9–36.

19. John L. Sorenson and Martin H. Raish, *Pre-Columbian Contact with the Americas across the Oceans: An Annotated Bibliography*, 2 vols., 2nd ed. (Provo, UT: Research Press, 1996).

topic have long denied that the cultural parallels that have been pointed out between civilizations in the two hemispheres mean anything in historical terms. What the reluctant scholars have actually done is dodge the real issue by treating the data at a superficial level, in the same way as the botanists have hitherto ignored the data discussed above. One prominent archaeologist, Michael Coe, has candidly admitted: "Most anthropologists are so fuddy-duddy. They're not willing to let their minds roam ahead, speculate. These things [i.e., cultural parallels] need explanations."²⁰ Since evidence from the life sciences has now established that transoceanic voyaging was a real and widespread phenomenon in ancient times, and that ship travel can no longer be ignored in explanations of ancient history, the challenging task of weighing the vast body of parallels and assessing their significance as evidence should not be postponed.

At least two of the Book of Mormon's three immigrant colonies from the Old World are reported to have brought flora or fauna with them to the New World, although the record does not say what those organisms were. The Lehite party prepared for their departure from the shore of the Arabian Peninsula by gathering "much fruits" as well as accumulating "all our . . . seeds" (1 Nephi 18:6). The Bronze Age Jaredites sailed carrying "all manner of food . . . for . . . whatsoever beast or animal or fowl that they should carry with them" (Ether 6:4).

Evidence from Diseases

No fewer than 19 organisms that cause disease in humans were shared by the Eastern and Western Hemispheres before Columbus arrived in America. We will apply the same standard of conclusiveness as was used for plants. Definite evidence of the presence of the causative organism or of the disease in question has been established for all 19 species. Another dozen organisms have been tabulated for which there is partial evidence; future research may demonstrate their two-hemisphere presence also.

20. Caleb Bach, "Michael Coe: A Question for Every Answer," *Americas* 48/1 (1996): 20.

Table 9.2
Selected Disease Agents That Demonstrate Transoceanic Voyages

Species Name	Common Name
<i>Ancylostoma duodenale</i>	a hookworm
<i>Borrelia recurrentis</i>	relapsing fever spirochete
Human (alpha) herpes virus 3	cause of shingles, chicken pox, etc.
<i>Microsporium</i> spp.	cause of ringworm of the body
<i>Mycobacterium tuberculosis</i>	bacterium causing tuberculosis
<i>Necator americanus</i>	a hookworm
<i>Piedreaia hortai</i>	a fungus that infests the hair
<i>Rickettsia prowazekii</i>	bacterium that causes typhus
<i>Yersinia pestis</i>	the plague bacillus

Particularly decisive cases with important chronological implications are *Ancylostoma duodenale* and *Necator americanus*, both called *hookworm* in the English vernacular. The long-term prevalence of hookworms in East and Southeast Asia makes that area quite certainly the place from which the organism spread anciently to the Americas. A hundred years ago *A. duodenale* was assumed to have been introduced to the New World by slaves brought from Africa. But in the early 20th century, Fonseca²¹ discovered *A. duodenale* in an isolated Amerindian population in the Amazon basin that seemed to have had no contact with introduced slaves or with European explorers or settlers. Microbiologist Samuel Darling²² was the first to suggest in print that the species had infested South American tropical forest peoples since before Columbus arrived. If evidence could be found for the parasite in the

21. Olympio da Fonseca, *Parasitismo e migrações pré-históricas: Contribuições da parasitologia para o conhecimento das origens do homem americano*, Estudos de Pré-história Geral e Brasileira (São Paulo: Instituto de Pré-história da Universidade de São Paulo, 1970).

22. Samuel T. Darling, "Observations on the Geographical and Ethnological Distribution of Hookworms," *Parasitology* 12/3 (1920): 217–33; and "Comparative Helminthology as an Aid in the Solution of Ethnological Problems," *American Journal of Tropical Medicine* 5 (1925): 323–37.

Americas before European discovery, he observed, then the only explanation for the parasite's occurrence in the New World would be that it had arrived anciently via infected humans who had crossed the ocean.

Darling's reasoning sprang from facts about the life cycle of this worm. In one stage its larva inhabits warm, moist soil (in a climate no colder than that of North Carolina today). At a later stage, worms from the soil penetrate the human body and settle in the digestive tract. Immigrants who came to the New World in stages via the Bering Strait would have arrived hookworm-free because the cold environmental conditions would have killed the parasite in the soil.²³

The hookworm's pre-Columbian presence in the Americas was established authoritatively when traces of the pest were found in a Peruvian mummy dated to about AD 900.²⁴ Evidence obtained from other mummies and fossilized human excrement has since repeatedly confirmed the initial find.²⁵

In a 1988 publication, Brazilian scientists reported this parasite in remains excavated in interior eastern Brazil. Radiocarbon dates showed the age as about 7,200 years before the present. Given the inland remoteness of the site, the hookworm organism would have had to arrive on some American coast in the body of a mariner from the Old World some centuries earlier.²⁶

Can the specimens excavated in Brazil be said absolutely to establish that early human voyagers crossed the ocean to the Americas? Yes. Is there some explanation for the presence of the worm in the New World due to natural

23. Fred L. Soper, "The Report of a Nearly Pure *Ancylostoma duodenale* Infestation in Native South American Indians and a Discussion of Its Ethnological Significance," *American Journal of Hygiene* 7 (1927):174–84; and Luiz Fernando Ferreira et al., "Encontro de ovos de ancilostomídeos em coprólitos humanos datados de 7.230±80 anos, no estado de Piauí, Brasil," in *Paleoparasitologia no Brasil*, ed. L. Fernando Ferreira et al. (Rio de Janeiro: Programa de Educação Pública, 1988), 37–40.

24. Marvin J. Allison et al., "Documentation of a Case of Tuberculosis in Pre-Columbian America," *American Review of Respiratory Disease* 107/6 (1973): 985–91.

25. Aduato Araújo, "Paleoepidemiologia da ancilostomose," in Ferreira et al., *Paleoparasitologia no Brasil*, 144–51; and Karl J. Reinhard, "Parasitology as an Interpretive Tool in Archaeology," *American Antiquity* 57/2 (1992): 231–45.

26. Ferreira et al., "Encontro de ovos"; Luiz Fernando Ferreira et al., "The Finding of Eggs and Larvae of Parasitic Helminths in Archaeological Material from Unai, Minas Gerais, Brazil," *Transactions, Royal Society of Tropical Medicine and Hygiene* 74 (1980): 798–800.

forces, independent of human voyagers? Absolutely not. Modern microbiologists assure us that Darling's early assessment was correct. Fonseca asserted that shared species of parasites make it inescapable that voyagers reached South America directly from Oceania or Southeast Asia.²⁷ Ferreira and his colleagues agreed: "We *must suppose* that [the human hosts for the parasite] arrived by sea."²⁸ Araújo confirms that "*the evidence points only* to maritime contacts."²⁹

Since *A. duodenale* could have arrived in the Americas only in the bodies of people who came by sea, we can be certain that cultural elements—as well as a set of tropical Asian human genes—arrived with those humans. Moreover, we are also certain that vessels capable of crossing or skirting the Pacific or the Atlantic were already in use by the sixth millennium BC, and that at least one of those craft actually reached South America where its occupants passed the hookworm on to subsequent inhabitants.

There is neither need nor space to repeat here the data establishing the presence of the other agents of disease that crossed the ocean.³⁰ The important point is that if we can thus be certain that shipborne diseases arrived in America thousands of years ago, there is no reason to doubt that many other voyages were made in subsequent millennia, including in the time of the Jaredites, Nephites, and Mulekites.

Mesoamerican Traditions of Transoceanic Voyages

Various peoples in Mexico and Guatemala believed that some of their ancestors originated from across the ocean. The number, distribution, and contents of these traditions indicate that they could represent several distinct arrival events. Typically, however, Mesoamericanist scholars do not perceive them as recording historical facts. In the light of the data already presented, it seems clear that some of those reported incoming voyages referred to parties who arrived bearing Old World organisms.

27. Fonseca, "Parasitismo e migrações."

28. Ferreira et al., "Encontro de ovos," 37; emphasis added.

29. Araújo, "Paleoepidemiologia da Ancilostomose," 146–47; emphasis added.

30. See details in Sorenson and Johannessen, *Scientific Evidence for Pre-Columbian Transoceanic Voyages*; Sorenson and Johannessen, "Biological Evidence for Pre-Columbian Transoceanic Voyages"; and Sorenson and Johannessen, *World Trade and Biological Exchanges*.

No doubt some of the traditions are duplicate reports of the same events; nevertheless, summaries of all of the well-known Mesoamerican traditions are given below on the assumption that the number of sources is meaningful in weighing the significance of this type of evidence.

Central Mexico

- “It is the common and general opinion of all the natives of all this Chichimec land, which now is called New Spain, besides what seems demonstrated in their pictures [books], that their ancestors came from western parts. . . . As appears in their histories their first king was called Chichimecatl, who was the one who brought them to this new world where they settled. . . . Those who possessed this new world in this third age were the Ulmecas and Xicalancas; and according to what is found in their histories, they came in ships or barques from the east to the land of Potonchan from which they began to settle.”³¹

- “For a long time and by means of writings, we have possessed a knowledge, transmitted from our ancestors, that neither I nor any of us who inhabit this land are of native origin. We are foreigners and came here from very remote parts. We possess information that our lineage was led to this land by a lord to whom we all owed allegiance [vassalage]. He afterward left this for his native country. . . . Because of what you [Spaniards] say concerning the region whence you came, which is where the sun rises . . . , we believe and hold as certain that he [the Spanish king] must be our rightful lord. . . . I also believe that your own ancestors must have handed down to you the record that we are not natives of this land but came to it from another very distant country . . . and you well know that we have always expected [a return of] this lord.”³²

- “Concerning the origin of this people the account which the old people give is that they came by sea from toward the north, and it is certain that they came in some vessels of wood, but it is not known how they were

31. Fernando de Alva Ixtlilxóchitl, *Obras históricas*, ed. Alfredo Chavero (ca. 1600; 1891–92; repr., Mexico City: Editora Nacional, 1952), 1:15–16, 19.

32. As spoken to Cortez and his court by the Aztec ruler Moctezuma, cited in Zelia Nuttall, “Some Unsolved Problems in Mexican Archaeology,” *American Anthropologist* 8 (1906): 135–36.

built; but it is conjectured by one report which there is among all these natives, that they came out of seven caves and that these seven caves are the seven ships or galleys in which the first settlers of this land came. . . . The first people to settle this land came from toward Florida, and they came along the coast and disembarked at the port of Pánuco [Veracruz].”³³

- Códice Matritense gives a Nahuatl epic poem as Sahagún recorded it in the 1500s: “This is the story the old men used to tell: In a certain time which no one can now describe, which no one can now remember, those who came here to sow, our grandfathers and grandmothers landed here, arrived here, following the way, and came at last to govern here in this land, which was known by a single name, as if it were a little world of its own. They came in ships across the sea in many companies, and arrived there on the seashore, on the northern coast, and the place where they left their ships is now called Panutla which means, ‘Where one crosses the water.’ Then they followed the coast, they sought the mountains, and some of them found the mountains capped with snow and the smoking mountains, and arrived in Quauhtemalla [Guatemala], following the coast.”³⁴

- Domingo Francisco de San Antón Muñón Chimalpahin Quauhtlehuanitzin³⁵ was a noble from the Chalco region of the Valley of Mexico, born in the 16th century, who compiled histories from native documents in his possession. He wrote of an ancient lineage that came from across the ocean “many units of four hundred years ago.”

Highland Guatemala

- According to sources available to Fuentes y Guzmán, who had before him all the books, records, and other papers in the secret archives of the city of Uatlán, “The nation of the Quichés, or Tultecas, extended its

33. Bernardino de Sahagún, *Historia general de las cosas de Nueva España* (Mexico City: Nueva España, 1969), 2:13–14; compare 2:300, 306.

34. Miguel León-Portilla, “Pre-Hispanic Literature,” in *Handbook of Middle American Indians*, ed. Gordon F. Ekholm and Ignacio Bernal (Austin: University of Texas Press, 1971), 10:455.

35. Silvia Rendon, trans., *Relaciones originales de Chalco Amaquemecan: Paleografiadas y traducidas del Náhuatl, con una introducción*, Biblioteca americana series (Mexico City: Fondo de Cultura Económica, 1965), 166, 169.

empire over the greatest portion of the present kingdom of Guatemala; and, on the authority of the manuscripts mentioned above (which were composed by some of the Caciques [native lords], who first acquired the art of [Spanish] writing), it is related that from Tanuh, who commanded them, and conducted them from the old to the new continent, down to Tecum Uman, who reigned at the period when the Spaniards arrived, there was a line of 20 monarchs. They first established themselves in the kingdom of Mexico, where they founded the famous city of Tula. . . . The Tultecas were descended from the house of Israel, and were released by Moses from captivity. . . . They chose to separate from him . . . [to] what now is a part of the kingdom of Mexico, where they founded the celebrated city of Tula. . . . [The fifth monarch,] Nimaquiché, . . . was directed by an oracle to leave Tula with the people . . . and conduct them from the kingdom of Mexico to that of Guatemala," where they founded the Quiché kingdom.³⁶

- The Lacandon Indians have stories parallel to the Quiché documents; that is, they believed their ancestors arrived from across the sea.³⁷

- "In the Testimonio de los Xpantzay, that group claimed they are descendants of Adam, Abraham, Isaac, and Jacob, and that they helped build the Tower of Babel, another center in the Judeo-Christian myth of partition. Thus, in this 17th-century legal document, the Xpantzay contextualize and legitimate themselves."³⁸

- Concerning the ancestors of the lords of Totonicapan, Guatemala, they "came from the other part of the ocean, from there where the sun rises. . . . We have written that which by tradition our ancestors told us, who came from the other part of the sea, from Civán-tulán, bordering on Babylonia."³⁹

36. Domingo Juarros, *A Statistical and Commercial History of the Kingdom of Guatemala* (1823; repr., New York: AMS Press, 1971), 88–89, 162.

37. Robert D. Bruce, "The Popol Vuh and the Book of Chan K'in," *Estudios de cultura maya* 10 (1977): 173–208.

38. Geoffrey E. Braswell, "Ethnogenesis, Social Structure, and Survival: The Nahuazation of K'iche'an Culture, 1450–1550," in *Maya Survivalism*, ed. Ueli Hostettler and Matthew Restall, *Acta Mesoamericana* 12 (Markt Schwaben, Germany: Saurwein, 2001), 12:51–58.

39. Adrián Recinos and Delia Goetz, trans., *The Annals of the Cakchiquels* (Norman: University of Oklahoma Press, 1953), 169, 194.

• “From the other side of the sea we came to the place called Tulán, where we were begotten. . . . From the west we came to Tulán, from across the sea. . . . From four [places] the people came to Tulán. In the east is one Tulán; another in Xibalbay [the underworld]; another in the west, from where we came ourselves, from the west; and another is where God is. . . . From the west we came to Tulán, from across the sea; and it was at Tulán where we arrived, to be engendered and brought forth by our mothers and our fathers.”⁴⁰

Yucatan

• “Some of the old people of Yucatán say that they have heard from their ancestors that this land was occupied by a race of people, who came from the East and whom God had delivered by opening twelve paths through the sea.”⁴¹

40. Recinos and Goetz, *Annals of the Cakchiquels*, 43, 45. A derivation of the name *Tulán* is “place of cattails,” meaning a very crowded location or city. Current understanding of Book of Mormon geography places the first land of Bountiful in Oman, on the southern Arabian Peninsula. Incidentally, at Wadi Sayq, the most plausible departure point of the Lehi party, the small inlet or harbor abounds in cattails. See, for example, the cover photograph for *Journal of Book of Mormon Studies* 7/1 (1998).

The Book of Mormon land and city of Bountiful in the New World was on the east sea side of the narrow neck of land—a coastal area with lots of cattails. In that light, the following excerpt from Raynaud’s translation of *The Annals of the Cakchiquels* could be of significant interest. I have inserted his alternative reading: “[Bountiful],” as a synonym for “Place of Abundance”: “(There is) a Place of Abundance [Bountiful] at the rising sun. Also one at the Place of [the sun’s] Disappearance. Another at the setting sun, and we came from the setting sun. Another is there where is the divinity. Four Places of Abundance [Bountifuls], are counted, oh, our children. From the setting sun we came, from the Place of Abundance [Bountiful] across the sea; this was the Place of Abundance [Bountiful] from which we came, where we were born, where we were engendered by our mothers, by our fathers.” *Anales de los Xahil de los indios cakchiqueles* (translation of the Popol Vuh), trans. Georges Raynaud, *Los dioses, los heroes y los hombres de Guatemala antigua* 2, 2nd ed., rev. (Guatemala, Tipografía Nacional, 1937), 16. Reynaud’s translation to English is considered competent by Munro Edmonson, trans., *The Book of Counsel: The Popol Vuh of the Quiche Maya of Guatemala* (New Orleans: Tulane University, 1971), x. Modern translations prefer simply *Tulán* rather than either *Place of Abundance* or *Bountiful*.

41. Alfred M. Tozzer, ed. and trans., *Landa’s Relación de las Cosas de Yucatan: A Translation*, Peabody Museum of American Archaeology and Ethnology Papers 18 (Cambridge, MA: Harvard University, 1941), 16–17.

- “Many Indians of discretion said they had heard from their ancestors that certain people who had come from the East had settled that land. God had freed them from other peoples by opening a road for them through the sea.”⁴²

Chiapas

- According to the 17th-century historians Ordoñez y Aguiar and Núñez de la Vega, a known but subsequently missing native Tzental Maya source spoke of the “true origin of the Indians: their departure from Chaldea: their immigration to these southern parts: their crossing the ocean,” and so on.⁴³

Obviously, some of these statements include historical and geographical interpretations by the colonial Indians that would not have been so phrased in the original recordings of the traditions (e.g., names like *Babylonia*, *Abraham*, and *Chaldea*). Still, there can be little or no question that the native writers were confident that the traditions they cited referred to voyages from across the ocean. Their use of biblical names would have been an attempt to interpret the geography behind that idea in terms of the rudimentary knowledge of world/biblical geography the Spaniards had imparted to them. One ought not to refuse out of hand to accept their use of such names but to seek to interpret their intention in using the terms. They clearly believed that their ancestors had arrived from overseas.

It certainly may be said that traditions that the ancestors of a number of peoples originated from across the ocean were widespread in Mesoamerica. These traditions constitute a correspondence of significance with the Book of Mormon’s story of three colonizing voyages. The Nephites, some Lamanites, and Nephite dissenters living among the Lamanites retained the tradition that their fathers had come by sea from the Near East (e.g., Mosiah 10:12–13; Alma 3:11; 21:1; 22:9), as did the Jaredites about the overseas origin of their founding population (Ether 8:9; 13:7).

42. Tozzer, *Landa’s Relación*, 214.

43. John L. Sorenson, “Some Mesoamerican Traditions of Immigration by Sea,” *El México antiguo* 8 (1955): 432; Francisco Núñez de la Vega, *Constituciones diocesanas del obispado de Chiappa* (Rome: 1702); and Ramón de Ordoñez y Aguiar, *Historia de la creación del cielo y de la tierra* (Mexico City: 1907), title page.

Ability to Sail across the Ocean

Nautical history and modern experimental voyages have demonstrated that oceanic voyaging in early times was not as daunting as moderns—especially modern scholars, virtually all of them landlubbers—have supposed. For certain seafaring people, the vastness of the ocean is not a serious obstacle.⁴⁴ In modern days, oceans have been crossed hundreds of times in unlikely craft—small boats, rafts, rowboats, canoes, and even less conventional vessels.⁴⁵ People inexperienced in ocean travel have been wont to see overwhelming dangers in such an enterprise, while experienced sailors of small craft are more confident. One veteran sailor of small boats in the tropics went so far as to assert, “It takes a damn fool to sink a boat on the high seas.”⁴⁶

Despite well-documented evidence of ancient capability for ocean travel, a negative attitude toward the possibility has persisted among scholars. That prejudice has been called both American “thalassophobia” (i.e., illogical aversion to considering a sea-travel option)⁴⁷ and “intellectual mal de mer” (mental seasickness).⁴⁸ This bias has kept virtually all New World archaeologists from even inquiring whether shipping might have spread ancient culture and people over long distances.⁴⁹

44. Stephen C. Jett, “Before Columbus: The Question of Early Transoceanic Inter-influences,” *BYU Studies* 33/2 (1993): 245–71; “Diffusion versus Independent Development: The Bases of Controversy,” in Riley et al., *Man across the Sea*, 16–19; and Mary W. Helms, *Ulysses’ Sail: An Ethnographic Odyssey of Power, Knowledge, and Geographical Distance* (Princeton, NJ: Princeton University Press, 1988).

45. Irvin Anthony, *Voyagers Unafraid* (Philadelphia: Macrae Smith, 1930), 20; Humphrey Barton, *Atlantic Adventures: Voyages in Small Craft* (New York: Van Nostrand, 1962); and Charles A. Borden, *Sea Quest: Global Blue-Water Adventuring in Small Craft* (Philadelphia: Macrae Smith, 1967).

46. Hannes Lindemann, *Alone at Sea* (New York: Random House, 1957).

47. Adolphus P. Elkin and Neil W. G. Macintosh, eds., *Grafton Elliot Smith: The Man and His Work* (Sydney, Australia: Sydney University Press, 1974), 149.

48. N. Alexander Easton, “Mal de Mer above Terra Incognita, or What Ails the Coastal Migration Theory?,” *Arctic Anthropology* 29/2 (1992): 28–41.

49. For example, Chester S. Chard, “New World Migration Routes,” *Anthropological Papers of the University of Alaska* 7/1 (1958): 23–26, considered a north Pacific sea route out of the question because he presumed, without serious research, a total lack of nautical skills among peoples of northeastern Asia.

Mounting data on navigation in Near Oceania and Australasia have demonstrated a very early ability to cross open sea. For example, Australia was reached from Papua New Guinea or Timor at least 50,000 years ago. The Solomon Islands were settled nearly 29,000 years ago, after an open-sea crossing of over 100 miles (160 km).⁵⁰ Bednarik⁵¹ has argued convincingly that *Homo erectus* in the islands of Southeast Asia must have had “almost habitual use of navigation” of some sort by 840,000 years ago! He and associates constructed a simple vessel on the island of Timor using only Lower Pleistocene stone-tool technology, then used the craft to sail to Australia.⁵² Meanwhile thousands of Lower Paleolithic hand axes have been found on the island of Crete in the Mediterranean in geological settings that date at least 130,000 years ago and possibly as far back as 700,000 years. Voyagers arrived there, probably repeatedly, well before 100,000 years ago.⁵³ Trading voyages thousands of miles in length were carried on in the mid-Pacific several thousand years ago.⁵⁴

Some archaeologists doing research on the question of the settlement of the Americas have in recent years considered early sailing around the North Pacific to be plausible.⁵⁵ Almost 50 years ago, Bushnell⁵⁶ granted that there

50. Clive Gamble, *Timewalkers: The Prehistory of Global Colonization* (Stroud, England: Sutton, 1993), 214–15.

51. Robert G. Bednarik, “The Initial Peopling of Wallacea and Sahul,” *Anthropos* 92 (1997): 355–67.

52. Robert G. Bednarik, “Maritime Navigation in the Lower and Middle Paleolithic,” *Comptes rendus de l’Académie des Sciences, Paris, Ser. 11A, Sciences de la Terre et des Planètes* 328/8 (1999): 559–63; and Bednarik, “Replicating the First Known Sea Travel by Humans: The Lower Pleistocene Crossing of Lombok Strait,” *Human Evolution* 16 (2001): 229–42.

53. Gavin Menzies, *The Lost Empire of Atlantis: History’s Greatest Mystery Revealed* (London: Swordfish, 2011), 90–91.

54. Bruce Bower, “Polynesian Tools Tout Ancient Travels,” *Science News* 149/9 (1996): 135; Robert F. Service, “Rock Chemistry Traces Ancient Traders,” *Science* 274 (1996): 2012–13; and William R. Dickinson et al., “Japanese Jomon Sherds in Artifact Collections from Mele Plain on Efate in Vanuatu,” *Archaeology in Oceania* 34 (1999): 15–24.

55. E. James Dixon, *Quest for the Origins of the First Americans* (Albuquerque: University of New Mexico Press, 1993); and Don A. Hall, “Charting the Way into the Americas,” *Mammoth Trumpet* 14/1 (1999): 1–11.

56. Geoffrey H. S. Bushnell, “An Old World View of New World Prehistory,” *American Antiquity* 27 (1961): 63–70.

was nothing physically impossible about vessels coasting around the North Pacific at any time after 8000 BC. Since then, Fladmark has argued repeatedly for a similar thesis.⁵⁷ Dixon considered it “not unreasonable” to assume that watercraft were capable of moving along the coast from Asia by 13,000 years ago.⁵⁸ Six years later, he had upped that figure to 16,000.⁵⁹ Nowadays, the plausibility of the coastal voyaging position is supported with increasing frequency.⁶⁰ A respected archaeologist, Dennis Stanford of the Smithsonian Institution, has also proposed that Late Paleolithic (Solutrean) hunting people from Western Europe (15,000–20,000 years ago) made their way around the ice-bound edge of the North Atlantic to settle in Late Pleistocene North America.⁶¹

Support has been more restrained for the idea of voyages directly across the Pacific. Nevertheless, the hypothesis put forward 40 years ago, that voyagers bearing ceramics of the Jomon culture of Japan reached Ecuador around 3000 BC,⁶² was accepted by a number of prominent archaeologists,⁶³ although support later ebbed for no apparent reason.

57. Knut R. Fladmark, “Routes: Alternate Migration Corridors for Early Man in North America,” *American Antiquity* 44 (1979): 55–69; Fladmark, “Times and Places: Environmental Correlates of Mid-to-Late Wisconsin Human Population Expansion in North America,” in *Early Man in the New World*, ed. Richard Shutler Jr. (Beverly Hills, CA: Sage Publications, 1983), 13–41; and Fladmark, “Getting One’s Berings,” *Natural History* 95/11 (1986): 8–19.

58. Dixon, *Origins of the First Americans*, 120.

59. E. James Dixon, *Bones, Boats, and Bison: Archeology and the First Colonization of Western North America* (Albuquerque: University of New Mexico Press, 1999), 31.

60. William E. Engelbrecht and Carl K. Seyfert, “Paleoindian Watercraft: Evidence and Implications,” *North American Archaeologist* 15 (1994): 221–34; Gamble, *Timewalkers*; Jim Borg, “The History Within: Genetic Research Offers Intriguing New Views of Polynesian Migrations,” *Hawaii Magazine* 14/1 (1997): 36–41; and Tom D. Dillehay, “Disease Ecology and Initial Human Migration,” in *The First Americans: Search and Research*, ed. Tom D. Dillehay and David J. Meltzer (Boca Raton, FL: CRC, 1991), 231–64.

61. Constance Holden, “Were Spaniards among the First Americans?,” *Science* 286 (1999): 1467; and Dennis J. Stanford and Bruce A. Bradley, *Across Atlantic Ice: The Origin of America’s Clovis Culture* (Berkeley: University of California Press, 2012).

62. Emilio Estrada and Betty J. Meggers, “A Complex of Traits of Probable Transpacific Origin on the Coast of Ecuador,” *American Anthropologist* 63 (1961): 913–39.

63. For example, Gordon R. Willey, *An Introduction to American Archaeology* (Englewood Cliffs, NJ: Prentice-Hall, 1971), 2:16.

Edwards and Doran have presented many details about the nautical capability of Chinese seagoing rafts and have made clear that the rafts of coastal Peru and Ecuador were explicitly parallel in form and capability to those known in China, Indochina, and India.⁶⁴ There is no question that those rafts (more accurately, ships) were capable of direct transpacific voyages. Although historical documentation of these Chinese and Southeast Asian oceangoing vessels goes back only to the first century BC,⁶⁵ further research could well prove the craft to have been much older.⁶⁶

In Peru, balsa rafts were in use along the shore by 2500 BC and ocean-going craft perhaps by 1500 BC.⁶⁷ Of course, Thor Heyerdahl's *Kon-Tiki* expedition raised a question about raft travel from South America to Polynesia, and many subsequent sailors have followed his example. Alsar demonstrated the feasibility of crossing the Pacific from east to west by sailing a fleet of three Ecuadorean-built rafts with a crew of 12 (four per vessel) over 9,200 miles (14,800 km) to Australia.⁶⁸ His rafts even exchanged crew members at rendezvous points en route. Various forms of such rafts, in addition to large canoes, were used throughout much of Oceania.⁶⁹

64. Clinton R. Edwards, "New World Perspectives on Pre-European Voyaging in the Pacific," in *Early Chinese Art and Its Possible Influence in the Pacific Basin*, ed. Noel Barnard (New York: Intercultural Arts Press, 1972), 3:843–87; Edwin Doran Jr., "The Sailing Raft as a Great Tradition," in Riley et al., *Man across the Sea*, 115–38; and Doran Jr., "Seaworthiness of Sailing Rafts," *Anthropological Journal of Canada* 16/3 (1978): 17–22. Compare Joseph Needham and Lu Gwei-djen, *Trans-Pacific Echoes and Resonances: Listening Once Again* (Singapore: World Scientific, 1985), 48–49.

65. Ling Shun-sheng, "Formosan Sea-Going Raft and Its Origin in Ancient China," *Bulletin of the Institute of Ethnology, Academia Sinica* (Taipei) 1 (1956): 25–54.

66. Kwang-chih Chang, "Chinese Prehistory in Pacific Perspective: Some Hypotheses and Problems," *Harvard Journal of Asiatic Studies* 22 (1959): 134–39; Clinton R. Edwards, *Aboriginal Watercraft on the Pacific Coast of South America* (Berkeley: University of California Press, 1965), 98–100; and Joseph Needham, Wang Ling, and Lu Gwei-djen, *Science and Civilisation in China* (Cambridge: Cambridge University Press, 1971), 4:542–43.

67. Presley Norton, "El señorío de Salangone y la liga de mercaderes: El cartel spondylus-balsa," *Miscelanea antropológica ecuatoriana* 6 (1986): 131–43.

68. Vital Alsar, *La Balsa: The Longest Raft Voyage in History* (Pleasantville, NY: Reader's Digest, 1973), 6–91; and Alsar, *Pacific Challenge*, video by Concord Films (La Jolla, CA: ALTI, 1974).

69. P. Clissold, "Early Ocean-Going Craft in the Eastern Pacific: An Appreciation of Part of 'American Indians in the Pacific,'" *Mariner's Mirror* 45 (1959): 234–42.

Our present state of knowledge about ancient nautical technology does not rule out voyages that would account for the early presence of plants, diseases, and cultural features shared by the two hemispheres. The difficulties of demonstrating that viable vessels were in use long ago that could have crossed the ocean are due in part to the lack of interest in the topic and to the fact that maritime archaeology dealing with recovering simple craft has not been pursued in the waters near America. Still, the circumstantial evidence for such voyages is now so strong that it must be accepted that watercraft with transoceanic capability were in use a very long time ago.

Consider the case of the sunken fourth-century-BC Greek ship salvaged from Kyrenia, Cyprus, in the eastern Mediterranean. According to J. Richard Steffy, a maritime archaeologist,⁷⁰ the hull was covered on the outside with large sheets of lead held in place by a compound of pine resin and agave fibers. But agave is a Mexican plant. How did it get onto a Greek ship? Steffy has reported, "You wouldn't believe how many people have protested that statement, but I was only repeating the identifications made by professionals in respectable [botanical] laboratories. . . . The first samples were identified by Kew [Royal Botanical] Gardens in England. A second set was done later in the US with the same results."⁷¹

On the basis of this find, we must conclude that either the Kyrenia ship had reached Mexico itself, where the agave plant grows naturally, or else some earlier voyage had transplanted agave plants to the Mediterranean area, where the fibers to make the new caulking were taken from plants descended from the original transplants. Have other Old World ships from ancient times been as carefully checked by botanists? I doubt it.

The vessels reported or implied in the Book of Mormon are not clearly described, so no specific correspondences with New World craft can be pointed out. The ship constructed under Nephi₁'s direction by the Lehite party on the coast of Oman or Yemen was said to be "not after the manner of men," yet "the workmanship . . . was exceedingly fine" (1 Nephi 18:2, 4). In it they "did put forth into the sea and were driven forth before the wind" (v. 8). The description of the design of the Jaredite vessels ("barges")

70. J. Richard Steffy, "The Kyrenia Ship: An Interim Report on Its Hull Construction," *American Journal of Archaeology* 89/1 (1985): 71–101.

71. Personal e-mail to the author, 2001.

was equally ambiguous: "They were small, and they were light upon the water," being "exceedingly tight, even that they would hold water like unto a dish; . . . and the length thereof was the length of a tree" (Ether 2:16–17). Traveling in eight such craft, without sails, the party is said to have reached the New World in 344 days (6:11).

In fact, the lack of information on boats and sea transport leads us to a separate minor correspondence. Other than the origin traditions that involved oceanic travel, only one small episode of ship travel is referred to in the Nephite record. It tells of the construction by Hagoth of a handful of ships used to transport people and goods from the narrow neck of land into the land northward during a brief period in the first century BC. Aside from that one occasion, Nephites are not represented as either living in significant numbers adjacent to the sea or sailing upon it. This agrees with what is known of nautical science in Mesoamerica. There was little effective use of water transport.⁷² The major exceptions are the apparent occasional stops by rafts or boats from Ecuador along the Pacific coast over a long period of time,⁷³ although they do not seem to have played any important role in the development of Mesoamerican cultures. It is not without interest, then, that the sole documented episode involving shipbuilding and navigation in the Book of Mormon account likewise occurred along the Pacific ("west") seacoast.

Taken altogether, the evidence revealed in scientific sources impressively demonstrates that thousands of years ago a significant number of vessels did cross the ocean to America from the Old World. The historical report in the Book of Mormon of three such voyages corresponds comfortably with these facts.

72. There was some sailing around the Yucatan Peninsula at the time of the Spanish conquest, but little is known about it, and it is no more than a footnote to what we know about the culture history of the area. Clinton R. Edwards, "Nautical Technology and Maritime Routes in Mesoamerica," in *Proceedings of the 40th International Congress of Americanists (Rome and Genova, 1972)* (1976): 199–202.

73. Norton, "El señorío de Salangone"; and Robert C. West, "Aboriginal Sea Navigation between Middle and South America," *American Anthropologist* 63 (1961): 133–35.

Chapter 10

Language

According to the Book of Mormon, three parties migrated to Mesoamerica from Eurasia. Each group consisted of speakers of Old World languages who brought with them knowledge of one or more Near Eastern writing systems and spoke one or more tongues. The book in its original form was apparently written in an unspecified language (Mormon 9:34: “none other people knoweth our language,” but that could mean “our writing system”). The Nephites over a 900-year period would have modified their everyday tongue. Altogether, these facts mean that we have no idea what language Mormon was using.

Reconciling the Book of Mormon picture of three parties of Near Eastern language speakers settling into a Mesoamerican context is not easy. It is an assumption among almost all competent students of historical linguistics that there is no significant evidence connecting any New World languages to any from the Old World. Though usually considered to be a fact, this view is actually an academic myth reinforced by those who pay selective attention to what scholars actually know about language history.

Linguistic historians suppose that on the order of 5,000 to 7,000 languages were spoken in recent centuries for which we have some record or mention.¹ Only a small fraction of those have been described in formal linguistic terms. No more than a few hundred scholars are qualified and

1. Lewis M. Paul, ed., *Ethnologue*, 16th ed. (Dallas: SIL International, 2009). It has been speculated that throughout human history there could have been as many as a few hundred thousand languages. David Crystal, *Language Death* (Cambridge: Cambridge University Press, 2002), 2–11.

active in the field of historical linguistics, and very few of them have direct knowledge of as many as a dozen languages. Virtually none of the experts know active languages from both the Old and New Worlds. In short, the issue of interhemispheric language relationships has been examined only superficially. In view of this lack of knowledge and analysis, it is impossible at this time for anyone to make an informed assertion that *no* New World languages were connected to any languages from the Old World.

Some Old World Languages Were Known in the New World

When a competent linguist engages in appropriate analysis, long-distance relationships between languages can come to light. A prime example comes from work by Dr. Merritt Ruhlen at Stanford University. In 1998 he published a body of previously unrecognized cognates (related words or morphemes) shared by the Yeniseian language, spoken in western Siberia, and the Na-Dene language family, which includes Navaho and Apache, spoken in northern and western North America—locations more than 4,000 miles (6,500 km) apart.² Hitherto, both Yeniseian and the Na-Dene tongues had been considered isolates (i.e., they were thought to have no known relatives). Yet Ruhlen now contends that “it is difficult to imagine that similarities of this [concrete a] nature could exist between language families that do not share a common origin.” He agrees that the initial Na-Dene speakers, the Haida, could have reached the islands that became their home off British Columbia by boat from Asia. At least there is no evidence that they crossed over via the Bering Strait.³ This example cautions us that there is yet much to be learned about the ancient linguistic history of America.

An equally startling linguistic breakthrough came from the work of Otto von Sadvoszky, a Hungarian native who studied linguistics and anthropology at the University of California and then was a professor at California State University, Fullerton, for many years. At Berkeley he discovered by chance that his knowledge of Hungarian (which belongs to the Finno-Ugrian language family of northern Eurasia) enabled him to understand

2. Merritt Ruhlen, “The Origin of the Na-Dene,” *Proceedings of the National Academy of Sciences USA* 95 (1998): 13994–96.

3. Personal e-mail to the author, March 1999.

some of several central California Indian (Penutian) languages that had been documented in the university's files! Through more than a quarter century of further study, he established that these California Native American tongues actually were extensions or outliers of the Ugrian language family, whose speakers live along the Ob River in northwestern Russia. His research turned up extensive vocabulary shared between the two distant speech centers. He also found detailed supporting evidence from ethnography (the research field that describes a living people's cultural patterns) and traditions in the two areas.⁴ Based on a comparison of the speech-sound changes noted in the branch of the family in Russia compared with those of the California branch, he estimated that Ugrian speakers departed from the Ob River area around 500 BC.⁵ His scenario saw them traveling down the Ob to the Arctic Ocean, moving 2,500 miles (4,000 km) east along the coast to Alaska and then southward to California coastal points, depending on salmon fishing for subsistence.

The connection of these tongues thousands of miles apart might never have been noticed had it not been for the accident that brought a native speaker of a language of the Finno-Ugric family to study at Berkeley, the only scholarly center where extensive archival records existed on the relevant central California Indian languages. It seems likely that other language relationships might be detected if other linguists had the luck of Sadoszky and Ruhlen.

A positive prospect for further linguistic discoveries is suggested by a statement from another famous linguistic scholar, Morris Swadesh:

4. Otto J. von Sadoszky, *The Discovery of California: A Cal-Ugrian Comparative Study* (Budapest: Akademiai Kiado; Los Angeles: International Society for Trans-Oceanic Research, 1996); von Sadoszky, "The Time of Arrival of the Cal-Ugrians in California in the Light of the Ugrian Sound Change *k->x->h-," unpublished paper, ca. 1973; von Sadoszky, "The Reconstruction of IE *pisko and the Extension of Its Semantic Sphere," *Journal of Indo-European Studies* 1 (1975): 81–100; and von Sadoszky, "Report on the State of Uralo-Penutian Research," *Ural-Altäische Jahrbücher* 48 (1976): 191–204. A considerable amount of his supporting material was published in his 1996 book and in a number of articles, but the full range of his linguistic data had not seen print by the time of his death in 2004.

5. Otto J. von Sadoszky, "Die Zeit der Ankunft der Cal-Ugrier in Kalifornien im Lichte des ugrischen Lautwechsels *k->x->h-," in *Congressus Sextus Internationalis Fenno-Ugristarum, Abstracts: Linguistics* (Kornu Branch: Syktyvkar, 1985), 1:19.

The fact that there are no [recognized] linguistic relatives with a closer time-depth than 4,000 years in Asia and America does not imply that no migrations have taken place in all that time. It is perfectly possible that a group of people having arrived speaking a new language eventually was absorbed into an already established linguistic community, [as in the historical cases of the] Dutch in [colonial] New York, Norman French in England, or Arabic in [late Medieval] Spain.⁶

In the same vein, archaeologist James Dixon pointed to the Vikings, “a clearly documented case of a major and long-lived transoceanic colonization of the Americas that ultimately failed.”⁷ Later events, he observed, have obscured the genetic and linguistic record so that “the original Norse colonization of Greenland cannot be demonstrated ever to have happened” on the basis of surviving populations or languages, yet there is no doubt that it took place.

Ruth Gruhn listed scores of what linguists consider isolate Native American languages, those with no apparent relatives.⁸ A bit of daring by linguistic researchers capable of examining possible connections between Old World languages and these apparent orphan tongues might yield results comparable to those described above. In any case, it is scientifically and logically unacceptable to rule out a priori the possibility that other intrusive Old World languages can be found in the Americas.

6. Morris Swadesh, “Linguistic Relations across Bering Strait,” *American Anthropologist* 64 (1962): 1262. Stengar discusses kiln-fired ceramics found in southwestern Washington State dating to about AD 1400 that are unique in the area and that she calls “Japanese influenced.” It is reasonable to suppose that they represent material evidence for one such small group of migrants by sea from Asia that was later absorbed by local Native Americans. Alison T. Stenger, “Japanese-Influenced Ceramics in Pre-Contact Washington State: A View of the Wares and Their Possible Origin,” in *The New World Figurine Project*, ed. Terry Stocker (Provo, UT: Research Press, 1991); compare John Woodward, “An Early Ceramic Tradition on the Pacific Coast,” *The Masterkey for Indian Lore and History* 51/2 (1977): 66–72.

7. E. James Dixon, *Quest for the Origins of the First Americans* (Albuquerque: University of New Mexico Press, 1993), 130–31.

8. Ruth Gruhn, “Linguistic Evidence in Support of the Coastal Route of Earliest Entry into the New World,” *Man*, n.s. 23 (1988): 77–100.

Some of this research has been begun by other unconventional linguistic researchers with enlightening results. The late Mary Ritchie Key of the University of California, Irvine, spent 25 years studying relationships between Pacific Island tongues and Amerindian languages of South America.⁹ Although she never published all her research, she was on a productive track; certain language relationships are now quite clear between those areas. Of similar interest is the work of Wilfried Schuhmacher and his colleagues,¹⁰ who tracked numerous individual words across the Pacific from Papua New Guinea to Mesoamerica and South America, but without generating any explicit historical reconstruction of how the connecting links came about.

University of California, Berkeley, linguistic scholar Johanna Nichols arrived at a similar picture: "The New World behaves [linguistically] like part of the circum-Pacific population and not like an extension [via the Bering Strait] of the Old World. . . . New Guinea and Oceania bear clear and consistent affinities to the New World."¹¹

The discipline of linguistics still faces a lot of work before pronouncing definitively about the history of language connections to (or even within) the Americas. As an example, consider the case of Timucuan, an Amerindian language reported from 17th-century Florida. Granberry discovered that Timucuan had many features tying it to the Warao language isolate in the Orinoco Delta in Venezuela, as well as to the Arawak family in the Amazon basin (it also relates to Muskogean tongues of the southeastern United States). He found archaeological correlates showing that the South American language speakers must have made a nonstop voyage of about

9. Mary R. Key, *Polynesian and American Linguistic Connections*, Edward Sapir Monographic Series in Language, Culture, and Cognition 12 (Lake Bluff, IL: Jupiter, 1984); Key, "American Indian Languages before Columbus," *New England Antiquities Research Association Journal* 28/3 (1994): 103–12; and Key, "American Indian Languages before Columbus," in *Across before Columbus? Evidence for Transoceanic Contact with the Americas prior to 1492*, ed. Donald Y. Gilmore and Linda S. McElroy (Edgecomb, ME: New England Antiquities Research Association, 1998), 183–92.

10. W. Wilfried Schuhmacher et al., *Pacific Rim: Austronesian and Papuan Linguistic History* (Heidelberg, Germany: Carl Winter Universitätsverlag, 1992).

11. Johanna Nichols, *Linguistic Diversity in Space and Time* (Chicago: University of Chicago Press, 1992), 228, 224.

1,000 miles (1,600 km) through the Caribbean to Florida at approximately 2000–1500 BC. The resulting Timucuan language was clearly a “creolized [language mixture] system,” and hence it “has no single provenience [place of origin].”¹² Until Granberry made his comprehensive study, no one had suggested such a complex history, let alone that there was strong evidence for it.

Surprising Mesoamerican Language Connections

When it comes to the question of Old World ties to Mesoamerican languages, the evidence is challenging in scope and depth while still full of puzzles. Fahey recently documented a probable connection of the Mayan language family to the Sino-Tibetan family, which includes Chinese. He has assembled a sizable body of word similarities between Mayan and Chinese with consistent sound correspondence sets of the type linguistic scholars demand.¹³ Fahey’s lexical comparisons are between the reconstructed Proto-Mayan and Old Chinese tongues. He concludes that Proto-Mayan

12. Julian Granberry, “Amazonian Origins and Affiliations of the Timucua Language,” in *Language Change in South American Indian Languages*, ed. Mary R. Key (Philadelphia: University of Pennsylvania Press, 1991), 204.

13. Bede Fahey, “The Asiatic Neolithic, the Southern Mongoloid Dispersal, and Their Possible Significance for the Americas,” *Pre-Columbiana: A Journal of Long Distance Contacts* 2/2–3 (2001): 164–204; and Fahey, *Mayan: A Sino-Tibetan Language? A Comparative Study*, Sino-Platonic Papers 130 (Philadelphia: Department of East Asian Languages and Civilizations, University of Pennsylvania, 2004). For a summary of earlier studies on Mesoamerican tongues in relation to Sino-Tibetan, see Morris Swadesh, “On Interhemisphere Linguistic Connections,” in *Culture in History: Essays in Honor of Paul Radin*, ed. Stanley Diamond (New York: Columbia University Press, 1960), 894–924. Kaufman presents the standard interpretation of Mayan linguistic history that sees Proto-Mayan arising in the Cuchumatanes Mountains of highland Guatemala at around 2000 BC. Terrence Kaufman, “Archaeological and Linguistic Correlations in Mayaland and Associated Areas of Meso-America,” *World Archaeology* 8/1 (1976): 101–18; and Kaufman, “Areal Linguistics and Middle America,” in *Native Languages of the Americas*, ed. Thomas A. Sebeok (New York: Plenum, 1977), 2:63–87. Nora C. England, in *La autonomía de los idiomas mayas: Historia e identidad* (Guatemala: Cholsamaj, 1992), provides a revised list of morphemes that are considered part of the Proto-Mayan lexicon. Actually, a significant number of those terms are patently impossible to reconcile with the cultural situation at 2000 BC in the highlands. Based on what is known archaeologically for Mesoamerica, many of England’s words could not have had their supposed meanings until many centuries later, when civilization had

speakers were first manifest in eastern Mesoamerican archaeology at about 1000–900 BC, more or less in agreement with Clark and Cheetham's reconstruction of the history of the earliest Maya based on archaeology.¹⁴ Sound correspondences with Sino-Tibetan, Fahey believes, are most plausibly explained by considering Proto-Mayan to have been spoken by migrants from the Shang Dynasty who had been displaced by tumultuous events from their home area in northern China in the 12th century BC. Fahey does not cite, as he might have done, studies by Xu and others that support the view that Shang Chinese writing has been found on Olmec archaeological objects and that significant cultural features are shared by China and Mesoamerica.¹⁵

Furthermore, Mary LeCron Foster, the linguist at the University of California, Berkeley, argued that "regularity of sound changes and phonological patterning show certain languages in Asia, Africa, and the Americas to be genetically related." The spread "over a vast oceanic area," including America, of "this ancient sea-borne group of languages" she credits to boat people, intermediately from the coast of China but ultimately "from beginnings around the Red Sea." She also proposed a separate movement "from the Mediterranean across the Atlantic to the American coast." Furthermore,

developed to a higher level than existed in 2000 BC. Obviously something is wrong with this standard reconstruction of Proto-Mayan.

14. John E. Clark and David Cheetham, "Mesoamerica's Tribal Foundations," in *The Archaeology of Tribal Societies*, ed. William A. Parkinson (Ann Arbor, MI: International Monographs in Prehistory, 2002), 278–339.

15. H. Mike Xu, *Origin of Olmec Civilization* (Edmond: University of Central Oklahoma Press, 1996); Xu, "The Evidence of Mesoamerican Writing—Transpacific Origin?," *Yindu Journal, Special Edition Commemorating the 100th Anniversary of the Discovery of Ancient Chinese Inscriptions* (1999): 28–43; Xu, "The New Evidence of a Connection between Ancient Chinese Inscriptions and Mesoamerican Motifs," *Zhongguo wen zi yan jiu* 1 (1999): 410–18; and Xu, "New Evidence for Pre-Columbian Transpacific Contact between China and Mesoamerica," *Journal of the Washington Academy of Sciences* 88/1 (2002): 1–11; Fahey, *Mayan: A Sino-Tibetan Language?* Compare Betty J. Meggers, "The Transpacific Origin of Mesoamerican Civilization: A Preliminary Review of the Evidence and Its Theoretical Implications," *American Anthropologist* 77 (1975): 1–27; Harold K. Schneider, "Prehistoric Transpacific Contact and the Theory of Culture Change," *American Anthropologist* 79 (1977): 9–25; and Luis González Calderón, *The Jade Lords* (Coatzacoalcos, Mexico: printed by author, 1991).

she was “astonished to discover a close phono-semantic relationship between the Mixe-Zoquean languages of Mexico’s Isthmus of Tehuantepec and ancient Egyptian.”¹⁶ She found that “Uto-Aztecan (a language family found mainly in Mexico) proves to derive either from Proto-Indo-European (IE) . . . or even from pre-IE ancestors.” She also believed her data showed that Quechua (the language of the Incas of Peru) had been subject to extensive borrowing from a Semitic language, seemingly Arabic.¹⁷

David H. Kelley of the University of Calgary showed years ago an interesting conjunction of certain Mesoamerican calendar names with characters in the Semitic alphabet, whose order had calendrical and mythological significance in the Near East.¹⁸ He observed that the Maya day name *Manik* (neither the meaning nor origin of this term is known to Mayanist scholars) is represented by a glyph in the shape of a hand. The conventional spelling of the Yucatec Maya word for “hand” is *kab*. “We have in Mayan a hand glyph corresponding [sequentially in terms of the alphabet and thus the calendar] to the Hebrew letter *k* [the glyph being] probably pronounced *kaph*.”¹⁹ The next letter of the Hebrew alphabet is *l*, with the name *lamed*. The corresponding day name in the order of the Yucatec Mayan calendar is *Lamat* (also compare Tzental Maya *lambat* with the Greek letter *lambda*). Next in the Maya list is the day-name *Mulu(c)*, shown symbolized by a

16. Mary LeCron Foster, “The Transoceanic Trail: The Proto-Pelagian Language Phylum,” *Pre-Columbiana: A Journal of Long-Distance Contacts* 1/1 (1998): 88, 90–91. See also her papers “Old World Language in the Americas, 1,” paper presented at the annual meeting of the Association of American Geographers (San Diego: 1992); and “Old World Language in the Americas, 2,” paper presented at the annual meeting of the Language Origins Society (Cambridge: Cambridge University, 1992). Foster did not publish full documentation of the evidence for her historical interpretations before her death in 2001, although basic data on sound and semantic correspondences were included in the articles cited here.

17. Foster, “Old World Language in the Americas, 2,” 2.

18. David H. Kelley, “Calendar Animals and Deities,” *Southwestern Journal of Anthropology* 3 (1960): 317–37. S. C. Compton, in chapter 7 of *Exodus Lost: An Inquiry into the Genesis of Civilization* (n.p.: printed by author, 2011), reprises Kelley’s observations, then goes far beyond him by showing similarities between the Mayan and Zapotec day-name symbols and the symbols in the Bronze Age proto-Sinaitic “first alphabet” from the Sinai Peninsula.

19. Kelley, “Calendar Animals and Deities,” 328.

shark and with the Aztec equivalent sense of “water” (compare Hebrew *mem*, “water,” and its equivalent, Greek *mu*). The relationships shown in this sequence are suggestive of a Hebrew or at least a southwestern Asiatic influence on the Mesoamerican calendar system.

Studies of the sort just reviewed are either too narrow or too unfocused standing alone to be convincing in regard to the presence of any Old World tongue in the Mesoamerican area. But a line of research that is more powerful involves evidence for Semitic tongues in the ancestry of the Uto-Aztecan (UA) family. Those languages are distributed mainly in Mexico and the southwestern United States.

The first investigation along this line was carried out (at the suggestion of Thomas Stuart Ferguson) by Pierre Agrinier, an archaeologist with the New World Archaeological Foundation; he worked under the guidance of noted linguist Morris Swadesh. Although Agrinier never published his results fully, Reed quoted Swadesh as saying about Agrinier’s study, “I was surprised at the number and closeness of the parallels between the Sawi-Zaa [his name for the language family that includes Zapotec in Oaxaca state in Mexico] and the Semitic languages.”²⁰ Approximately 18 to 20 percent of the few hundred Zapotec words examined were said to have recognizable parallels in Hebrew. Later work increased the list.²¹

Brian Stubbs, a recognized expert on the UA language family, later took up a parallel but linguistically more sophisticated comparison of Semitic languages, this time with UA; he was already familiar with tongues of both families. His 1988 report showed a “consistent pattern of sound correspondences” that involved over 200 roots. A brief sample of terms he found illustrates that at least some type of systematic relationship exists (see table 10.1).²²

20. Pierre Agrinier, “Linguistic Evidence for the Presence of Israelites in Mexico,” *Society for Early Historic Archaeology Newsletter* 112 (1969): 4–5; and Alma M. Reed, *The Ancient Past of Mexico* (New York: Crown, 1966), 10.

21. Robert F. Smith, “Sawi-Zaa Word Comparisons,” typescript, 1977.

22. Brian Stubbs, “Looking Over vs. Overlooking Native American Languages: Let’s Void the Void,” *Journal of Book of Mormon Studies* 5/1 (1996): 16.

Table 10.1
Some Lexical Similarities

Hebrew/Semitic		Uto-Aztecan	
baraq	lightning	berok	lightning
*kilyah/kolyah	kidney	*kali	kidney
katep/katpa	shoulder	*kotpa	shoulder
s-kem/sikm	shoulder	*sika/siku	shoulder
adam	man	*otam	man, person
mayim/mem	water	*meme-t	ocean
sipah	smooth, plane off	*sipa	shave, scrape
*siggob	squirrel	*sikku	squirrel
sippor	bird	*cipu(ri)	bird

This list has since been greatly expanded and shows several sorts of patterned linguistic correspondences between the two families in addition to vocabulary. In 1996 Stubbs reported, “The similarities (lexical, morphological, and semantic combinations) between UA and Semitic [now] number about 1000.”²³ By 2005 (personal communication) that number had grown greater still, yet Stubbs considered his latest informally published study²⁴ still exploratory. Now that he has published a major comparative work on UA languages (based on 2,700 cognate sets drawn from 30 UA tongues),²⁵ he plans to return to a comparison of Semitic with UA. Stubbs’s intermediate conclusion is that perhaps 30–35 percent of all UA words relate in some degree to Semitic languages.²⁶

In a forthcoming book he plans to demonstrate that a variety of puzzles in the UA data are explainable by supposing the infusion of two Semitic dialects and Egyptian that creolized with an ancestral UA base tongue.²⁷ “A

23. Stubbs, “Looking Over vs. Overlooking,” 33.

24. Brian Stubbs, *A Few Hundred Hints of Egyptian and Two Dialects of Northwest Semitic in Uto-Aztecan*, photocopy, 2006.

25. Brian Stubbs, *Uto-Aztecan: A Comparative Vocabulary* (Blanding, UT: Rocky Mountain Books, 2011).

26. Stubbs, *Few Hundred Hints of Egyptian*, 102.

27. Personal communication with the author.

salient implication suggested by the data is that Egyptian and two dialects of Northwest Semitic and other unknowns, likely of American origin, had merged by Proto-Uto-Aztecan times. Such is admittedly a strange combination, but many languages are strange combinations—like English. Modern English kept only 15 percent of the Old English vocabulary, . . . having replaced most of the other 85 percent with influxes of Latin and French. . . . Many languages are mixtures to varying degrees.”²⁸ The Hebrew-language element was apparently incorporated into the developing Uto-Aztecan family between 2,000 and 3,000 years ago. (Compare table 10.1.)

Data on this scale and with the linguistic sophistication Stubbs brings to it are sufficient to require serious consideration of the hypothesis that UA languages involved a significant Semitic element.

Meanwhile, preliminary surveys by Stubbs of other New World language families suggest that while several show no linkages with Semitic tongues, others besides UA probably had such a tie yet to be formally documented.

Thus far Stubbs and Foster have shown sufficient detailed comparisons between Near Eastern and Mesoamerican languages that it no longer can be asserted *ex cathedra* that there are no extra-continental language ties between Mesoamerica and the Old World. It remains to be seen whether *definitive* proof of a linguistically sophisticated sort has been mustered, but so far the support is real although incomplete.

Results from comparative linguistic research justify considering that the Book of Mormon story of small groups of Near Eastern migrants reaching and inhabiting portions of Mesoamerica is not contradictory to what is known from language studies. To this point linguistic scholarship provides a significant measure of support for that proposition. As the linguistic history available at this time is incomplete, ongoing studies promise to shed further light on correspondences between the Book of Mormon’s picture of languages and that for Mesoamerica.

28. Stubbs, *Few Hundred Hints of Egyptian*, 102–3.

Chapter 11

Records and Writing Systems

The Book of Mormon reports that books were used by the Jaredites, Nephites, and Lamanites from the third millennium BC (Ether 8:9) until the end of Nephite society late in the fourth century AD (Moroni 10:1–2). According to the record, texts were carved on stone monuments at least as late as the sixth century BC (Omni 1:20–22).¹ In the first century BC a Nephite historian said, “There are many records kept of the proceedings of this people, by many of this people, which are particular and very large.” Included were “many books and many records of every kind” (Helaman 3:13, 15). Mormon, the last major writer in the Nephite tradition, utilized a whole library of such books as sources from which he compiled his historical account (Mormon 6:6; compare 1:3).

The tradition of literacy continued after the destruction at Cumorah among the “robbers” and Lamanites (Mormon 6:2–3; 2:28), some of whom were ex-Nephites (Moroni 9:24). In any case, some of the Lamanites were also literate—note the epistle that a fourth-century Lamanite king wrote to commander Mormon (Mormon 3:4).

That the scale of literacy was limited among Book of Mormon populations is evident in the text (explicitly at 3 Nephi 6:12 and throughout the discussion below). Eggington analyzed language use in the Book of Mormon to contrast the oral versus the literate dimensions of the Nephite

1. While only a single case is reported in the Book of Mormon, this earlier practice was apparently common enough to be taken for granted by Nephite record keepers.

and Lamanite cultures.² He found that orality predominated, while writing was reserved for restricted kinds of communications. The same emphasis is known from Mesoamerica.³

Writing and Books and Their Uses in Mesoamerica: Overview

Of all Mesoamerican writings, Aztec records are described in the fullest detail in the scholarly literature. They contained “annals of ancient times, contemporary events, year counts, accounts compiled yearly, specific records for each year, books of each day and day-by-day count[s] or diaries.”⁴ Some of the records constituted histories of whole peoples, and they incorporated accounts of “victories, defeats, the lives of rulers, memorable ceremonial occasions” and even “the adventures of individual heroes, often in intimate and vivid detail.”⁵ Letters were written by and to individual correspondents.

Such records were kept pretty much throughout Mesoamerica. According to Spanish eyewitnesses who talked with native priests about their books, the Maya of Yucatan “used to write their histories and the ceremonies and method of sacrifices to their idols, and their calendar, in books.” Also, they had written records of “important things which had occurred in (the past) . . . (the prognostications) of their prophets and the lives . . . (of) their lords.”⁶ Another description mentions “brief chronicles, fragmentary historical narratives, rituals, . . . mythological accounts of the creation of

2. William Eggington, “‘Our Weakness in Writing’: Oral and Literate Cultures in the Book of Mormon” (Provo, UT: FARMS, 1992).

3. Joyce Marcus, “Royal Families, Royal Texts: Examples from the Zapotec and Maya,” in *Mesoamerican Elites: An Archaeological Assessment*, ed. Arlen F. Chase and Diane Chase (Norman: University of Oklahoma Press, 1992), 221–41.

4. George C. Vaillant, *The Aztecs of Mexico* (Harmondsworth, England: Penguin, 1950), 202–3.

5. Frances F. Berdan, *The Aztecs of Central Mexico: An Imperial Society* (New York: Holt, Rinehart and Winston, 1982), 158.

6. Alfred M. Tozzer, ed. and trans., *Landa’s Relación de las Cosas de Yucatan: A Translation*, Peabody Museum of American Archaeology and Ethnology Papers 18 (Cambridge, MA: Harvard University, 1941), 28 (parentheses in original).

the world, almanacs and medical treatises,” as well as prophecies of future events.⁷ Tax and trade records were also kept.⁸

We know a good deal about the Maya writing tradition from the content of the four surviving Maya codices, from 16 lineage histories from Yucatan (the Chilam Balam records), and from inscriptions on stone monuments, many of which are now deciphered. At least during the Post-Classic period (from AD 900), the Maya wrote prophecies forecasting what would take place during each coming calendrical period, and they held public readings of those written prophecies. Predictions were compiled in books, while historical memorials were also engraved on stone. The Maya, too, wrote letters to one another.⁹

Those same types of written products were also kept long before the Spanish arrived. In fact, many of the documents from just after the conquest were “simply transcriptions of the old hieroglyphic manuscripts” put into Spanish characters.¹⁰ “The Post-Classic codices certainly suggest that the Classic Maya [AD 300–900] had books of divination and astronomy, and it would be surprising if they [like their Post-Classic descendants] had not had books of historical prophecy.”¹¹ Brotherston used slightly different categories to classify Maya records: “highly structured ritual and cosmogonical [creation] histories, . . . political and migration histories, genealogies and lives, and year-by-year annals.”¹²

One other interesting type of document may have been used anciently. On the basis of the scenes painted on vases found in Maya tombs, Michael Coe believes that rites for interred dead leaders might well have utilized the text of “a long hymn which could have been sung over the dead or

7. Ralph L. Roys, *The Book of Chilam Balam of Chumayel*, Publication 438 (Washington, DC: Carnegie Institution, 1933; repr., Norman: University of Oklahoma Press, 1967), 3, 5.

8. *Codex Mendoza*, ed. James C. Clark, 3 vols. (London: Waterlow and Sons, 1938).

9. Munro S. Edmonson, “Some Postclassic Questions about the Classic Maya,” *Estudios de cultura maya* 12 (1979): 166.

10. Roys, *Book of Chilam Balam*, 5.

11. Edmonson, “Some Postclassic Questions,” 166.

12. Gordon Brotherston, *A Key to the Mesoamerican Reckoning of Time: The Chronology Recorded in Native Texts*, British Museum Occasional Papers 38 (London: British Museum, 1982), 2.

dying person.” Indeed, “it is not beyond the bounds of possibility that there was a real Book of the Dead for the Classic Maya, akin [in function] to the Book of the Dead of the ancient Egyptians.”¹³ The scenes and texts reproduced on the hundreds of funerary vases are all that survive of such a document, if it existed. There could also have been parallel funerary texts in other cultures, he maintains, for “there was a single, unified body of thought in Mesoamerica . . . which we would call . . . Mesoamerican religion.”¹⁴ An actual book, or codex, was found in a tomb at the site named Mirador in western Chiapas that dates to around AD 400–450, and possible fragments of others from tombs are also known.¹⁵

Kinds of Records and Their Uses among Book of Mormon Peoples

The Book of Mormon repeatedly emphasizes its necessary brevity (3 Nephi 5:8): “This book cannot contain even a hundredth part of what was done among so many people in the space of twenty and five years” (let alone centuries). There simply was not room on the special-purpose metal plates containing Mormon’s sacred record to discuss incidental matters; hence, we cannot make an exhaustive comparison with Mesoamerican texts on any topic. But even a cursory review of the purposes and contents of Nephite records alluded to in the scripture shows parallels to the types of documents mentioned for Mesoamerica. We learn of at least the following:

- Contemporary events
- Letters
- Victories and defeats in war
- Lives of rulers

13. Michael D. Coe, *The Maya Scribe and His World* (New York: The Grolier Club, 1973), 22.

14. Coe, *Maya Scribe*, 8.

15. I have identified Mirador as probably Book of Mormon Ammonihah, where, ironically, sacred Nephite books were burned along with their owners in a grisly auto-da-fé (Alma 14:8). Unfortunately, the Mirador codex was not in good enough condition to discern anything of its content. See Pierre Agrinier, *Mounds 9 and 10 at Mirador, Chiapas, Mexico*, New World Archaeological Foundation Papers 39 (Provo, UT: BYU New World Archaeological Foundation, 1975), 99–100.

- Adventures of individual heroes and villains
- Political histories
- Migration histories
- Information about ceremonial situations
- Prophecies
- Year counts and calendrical history
- Annals
- Tax or tribute lists
- Genealogies
- Divination
- Funerary texts
- Medical texts
- Lineage histories

The discussion that follows shows Book of Mormon references to all these kinds of written materials. Altogether, it is evident that all or nearly all the kinds of uses of written documents that were customary in Mesoamerica were manifested or referred to in the Book of Mormon.

Contemporary events

Many incidents are treated in the Book of Mormon in such detail that only contemporary records or eyewitnesses could have supplied editor-compiler Mormon₂ with such information. Good examples include the account of Ammon's fight with thieves at the waters of Sebus as related in Alma 17 and the story of the assassination of the Lamanite king in Alma 47:21–26.

Letters

A number of letters are mentioned. For example, see the exchange between Giddianhi and Lachoneus (3 Nephi 3) and also Mormon's reference to his epistle to the Lamanite king (Mormon 6:2).

Victories and defeats in war

There are scores of battle accounts in the Book of Mormon, ranging in detail from the merest mention of an engagement to the most intricate account of episodes in the war begun by Amalickiah that continued for 14 years.

Lives of rulers

Nephi began the pattern of recording the history of the leaders' lives in the Book of Mormon, which then continued (e.g., Jacob 1:9–11). The material on Benjamin (Mosiah 1–2) and Mosiah₂ (Mosiah 6:6–7) continues the pattern.

Adventures of individual heroes and villains

The Book of Mormon profiles many heroes, among them Nephi₁, Ammon, Teancum, Moroni₁, and Helaman₁. The best example of the life of a villain is that of Amalickiah or perhaps that of Sherem (Jacob 7).

Political and migration histories

The primary narrative of the book is, of course, a detailed political history, abridged by Mormon₂ from formal records kept by the Nephite rulers or their scribal designees. More than a dozen migrations are described, ranging from the epic Jaredite trek and their voyage across the ocean to the final Nephite retreat.

It is of interest to see that the same twofold distinction that Nephi₁ pointed out when he started his record-keeping tradition is also seen in Carrasco's discussion of Mesoamerican documents. He dichotomizes the Mexican documents as respectively historical-genealogical and ritual-calendrical.¹⁶ The principles guiding the two classes of Nephite records are essentially the same. Nephi₁'s two sets of plates (2 Nephi 5:29–33) called for one for "the history of my people" and the other for "the things of God."

16. David Carrasco, *Quetzalcoatl and the Irony of Empire: Myths and Prophecies in the Aztec Tradition* (Chicago: University of Chicago Press, 1982), 25–27.

Information about ceremonial situations

Since the Nephites had possession of a copy of the Jewish Torah inscribed on the “plates of brass,” and since presumably some of the group were habituated to the public aspects of Israelite ritual, they may not have needed detailed guides to those ritual activities included in what they considered “the law of Moses” (1 Nephi 4:16; Jarom 1:5).

The account of the appearance of the resurrected Jesus Christ (3 Nephi 8–24)¹⁷ includes the longest treatment of ceremony in Mormon’s record. Only one other ritual event is reported in much detail—the inauguration of Mosiah₂, who succeeded his father Benjamin as Nephite king (Mosiah 3–5). Scholarly analysis has demonstrated that that event followed closely the pattern of royal succession/coronation ceremonies in ancient Judah.¹⁸

A few other formal, sacred occasions are noted but not treated at any length in the text, presumably because of the ever-felt need for brevity (see, for example, 1 Nephi 7:22). The primary nature of the Book of Mormon—to serve as a lineage history—also helps explain why the function of many Mesoamerican documents—for example, to serve as guides to ceremonies—is given short shrift in Mormon’s account. Despite the presence of a few hints in the case of Mosiah₂’s inauguration (e.g., scheduled assembly at the temple, the celebrants’ use of tents, animal sacrifice, ritual responses by worshippers), the Book of Mormon scripture is in no sense a ritual guidebook, even though it touches incidentally on rites.

There are, however, three tantalizingly brief mentions of ceremonies, each of which must have followed a set of customary procedures:

17. See John W. Welch, *The Sermon at the Temple and the Sermon on the Mount: A Latter-day Saint Approach* (Salt Lake City: Deseret Book and FARMS, 1990).

18. John W. Welch, “The Father’s Command to Keep Records in the Small Plates of Nephi” (Provo, UT: FARMS, 1985); and John A. Tvedtnes, “King Benjamin and the Feast of Tabernacles,” in *By Study and Also by Faith: Essays in Honor of Hugh W. Nibley*, ed. John M. Lundquist and Stephen D. Ricks (Salt Lake City: Deseret Book and FARMS, 1990), 2:197–237.

1. Mosiah 19:24, in telling of the Zeniffite king Noah, notes cryptically and enigmatically that “they had ended the ceremony” in which he was executed by burning.¹⁹
2. Alma 1:15 says that the Nephites “carried [religious dissident Nehor] upon the top of the hill Manti, and there he . . . did acknowledge, between the heavens and the earth, that what he had taught to the people was contrary to the word of God; and there he suffered an ignominious death.”
3. In 3 Nephi 4:28–33, another troublemaker among the Nephites, “Zemnah, was taken and hanged upon a tree, yea, even upon the top thereof until he was dead. And when they had hanged him until he was dead they did fell the tree to the earth, and did cry with a loud voice.”

More could and probably would have been said about each ceremony had there been plenty of room on the plates, although the casual expression *the ceremony* in the case in Mosiah also suggests that “everyone knew” about that custom and there was no need for explanation.

Prophecies

Substantial sections of the Nephite scripture are devoted to recording and interpreting prophecy. A vivid example is the account of Samuel the Lamanite in Helaman 13–15. The Jaredites had prophets and prophecies too, as reported, for example, in Ether 9:28. The importance of this function for the Nephite record-keeping tradition was underlined during the visit of the resurrected Jesus Christ, when he chided the Nephite scribe for not having written down a particular bit of prophecy by Samuel (3 Nephi 23:7–13).

19. Royal Skousen, after a long analysis in his masterful critical text study (*Analysis of Textual Variants of the Book of Mormon: Part Three, Mosiah 17–Alma 20* [Provo, UT: FARMS, 2006], 3:1389–95), concluded that *ceremony* in Mosiah 19:24 should be emended to read *sermon*. I reject his argument as unjustified conjecture and so follow the original wording, *ceremony*. As I communicated to him by e-mail (2008), in the three cases where the Book of Mormon reports the execution of a malefactor, the accompanying behavior described is clearly ceremonial. That the word *ceremony* is used in the text to describe only one of those cases is insufficient justification for Skousen’s speculation that the scribe misheard *sermon* from Joseph Smith’s mouth (a word found nowhere in the text).

Year counts and calendrical history

The Nephite record is chronologically meticulous throughout Mormon's abridgment from the historical plates of Nephi (comprising Mosiah to 4 Nephi) as well as in his personal record of events (the particular "book of Mormon"). He was careful to specify exact year dates for many events. Numbered months, numbered days, and hours are also noted on occasion (e.g., Alma 56:1 and 3 Nephi 8:2). Spackman observed that "if the Book of Mormon is to be placed in a Mesoamerican context, then there should be a correlation between the chronology and astronomy of the Book of Mormon, the Bible, Palestine, Babylonia, and Mesoamerica. In fact, there appears to be such a correlation—not just to general time periods, but to the exact day."²⁰ Two passages out of many illustrate the deep concern of the Nephites with the calendar, with prophecy, and with historical fulfillment.

Now it came to pass that the ninety and first year had passed away and it was six hundred years from the time that Lehi left Jerusalem; and it was in the year that Lachoneus was the chief judge and the governor over the land. . . . And it came to pass that in the commencement of the ninety and second year, behold, the prophecies of the prophets began to be fulfilled more fully; for there began to be greater signs. . . . But there were some who began to say that the time was past for the words to be fulfilled, which were spoken by Samuel, the Lamanite. And they began to rejoice over their brethren, saying: Behold the time is past, and the words of Samuel are not fulfilled. . . . But behold, they [the believers] did watch steadfastly for that day and that night and that day which should be as one day. (3 Nephi 1:1, 4–6, 8)

The record states elsewhere:

And now it came to pass that according to our record, and we know our record to be true, for behold, it was a just man who did keep the record. . . . If there was no mistake made by this man in the

20. Randall P. Spackman, "Introduction to Book of Mormon Chronology: The Principal Prophecies, Calendars, and Dates" (Provo, UT: FARMS, 1993), iii.

reckoning of our time, the thirty and third year had passed away; and the people began to look with great earnestness for the sign which had been given by the prophet Samuel, the Lamanite, yea, for the time that there should be darkness for the space of three days over the face of the land. . . . And it came to pass in the thirty and fourth year, in the first month, on the fourth day of the month, [the prophesied sign appeared]. (3 Nephi 8:1–3, 5)

An intriguing possibility of a detailed Mesoamerican correspondence with the Book of Mormon arises in connection with the prophecy of this Samuel. He had announced that “four hundred years pass not away save the sword of justice falleth upon this people,” the Nephites (Helaman 13:5, 9). (Here he nearly echoes Alma₂ in Alma 45:10: The Nephites, “in four hundred years from the time that Jesus Christ shall manifest himself unto them, shall dwindle in unbelief.”) In certain areas of Mesoamerica, we know of prophecies being made for coming calendrical periods—the one-year span, the 20-year (7,200-day) *katun*, the 52-year cycle, and a 256-year period.²¹ Another cycle in the numeration of some groups was 400 years. The 400-year prophecies by Alma₂ and Samuel would be on a potentially correct calendrical target, even though so far we lack documentation from secular sources that prophecies occurred for a like period.

Another parallel is also of interest. In Yucatan at the time of the Spanish conquest, the ruler or his spokesman, the *chilam*, had the duty to prophesy five years in advance what fate the next 20-year *katun* would bring.²² Samuel the Lamanite prophesied “in” the 86th year of the reign of the judges (Helaman 13:1–2). If a *katun* prophecy pattern prevailed among the Nephites at that time (we do not know that it did, of course), the fulfillment of Samuel’s prediction should have commenced in the Nephite 91st year. But the initial fulfillment is instead reported in the 92nd year. The people might have expected the fulfillment sometime in the previous year, for “there were some who began to say [early in the 92nd year] that the time was past for the words to be fulfilled, which were spoken by Samuel,

21. Edmonson, “Some Postclassic Questions.”

22. Munro Edmonson, trans., *The Ancient Future of the Itza: The Book of Chilam Balam of Tizimin* (Austin: University of Texas Press, 1982), xi–xii.

the Lamanite" (3 Nephi 1:5). This response would make sense in terms of a five-year prediction pattern in which, however, there was enough uncertainty in the phrasing of the prophecy that nobody was absolutely sure of the period for fulfillment. Even if the details of this comparison remain somewhat speculative, the general concern of the Nephites with calendrical prophecy rings true in Mesoamerican terms.

Edmonson also offered suggestions on how the beginnings of the 256-year cycles of the Maya calendar might mark major turning points in Maya history,²³ and Puleston concurred.²⁴ Several notable Nephite events fall at or near Maya calendrical turnings, according to my interpretation of their chronology²⁵ when compared with Puleston's reckoning.

Among many other indicators of Nephite-Lamanite concern with the calendar is the report in the Book of Mormon of the fearful reaction of the Lamanite army captains when they found their leader dead (assassinated) in his tent as the army awakened on "the first morning" of a new year (Alma 52:1). That turn of events must have struck them as an ominous augury for the success or failure of the Lamanite leader's planned military conquest, leading them to retreat and hunker down in a fortified site rather than press forward.

Another case in the Book of Mormon involving the calendar occurred when both Lamanites and Nephites agreed to an appointment for war at the hill Cumorah on a certain day four years in advance (Mormon 6:2–5). Mesoamericans had a custom of scheduling battles according to calendrical/astrological expectations.²⁶ (The fact that the appointment was for the same

23. Edmonson, "Some Postclassic Questions," table 1, 164.

24. Dennis E. Puleston, "An Epistemological Pathology and the Collapse, or Why the Maya Kept the Short Count," in *Maya Archaeology and Ethnohistory*, ed. Norman Hammond and Gordon R. Willey (Austin: University of Texas Press, 1979), 64.

25. John L. Sorenson, "The Book of Mormon as a Mesoamerican Record," in *Book of Mormon Authorship Revisited: The Evidence for Ancient Origins*, ed. Noel B. Reynolds (Provo, UT: FARMS, 1997), 408–9.

26. Michael D. Coe, review of *Skywatchers of Ancient Mexico*, by Anthony F. Aveni, *Archaeoastronomy* 4/1 (1981): 39–40; John B. Carlson, *Venus-Regulated Warfare and Ritual Sacrifice in Mesoamerica: Teotihuacan and the Cacaxtla "Star Wars" Connection* (College Park, MD: University of Maryland, Center for Archaeoastronomy, 1991); and Floyd G. Lounsbury, "Astronomical Knowledge and Its Uses at Bonampak, Mexico,"

spot, the hill Cumorah/Ramah, where the Jaredites had been destroyed some 950 years earlier, could have had significance for both combatant parties as they approached the appointed date.)

The chief point of interest here is that there is visible in both the Nephite account and in Mesoamerican records a cultural expectation that the calendar and past and future history were closely related.²⁷ The people of the Book of Mormon shared this view with their Israelite ancestors and other Old World civilizations.

Annals

These were what Vaillant referred to as “annals of ancient times, contemporary events, [and] accounts compiled yearly”²⁸ and what Brotherston referred to as “year-by-year annals.”²⁹ The Book of Mormon narration is primarily based on annals compiled on the plates of Nephi.³⁰

Tax or tribute lists

Given the nature of the Book of Mormon, we would hardly expect to see any trace of tax or tribute lists. However, we find interesting reflections of such concerns in the text. King Noah’s taxes on his Zeniffite people are enumerated in Mosiah 11:3 as “one fifth part of all they possessed, a fifth part of their gold and of their silver, and . . . a fifth part of their fatlings; and also a fifth part of all their grain.” Furthermore, Mosiah 19:15 gives us the list of the tribute the Lamanites put upon Noah’s conquered people; they were to “deliver up their property, even one half of all they possessed, one half of their gold, and their silver, and all their precious things, and thus they should pay tribute to the king of the Lamanites from year to year.” The list of forms of Nephite riches in Jarom 1:8 is suggestive of a tribute or taxation list. King Benjamin points out a unique characteristic of his reign:

in *Archaeoastronomy in the New World*, ed. Anthony F. Aveni (Cambridge: Cambridge University Press, 1982), 143–69.

27. Compare Carrasco, *Quetzalcoatl and the Irony of Empire*, 25–27.

28. Vaillant, *Aztecs of Mexico*, 202–3.

29. Brotherston, *Mesoamerican Reckoning of Time*, 2.

30. John L. Sorenson, “Mormon’s Sources,” *Journal of the Book of Mormon and Other Restoration Scripture* 20/2 (2011): 4.

he had personally labored to support himself “that [his people] should not be laden with taxes,” as they must once have been (Mosiah 2:14) following the custom in the kingdoms of Israel and Judah (1 Samuel 8:11–18; 2 Kings 23:35). Ether 10:5–6 shows the Jaredite tribute system at a particularly onerous moment: Riplakish “did tax them with heavy taxes; and with the taxes he did build many spacious buildings. And he did erect him an exceedingly beautiful throne; and he did build many prisons, and whoso would not be subject unto taxes he did cast into prison.”

Genealogies

A major part of the first chapter of Ether (Ether 1:6–33) gives the historian's genealogy. Much later, Lehi₁ rejoiced because the brass plates contained his genealogy (1 Nephi 3:12). The record of Nephi₁ states, “I, Nephi, do not give the genealogy of my fathers in this part of my record” (6:1), but he emphasizes that the alternative, historical record (19:2) that he kept (which we do not have) contains “the record of my father, and the genealogy of his fathers.” Enos and other early writers felt strongly the need to maintain genealogy (Jacob 7:27; Jarom 1:1; Omni 1:1, 9).³¹ The Mulekite chief Zarahemla recited his ancestors from memory (Omni 1:18), and Amulek (Alma 10:1–3) and Mormon (Mormon 8:13) also were well acquainted with their respective forefathers. That such inclusions were proper content for such a record is plain.

The fact that Mesoamerican records often recorded genealogies is so obvious as not to need documentation.

Divination

There is little direct confirmation of divination in the Nephite record, but the text contains several correlated points, including the indications of calendrical concerns discussed above. Lehi₁'s sons “cast lots” to determine who would undertake a dangerous task (1 Nephi 3:11); such a procedure, of course, was an established divining practice among Israelites. A specific case of divination is reported in Alma 16, although no indication is given that sacred books were used in the process. When a Lamanite army took certain

31. Welch, “Father's Command to Keep Records,” 2.

Nephites captive, the Nephite captain pursuing them, “knowing that Alma was high priest . . . and having heard that he had the spirit of prophecy, therefore . . . went unto him and desired of him to know whither the Lord would that they should go into the wilderness in search of their brethren.” Alma then “inquired of the Lord concerning the matter” and told the rescuers precisely where to find the captives (Alma 16:5–6).

The “sorceries” and “witchcrafts” mentioned in Mormon 1:19 could also relate to divination. The strong interest in divining in ancestral Israel and the development of astrology in neighboring Babylonia came out of a Semitic cultural base that Lehi₁ shared, and the Nephites and Lamanites probably carried on divination.

Funerary texts

As noted above, no funerary texts are known from Mesoamerica, although Coe has suggested it is likely they existed.³² Nor does the Book of Mormon refer to such texts, but, again, they were plausibly present since such texts were prominent features of Egyptian culture and were also known beyond the boundaries of Egypt. (This feature is not counted as a correspondence between the Book of Mormon and Mesoamerican texts, but it is mentioned at this point in case further evidence makes the custom/text evident.)

Medical texts

Extensive compilations of natural remedies were widely produced in Mesoamerica.³³ The Book of Mormon implies a similar corpus of data. Alma 46:40 refers to the “many plants and roots which God had prepared to remove the cause of diseases, to which men were subject by the nature of the climate.” This suggests that treatment of ills by application of such remedies constituted the core of Nephite medicine, just as in Mesoamerican cultures,

32. Coe, *Maya Scribe*, 22.

33. For the Aztecs, see Berdan, *Aztecs of Central Mexico*, 148–50; for the Maya, see the bibliography in John L. Sorenson, ed., “A Bibliography for Yucatan Medicinal Plant Studies by William E. Gates,” *Tlalocan: Revista de fuentes para el conocimiento de las culturas indígenas de México* 3 (1957): 334–43.

and that there were likely extensive texts on the subject. (Again, this point is not counted as a correspondence for lack of more specific textual references.)

Lineage histories

Lineage histories were prominent among the Nephites. In this practice there is, of course, continuity with Israelite custom, for the Torah is to an important degree a lineage history. Details of how the Book of Mormon corresponds to a Mesoamerican lineage history are extensive and are delineated in the section that follows.

Characteristics of Lineage Histories

The Book of Mormon is, for the most part, a lineage history. The following discussion points out detailed ways in which Mormon's record shows characteristics corresponding to Mesoamerican lineage histories.

Lineage Histories as a Type of Record in Mesoamerica

A lineage history records facts and notions significant for establishing the sociopolitical status of a group whose members claim descent (real or fictive) from a common ancestor. We know most about the function of this type of history among the peoples of central Mexico and highland Guatemala. "Almost every major lineage of the pre-conquest period is known to have written a lineage history comparable to the fourth section of the Popol Vuh," the most famous book among the Maya.³⁴ Such histories were maintained and interpreted by priest-scribes on behalf of the lineage to which they belonged. The records were consulted to settle questions of history and policy and to foretell the future of the group. They recited the people's legendary origin story and so served as symbols of the antiquity, power, and legitimacy of its rulers.

While other sacred artifacts were significant symbols too, the physical phenomenon of a book had special validating power that was linked to the sacredness of writing and the superior social status conferred on those with

34. Munro S. Edmonson, trans., *The Book of Counsel: The Popol Vuh of the Quiche Maya of Guatemala* (New Orleans: Tulane University, 1971), xv. (The version of the Popol Vuh available to modern students was written in Spanish characters soon after the conquest, but it is widely supposed that it was based on a hieroglyphic original.)

concrete knowledge of their ancestors.³⁵ Leaders publicly displayed these historical documents on ceremonial occasions and had portions of them read to their followers. The records also served to justify and explain how the existing social order came to be, including why there was cooperation or conflict with surrounding peoples.³⁶

The formation and use of lineage records must have begun thousands of years ago in Mesoamerica. At least certain stories found in the Popol Vuh were known before Classic Maya times (as can be seen in illustrations painted on artifacts of that date), and some motifs are represented on monuments at Izapa dated before the time of Christ.³⁷ Lawrence Feldman has written about similar records for central Mexico. He refers to numerous "migration traditions." One subtype of these emphasized "migrants who suffer trials and win triumphs as they make their way to a predestined homeland. . . . The purpose of these accounts is quite clear, it was a recital 'of the genealogy and lineage of the Lords' . . . given in order to establish the rights of their descendants to certain (economic and political) privileges."³⁸

Lineage accounts are not histories of territories but of particular socio-political groups. The Quiché (the people central to the Popol Vuh), like the fabled Tultecas before them, were often in movement. They would seize power in an area and dominate resident peoples of different language and ethnicity, but "they [the record-keeping group] moved by lineage, not by town or tribe. Thus, few of the major town sites were actually abandoned at any point. Rather, they passed from the control of one lineage to that of

35. Robert M. Carmack, "Toltec Influence on the Postclassic Culture History of Highland Guatemala," in *Archaeological Studies in Middle America* (New Orleans: Tulane University, 1970), 73, 84.

36. Robert M. Carmack, *Quichean Civilization: The Ethnohistoric, Ethnographic, and Archaeological Sources* (Berkeley: University of California Press, 1973), 16–18.

37. Coe, *Maya Scribe*, 8–18; V. Garth Norman, *Izapa Sculpture: Part 1, Album*, New World Archaeological Foundation Papers 30 (Provo, UT: BYU New World Archaeological Foundation, 1973), plate 42; Norman, *Izapa Sculpture: Part 2, Text*, New World Archaeological Foundation Papers 30 (Provo, UT: BYU New World Archaeological Foundation, 1973), 325; and Gareth W. Lowe et al., *Izapa: An Introduction to the Ruins and Monuments*, New World Archaeological Foundation Papers 31 (Provo, UT: BYU New World Archaeological Foundation, 1982), chap. 15.

38. Lawrence H. Feldman, "Tollan in Central Mexico. The Geography of Economic Specialization," *Katunob* 8/3 (1973): 3, 5.

another—indigenous or foreign—in response to the fortunes of war, the terms of priestly office, and the vicissitudes of lineage politics.” For example, the Popol Vuh chronicles the spectacular success of one such lineage, “the Kaveks of Quiché,”³⁹ while it largely ignores other groups surrounding the Kaveks. The writers did not care about nor record the fate of any people but their own, so it is impossible to reconstruct fully what happened in a given territory on the basis of this kind of history.

The ethnic, cultural, and linguistic diversity found anciently in Mesoamerican populations is especially noted by Sharer: “There are considerable indications of diversity among the non-elite, representing the bulk of lowland Maya populations. . . . Classic Maya civilization was sustained by a population that spoke more than one language,” but that “socio-cultural diversity . . . is seldom emphasized, owing mostly to the difficulty in detecting this kind of variability in the archaeological record. . . . Our definition of classic Maya civilization reflects the social stratum . . . that managed and directed the course of the polity.”⁴⁰ Meanwhile, in western Mexico at the time of the Spanish conquest an “incredible variety” of languages were spoken, sometimes three or four in a single community.⁴¹

Lineage Histories among Book of Mormon Peoples

The Nephite record, both in itself and in what it says of its ancient source documents, exhibits the characteristics of a Mesoamerican lineage history. The Jaredite record shows many of the same features. The most salient characteristics are as follows:

The intent of lineage history. Nephi₁, the founder of the Nephite line, personally crafted and wrote upon two sets of metal plates. They were generally patterned after the plates of brass, the record brought from Jerusalem

39. Edmonson, *Book of Counsel*, xvi.

40. Robert J. Sharer, “Diversity and Continuity in Maya Civilization: Quirigua as a Case Study,” in *Classic Maya Political History: Hieroglyphic and Archaeological Evidence*, ed. T. Patrick Culbert (Cambridge: Cambridge University Press, 1991), 183, 186, 187.

41. Carolyn B. Reed Czitrom, *Figurillas sólidas de estilo Colima: Una tipología*, in Colección científica: Arqueología 66 (Mexico City: Instituto Nacional de Antropología e Historia, 1978), 66.

that verified Lehi₁'s lineage to be of the tribe of Manasseh (1 Nephi 3–5).⁴² On one set of plates were written sacred things that the Lord said “are good in my sight, for the profit of [my] people[,] . . . that which is pleasing unto God” (2 Nephi 5:30, 32). The other set of plates dealt with “the more particular part of the history of [his] people,” consisting of “an account of the reign of the kings, and the wars and contentions” (v. 33; 1 Nephi 9:4). From the latter record—the primary Nephite lineage history—Mormon, “a descendant of Nephi” (Mormon 1:5), made his abridgment in the fourth century AD.

A statement in Alma 54:23–24 points out the existence and role of variant histories among the several lineages descended from Lehi's immigrant party. Ammoron, a Nephite dissident who gained kingly power among the Lamanites, claimed descent from Zoram₁, “whom your [the Nephites'] fathers pressed and brought out of Jerusalem.” Yet Nephi₁'s history gives a completely different version of events, representing Zoram₁ as being satisfied with the oath-bound deal he struck with Nephi₁ and his brothers (1 Nephi 4:20–37; compare 2 Nephi 1:30). Ammoron's spin on the story in Alma 54:16–17 must have come either from a tradition of his own (sub-)lineage or from the Lamanites whom he claimed to represent. Such conflicts in tradition fueled the Nephites' judgment that traditions held by the Lamanites were “not correct” (Mosiah 1:5).

Diverse histories may also explain the long-standing conflicts over leadership within the Nephite sociopolitical entity between the political orthodox and dissidents. A particular minority faction operated under the name *king-men*, or sometimes under another label. Their rebel leaders claimed to be of “high birth” (Alma 51:8) and “professed the blood of nobility” (v. 21). It may be that they were a regional elite (i.e., they inhabited a particular zone—see vv. 17–18) who traced descent in their (oral?) lineage tradition from chief Zarahemla, a Mulekite ruler who in turn claimed to be a descendant of Zedekiah, the last king over Judah in the Old World (Omni 1:15; Helaman 8:21). Other conflicts perhaps arose when the Nephites and people of Zarahemla (Mulekites) amalgamated politically. Though the people of Zarahemla were more numerous than the Nephites per se (Mosiah

42. On Old World metal records, see William J. Hamblin, “Sacred Writings on Metal Plates in the Ancient Mediterranean,” *FARMS Review* 19/1 (2007): 37–54.

25:2), the Nephites dominated politically. It is possible that the Mulekite version of history would see Mosiah₁ as a usurper in his rule over the people of Zarahemla.

Among the Jaredites, Ether, the last prophet and record keeper, traced his genealogy back exclusively to ancestral founder Jared, whose line initially held the right to rule (Ether 6:22–25). Ether's record is mainly the dynastic history of that line. At least one other lineage reigned at times, but about those rulers we are left almost completely ignorant. Ether 10:30–31 says that in the days of a legitimate king named Hearthom, the kingdom “was taken away”—obviously by another lineage since the name of the new king was not even recorded in Ether's account. The next four rightful (i.e., Jared-line) kings also lived out their days in captivity, under kings of another dynasty whose line Ether again does not deign to identify. Competitors for the throne from *within* the Jared lineage are mentioned by name, as in Ether 7:15.⁴³ Yet, though the brother of Jared held the role of primary religious leader among the immigrants, at least in the first generation, his descendants are virtually ignored in Ether's dynastic record. Surely the brother of Jared's priestly lineage history would tell a different overall story than we have received from Ether.

Lineage history is not territorial history. Gaps and mysteries appear if we attempt to construe the Nephite account as a comprehensive territorial record. The gaps are fewer if we view the record as intentionally ignoring certain parts of the lands that were only nominally ruled. Those territories were of only secondary concern to the Nephite lineage. Consider some examples. The book of Helaman contains an enigmatic reference to “the most capital parts of the land” of Zarahemla, which are inferred as being located down the river Sidon between the cities of Zarahemla and Bountiful (Helaman 1:27). The “many cities and strongholds” said to have been captured there by invader Coriantumr₂ are not specifically named, nor is their presence as an area of major interest and power at any other place in the text even implied.⁴⁴ I also infer that these “most capital parts” must have been located

43. Since there were eight barges that made the transoceanic journey, we are left with the possibility that there were a total of up to eight lineages (see Ether 3:1, and note the “friends” in Ether 1:41).

44. John L. Sorenson, *The Geography of Book of Mormon Events: A Source Book* (Provo,

chiefly near the river Sidon. Another location not clearly identified is the area where Nephite dissidents, the Amlicites at one time and the king-men at another, were at home. To all appearances, the “most capital parts” were also those dissenters’ territory. Probably it was a region occupied by ethnic relatives of the people of Zarahemla whom Mosiah₁ had first encountered upstream at the city of Zarahemla. According to Alma 51:17–20, chief commander Moroni₁ invaded their area and defeated the rebellious king-men and their armies “in their cities,” without any concern to name as much as one of those places, even though they were said to be in “the land of Zarahemla” (50:9). Other examples could be given of places within the generalized Nephite land about which we are told essentially nothing. This makes sense if we see the Book of Mormon as more or less a history of just the ruling lineage, who did not have an equal degree of concern with all the component territories in the realm over which they claimed dominion.

Historical records usually kept by religious specialists. The references to Book of Mormon record keepers show that it was elite religious functionaries who kept the national, that is, the royal lineage’s, documentary archive. For example, according to Mosiah 28:20, when King Mosiah₂ abdicated his office in favor of a chief judge, “he took the plates of brass, and all the things which he had kept, and conferred them upon Alma_[2] [the high priest], . . . yea, all the records, . . . and commanded him that he should keep and preserve them, . . . handing them down from one generation to another, even as they had been handed down from the time that Lehi left Jerusalem.” It is clear that the ruler had primary responsibility for his lineage’s records, although he would have had specialists actually managing them, as reflected in Mosiah 2:8, where the king “caused that the words which he spake should be written.” Following the same pattern, 3 Nephi 1:1–2 says, “It was in the year that Lachoneus was the chief judge and the governor over the land. And [the prophet] Nephi . . . had departed out of the land of Zarahemla, giving charge unto his son Nephi [also a prophet and probably a priest], who was his eldest son, concerning the plates of brass, and all the records which had been kept.” Furthermore, among the Zeniffites the priests were the apparent custodians and interpreters of “the words which are written, and which

UT: FARMS, 1992), 230, 266, 288.

have been taught by our fathers” (Mosiah 12:20; compare 4 Nephi 1:19–21, 47–48).

Lineage history was a proclamation and symbol of a ruler's legitimacy. Reynolds has discussed the question, “Did Nephi’s descendants and those who followed them have a legitimate right to rule? Or should the right have belonged to Lehi₁’s oldest son Laman₁ and his descendants? This quarrel is the cause of centuries of political and military struggle.”⁴⁵ He argued persuasively that the small plates of Nephi, those we have in translated form in the early part of the Book of Mormon, were written in part “as a political tract” to “defend the Nephite tradition and refute the account advanced by the Lamanites and dissenters.” Ammoron, the Nephite dissenter who succeeded his brother Amalickiah as usurping king over the Lamanites, made it clear that the essential quarrel between the Nephite and Lamanite ruling factions was over the “rights to the government” (Alma 54:24; see v. 18). What motivated the dissidents was the bottom line—power and wealth. Feudal privileges and perquisites were constantly contested; a Lamanite king asserted that Nephi₁ and his descendants “robbed our fathers . . . of our property” (Alma 20:13).⁴⁶ Giddianhi, a leader of the robbers, claimed that he wished to “recover [the] rights and government [for those] who have dissented away from you [the Nephites] because of your wickedness in retaining from them their rights of government” (3 Nephi 3:10). The “rights” and “property” (Alma 20:13) at issue consisted of “cities” and “lands” and “possessions” (3 Nephi 3:6–7), that is, the revenue and services from tribute or taxes.

One of the strengths of the Nephite claim to these rights was that they possessed the sacred records that conferred those privileges on the Nephite elite. The Lamanites, the “robbers,” and the people of Zarahemla all lacked similar authoritative, ancient credentials. The Lamanites claimed that Nephi₁ had stolen the artifacts that were the tokens of power: “They said that he had taken the ruling of the people out of their hands. . . . And again,

45. Noel B. Reynolds, “Nephi’s Political Testament,” in *Rediscovering the Book of Mormon*, ed. John L. Sorenson and Melvin J. Thorne (Salt Lake City: Deseret Book and FARMS, 1991), 220–21.

46. Compare John L. Sorenson, “The Political Economy of the Nephites,” in *Nephite Culture and Society: Collected Papers*, ed. Matthew R. Sorenson (Salt Lake City: New Sage Books, 1997), 195–226.

they were wroth with him because he departed into the wilderness . . . and took the records, . . . for they said that he robbed them” (Mosiah 10:15–16). In the third Nephite generation, Enos reported that the Lamanites “would destroy our records and us, and also all the traditions of our fathers” (Enos 1:14). It was still a concern at the end of the Nephite lineage’s history, as Mormon was “commanded of the Lord that [he] should not suffer the records which had been handed down by [his] fathers . . . to fall into the hands of the Lamanites, (for the Lamanites would destroy them)” (Mormon 6:6). As a last measure, he hid the lineage archive in a safe place. To confirm their political rights or legitimate authority after Cumorah, the surviving claimants to rulership would have destroyed any Nephite books (and monuments?) that they could find (as Aztec monarch Itzcoatl did centuries later to defend the legitimacy of his line’s rulership). Given the absence of clear references to the Nephites in surviving Mesoamerican records, it appears that the successors generally succeeded in rendering that line historically supplanted and so invisible.

The possession of physical tokens of political legitimacy in the form of sacred objects, including records, must have been influential on the public mind in granting rights to rulers. That would be especially true in a society where a majority of the people were not likely literate. It seems probable that the ascendancy of immigrating King Mosiah₁ over the people of Zarahemla, while partly a consequence of his possession of an impressive assortment of other sacred artifacts, would particularly have involved the books he carried with him (Omni 1:18–20). To be sure, the other objects would have been impressive to both Mulekite religious personnel and knowledgeable commoners,⁴⁷ but in terms of legitimating political authority, Mosiah₁’s possession of books that “proved” his succession from the early Nephi dynasty, along with his ability to write down for nonliterate chief Zarahemla that man’s oral genealogy, must have been powerful arguments that he should rule the dual-ethnic polity. Without documents, whatever other bona fides

47. The most spectacular objects (because they were so esoteric) were the Liahona (ball/compass/directors; see Mosiah 1:16) and the instrument that used sacred stones to translate languages (Mosiah 8:12–13). Functional parallels to them were known in the Mesoamerican tradition. Sorenson, *Geography of Book of Mormon Events*, 502–3, notes similar devices among the traditional Quiché of highland Guatemala and the Toltecs of central Mexico.

Mosiah₁ displayed might always be suspected as having been manufactured for convenience.

Possession of records continued to help confirm legitimacy in the later tradition of Nephite rule. When Mosiah₂ was installed as king by his father, Benjamin, “he gave him charge concerning all the affairs of the kingdom. And moreover, he also gave him charge concerning the records” (Mosiah 1:15–16). The passing on of records was one of numerous ways by which the Israelite rites of covenant renewal and coronation of a king were paralleled by Nephite customs.⁴⁸ Part of that ceremonial procedure in both Israelite and Nephite practice involved reference to the people’s relations with deity as recorded in (and perhaps read from) the sacred records. Mosiah₂ “read the records of the people of Zeniff” and also “the account of Alma and his brethren” (Mosiah 25:5–6) when those groups were initiated into the polity. And when the Savior appeared to the body of Nephite survivors of the great first-century natural catastrophe, the key record was close at hand in the charge of the senior religious functionary and was brought out for examination (see 3 Nephi 23).

Genealogy of rulers. Their sacred books were valued by Lehi₁ and the Nephite branch of his family as genealogical records. Lehi₁ rejoiced to find his ancestors listed on the brass plates (1 Nephi 5:16–17). Additions were made to the record of Nephi specifically so “that our [Nephites’] genealogy may be kept” (Jarom 1:1; Omni 1:1). It must have been from the records in his possession that Mormon, centuries later, could confidently assert that he was “a pure descendant of Lehi” (3 Nephi 5:20; Words of Mormon 1:9–11) or “a descendant of Nephi” (Mormon 1:5).

Interestingly, in later Yucatan, members of the noble class were distinguished from peasants because the nobles could specify their ancestry while the folk could not; hence the latter were derisively termed by the elite “ye motherless and ye fatherless,” as well as “orphans” or “monkeys.”⁴⁹ A distinction having a similar basis could well have prevailed among the Nephites.

48. Stephen D. Ricks, “King, Coronation, and Covenant in Mosiah 1–6,” in Sorenson and Thorne, *Rediscovering the Book of Mormon*, 209–19; and Blake T. Ostler, “The Covenant Tradition in the Book of Mormon,” in Sorenson and Thorne, *Rediscovering the Book of Mormon*, 230–40.

49. Edmonson, *Ancient Future of the Itza*, 47.

Origin, migration history, and trials en route to their promised home. Origin history, including migration history and a recounting of trials encountered in obtaining a promised home, is one aspect of a Mesoamerican lineage history that matches quite precisely much of the historical aspect of the book of 1 Nephi. The first five and a half chapters of the book of Ether serve the same function for the Jaredites.

Incorporated sacred myths. Knowledgeable references are made in the Book of Mormon to mythic events central in the orthodox Nephite belief system, including Adam and the creation (e.g., Alma 12), Moses and the children of Israel at Sinai (e.g., Mosiah 13:5), the Israelite crossing of the Red Sea (e.g., 1 Nephi 17:26–27), the destruction of Jerusalem (e.g., 2 Nephi 1:4), and the saving of the fathers as they crossed the sea to the promised land (1 Nephi 17–18). The account of the appearance of the resurrected Christ to the Nephites is only the most dramatic of a long series of “sacred myths” in the Nephite lineage’s own history that were important in their religious life. As we saw earlier, traditional Mesoamerican migration accounts followed a similar pattern.

Used to foretell the future. Scores of pages of the Book of Mormon contain prophecies about the future of the Nephites and Lamanites and events to take place in the day of the “Gentile” (i.e., European) invasion and occupation of the New World. Among the more notable prophecies used by the Nephites to foretell or interpret the future were those by the lineage founder, Nephi₁, by his brother Jacob₂, and by Benjamin, Alma₂, Abinadi, Samuel the Lamanite, and Mormon. Again, the Mesoamerican records function correspondingly, as sources cited above show.

Defined relations with other groups. In a thoroughly Mesoamerican manner, the Nephite record provides information about relationships defined by events told in the Book of Mormon—Nephites to Lamanites, all Lehi₁’s descendants to the Gentiles, Nephites to the people of Zarahemla (Mulekites), and Jaredites (and presumable descendants from them) to the Nephites. For example, Mormon refers to the lineage history to explain the revival of the Lamanites, Lemuelites, and Ishmaelites in the third century AD, a century and a half after their nominal disappearance as social categories (4 Nephi 1:38).

Ethnocentric bias and revisionist history. In Mesoamerica, customarily

“history was [periodically] rewritten to conform with contemporary political realities.” Because of the nature of the script for recording history, ancient legends could also be reinterpreted in terms of contemporary cultural reality. This was due in part to the need “for the interpretation of [written] symbols having several possible meanings.”⁵⁰ Dütting agreed, noting “the multiple meanings of many Maya words, which sometimes can be reconciled with totally different text interpretations.”⁵¹ In other words, ambiguity in the script sometimes allowed differing interpretations of history to be given to the same record.

A more potent problem when trying to read an ancient historical document is that all records—Old World, until the Greeks, or New World—were produced according to an agenda that rarely presented events in a straightforward manner. Rather, in such records “we encounter a disconcerting degree of inbuilt bias and have to face the fact that Mesoamerican sources are seldom unprejudiced in their accounts. . . . As a general rule, the documents offer the official historical version of one city-state, laying particular stress upon the claims to legitimacy of its rulers and on their success in conquering their neighbors against adverse odds.”⁵² Furthermore, “the history of ancient peoples tended toward concepts different from our own, being devised to edify as much as to instruct.”⁵³ The consequent confusion of facts is not peculiar to Mesoamerica; for example, Egypt’s “Ramses III enumerates his conquests in Asia, but his list is simply copied from that of the previous pharaoh, Ramses II, who in turn had used one that really originated with Tuthmosis III.”⁵⁴ In lineage histories, facts often take second seat to the political or ideological agenda of the editorial source.

Recognizing this situation, some Mesoamericanists view with skepticism the “facts” of history put forward in single documents or on monuments.

50. Feldman, “Tollan in Central Mexico,” 1.

51. Dieter Dütting, “Bats’ in the Usumacinta-Valley: Remarks on the Inscriptions of Bonampak and Neighboring Sites in Chiapas, Mexico,” *Zeitschrift für Ethnologie* 103 (1978): 53.

52. Nigel Davies, *The Toltec Heritage: From the Fall of Tula to the Rise of Tenochtitlán* (Norman: University of Oklahoma Press, 1980), 14.

53. Nigel Davies, *The Toltecs: Until the Fall of Tula* (Norman: University of Oklahoma Press, 1977), 16.

54. Davies, *Toltecs: Until the Fall of Tula*, 16.

William Sanders speaks of “the strong likelihood that the ‘histories’ were deliberately manipulated for political ends,” and he is convinced that “much of Mesoamerican political ‘history’ consists of outright propaganda.” What is told there “was written by political leaders for political purposes and clearly was used as propaganda to enhance the prestige and power of the ruling class.”⁵⁵ Andrea Stone concurs, speaking of “ideological manipulation rather than historical events,”⁵⁶ and Debra Nagao likewise warns of “a high degree of manipulation of [the texts on] public monuments to communicate a political image rather than a true reality.”⁵⁷

We have already referred to the recasting of Mesoamerican history with particular reference to Itzcoatl’s blatant move. At his accession to the Aztec leadership in 1428, he ordered all extant historical picture manuscripts to be burned, at the urging of a wily political advisor. As we would expect, thereafter the official histories were in close agreement with each other. But historical sources from neighboring peoples were not all destroyed, and they paint a somewhat different version of history. Itzcoatl’s new, slanted history made his people—the Mexica, country rubes in actual origin—appear to have long been participants in the existing civilization into which they had in fact recently migrated.⁵⁸ Such discontinuities and distortions in the sources hinder our coming up with any definitive documentary history of the Mesoamerican past, and we must recognize that archaeology still provides only a vague history.

The Spanish conquest of Mexico can also be taken as a valuable model for interpreting earlier conquests of one Mesoamerican people by another. The conquistadors pictured the Amerindians they encountered as heathens

55. William T. Sanders, “The Epiclassic as a Stage in Mesoamerican Prehistory: An Evaluation,” in *Mesoamerica after the Decline of Teotihuacan, A.D. 700–900*, ed. Richard A. Diehl and Janet C. Berlo (Washington, DC: Dumbarton Oaks, 1989), 216–17.

56. Andrea Stone, “Disconnection, Foreign Insignia, and Political Expansion: Teotihuacan and the Warrior Stelae of Piedras Negras,” in *Mesoamerica after the Decline of Teotihuacan, A.D. 700–900*, ed. Richard A. Diehl and Janet C. Berlo (Washington, DC: Dumbarton Oaks, 1989), 167.

57. Debra Nagao, “Public Proclamation in the Art of Cacaxtla and Xochicalco,” in Diehl and Berlo, *Mesoamerica after the Decline of Teotihuacan*, 83.

58. R. C. Padden, *The Hummingbird and the Hawk: Conquest and Sovereignty in the Valley of Mexico, 1503–1541* (Columbus: Ohio State University Press, 1967).

for whom they were doing an unacknowledged favor. Europeans felt they had some kind of burden to “civilize” the natives by extirpating all trace of the old ideology, as far as they could. One tool toward that end was to aggressively teach a “new history.” This involved Spain, her royalty, and Christianity—in all these they claimed qualitative superiority over the defeated Mexica state and its idol gods such as Tezcatlipoca. What the Iberian conquerors tried to do was broadly the same as earlier conquerors, such as the Toltecs and Aztecs, had done with the nations they subdued and redefined historically in their day. “The material and spiritual conquest [by the Spaniards] of the Mexican kingdom was partially accomplished by the destruction of indigenous monuments, books, images, and symbols.” The Spanish priests intended to “put an end to everything indigenous, especially in the realm of ideas, even so far as to leave no sign of them.”⁵⁹ So while the native books were of significance in themselves as historical validations of power, more important to a determined conqueror was destroying the cultural (including religious and political) power that the records provided for potentially defiant natives.

When a replacement history was constructed, various competing histories could arise. For instance, among highland Guatemalan peoples, the history and even the genealogy in the Popol Vuh were confused by old rivalries, changing the political fortunes of multiple lineages. As a result, the Quiché record, the Popol Vuh, differs in certain ways from, say, The Annals of the Cakchiquels, a parallel account from a related but rival tribe.⁶⁰

Since we have access to only one lineage history of known Book of Mormon peoples (i.e., the Book of Mormon itself), we cannot compare narratives to detect divergent historical traditions that conflict. There are, nevertheless, indirect indications of such conflict. Formally changing one ancestor for another was common enough. The entire people of Zarahemla, the Mulekites as we have come to call them, came to be “numbered with the

59. Carrasco, *Quetzalcoatl and the Irony of Empire*, 14–15.

60. Edmonson, *Book of Counsel*, 157. For similar genealogical rationalization (“fudging”) elsewhere in the world, see Abraham Malamat, “Tribal Societies: Biblical Genealogies and African Lineage Systems,” *Archives européennes de sociologie* 14 (1973): 126–36; and Robert R. Wilson, “The Old Testament Genealogies in Recent Research,” *Journal of Biblical Literature* 94 (1975): 169–89.

Nephites” for political advantage (Mosiah 25:13). Children of the Zeniffite priests of Noah were angry with their dissident fathers, so they stopped reckoning descent through them in favor of being adopted within the Nephite tribe (Mosiah 25:12; Alma 27:27). On the other hand, the Zoramites, as an act of rebellion against the Nephites, forsook their Nephite affiliation and “became Lamanites” (Alma 43:4). Also counted among the Lamanites were “all those who had dissented from the Nephites,” including the Amalekites and Amulonites (Alma 43:13). Clearly, genealogical identification was subject to renegotiation, with books or without.

Political and historical differences in interpreting tradition and the records were a key issue in the millennium-long conflict between Nephites and Lamanites. We saw above that their traditions differed in interpreting certain historical events. So much was apparently at stake between the two factions that there would be no give or take on the key issue of who was to rule.

The epistles exchanged between Nephite captain Moroni₁ and Ammoron, the Lamanite leader, underline the highly charged rivalry. Moroni₁ announced to Ammoron, “Our armies shall come upon you except ye withdraw, and ye shall soon be visited with death” (Alma 54:10), and he called him “a child of hell” (v. 11). He went on: “I will come against you with my armies; yea, even I will arm my women and my children, and I will come against you, and I will follow you even into your own land, . . . and it shall be blood for blood, yea, life for life; and I will give you battle even until you are destroyed from off the face of the earth” (v. 12). The Lamanite king responded with equal vehemence, “I will avenge [my brother’s] blood upon you” (v. 16); “we will wage a war which shall be eternal, either to the subjecting the Nephites to our authority or to their eternal extinction” (v. 20). The same absolute enmity recurred four centuries later (Mormon 5), and the hatred of Coriantumr₂ and Shiz, the last Jaredite rivals for the kingship, was just as adamant (Ether 15).

Ethnic and factional bias on both sides is manifested almost continually in the text. Rare glimpses of a kinder or at least more objective view of “the other side” only underline the prevalence of ethnochauvinism. Jacob₂’s positive evaluation of Lamanite family relations (Jacob 2:35) was contrary to Nephi₁’s harsh contrast between his people and the Lamanites (2 Nephi

5:21–24). The good guy/bad guy stereotyping continued in Enos 1:20–21. Some centuries later, the Nephites continued the bias, asserting that the Lamanites were “stiffnecked,” “delight[ed] in the shedding of blood,” and engaged in “the grossest iniquity” (Alma 26:24). Even Zeniff’s positive feelings about the Lamanites after spying on them were overwhelmed by an encounter with his people’s harsh prejudice against them (Mosiah 9:1–2).

Lamanite condemnation of all things Nephite is apparent in the words and actions of the Lamanite king in relation to his son Lamoni and Lamoni’s new Nephite ally, Ammon: “Lamoni, thou art going to deliver these Nephites, who are sons of a liar. Behold, he [Nephi₁] robbed our fathers; and now his children are also come amongst us that they may, by their cunning and their lyings, deceive us, that they again may rob us of our property” (Alma 20:13). Likewise, when the sons of Mosiah proposed to go preach among the Lamanites, their fellows at Zarahemla responded, “Do ye suppose that ye can bring the Lamanites to the knowledge of the truth? Do ye suppose that ye can convince the Lamanites of the incorrectness of the traditions of their fathers, as stiffnecked a people as they are; whose hearts delight in the shedding of blood; whose days have been spent in the grossest iniquity?” (26:24).

Obscure language. “A true consciousness of history” was present in some Mesoamerican sources,⁶¹ but it could be expressed only with difficulty. One reason for this was the nature of the hieroglyphic script they used, which hindered clear expression. Glyphic writing systems were never capable of conveying perfectly crisp information. “A slurred line [of characters put down by an Aztec scribe] might result in a totally different reading.”⁶² Yet even where the writing was impeccable, glyphic characters were frequently subject to interpretation. Particularly problematic was “the richness of metaphors and the techniques of paraphrasing,” as well as the use of cover names, nicknames, or code terms. For example, in the colonial-era documents kept by the Yucatec Maya, the Spaniards were referred to by nicknames: “guayaba eaters,” “red beards,” “foreigners,” “white men,” and “sons of the sun.”⁶³

61. Thomas S. Barthel, “Writing Systems,” in *Native Languages of the Americas*, ed. Thomas A. Sebeok (New York: Plenum, 1977), 2:34.

62. Vaillant, *Aztecs of Mexico*, 204.

63. Edmonson, *Ancient Future of the Itza*, 55.

Puns and wordplay were also common. Jill Leslie Furst noted an instance from the Mixtec Codex Vienna where stars are represented by human eyes, reflecting a pun on the Mixtec word for star. She demonstrates how the single image of the eye could have been used to mean “the chief or head eye of the heavens” or “an object that moves and returns to its proper place.”⁶⁴

Another form of metaphorical expression whose translation is complex is merismus (also called “difrasismo” or “kenning”). For example, to the Aztecs the expression “skirt and blouse” signified the sexual aspect of woman, “flower and song” meant “poetry and art,” and “my hand, my foot” stood for “my body.”⁶⁵ A literal interpretation of any text that utilizes a great deal of symbolism is thus highly unlikely. Of the Popol Vuh, which is no different from other documents in this respect, Edmonson concluded that the subtleties of the language “have eluded all its translators, including me,” because “often a dozen or more quite disparate meanings may legitimately be proposed for a particular monosyllabic root.”⁶⁶

One had to be deeply schooled in relevant Mesoamerican language and lore to catch its allusions. In native priestly schools, students were taught explanations of the paintings and glyphs in the codices accompanied by interpretive commentaries that they had to learn by rote. The nucleus of the teachings was indeed the documents, but commentaries were necessary to shape the tradition “correctly.”⁶⁷ Regarding the Maya glyphs, Dütting⁶⁸ noted the presence of “a content dictated by the historical and ritual-religious interests of a small sophisticated nobility.” “The real understanding of the Maya texts is sometimes clouded by the richness of the metaphors

64. Jill Leslie Furst, *Codex Vindobonensis Mexicanus I: A Commentary* (Albany: Institute for Mesoamerican Studies, State University of New York at Albany, 1978), 14.

65. Miguel León-Portilla, *Pre-Columbian Literatures of Mexico* (Norman: University of Oklahoma Press, 1969), 77.

66. Edmonson, *Book of Counsel*, xii. For an incredible parallel story of a linguist’s experience with ambiguity while working with informants, see Robert M. Laughlin, *The Great Tzotzil Dictionary of San Lorenzo Zinacantan* (Washington, DC: Smithsonian Institution Press, 1975).

67. Miguel León-Portilla, “Pre-Hispanic Literature,” in *Handbook of Middle American Indians*, ed. Robert Wauchop et al. (Austin: University of Texas Press, 1971), 10:453.

68. Dütting, “‘Bats’ in the Usumacinta-Valley,” 53.

involved," adds Houston,⁶⁹ who also said that "oral interpolation was sometimes necessary to reduce ambiguity in written text."⁷⁰ Carrasco called the central Mexican codices "part of the art of the ruling classes [that] contained stories painted and understood by very few individuals, usually the priestly sons of noble families who memorized the stories and pictorial conventions of their culture."⁷¹ Linguistic fluency in everyday speech would not be enough to arrive unambiguously at the intended meaning of a glyphic composition.

The problem of obscurity was even worse with Mixtec and Aztec documents, which were more dependent on a type of picture writing with resulting creative leeway in interpretation for the specialists. And the trained experts in language and script liked to show off a "penchant for varying place-names and name signs, employing different [writing] combinations to produce the same result."⁷² Ideographic puns and complex metaphorical meanings were embedded in apparently simple signs. This complexity and ambiguity are behind the immense problem of translation from picture manuscript to Nahuatl to Spanish. In the process of creating the Aztec Codex Mendoza following the conquest of Mexico, "the Indian interpreters of the pictures in the document argued so intensely over a number of images" that the Spanish official in charge of the translation project became frustrated over their delays.⁷³

In southern Mesoamerica, furthermore, there was a traditional "language of Zuyva," which one needed to learn in order to master the key records. It is not clear whether this consisted only of a special body of

69. Stephen D. Houston, "Literacy among the Pre-Columbian Maya: A Comparative Perspective," in *Writing without Words: Alternative Literacies in Mesoamerica and the Andes*, ed. Elizabeth H. Boone and Walter D. Mignolo (Durham, NC: Duke University Press, 1994), 45.

70. Stephen D. Houston, "The Shifting Now: Aspect, Deixis, and Narrative in Classic Maya Texts," *American Anthropologist* 99 (1997): 291–305.

71. Carrasco, *Quetzalcoatl and the Irony of Empire*, 20.

72. Henry B. Nicholson, "Phoneticism in Late Pre-Hispanic Central Mexican Writing Systems," in *Mesoamerican Writing Systems*, ed. Elizabeth P. Benson (Washington, DC: Dumbarton Oaks, 1973), 3.

73. Carrasco, *Quetzalcoatl and the Irony of Empire*, 23.

knowledge of the myths and metaphors or whether a distinct tongue existed.⁷⁴ In either case “it came eventually to mean only mysterious words which were obscure to all but the ruling class.”⁷⁵ Common people and even most leaders did not have the leisure or social opportunity to invest in the learning process entailed in controlling this “occult knowledge.”⁷⁶

These ambiguities imposed by a script also are noted in the Book of Mormon. Nephi₁'s record was written in Egyptian-type characters (1 Nephi 1:2). Moroni₂ later described that script more fully as “the characters which are called among us the reformed Egyptian, being handed down and altered by us, according to our manner of speech” (Mormon 9:32).⁷⁷ When Mormon outlined his responsibility and stated his intent in making his record, he emphasized that “there are many things which, according to our language, we are not able to write” (3 Nephi 5:18). His son Moroni₂ echoed the point in the books of Mormon and Ether. He lamented, “Lord, the Gentiles [future Europeans] will mock at these things, because of our weakness in writing; . . . thou hast not made us mighty in writing. . . . Thou hast made us that we could write but little, because of the awkwardness of our hands. . . . Thou hast also made our words powerful and great, even that we cannot write them; wherefore, when we write we behold our weakness, and stumble because of the placing of our words” (Ether 12:23–25; see Mormon 8:12, 17; 9:31, 33). Despite divine reassurance that his “weakness” would not matter, Moroni₂ revisited his concern in Ether 12:40 and again, on the Book of Mormon's title page (the last thing he wrote), where he worried once more about any remaining “faults . . . of men” in phrasing the text.

Jacob₂, Moroni₂'s distant collateral relative, had also referred to the brevity and obscurity problem nine centuries earlier: “I cannot write but a little of my words, because of the difficulty of engraving our words upon plates” (Jacob 4:1). His expression “difficulty of engraving our words” joins with Moroni₂'s “because of the awkwardness of our hands” to reveal a problem

74. As thought by Brian Stross, “The Language of Zuyúá,” *American Ethnologist* 10 (1983): 150–64.

75. Roys, *Book of Chilam Balam*, 98 n. 1.

76. Tozzer, *Landa's Relación*, 62.

77. See John L. Sorenson, “The ‘Brass Plates’ and Biblical Scholarship,” *Dialogue* 10/4 (1977): 36–37.

that evidently went beyond the scribe's skill in making marks on metal. Moroni₂ had plenty of time on his hands and should have been able to work to the most meticulous level if only the mechanical problem of making the right engraving marks stood in the way of clarity. It was neither their tongues nor minds that limited expression; rather, it must have had something to do with the nature of the script system they were using. Of course, their engravings had to be executed reasonably right or the reader would be confused, though in alphabetic writing, for example, a good deal of leeway remains where even poor spelling or an awkward hand would not hurt clear expression very much. Moroni₂'s and Jacob₂'s shared frustration seems more with the whole system—with their inability to express through their writing system the subtleties of what they were thinking and feeling.

Moroni₂ was perfectly aware that it was possible to write with greater clarity using some other script. He was filled with admiration for the writing system used by the brother of Jared: "Behold [Lord], thou hast not made us mighty in writing like unto the brother of Jared, for thou madest him that the things which he wrote were mighty even as thou art, unto the overpowering of man to read them" (Ether 12:24). The Jaredite script brought from Bronze Age Mesopotamia was, very probably, syllabic rather than hieroglyphic. Moroni₂ could feel the contrast in quality of expression between his text and that of Ether, but he had to stick with the language and Egyptian-derived hieroglyphic script that he knew and that his fathers had used before him.

Moroni₂ had knowledge of the superior Hebrew alphabetic system. Of it he said, "If our plates had been sufficiently large we should have written in Hebrew; but the Hebrew hath been altered by us also; and if we could have written in Hebrew, behold, ye would have had no imperfection in our record" (Mormon 9:33). That reinforces the point that it was the "reformed Egyptian" writing system, not his native syntax or engraving skill, that caused the problem of incoherence.

That the lack of clarity stemmed from the script that the Nephites used for their sacred and historical documents is implied also by the difficulty of learning the system. King Benjamin wanted his three sons to become "men of understanding," so he "caused that they should be taught in all the language of his fathers, . . . that they might know concerning the prophecies

which had been spoken by the mouths of their fathers” (Mosiah 1:2). The expression “in all the language” can only mean that different degrees of mastery were possible. He wanted the princes to master the system to the maximum degree, not to have just a superficial knowledge.

“The language of their fathers” refers to the script system, with its many characters, syntactic structures, and modifiers.⁷⁸ Benjamin could also be referring to the complex semantic content needed to read the characters fully and accurately. Nephi₁ had spoken of this phenomenon in the founding era of their history: “I, Nephi, have not taught my children after the manner [culture] of the Jews; but behold, I, of myself, have dwelt at Jerusalem, wherefore I know concerning the regions round about” (2 Nephi 25:6). He is not talking here about the script, which he surely did teach to his children. He must have meant stylistic forms, vocabulary, nuanced interpretations, and the body of literary, historical, and theological allusions that the Jews had developed surrounding the Torah. It was only that part of this esoteric information that Nephi₁, considering it perverse, held back. In order to comprehend in the fullest sense what was written on the plates of brass, his descendants would have had to control a great deal of Jewish contextual information. What was left for them was still complex. King Benjamin knew that without being able to illuminate the contents of the brass plates text, “[his people] must have suffered in ignorance, . . . not knowing the mysteries of God” (Mosiah 1:3). To avoid that, he “taught them [the mysteries/interpretations] to his children” with “the help of these plates,” so that the descendants “could teach them to their children” in turn (v. 4). Benjamin was seeing to it that his sons “might read and understand of [God’s] mysteries” (v. 5) by mastering both the script in a mechanical sense and “the language of his fathers” (v. 2) in as full a cultural/conceptual sense as possible. Similarly, Nephi₁ began his record by speaking of “the language of my father, which consists of the learning [i.e., culture] of the Jews and the language [i.e., script] of the Egyptians” (1 Nephi 1:2). Lehi₁ had “been taught in the language of the Egyptians therefore he could read [the] engravings” (Mosiah 1:4) on the brass plates (which, according to 1 Nephi 5:11, contained the

78. A glyphic system like Egyptian uses over 700 characters, with many variants, but each sign could have multiple meanings, all of which, with their contexts, had to be memorized.

Hebrew Torah). The substantial time investment required to attain mastery of the texts explains the later observation that “some were ignorant because of their poverty, and others did receive great learning because of their riches” (3 Nephi 6:12). Unlike Benjamin’s princes, the Nephite poor could not afford the years of study, nor the mentors, needed to master full literacy.

The notion of interpretational subtlety and depth also fits with the description of the Nephite script system as “reformed Egyptian,” for “the language of the Egyptians” is notoriously complex to interpret fully, even when one may simplistically “read” a sequence of characters.

All this also sounds very much like the obscurity that attended Mesoamerican glyphic writing, which, as noted earlier, required extensive schooling to fully grasp its metaphors, puns, paraphrasings, and esoteric language.⁷⁹

Mesoamerican Writing Systems

Many analyses of Mesoamerican writing have tried to sort out the several scripts that were used and to relate them to conceptions of what writing is or is not. But there is much that scholars do not agree on. For example, Coe supposed that certain signs used at the Olmec site of La Venta and elsewhere are “pseudo-writing,” not real writing,⁸⁰ while others have thought they are a legitimate script.⁸¹ The usual view among scholars is that an evolutionary progression of a single system moved from relatively simple “picture writing” to full-fledged script.⁸² (Few scholars take seriously the idea that New World scripts owe anything to those in the Old World, but see below.) However,

79. Barthel, “Writing Systems,” 45.

80. Michael D. Coe, “Early Steps in the Evolution of Maya Writing,” in *Origins of Religious Art and Iconography in Preclassic Mesoamerica*, ed. Henry B. Nicholson (Los Angeles: UCLA Latin American Center and Ethnic Arts Council of Los Angeles, 1976), 111; compare Joyce Marcus, “The Origins of Mesoamerican Writing,” *Annual Review of Anthropology* 5 (1976): 35–67.

81. Carlo T. E. Gay, “Olmec Hieroglyphic Writing,” *Archaeology* 26 (1973): 278–88; José Luis Franco C., “La escritura y los codices,” in *Esplendor del México antiguo*, ed. Raúl Noriega et al. (Mexico City: Centro de Investigaciones Antropológicas de México, 1978), 361–78.

82. John S. Justeson and Peter Mathews, “Evolutionary Trends in Mesoamerican Hieroglyphic Writing,” *Visible Language* 24 (1990): 88–132.

the evolutionary scheme makes little sense since chronologically late writing (e.g., that of the Aztecs) displays characteristics that are considered “more primitive” than writing in use earlier.⁸³ Moreover, examples matching all the claimed “evolutionary stages” of writing occurred simultaneously, such as in the complete Maya system.⁸⁴

Differences of opinion among the experts are shown again where Méluzin agrees with Thompson that the very early glyphs on Kaminaljuyu Stela 10 “appear to be Maya or Maya-like,”⁸⁵ while Coe sees “no resemblances” between them and those of the Maya.⁸⁶ Whatever decipherments are offered for the Maya system, agreement is still a long way off about what concepts and principles would be productive to use in deciphering other Mesoamerican writing systems. Méluzin speaks correctly of an “ill-defined array” of non-Maya and early regional Maya script systems in use during late BC and early AD centuries.⁸⁷

The best-known script is the Classic Maya system, in use in lowland Guatemala and adjacent Mexico from possibly 300 BC.⁸⁸ It continued being used, in modified form, until after the Spanish conquest, although no European ever recorded much useful or accurate information about it.

In general terms a study by Van Blerkom concluded that the same six types of signs were employed in Maya hieroglyphic script as in Egyptian glyphic script: (1) primary signs or simple pictographs, (2) associative signs or pictures used to stand for concepts related to the pictures, (3) abstract geometric forms, (4) determinatives added to clarify the meaning of

83. Barthel, “Writing Systems,” 35; C. F. Voegelin and Florence M. Voegelin, “Typological Classification of Systems with Included, Excluded and Self-Sufficient Alphabets,” *Anthropological Linguistics* 3/1 (1961): 90–96.

84. Coe, “Evolution of Maya Writing,” 109.

85. Sylvia Méluzin, “The Tuxtla Statuette: An Internal Analysis of Its Writing System,” in *The Periphery of the Southeastern Classic Maya Realm*, ed. Gary W. Pahl, UCLA Latin American Studies Series 61 (Los Angeles: UCLA Latin American Center, 1987), 108.

86. Coe, “Evolution of Maya Writing,” 115.

87. Méluzin, “Tuxtla Statuette,” 110.

88. William A. Saturno et al., “Nuevos hallazgos arquitectónicos y pictóricos en la Pirámide de las Pinturas, San Bartolo, Petén,” in *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2006), 571–78.

expressions that sound the same but have different meanings, (5) phonetic signs used for rebus writing (e.g., in English, a picture of an ant to represent the word *aunt*), and (6) phonetic complements that clarify or reinforce the sound value of other signs.⁸⁹ That is to say, Maya writing was structurally similar in all basic respects to Egyptian, although, of course, semantics and phonetics differed according to culture and language.

Nearly all the Mesoamerican glyph systems about which we know enough to judge⁹⁰ seem similar in important respects to that of the Maya lowlands. All depended heavily, at least in part, on logographs, which usually convey one concept per character. Potentially, a user had to memorize these characters, each one having a different meaning. (For example, to be truly literate in Chinese, which is a similar type of system, one must memorize readings for thousands of characters.) The systems also involved phonetic principles so that proper names and words could be sounded out.

The Maya system is so well documented that most of what is known of neighboring systems has developed by extending principles from Mayan. That system apparently took its form in an area where one particular language of the Mayan family was used. Houston, Robertson, and Stuart suggest that a single prestige language was used everywhere in the inscriptions (much like Latin in medieval Europe). The language, which they call Classic Ch'olti'an, was a living vernacular tongue during Late Pre-Classic times. It survived later as a scribal language, the way Sumerian did in the Near East long after its spoken forms had died out.⁹¹ The glyphs apparently represented speech sounds specific to ancient Ch'olti'an, but graphic and linguistic devices were developed that allowed the system to function "internationally" across other speech communities.⁹²

Most researchers consider that each of the Mesoamerican hieroglyphic systems derived historically from one of a few ancestral systems. Details

89. Linda M. Van Blerkom, "A Comparison of Maya and Egyptian Hieroglyphics," *Katunob* 11/3 (1979): 1-8.

90. Coe, "Evolution of Maya Writing," listed 13 different ones for Mesoamerica, but there were a few fragmentary others that have been noted.

91. David Webster, *The Fall of the Ancient Maya: Solving the Mystery of the Maya Collapse* (London: Thames & Hudson, 2002), 157.

92. Brotherston, *Mesoamerican Reckoning of Time*, 1-2.

of those relationships or influences remain unclear because of the lack of sufficient inscriptions to permit the tracking of the signs as they changed through time and space. We know that individual glyphs or types of glyphs were changed in order to adapt older systems to the needs of new languages where different sounds, customs, and beliefs prevailed.⁹³ Such “reformed” usage may be related to the well-known fact that many ruling elites in Mesoamerica were ethnic foreigners who came into an area where they dominated differing local populations. Governing elites sometimes spoke a different language from the one commoners spoke.⁹⁴

This puts in question how everyday language was related to the glyphs. As Méluzin noted, “It is frequently true that writing is a property of the elite, who may not be identical in ethnic, and therefore linguistic, affiliation with the masses. . . . The presence of a substratum language, different from that of the rulers, may affect the official language and its reflection in writing.” She also pointed out that the writing of “religious and/or political subject matter raises the question of anachronisms, of words, phrases, and styles purposely retained from an earlier time and possibly even from another language.”⁹⁵

It is evident also that certain writing systems flourished for a time, then died out. An example is the Epi-Olmec writing of southern Veracruz as represented on the Tuxtla Statuette and La Mojarra Stela 1.⁹⁶

Unorthodox claims have occasionally been made that fragments of actual Old World scripts have been found in Mesoamerica, although these assertions are not accepted by orthodox scholars. For example, Wei Chu-Hsien, Dennis Lou Wing-Sou, and Mike Xu and colleagues have discussed American artifacts on which Chinese characters appear to have been inscribed.⁹⁷ More notorious is a cylinder seal excavated in 1957 at Chiapa de

93. Méluzin, “Tuxtla Statuette,” 108.

94. Eva Hunt, “Irrigation and the Socio-political Organization of Cuicatec Cacicazgos,” in *Chronology and Irrigation*, ed. Frederick Johnson (Austin: University of Texas Press, 1972), 206, 214–15.

95. Méluzin, “Tuxtla Statuette,” 107–8.

96. Sylvia Méluzin, *Further Investigations of the Tuxtla Script: An Inscribed Mask and La Mojarra Stela 1*, New World Archaeological Foundation Papers 65 (Provo, UT: BYU New World Archaeological Foundation, 1995).

97. See Wei Chu-Hsien, “The Discovery of Chinese Inscriptions in America,” in

Corzo in southern Mexico. Thomas Stuart Ferguson publicized it with a flourish in a book⁹⁸ where he cited correspondence with noted Near Eastern archaeologist William F. Albright of Johns Hopkins University. Albright affirmed the presence of “several clearly recognizable Egyptian hieroglyphs.” In the face of ensuing controversy, Albright seems to have waffled somewhat on that assertion (judging by reports of more cautious letters he later wrote to inquirers). However, there is no question about the definiteness of his initial response. George Carter, who was a professor at Johns Hopkins at the time, reported, “Albright called me to his office to look at [several seals from Chiapa de Corzo sent by Ferguson] with him. He recognized a letter or two and concluded that these were degenerate cartouches of Mediterranean inspiration. He was roundly denounced for such a heresy.”⁹⁹

Until 2006, alphabetic writing had not been considered by prominent scholars to have been present in Mesoamerica at any time. In September of that year, however, an inscription from the Olmec area, found at a site near San Lorenzo, was published. It came from a context dated about 900 BC or earlier. Written in a “hitherto unknown script,” the 62-character inscription was judged by some experts as “alphabetic.”¹⁰⁰

A few scholars have believed that alphabetic script (completely different from the newly discovered one) may be present on isolated objects. One candidate is the cylinder seal reported by David H. Kelley.¹⁰¹ This cylinder

China and America: A Study of Ancient Communication between the Two Lands (Hong Kong: printed by author, 1970–71), 1:15–21; Dennis Lou Wing-Sou, “Introduction,” in *The Discovery of Chinese Inscriptions in America* (Hong Kong: printed by author, 1971), 1:7–13; and Mike Xu, “New Evidence for Pre-Columbian Transpacific Contact between China and Mesoamerica,” *Journal of the Washington Academy of Sciences* 88/1 (2002): 1–11.

98. Thomas Stuart Ferguson, *One Fold and One Shepherd* (San Francisco: Books of California, 1958), 22–23.

99. George F. Carter, “Before Columbus,” in *The Book of Mormon: The Keystone Scripture*, ed. Paul R. Cheesman (Provo, UT: BYU Religious Studies Center, 1988), 164.

100. Maria del Carmen Rodríguez Martínez et al., “Oldest Writing in the New World,” *Science* 313 (2006): 1613.

101. David H. Kelley, “A Cylinder Seal from Tlatilco,” *American Antiquity* 31 (1966): 744–46. The find that Kelley published was made by archaeologist Fred Peterson 50 years ago at Tlatilco, the Olmec-related site near Mexico City that was being destroyed by commercial brickmaking. Peterson, letter to Kelley, copy in Sorenson’s possession; see Román Piña Chan, *Tlatilco*, 2 vols. (Mexico City: Instituto Nacional de Antropología e Historia,

form is, of course, best known in the ancient Near East, where famous archaeologist Sir Leonard Woolley observed, "Paper-using people would never invent the cylinder seal. . . . Mesopotamia [where wet clay was used as a medium] is the obvious origin point."¹⁰² Yet this form of seal was not uncommon in paper-using Pre-Classic Mesoamerica.

The date of the cylinder seal is not completely certain, although all other material from the area where it was found is dated between about 1400 and 600 BC. John Graham of the University of California observed that the characters engraved on this seal "may indeed represent the earliest example of writing now uncovered from Mesoamerica" and thought that it "represents the most advanced script ever developed in the New World. . . . The markings of this seal closely resemble various . . . scripts ranging from Burma and China to the rim of the Mediterranean. If the signs of this seal were writing, and the seal were accepted as authentic, we would almost surely be dealing with an instance of Trans-Pacific contact during the Pre-Classic."¹⁰³

A chemical (thermoluminescence) test was arranged by R. Hristov in 2001 and conducted by a laboratory at Oxford University. It established that the object is "between 2000 and 3200 years old."¹⁰⁴ Kelley, along with Graham, believed of this seal that its "sequences of arbitrary symbols . . . are surely parts of a hitherto unknown writing system."¹⁰⁵ It seems unrelated to any hieroglyphic system. A University of Pennsylvania archaeologist, an expert on Near Eastern cylinder seals, observed in March 2006, "It is similar to [decorative] patterns found on terracotta cylinders of the middle of the third millennium" in Iran.¹⁰⁶ That no other example of such characters has been found in Mesoamerica is puzzling at first glance, but

1958); and Muriel N. Porter, *Tlatilco and the Pre-Classic Cultures of the New World*, Publication 19 (New York: Viking Fund Publications in Anthropology, 1953).

102. Leonard Woolley, *Digging Up the Past* (Harmondsworth, England: Penguin, 1937), 76.

103. John A. Graham, "Commentary: On Calendrics and Writing," in *Observations on the Emergence of Civilization in Mesoamerica*, ed. Robert F. Heizer and John A. Graham (Berkeley: University of California Department of Anthropology, 1971), 133–34.

104. Oxauth@aol.com, e-mail message to R. Hristov, 2005.

105. Kelley, "Cylinder Seal from Tlatilco," 744.

106. Victor H. Mair, e-mail message, March 2006. This person was not told the Mexican provenience of the object.

Corzo in southern Mexico. Thomas Stuart Ferguson publicized it with a flourish in a book⁹⁸ where he cited correspondence with noted Near Eastern archaeologist William F. Albright of Johns Hopkins University. Albright affirmed the presence of “several clearly recognizable Egyptian hieroglyphs.” In the face of ensuing controversy, Albright seems to have waffled somewhat on that assertion (judging by reports of more cautious letters he later wrote to inquirers). However, there is no question about the definiteness of his initial response. George Carter, who was a professor at Johns Hopkins at the time, reported, “Albright called me to his office to look at [several seals from Chiapa de Corzo sent by Ferguson] with him. He recognized a letter or two and concluded that these were degenerate cartouches of Mediterranean inspiration. He was roundly denounced for such a heresy.”⁹⁹

Until 2006, alphabetic writing had not been considered by prominent scholars to have been present in Mesoamerica at any time. In September of that year, however, an inscription from the Olmec area, found at a site near San Lorenzo, was published. It came from a context dated about 900 BC or earlier. Written in a “hitherto unknown script,” the 62-character inscription was judged by some experts as “alphabetic.”¹⁰⁰

A few scholars have believed that alphabetic script (completely different from the newly discovered one) may be present on isolated objects. One candidate is the cylinder seal reported by David H. Kelley.¹⁰¹ This cylinder

China and America: A Study of Ancient Communication between the Two Lands (Hong Kong: printed by author, 1970–71), 1:15–21; Dennis Lou Wing-Sou, “Introduction,” in *The Discovery of Chinese Inscriptions in America* (Hong Kong: printed by author, 1971), 1:7–13; and Mike Xu, “New Evidence for Pre-Columbian Transpacific Contact between China and Mesoamerica,” *Journal of the Washington Academy of Sciences* 88/1 (2002): 1–11.

98. Thomas Stuart Ferguson, *One Fold and One Shepherd* (San Francisco: Books of California, 1958), 22–23.

99. George F. Carter, “Before Columbus,” in *The Book of Mormon: The Keystone Scripture*, ed. Paul R. Cheesman (Provo, UT: BYU Religious Studies Center, 1988), 164.

100. Maria del Carmen Rodríguez Martínez et al., “Oldest Writing in the New World,” *Science* 313 (2006): 1613.

101. David H. Kelley, “A Cylinder Seal from Tlatilco,” *American Antiquity* 31 (1966): 744–46. The find that Kelley published was made by archaeologist Fred Peterson 50 years ago at Tlatilco, the Olmec-related site near Mexico City that was being destroyed by commercial brickmaking. Peterson, letter to Kelley, copy in Sorenson’s possession; see Román Piña Chan, *Tlatilco*, 2 vols. (Mexico City: Instituto Nacional de Antropología e Historia,

form is, of course, best known in the ancient Near East, where famous archaeologist Sir Leonard Woolley observed, "Paper-using people would never invent the cylinder seal. . . . Mesopotamia [where wet clay was used as a medium] is the obvious origin point."¹⁰² Yet this form of seal was not uncommon in paper-using Pre-Classic Mesoamerica.

The date of the cylinder seal is not completely certain, although all other material from the area where it was found is dated between about 1400 and 600 BC. John Graham of the University of California observed that the characters engraved on this seal "may indeed represent the earliest example of writing now uncovered from Mesoamerica" and thought that it "represents the most advanced script ever developed in the New World. . . . The markings of this seal closely resemble various . . . scripts ranging from Burma and China to the rim of the Mediterranean. If the signs of this seal were writing, and the seal were accepted as authentic, we would almost surely be dealing with an instance of Trans-Pacific contact during the Pre-Classic."¹⁰³

A chemical (thermoluminescence) test was arranged by R. Hristov in 2001 and conducted by a laboratory at Oxford University. It established that the object is "between 2000 and 3200 years old."¹⁰⁴ Kelley, along with Graham, believed of this seal that its "sequences of arbitrary symbols . . . are surely parts of a hitherto unknown writing system."¹⁰⁵ It seems unrelated to any hieroglyphic system. A University of Pennsylvania archaeologist, an expert on Near Eastern cylinder seals, observed in March 2006, "It is similar to [decorative] patterns found on terracotta cylinders of the middle of the third millennium" in Iran.¹⁰⁶ That no other example of such characters has been found in Mesoamerica is puzzling at first glance, but

1958); and Muriel N. Porter, *Tlatilco and the Pre-Classic Cultures of the New World*, Publication 19 (New York: Viking Fund Publications in Anthropology, 1953).

102. Leonard Woolley, *Digging Up the Past* (Harmondsworth, England: Penguin, 1937), 76.

103. John A. Graham, "Commentary: On Calendrics and Writing," in *Observations on the Emergence of Civilization in Mesoamerica*, ed. Robert F. Heizer and John A. Graham (Berkeley: University of California Department of Anthropology, 1971), 133–34.

104. Oxauth@aol.com, e-mail message to R. Hristov, 2005.

105. Kelley, "Cylinder Seal from Tlatilco," 744.

106. Victor H. Mair, e-mail message, March 2006. This person was not told the Mexican provenience of the object.

Graham commented on this find that “most of our excavations into the Central Mexican Pre-Classic have not been conducted in localities where the retrieval of specimens of writings would be likely.”¹⁰⁷

Meanwhile, some other objects are known from Mesoamerica that could display alphabetic or syllabic signs.¹⁰⁸ It should be obvious from this information that the whole story of Mesoamerican writing systems has not yet been fully reconstructed. It is equally obvious that the Book of Mormon’s characterization of writing and books within the society that produced that volume corresponds in many respects with cultural ways that only an ancient, highly literate Mesoamerican writer would have known.

The Script Used to Write the Book of Mormon

The system employed on the plates of brass was adopted by Lehi₁ and Nephi₁ for their own records (1 Nephi 1:2; compare Mosiah 1:4–5).¹⁰⁹ For his personal records—one for sacred writings, the other officially historical in nature—Nephi₁ followed his father’s example and adopted what he obviously considered the approved script for sacred records; thus he too wrote in the script he called “the language of the Egyptians” (1 Nephi 1:2). Of course, Jacob₂’s firsthand charge from his older brother Nephi₁ to continue writing in the sacred record (Jacob 1:2) would not have authorized him to use any other writing system. (Indeed, born in the Arabian wilderness during his family’s trek, where would he have learned any alternative?)

107. Graham, “Commentary: On Calendrics,” 133.

108. For example, see Samuel K. Lothrop, *Pottery of Costa Rica and Nicaragua*, Contributions from the Museum of the American Indian and Heye Foundation 8 (New York: Museum of the American Indian and Heye Foundation, 1926), 378; Gordon F. Ekholm, *Excavations at Tampico and Panuco in the Huasteca, Mexico*, Anthropological Papers 38 (New York: American Museum of Natural History, 1944), 5:463, item R; Carlos Navarrete, *Un reconocimiento de la Sierra Madre de Chiapas: Apuntes de un diario de campo* (Mexico City: Universidad Nacional Autónoma de México, Centro de Estudios Mayas, 1978), 13: fig. 5a; and Méluzin, “Tuxtla Statuette,” 100, fig. 71a. A number of these are reproduced in John L. Sorenson, *Images of Ancient America: Visualizing Book of Mormon Life* (Provo, UT: Research Press, 1998), 162.

109. Sorenson, “Brass Plates.”

Welch has demonstrated the cultural continuity shown by Jacob₂'s descendants thereafter for several centuries in the way they added to the small plates record.¹¹⁰

Later, Benjamin said that Lehi₁ taught the contents of the brass plates to his children “that thereby they could teach them to their children, and so . . . even down to this present time” (Mosiah 1:4, ca. 130 BC). That means that their descendants also had been “taught in [this] language of the Egyptians.” Anywhere in ancient times, it would have taken a daring scribe (almost an oxymoron) to change scripts in the middle of a continuing record.

The use of antiquated languages and scripts for sacred purposes is well attested in the ancient world. Latin was the language of sacred records in western Europe throughout the Middle Ages. Sumerian was a language of scholarship and cult in Mesopotamia for millennia after the spoken tongue had gone out of general use.¹¹¹ And Middle Egyptian continued to be regarded as the “classical” language of Egypt for literary, religious, and monumental writing until the Graeco-Roman period. The hieratic writing system was the Egyptian norm, the form that all later priests learned first because it “was the standard script for letters, accounts, and literature; most of the great literary works of Classical Egyptian are preserved in hieratic. . . . Hieratic . . . remained in use alongside the newer [demotic] writing [down to the fifth century AD], but it was reserved primarily for religious papyri written in the older (semi-Classical) language.”¹¹²

The Nephite writing system continued until it reached the final custodian, Moroni₂, with no hint of any system change. He lumps all the writers of the record—himself, his father, and “them who have written before him”—into a unified “we”/“us,” which he repeats often in verses 31 to 35 of Mormon 9: “We have written this record . . . in the characters which are called among us the reformed Egyptian, [although] being handed down and altered [in details] by us, according to our manner of speech” (v. 32).

110. Welch, “Father’s Command to Keep Records,” 1.

111. Jerrold S. Cooper, “Sumer, Sumerians,” in *Anchor Bible Dictionary*, ed. David N. Freedman (New York: Doubleday, 1992), 6:231.

112. James P. Allen, “Egyptian Language and Writing,” in Freedman, *Anchor Bible Dictionary*, 4:190.

The most economical historical explanation of his statement is that the system of writing known to Lehi₁ and Nephi₁ was in use in the Near East for at least 1,000 years—from the origin of the brass plates in Egypt (Joseph₁, the probable person who adapted it to write Hebrew, dates nominally to around 1600–1700 BC) through the early sixth century BC. The system then was transferred to Nephi₁'s/Lehi₁'s Mesoamerican land of promise, where it continued being used to the fourth century AD.

What about Moroni₂'s statement that changes in the characters were made “according to our manner of speech”? There would, obviously, have been changes in lexicon whether or not some (creolized?) version of the Hebrew language remained their daily tongue, so supplementary written signs would be required and others would have been lost from regular use because of changes in their physical, social, and historical environments. But Moroni₂'s inclusive *we* again links all the Nephite writers with the use of “reformed Egyptian” characters. If the writing system was modified in minor but cumulatively important ways from the very beginning of its adoption in the day of Joseph in Egypt, after centuries it could justifiably be termed “reformed” Egyptian.

Writing systems, like languages, are constantly changing. Thus if we were to think of the standard hieroglyphic Egyptian as the primary basis for the system Joseph₁ came to use, then Middle Egyptian hieratic script was already “reformed.” Or the term may refer primarily to changes in phonetics. Elements may have been added to permit spelling out Hebrew names, for example. Further shifts might allow for writing some other language, such as a creole tongue—“according to our manner of speech” (Mormon 9:32). Moroni₂'s description of the basis for changes in the signs agrees with what we know about phonetic elements in both the Egyptian and Maya writing systems.

The only explicit description of the relationship between individual characters on the plates and the words of the English translation that were written down by Joseph Smith's scribes comes from David Whitmer, an early associate. Whitmer said in an interview long after Smith's death, “Sometimes [a] character would be a single word, and frequently an entire sentence.”¹¹³ To the degree that this statement might be accurate, it indicates

113. Lyndon W. Cook, ed., *David Whitmer Interviews* (Orem, UT: Grandin Book,

that at least some of the characters were logographs or ideographs—that is, they represented whole concepts rather than sound clusters—yet the system also had a phonetic element, as Moroni₂ indicated.

The Book of Mormon also mentions “the language of Nephi.” It was said to have been “taught among all the people of the Lamanites” by Nephite dissidents at the command of a Lamanite king (Mosiah 24:4, between 150 and 125 BC). This “language” was also probably a script, not a different spoken language. It is hard to believe that a new tongue could be taught so quickly and widely as is implied here, or that the Lamanites would accept the notion of using their enemy’s actual speech for any purpose. “The language of Nephi” seems to refer to a writing system because the aim in using it was “that they should keep their record, and that they might write one to another” (v. 6). It is not made clear whether or how “the language of Nephi” related to the medium for recording sacred contents, that is, “the language of the Egyptians.” The different name may suggest that a second set of characters was used, although probably based on similar principles.¹¹⁴

The fact that a script was transferred to the Lamanites implies two things of interest here: (1) the Lamanites had not had a vernacular writing system of their own before this event, and (2) it was possible to use “the language of Nephi” script among speakers of a (presumably) different tongue from that of the Nephites. An internationally usable script recalls the Maya system.

The case of the introduction of “the language of Nephi” to the Lamanites by dissident Nephites illustrates the principle that it was primarily an elite minority who controlled the script and the documents. Those former priests of King Noah were custodians of, analysts of, and teachers from the record of the Zeniffites, and they were descended from the Nephites (compare their knowledge of the Nephite scriptures reflected in Mosiah 12:18–28).

The decipherment of many Maya inscriptions has revealed that

1991), 174, quoting the *Chicago Tribune*, whose correspondent had interviewed Whitmer in Richmond, Missouri, on 15 December 1885.

114. When Mosiah₁ and his Nephite party first arrived in Zarahemla, he caused that “the language of Mosiah” should be taught to some of the people of Zarahemla; however, the context establishes that in this case it was speech that was involved, not script (Omni 1:18). Obviously, though, the more numerous “Mulekites” would not all have learned the Nephite tongue.

individuals had personal names or titles that were spelled out logo-syllabically. For example, the name of a famous ruler of Palenque, constructed by epigraphers as “Pacal,” was spelled by conjoining three phonetic (syllabic) signs as *pa-ca-l(a)*.¹¹⁵ It is probably a coincidence, though not without interest, that among the clearest cases for the use of specifically Egyptian personal names in the Book of Mormon are three that begin with a *pa-* prefix.¹¹⁶ Nibley pointed out a class of Egyptian names beginning with *Pa-* that are matched rather precisely in the Book of Mormon—the names of Nephite chief judge Pahoran₁ and his three sons, Pahoran₂, Paanchi, and Pacumeni. David Whitmer reported that in translating the Book of Mormon, Joseph “Smith . . . was oftentimes compelled to spell the words out, not knowing the correct pronunciation.”¹¹⁷ Presumably, proper names would have been the hardest to deal with in this respect. In the Near East, the practice was known of using Egyptian characters to transliterate Semitic words, including names one had to spell out to read.¹¹⁸

One set of Maya glyphs has been translated as signifying “it came to pass,”¹¹⁹ a phrase used many times in the Book of Mormon. Obviously, every language would have some way to convey this idea of narrative progression; nevertheless, it is interesting that the Maya used the concept often enough that a particular glyph suffix and word or phrase apparently served to express the formulaic notion concisely. The text of the Book of Mormon also may have had a regular sign or sequence for the idea, judging by its high frequency and consistency of translation.

The Nephite account does not indicate, tell, or imply much about any Jaredite (Early/Middle Pre-Classic) writing system. At least one Jaredite system came to their knowledge obliquely. Omni 1:20–22 mentions a large stone “with engravings on it.” This was the stone on which Coriantumr₂,

115. Michael D. Coe, *Breaking the Maya Code* (New York: Thames & Hudson, 1992), 206.

116. See Hugh W. Nibley, *Lehi in the Desert; The World of the Jaredites; There Were Jaredites* (Salt Lake City: Deseret Book and FARMS, 1988), 22–23, 27–29.

117. Cook, *David Whitmer Interviews*, 174.

118. John A. Tvedtnes, “Linguistic Implications of the Tel Arad Ostraca,” *Newsletter and Proceedings of the Society for Early Historic Archaeology* 127 (1971): 1–5.

119. Linda Schele and Peter Mathews, *Notebook for the XVIIth Maya Hieroglyphic Workshop at Texas* (Austin: University of Texas Press, 1993), 33–34.

the last Jaredite ruler, wrote historical material during his nine-month sojourn with the Mulekites before his death. Mosiah₁ later interpreted that form of writing “by the gift and power of God” (Omni 1:20; Mosiah 28:11–18). We cannot be sure that Coriantumr₂'s script was the same one used by Ether (Ether 3:22) to prepare his lineage history, but it seems likely that it was the same, given that they were contemporaries. We do know that substantial Jaredite cultural and linguistic influence reached the Nephites by some channel, apparently by way of the Mulekite folk.¹²⁰

There is one possible instance of transmission of a Jaredite document down to the Nephite period. Ether 8:9 quotes the daughter of Jared, son of King Omer, as referring to an Old World book among them: “Hath [my father] not read the record which our fathers brought across the great deep? Behold, is there not an account concerning them of old, that they by their secret plans did obtain kingdoms and great glory?” That document, of course, was brought by some among the Jaredite ancestors from “the great tower” in or near Mesopotamia. From it sprang a secret organization that was represented among the Jaredites more or less continuously until the demise of the dynasty represented by Coriantumr₂ near the end of the seventh century BC. Later, among the Nephites, Giddianhi, “the governor of . . . the secret society of Gadianton,” bragged in a letter to the Nephite chief judge about his organization, “which society and the works thereof I know to be good; and they are of ancient date and they have been handed down unto us” (3 Nephi 3:9). He obviously refers to an ultimate Jaredite origin for his organization and its symbols. Helaman₃ (or Mormon, the ultimate editor) supposed that “those secret oaths and covenants . . . were put into the heart of Gadianton” by the devil (Helaman 6:26). But it is difficult to believe that knowledge of an operational code for conducting the organization was transmitted merely by oral tradition. Giddianhi's statement seems to point to his having access to an actual Jaredite record. It appears that a document was being described whose substance came down from the early third millennium BC to Gadianton's day, near the Christian era. The historical aspect of that record would have been entirely different from Ether's account, for Helaman 6:26 assures us that information about the secrecy pattern was not derived from Ether's 24 gold plates that Helaman₃ held and that Moroni₂

120. John L. Sorenson, “The ‘Mulekites,’” *BYU Studies* 30/3 (1990): 17–18.

eventually translated and summarized. And of course we cannot tell how the script of the secret document might have compared with that used by Ether.

Some spoken languages and writing systems must have failed to survive from the Mesoamerican past, Kaufman assumes.¹²¹ Their extinction reminds us of Moroni₂'s assurance that "none other people knoweth our [Nephite] language" (Mormon 9:34). Ether's "language" (both tongue and script?) also failed to survive (Ether 3:24). Whether Jaredite spoken language(s) continued, we do not know, although it seems likely because of the use of Jaredite terms among the Nephites, and the record from historical linguistics affirms that languages in use in Jaredite (Olmec) times may have continued in modified form into later centuries.¹²²

Physical Form of Records

Maya books were most often manufactured of long strips of bark paper folded back and forth in accordion fashion to form multiple pages. To make long sheets of paper, bark was stripped off fig trees, soaked, then pounded together with a wooden club. A thin coating of lime plaster was spread on dried strips cut from these sheets. The plaster stiffened the paper and provided a smooth, clean surface on which characters were painted. Such paper was relatively easy to manufacture, but finished books were expensive because the symbols or pictures on the pages had to be hand painted by scribes.

Mass destruction of such records is thought to have happened at times in Maya history, especially perhaps at the time of the collapse of Classic Maya civilization.¹²³ In the early 16th century, Catholic fathers burned many of the native paper books in an attempt to extirpate the "heathen rites" pictured therein.

121. Terrence Kaufman, "Archaeological and Linguistic Correlations in Mayaland and Associated Areas of Meso-America," *World Archaeology* 8/1 (1976): 101–18; and Kaufman, "Areal Linguistics and Middle America," in Sebeok, *Native Languages of the Americas*, 2:63–87.

122. Lyle Campbell and Terrence Kaufman, "A Linguistic Look at the Olmecs," *American Antiquity* 41 (1976): 80–89.

123. Michael D. Coe, *The Maya*, 7th rev. ed. (New York: Thames & Hudson, 2005), 161.

The book of Alma relates an account of book burning. At the city of Ammonihah, women and children adherent to the church that Alma² headed were “cast into the fire” to be burned alive, and their oppressors, who were leaders of the rival religious order of Nehor, “also brought forth their records which contained the holy scriptures, and cast them into the fire also, that they might be burned and destroyed by fire” (Alma 14:8). From this incident we learn (1) that multiple sacred records were possessed by lay worshippers, and (2) that the records were combustible, that is, they were surely of paper. We may presume that other kinds of records were of similar material and that documents in everyday circulation were written on paper.

Records on stone, both those on which script appeared and others that bore only symbolic art, were also destroyed frequently in ancient Mesoamerica. One view is that conquerors—in any age—deliberately sought to eliminate traces of those whom they had defeated, and thus of their history.¹²⁴ “History” was the basis of power and privilege in Mesoamerican societies. As Feldman notes, “The purpose of [traditional] accounts is quite clear; it was a recital of the genealogy and lineage of the lords who had ruled . . . in order to establish the rights of their descendants to certain privileges.”¹²⁵ In the Book of Mormon, precisely the same logic prevailed, justifying the destruction of historical records as a basis for taking back claimed privileges (e.g., Enos 1:14; Mormon 6:6).

There is very limited evidence in America for the use of hammered metal on which records were written. Examples of that book format were reported near the Gulf Coast of North America in the mid-1700s,¹²⁶ and it may be assumed that the practice originated from Mexico, the nearest literate area. Gay reported the use of hammered sheets of metal on which texts were inscribed in Oaxaca, Mexico, for which concrete evidence apparently persisted into the 19th century.¹²⁷ But it would be far-fetched for

124. Lowe et al., *Izapa: An Introduction*, 28; and Lowe, “The Mixe-Zoque as Competing Neighbors of the Early Lowland Maya,” in *The Origins of Maya Civilization*, ed. Richard E. W. Adams (Albuquerque: University of New Mexico Press and School of American Research, 1977), 235–40.

125. Feldman, “Tollan in Central Mexico,” 3.

126. Samuel C. Williams, ed., *Adair's History of the American Indians* (Johnson City, TN: Watauga, 1930), 187–88.

127. José A. Gay, *Historia de Oaxaca* (Mexico City: Imprenta del Comercio, 1881), 1:60.

archaeologists to expect that such precious and rare documents would come to light through excavations, and indeed none have been found.

Books (codices) of paper were accumulated in libraries or archives throughout Mesoamerica.¹²⁸ Nephite documents were also collected in an archive—from a large array of lineage records Mormon chose those documents from which he would prepare his history (Mormon 1:3, 4:23; Words of Mormon 1:3).¹²⁹

Summary

A detailed comparison has been made between the Book of Mormon as a record and the uses of records and books reported in pre-Hispanic Mesoamerican cultures. This comparison has demonstrated that a substantial degree of similarity exists in respect to form, content, social functions, style, scribes and users, writing systems, and other features. The Book of Mormon as a text is congruent with the records known from pre-Columbian Mesoamerica in all general ways and in many detailed ways.

It is most unlikely that such an extensive array of facts about ancient America could come under the control of even a modern Mesoamericanist scholar were he or she to undertake to produce a work purporting to involve records in ancient Mesoamerica. In any case, significant information on the points discussed above had not been discovered by, or was inaccessible in, 1830, when the Book of Mormon was printed. The Mesoamerican-like features in Mormon's volume could only be due to its origin from the hand of an ancient Mesoamerican author.

128. For the Aztecs, see Berdan, *Aztecs of Central Mexico*, 150.

129. Sorenson, "Mormon's Sources," 3–15.

Chapter 12

Human Biology

Maintaining the position that transoceanic migrants arrived in Mesoamerica demands that we find evidence that ancient humans in that area had biological characteristics that match those of peoples from the Old World.

Mere impressions about physical appearance do not, of course, provide definitive evidence to determine whether ancestors of a people were natives or immigrants. For example, some of the giant stone heads of southern Veracruz seem to some observers as representing people of African (negroid) appearance, although most physical anthropologists disagree. A historical incident during Cortez's conquest of the Aztecs further shows us the weakness of sheer impressionistic judgments of biological relationships. When immigrants from the Iberian Peninsula arrived in Mesoamerica beginning in 1519 and mingled with populations already there, they were not always easily distinguishable in appearance (i.e., *skin* color) from natives. Faced by a rebellion among Spaniards at his base in Veracruz, Cortez sent back spies from his position in central Mexico to assess the situation. Among a party of his Tlaxcalan Indian allies, he sent two of his countrymen dressed like natives. The Spaniards in the party lived in the camp of the rebels for a time before returning to report the state of affairs. Their Spanish identity was never detected by their insurgent countrymen.¹ When Gerónimo Aguilar, who had been a captive among the Maya, was rescued by the Spaniards, he

1. Bernal Diaz del Castillo, *The Bernal Diaz Chronicles: The True Story of the Conquest of Mexico*, trans. and ed. Albert Idell (Garden City, NY: Doubleday, 1956), 127.

was wearing native garb and his skin was so dark that he did not stand out from the natives—except for his beard.²

The skin tones of present-day peoples in Mesoamerica cover a range of shades from dark brown to virtual white. Those colors cover nearly the same range as those found anciently around the Mediterranean and in the Near East, the Lehites' area of origin. The Book of Mormon gives us only the subjective statements of its Nephite writers regarding the physical characteristics of the people about whom they wrote. In Nephite eyes, they themselves had skins that were "fair" (3 Nephi 9:2; Mormon 6:17), but the "skins of the Lamanites were dark" (Alma 3:6). In the mid-15th century, Thomas Gage called the Indians of central Chiapas "fair of complexion,"³ while Tomás Medel in 1560 described the wilderness dwellers in the forests of coastal Guatemala as being notably darker skinned than the people in the highlands—where the Nephites lived. The highland dwellers "appeared but little different from the Spaniards."⁴

Lamanites were also supposed to be "wild and ferocious" and were

2. Alfred M. Tozzer, ed. and trans., *Landa's Relación de las Cosas de Yucatan: A Translation*, Peabody Museum of American Archaeology and Ethnology Papers 18 (Cambridge, MA: Harvard University, 1941), 234–35.

3. J. Eric S. Thompson, ed., *Thomas Gage's Travels in the New World* (Norman: University of Oklahoma Press, 1958), 149.

4. Felix Webster McBryde, *Cultural and Historical Geography of Southwest Guatemala*, Institute of Social Anthropology Publication 4 (Washington, DC: Smithsonian Institution, 1945), 9. On "white" people in Mesoamerican art, compare Robert E. L. Chadwick Jr., "The Archaeology of a New World 'Merchant' Culture" (PhD diss., Tulane University, 1974): Danzante 55 figure has in its navel region the head of an old man that Caso compared with the Uncle Sam figure on La Venta Stela 3 (p. 44); Andrzej Wierciński, "Inter- and Intrapopulation Racial Differentiation of Tlatilco, Cerro de las Mesas, Teotihuacan, Monte Alban and Yucatan Maya," in *Proceedings of the 39th International Congress of Americanists (Lima, 1970)* (1972): skeletons show "a foreign band of sporadic migrants from the western Mediterranean area" (p. 240); Philip Drucker, "On the Nature of the Olmec Polity," in *The Olmec and Their Neighbors: Essays in Memory of Matthew W. Stirling*, ed. Elizabeth P. Benson (Washington, DC: Dumbarton Oaks, 1981): "he of the Uncle Sam chin whiskers" is compared with non-Olmec figures arriving, as on Monuments 13 and 19 at La Venta (p. 44); Benson, "Some Olmec Objects in the Robert Bliss Collection at Dumbarton Oaks," in Benson, *Olmec and Their Neighbors: La Venta Stela 3, Tres Zapotes Stele D, and the Alvarado Stela* all show a "bearded figure" (p. 97); and John F. Scott, "Post-Olmec Mesoamerica as Revealed in Its Art," *Proceedings of the 41st International Congress of*

described as wandering about in the wilderness “eat[ing] nothing save it was raw meat” (Enos 1:20). These attributed characteristics sound more stereotypical than plainly descriptive and very much resemble a Near Eastern cultural formula according to which Mesopotamian city dwellers of the third millennium BC characterized Amorite desert dwellers of their day as dark savages who lived in tents, ate their food raw, and left their dead unburied.⁵

The bodily characteristics of both factions of Lehi’s descendants may have shown but relatively minor variations from the bodily norms of their Mediterranean-type ancestors, who not uncommonly featured copper-olive skins, dark hair, brown eyes, and a gracile build. Those features of the founding Lehite and Mulekite immigrants could have fit in with, and after a time merged into, the biological milieu of Mesoamerica.⁶

Old World Diseases in the New World

Data on disease-causing organisms summarized in chapter 9 constitute evidence for human voyaging to the Americas in pre-Columbian times. The fact that almost a score of such organisms of Old World origin definitely appeared in the Americas before European ships arrived 500 years ago means that earlier people had come across the ocean(s) whose bodies were hosts for those diseases. Immigrants by sea who brought microbes and other sources of Old World illnesses surely were ancestors of some of the peoples who lived here later and so passed on both their genes and their diseases to the later population. The classic instance supporting this point is the presence in Amerindian tribes of hookworms (*Ancylostoma duodenale* and *Necator americanus*) that originated in tropical Asia (see chapter 9).

Whether any of the Old World disease-causing organisms identified so far in pre-Columbian America were brought specifically to Mesoamerica (rather than to some other New World area) cannot be determined for sure, but there is a high likelihood that the ancient Mesoamerican gene pool was

Americanists (Mexico, 1974) (1976): carvings “from El Mesón and . . . from Alvarado” show “the so-called Semitic Type” at La Venta (p. 385).

5. William F. Albright, *From the Stone Age to Christianity*, 2nd ed. (Garden City, NY: Doubleday/Anchor Books, 1957), 166.

6. Discussed further in John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1985), 81–83.

impacted by ripples from the arrival of Old World genetic stock and disease agents wherever and whenever they came ashore.

Varied Peoples as Shown in Mesoamerican Art

We can be specific about the origins of the Mesoamerican peoples when we examine art representations that display the physical appearance of Mesoamerica's population. Such art exhibits surprising variety in the appearance of people who were here—surprising, that is, to those who assume only a northern Asian ancestry for Amerindians. The myth of uniformity in the appearance of “the Indians” goes back particularly to Aleš Hrdlička, an American physical anthropologist prominent in the first part of the 20th century. His widely accepted opinions⁷ asserted that what he called “the average American Indians” could not be physically distinguished from “some members of the [northern] Asiatic groups.”⁸ A generally similar viewpoint is still widely assumed by Americanist scholars. The uniformity notion has been opposed by competent critics,⁹ but archaeologists and art historians generally have chosen to dodge the question and to follow Hrdlička's outdated orthodoxy.

When we inspect human facial representations rendered by ancient Mesoamerican artists, we cannot help but reach a contrary conclusion. Small clay figurines are abundant in Mexico and Central America (as well as in Ecuador and Peru), and while in some areas many of these are obviously stylized forms that probably did not reflect the appearance of particular human beings, others were clearly actual portraits of specific individuals. Archaeologist R. Piña Chan said about certain Maya figurines, “They are extraordinary because of their faithfulness to their human models.”¹⁰ Schele

7. As noted, for example, in Thomas D. Stewart, *The People of America* (New York: Scribner's, 1973), 25.

8. Aleš Hrdlička, “The Genesis of the American Indian,” in *Proceedings of the 19th International Congress of Americanists (Washington, 1915)* (1917): 559–68.

9. For example, Juan Comas, *Antropología de los pueblos ibero-americanos* (Barcelona: Editorial Labor, 1974), 35–39, 41–55; and Eusebio Dávalos Hurtado, “El hombre en Mesoamerica hasta la llegada de los Españoles,” *Memorias y revista de la Academia Nacional de Ciencias* 49 (1964): 411.

10. Quoted in Linda Schele, *Hidden Faces of the Maya* (Poway, CA: ALTI, 1997), 11.

observed that “[Late Classic] Maya figurines represented individual people who had readable expressions on their faces.”¹¹ González C., after examining over 2,000 figurines from the site of La Venta, Tabasco, maintained that no two were identical; he insisted that “it is not acceptable to believe that the local artists who elaborated so many realistic human sculptures could have invented facial features of people who[m] they had never seen.”¹² And of faces on late Olmec stone monuments, Coe observed, “The individuality of some of these human portraits is so strong that they must represent historical personages.” Some of those to which he referred “are bearded, like the famous ‘Uncle Sam’ figure on Stela 3, La Venta, and like this, often have hooked noses.”¹³ It is this class of artistic representations with particularized faces that is relevant here.

Alexander von Wuthenau was the first to point out a substantial corpus of “racially” varied figurine heads in Mesoamerica.¹⁴ Others have since added to the gallery of diversity.¹⁵ Figure 12.1 displays a sample of some of these varied faces.

There is no reason to suspect that any of these visages were fashioned after the arrival of the Spaniards, and many of them are unquestionably positioned far earlier on stylistic or stratigraphic grounds.¹⁶ This means that

11. Schele, *Hidden Faces of the Maya*, 13.

12. O. Luis González Calderón, *The Jade Lords* (Coatzacoalcos, Mexico: printed by author, 1991), 39.

13. Michael D. Coe, “The Olmec Style and Its Distributions,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 3:755. See also note 4.

14. Alexander von Wuthenau, *Altamerikanische Tonplastik: Das Menschenbild der neuen Welt* (Baden-Baden, Germany: Holle, 1965); von Wuthenau, *The Art of Terracotta Pottery in Pre-Columbian Central and South America* (New York: Crown, 1969); and von Wuthenau, *Unexpected Faces in Ancient America, 1500 B.C.–A.D. 1500: The Historical Testimony of Pre-Columbian Artists* (New York: Crown, 1975).

15. There are many examples in O. Luis González Calderón, *Cabecitas olmecas: Origenes de la primera civilizacton de América* (Mexico City: Ed. Culturales Mexicanas, 1977), plates; and see John L. Sorenson, *Images of Ancient America: Visualizing Book of Mormon Life* (Provo, UT: Research Press, 1998), 18–23.

16. Ethnically varied figurines from Ecuador and Peru are also shown in Carmen Fauria, “El grupo Tumaco-Tolita a través de la colección de Torredembarra,” *Boletín americanista* 35 (1986): 91–114.



Figure 12.1. Ethnic variety in ancient Mesoamerican human figurine faces

ancient American populations included folks who clearly looked like, and presumably were descended from, groups from many parts of the world, confirming the evidence from flora and fauna reported in chapter 9 that shows a long process of transoceanic exchange.

A definite case of pre-Columbian importation to Mexico of a European figurine has been reported by Hristov and Genovés T.¹⁷ The head was unearthed in 1933 in a ruin of Aztec date.¹⁸ Recently Hristov and Genovés examined excavation records from the original dig and established beyond question that the artifact came from a pre-Columbian stratum. It has been declared by an expert on Mediterranean art to be Roman, dating about AD 200. A thermoluminescence test on the head has confirmed a date of roughly the same time. Moreover, a mold was found in coastal Veracruz a century ago that could serve to make patently Roman-style figurine heads.¹⁹

If genes were present in the ancient Mesoamerican population that would produce individuals like those shown in the figures that have a clearly Caucasoid appearance, those genes would continue to be manifest in their descendants. As noted previously, such descendants were apparently discernible as late as the Spanish conquest. Garibay and León Portilla²⁰ tell of the startled reaction of Cortez upon seeing a bearded envoy from the Aztec ruler whose skin was very white. Cortez said, "No Spaniard was whiter than he was."

A marked difference in skin pigmentation is shown in various participants represented in an 11th-century-AD mural at Chichén Itzá, Yucatan. Dark-skinned warriors are shown dominating or abusing people with white skin. Ann Axtell Morris, the artist who copied the mural for the Carnegie

17. Romeo H. Hristov and Santiago Genovés T., "Mesoamerican Evidence of Pre-Columbian Transoceanic Contacts," *Ancient Mesoamerica* 10 (1999): 207–13; and Hristov and Genovés T., "Viajes transatlánticos antes de Colón," *Arqueología mexicana* 6/33 (1998): 48–53.

18. José García Payón, "Una cabecita de barro de extraña fisonomía," *Boletín Instituto Nacional de Antropología e Historia* 6 (1961): 1–2.

19. Leopoldo Batres, *Civilización prehistórica de las riberas del Papaloapam y costa de Sotavento, estado de Veracruz* (Mexico City: Buznego y Leon, 1908), fig. 8.

20. Ángel María Garibay and Miguel León-Portilla, *Visión de los vencidos: Relaciones indígenas de la conquista*, 12th ed. (Mexico City: Universidad Nacional Autónoma de México, 1989), chap. VII.

Institution, noted that in the original painting one class of painted figures had “natural, light-colored skins, [and] . . . extraordinary yellow hair, very long and thick. . . . It is difficult . . . to reconcile all of these physical qualities with a member of [the Maya] race. The painter, in depicting the hair and skin with such care in order to contrast them with their black, . . . armed captors, evidently had some notion of a distinct physical difference in his two sets of actors.”²¹ (See fig. 12.2.)

Any selective oppression of a light-skinned population would of course have worked against the survival of genes for those Caucasoid traits inherited from white ancestors. In that vein, the early historian Alva Ixtlilxochitl reported that among the Aztecs “there was a law that wherever a child was born that was very white and blond, when it was five years of age it was right away sacrificed.”²² A similar discrimination process may have been at work much earlier. In the Pre-Classic Las Charcas and Providencia periods in the Valley of Guatemala around 600–300 BC, nearly all of the figurines had a white surface (either by being made of an unslipped light-colored clay or of a darker clay covered with a white slip). Yet in the succeeding (Verbena) phase (ca. 200 BC), figurines either were exclusively of unslipped red/brown paste or else were red slipped.²³ Why the later images were colored differently is hard to explain unless they reflected different skin pigmentations of original living models. The systematic change in appearance would appear to have mirrored change in the population's predominant pigmentation. According to the Book of Mormon, the fair-skinned Nephites who dwelt in the land of Nephi from about 600 to near 200 BC were replaced by darker

21. Earl H. Morris et al., *Temple of the Warriors at Chichen Itza, Yucatan*, Publication 406 (Washington, DC: Carnegie Institution, 1931), 1:446; plates are found at 2:139 and 2:159. Morris continues her discussion, saying, “The long, flowing, yellow hair . . . so painstakingly delineated in this scene as well as that of human sacrifice, is undoubtedly meant to emphasize a difference of tribe, or even of race. . . . The fair-headed folk are certainly suffering reverses in battle” (1:402).

22. Fernando de Alva Ixtlilxochitl, *Obras históricas*, ed. Alfredo Chavero (ca. 1600; 1891–92; repr., Mexico City: Editora Nacional, 1952), 1:49. English translation from Milton R. Hunter and Thomas Stuart Ferguson, *Ancient America and the Book of Mormon* (Oakland, CA: Kolob Book, 1950), 382.

23. Alfred V. Kidder, “Preclassic Pottery Figurines of the Guatemalan Highlands,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 2:146–55.



Figure 12.2. Light- and dark-skinned people in art at Chichen Itzá

Lamanites around the latter date; this historical/archaeological process is discussed in chapter 22.

Even a casual inspection of the multiethnic facial representations in figure 12.1 should assure anyone that ethnic groups from many parts of the world were represented in ancient Mesoamerica—Black African, Mediterranean, Near Eastern, South Asian, East Asian, and Oceanian. Berjonneau and Sonnery commented that “in Mesoamerican art it is not unusual to find faces with somewhat ‘Negroid,’ ‘Semitic’ or ‘Chinese’ features,”²⁴ while Irene Nicholson asked, “How is it that the New World before the arrival of the Spaniards contained ethnic types of such a wide diversity that there have been clay and stone portraits discovered representing

24. Gérald Berjonneau et al., *Rediscovered Masterpieces of Mesoamerica: Mexico-Guatemala-Honduras*, Editions Arts 135 (Boulogne, France: Editions Arts, 1985), 268.

practically every known human race?"²⁵ Beyond the faces seen in figure 12.1, von Wuthenau illustrates a full gamut of these types.²⁶

While most archaeologists are not even aware of the existence of such ethnically diverse figures, some deny that these varied representations were meant to show ethnic differences in the population. They consider that they look as they do by artistic happenstance—as a result of the sheer creativity of the artist. However, the faces themselves make such a notion incredible. It seems hard to deny that these images represented living people in the pre-Columbian population of Mesoamerica who looked like the countenances the artists molded, sculpted, or painted.

Facial Hair and Ethnic Variety

One of the interesting characteristics of a portion of these exotic representations is the presence of beards, sometimes very full ones, and occasional mustaches. The native peoples living in Mesoamerica today, like most Mongoloids, rarely grow beards, and those that do usually have sparse growth. Ekholm aptly commented regarding a fulsome handlebar mustache that appears on a Classic-era wooden statue from the Maya area (see fig. 12.3) that it “raises the often argued question as to whether the Mongoloid American Indian could have had sufficient facial hair to grow a heavy beard—or a mustache such as this—and as to who might have been the model for this figure.”²⁷

Research on beards in Mesoamerican art²⁸ shows that those graphic images from Mesoamerica had a discernible history. In all, several hundred figures with substantial beards have been catalogued. The earliest occurrence

25. Irene Nicholson, *Mexican and Central American Mythology* (London: Hamlyn, 1967), 19.

26. For “Semitic” examples, see von Wuthenau, *Unexpected Faces in Ancient America*, 66, 69, 105, 114, 115, 118, 121, 148. González Calderón, *Jade Lords*, shows many more examples.

27. Gordon F. Ekholm, *A Maya Sculpture in Wood* (New York: The Museum of Primitive Art, 1964), 9.

28. Primarily by Kirk Magleby, “A Survey of Mesoamerican Bearded Figures” (Provo, UT: FARMS, 1979). See also Diane E. Wirth, *Parallels: Mesoamerican and Ancient Middle Eastern Traditions* (St. George, UT: Stonecliff, 2003), 11–26; and an unpublished study by David Lee.



Figure 12.3. Maya carved wooden figure with elaborate mustache

of the trait seems to have been in the Middle Pre-Classic period, in the first millennium BC. We have already noted the prominent beard on the figure sculpted on La Venta Stela 3. Of about the same date are figurines in the

highland Guatemalan Las Charcas style that sometimes display full beards. Magleby found that it was in the Late Pre-Classic period (ca. 300–50 BC) when beards in art were most abundant, although non-bearded faces were always more common. Hirsute visages decreased in frequency with the onset of the Classic, and by about AD 700 they were uncommon. Such a distribution over time of course does not support the idea that random artistic creativity was responsible for the beards that are represented. Nor do they occur at random in terms of geography; most of the bearded figures have been found in the zone from highland Guatemala through central Veracruz.²⁹

The beards portrayed in Mesoamerican art correspond with what we would expect on the basis of the history revealed in the Book of Mormon. The Israelites were one of the few peoples in the Old World (along with Assyrians and Babylonians) who wore full beards and portrayed them in art. It is of direct interest, then, that according to the Book of Mormon, the Jaredite party came from Mesopotamia and two Israelite colonies arrived shortly after 600 BC. Descendants of these groups appear to have lived for centuries in the area between highland Guatemala and central Veracruz before disappearing as an identifiable population by AD 400. The significance of time and place for the manifestation of this Near Eastern physical characteristic in Mesoamerica is obvious.

At the same time, some figures of men were produced in that general area that are shown with bald heads (even though they may show facial hair).³⁰ The tendency to baldness is a genetic feature that rarely appears in pure American Indians.

There seems no doubt from the phenotypical (externally visible, as against genetic) characteristics that Mesoamerican society was multiethnic or multiracial. And again, the timing and distribution of some of the Semitic features that have been observed correspond to what the Book of Mormon says or implies about the arrival from the Near East of Israelite voyagers. Furthermore, given the evidence for multiple voyages across the ocean required to account for the Old World plants and diseases in America, there is no reason to question that, for example, Greeks and Romans could

29. Magleby, "Survey of Mesoamerican Bearded Figures."

30. Berjonneau et al., *Rediscovered Masterpieces of Mesoamerica*, 64; and von Wuthenau, *Unexpected Faces in Ancient America*, 134.

also have had a minority presence in Mesoamerica during the Pre-Classic era, when faces with beards appear in the art.

Human Variety in Mesoamerica: Morphological Indications

A traditional method for identifying racial/ethnic affiliation is comparative morphological (chiefly skull) measurements. This approach, once universally used by physical anthropologists, has been abandoned for the most part in favor of other modes of analysis, yet valid historical links between human groups can still be established on this basis.³¹ Some physical anthropologists have felt that data of this sort constitute evidence of transoceanic arrivals in the Americas.³²

Some data from the beginning of human settlement in America specifically disagree with the usual claim that all the settlers of America came via the Bering Strait. Neves and colleagues in Brazil made this observation: "Morphological comparative studies conducted over the last ten years have demonstrated that the first Americans cannot be described as Mongoloids. In fact the cranial morphology of the Paleoindian [oldest] skeletons show a clear tendency to cluster with Australians and Africans instead of with Asians and modern Amerindians in multivariate analyses. This has been demonstrated for both South and North America."³³ An outstanding recent

31. D. Gentry Steele and Joseph F. Powell, "Peopling of the Americas: Paleobiological Evidence," *Human Biology* 64/3 (1992): 303–36; Steele and Powell, "Paleobiological Evidence of the Peopling of the Americas: A Morphometric View," in *Method and Theory for Investigating the Peopling of the Americas*, ed. Robson Bonnichsen and D. Gentry Steele (Corvallis: Oregon State University Peopling of the Americas Publications, 1994), 141–63; Steele and Powell, "Peopling of the Americas: A Historical and Comparative Perspective," in *Who Were the First Americans*, ed. Robson Bonnichsen and Ruth Gruhn, 97–126 (Corvallis: Oregon State University Peopling of the Americas Publications, 1999); and Steele and Powell, "Facing the Past: A View of the North American Human Fossil Record," *Memoirs Presented to the California Academy of Sciences* 27 (2002): 93–122.

32. For example, Pedro Bosch-Gimpera, "Paralelos transpacíficos de las altas culturas americanas y su cronología," *Anales de antropología* 7 (1970): 43–89.

33. Walter A. Neves, Joseph F. Powell, and Erik G. Ozolins, "Extra-continental Morphological Affinities of Palli Aike, Southern Chile," *Interciencia* 24/4 (1999): 158; compare Jerry E. Bishop, "Strands of Time: A Geneticist's Work on DNA Bears Fruit for Anthropologists," *Wall Street Journal*, 10 November 1993, A1 and A6.

synthesis extends this analysis further.³⁴ For our purposes the upshot is that the most ancient skeletal samples (and by implication the genes they represent) known from both North and South America (the “Paleoindians”) are related to Southeast Asia and Australia rather than to Northeast Asia. So the oldest discovered humans in the Americas were distinct in appearance from the Amerindians encountered by Europeans when they arrived around AD 1500.

Another study provides evidence of the same type for Old World sources for Mesoamericans. Polish anthropologist Andrzej Wiercieński analyzed measurements from a large series of skulls that had been excavated at sites throughout Mesoamerica.³⁵ He identified characteristics that apparently intruded from north and central Asia but also found Chinese and Caucasoid features, including the Near Eastern Armenoid subtype whose beard and large hooked nose appear on the so-called Uncle Sam face on La Venta Stela 3 and other scenes (see note 4). In Wiercieński’s judgment, “the ancient Mexican series are shifted more towards the white variety of pattern of facial traits than to the classic Mongoloids.” Indeed, he judged that “ancient Mexico was inhabited by a chain of interrelated populations which cannot be regarded as typical Mongoloids.” He concluded that superimposed on his three “primary Amerindian stocks” were features “introduced by foreign bands of . . . migrants from the . . . Mediterranean area.” Those immigrants bore especially Armenoid or Near Eastern traits, as well as several Old World types of artificial cranial deformation.³⁶

If any one of these anthropologists’ observations stood alone, it might be dismissed quickly, but taken together, along with what art shows us, this

34. Steele and Powell, “Facing the Past,” 93–122.

35. Andrzej Wiercieński, “An Anthropological Study on the Origin of ‘Olmecs,’” *Swiatowit* 33 (1972): 143–74; and Wiercieński, “Inter- and Intrapopulational Racial Differentiation of Tlatilco, Cerro de las Mesas, Teotihuacan, Monte Alban and Yucatan Maya,” *Proceedings of the 39th International Congress of Americanists (Lima, 1970)* (Lima: Instituto de Estudios Peruanos, 1972), 1:231–48.

36. For example, Robert E. L. Chadwick Jr., “The Archaeology of a New World ‘Merchant’ Culture” (PhD diss., Tulane University, 1974); and Román Piña Chan and Luis Covarrubias, *El pueblo del jaguar (Los olmecas arqueológicos)* (Mexico City: Consejo para la planeación e instalación del Museo Nacional de Antropología, 1964).

picture is not only provocative but confirmatory about the arrival of non-indigenous populations in ancient Mesoamerica.

One thing we can conclude from this brief examination of research on the ethnic variety present among the ancient Americans is that the human biological history of both North and South America, as far as we can see it at present, was more complex than is usually supposed in the interpretations offered by the majority of anthropologists. This situation requires seeing a variety of ethnic or physical types and points to immigrants coming from overseas by boat, who also brought with them the diseases and plants already discussed.

The Indeterminate Nature of Molecular Genetic Data and the Origins of Amerindians

What do the genetic data say about whether Near Eastern people were involved in the Mesoamerican gene pool? Results obtained so far do not provide enough evidence to be certain.

Scientists who specialize in DNA analyses present results similar to those who used other approaches. They generally believe that the American Indians originated from initial colonizing populations that carried only four genetic haplotypes (sets of genes so closely linked as to be inherited as a complex). Those four are supposed to have arrived via the Bering Strait more than 10,000 years ago.³⁷ In the conventional interpretation, it is assumed that other genes did not come into the Americas until Europeans arrived in the late 15th century. But that picture is incomplete. In recent years an additional haplotype ("X") has been identified that was anciently distributed among several New World groups, as well as in European and Asian populations.³⁸ Further discoveries of unsuspected haplotypes in small populations could modify the confidence with which the experts currently—prematurely, I believe—count and characterize ancient American genetic

37. Michael H. Crawford, *The Origins of Native Americans: Evidence from Anthropological Genetics* (New York: Cambridge University Press, 1997).

38. Michael D. Brown et al., "mtDNA haplogroup X: An Ancient Link between Europe/Western Asia and North America?," *American Journal of Human Genetics* 63/6 (1998): 1852–61; and Virginia Morell, "Genes May Link Ancient Eurasians, Native Americans," *Science* 280 (1998): 520.

structures as though they were fully known. Furthermore, the significance of the “basic” four haplotypes remains in question because only certain peoples have survived and have had their members’ DNA tested.

Of even greater significance is the fact that serious methodological difficulties or limitations are inherent in all such studies. Jones, for example, has pointed out a large number of these. They hinge on assumptions made in the construction of the models employed in interpreting the historical significance of the majority of studies, which rely on data from mtDNA and Y-chromosome samples almost exclusively. The problems are compounded when one considers the limited size and nature of the DNA samples of American Indians used in almost all studies.³⁹

As an example of the kind of data that may yet be revealed by carefully designed DNA studies, consider a report by the Cherokee DNA Project conducted by DNA Consultants, a firm that has been taking DNA samples from Cherokee Indians in the United States for over 10 years as a means of establishing tribal membership, an affiliation of considerable economic and social significance. Their report under the heading “Anomalous Mitochondrial DNA Lineages in the Cherokee” says that “a sample of 52 individuals who purchased mitochondrial DNA tests to determine their female lineage was assembled after the fact from the customer files of DNA Consultants. All claim matrilineal descent from a Native American woman, usually named as Cherokee. The main criterion for inclusion in the study is that test subjects must have obtained results not placing them in the standard Native American haplogroups A, B, C or D, hence the use of the word ‘anomalous.’ Most subjects reveal haplotypes that were unmatched anywhere else [in the New World] except among other participants. There proves to be a high degree of interrelatedness and common ancestral lines. Haplogroup T emerges as the largest, followed by U, X, J and H. Similar

39. Peter N. Jones, “American Indian Demographic History and Cultural Affiliation: A Discussion of Certain Limitations on the Use of mtDNA and Y Chromosome Testing,” *AnthroGlobe Journal* (2002): 1–32; and Jones, *American Indian mtDNA, Y and Chromosome Genetic Data, and the Peopling of North America* (Boulder, CO: The Bāuu Institute, 2004).

proportions of these haplogroups are noted in the populations of Egypt, Israel, and other parts of the East Mediterranean.”⁴⁰

Part of the problem in this area of research lies in trying to draw conclusions from restricted sorts of genetic data. Almost the entire conjectured genetic history published and accepted thus far is based on data derived either from mtDNA (passed only from mother to child, though only daughters pass it to the next generation) or from Y-chromosome (paternally transmitted) genetic material. But these two sources constitute only a minuscule sample, less than 0.01 percent, of the total human genome.⁴¹ An “individual’s strictly maternal and strictly paternal lines are just two of a vast number of possible paths back through his or her ancestors.”⁴² A result of confining studies mostly to the two conveniently accessible sources of gene data has been to ignore the far greater mass of evidence of human ancestry that potentially is, or may eventually become, available beyond the nuclear data.

Dillehay reminded scientists that some groups who settled in America may have become extinct because of environmental problems such as disease.⁴³ Sheer lack of investigation is also an issue. For example, the only evidence historians have for the routine assumption that the Vikings did not leave genes behind among native peoples of northeastern North America is negative; that is, investigators have *not* found any Norse-specific features so far. However, the possibility has hardly been raised among geneticists, let alone carefully studied.

Sadovszky produced substantial evidence from linguistics and ethnology that Indian populations in central California spoke languages and retained cultural characteristics that belonged to populations at home in western

40. “Anomalous Mitochondrial DNA Lineages in the Cherokee,” abstract available at DNA Consultants website, <http://dnaconsultants.com/Cherokee/index.htm>.

41. Susanna C. Manrubia, Bernard Derrida, and Damián H. Zanette, “Genealogy in the Era of Genomics,” *American Scientist* 91 (2003): 158.

42. Douglas L. T. Rohde, “On the Common Ancestors of All Living Humans” (unpublished manuscript dated 11 November 2003, in possession of author). Compare Joseph T. Chang, “Recent Common Ancestors of All Present-Day Individuals,” *Advances in Applied Probability* 31 (1999): 1002–26.

43. Tom D. Dillehay, “Disease Ecology and Initial Human Migration,” in *The First Americans: Search and Research*, ed. Tom D. Dillehay and David J. Meltzer (Boca Raton, FL: CRC, 1991), 231–64.

Siberia.⁴⁴ He argued persuasively that their ancestors arrived in California from the Ob River area probably over 2,000 years ago. Yet no search for specific genetic evidence of such a migration has been conducted, or even conceived of, to confirm or disconfirm the extensive linguistic and cultural evidence.

In addition, according to González C. on the basis of his direct observation of thousands of figurines from Olmec sites in the Isthmus of Tehuantepec, San Lorenzo Tenochtitlán, and nearby La Venta, he has identified faces that show three distinct racial/ethnic groups: (1) a bearded white race with aquiline noses, probably Mediterranean in origin; (2) an oriental race, probably Han Chinese; and (3) a black race. At all Olmec sites other than San Lorenzo, the Chinese features are completely absent, while the white type predominated at La Venta.⁴⁵ To the extent that there is a basis in fact for his observation, DNA tests of living groups in the vicinity could well be made to see whether special characteristics of the Chinese or European genomes can be detected to match the images. But such tests neither have been nor are likely to be carried out as long as molecular anthropologists' curiosity is not whetted in that unorthodox direction. In fact, only a fraction of the various contemporary peoples in Mesoamerica have been tested and analyzed for mtDNA or Y-chromosome DNA. Further studies should be undertaken to look for the genes of descendants of the people who were the ancient models for the foreign faces known from art.

Evidence has also been found that changes in a population's DNA come about for unknown reasons. One of the most extensive historical genetic studies ever made was a study of over 131,000 Icelanders and their ancestors back to 1789.⁴⁶ It showed that the majority of people living today in Iceland had ancestors "that could not be detected based on the Y-chromosome and

44. Otto J. von Sadvoszky, *The Discovery of California: A Cal-Ugrian Comparative Study* (Los Angeles: International Society for Trans-Oceanic Research, 1996). For a more complete discussion, see chapter 10 herein.

45. González Calderón, *Jade Lords*, 48, 51, 135; and González Calderón, *Cabecitas olmecas*.

46. Agnar Helgason et al., "A Populationwide Coalescent Analysis of Icelandic Matrilineal and Patrilineal Genealogies: Evidence for a Faster Evolutionary Rate of mtDNA Lineages than Y Chromosomes," *American Journal of Human Genetics* 72 (2003): 1370–88.

mitochondrial DNA tests being performed and yet the genealogical records exist showing that these people lived and were real ancestors.”⁴⁷

Practical and strategic problems with the DNA specimens used in genetic studies of American Indians remain to be dealt with. Jones warned, “It is evident that the population groups [that] current studies are using to infer American Indian cultural affiliation and demographic history are not acceptable. One cannot use contemporary allele frequencies from a few individuals from a contemporary American Indian reservation to arrive at an unequivocal haplotype for that group, either presently or prehistorically.”⁴⁸ Merriwether and his colleagues added, “With the exceedingly spotty sampling of Native American populations, it may be a long time until we have sampled enough populations truly to tell how localized or widespread any polymorphism [genetic identifier] really is.”⁴⁹

Support from gene studies for the arrival of voyagers from the Old World may yet be increased and clarified. For example, Douglas Wallace, one of the leading scientists working in the field, believed that a particular pattern of mutations found in Native American populations as well as in Southeast Asia and Pacific Islands (but not in Siberia) hints at “one of the most astounding migrations in human experience.” On the basis of the data he had available, he postulated that anciently a group of people moved out of China into Malaysia, where they became sailors and then proceeded to populate the islands of the South Pacific. Some 6,000 to 12,000 years ago these mariners made it to the Americas, although “I don’t know how they came,” Wallace went on. “They either came across the Pacific to Central and South America or they went [by sea] up the east coast of Asia and across the northern Pacific to Alaska and Canada.”⁵⁰ His timing of the movement of those voyagers across the Pacific could account for the arrival of hookworms

47. John M. Butler, “Addressing Questions Surrounding the Book of Mormon and DNA Research,” in *The Book of Mormon and DNA Research*, ed. Daniel C. Peterson (Provo, UT: Neal A. Maxwell Institute, 2008), 75.

48. Jones, “American Indian Demographic History,” 17.

49. Andrew Merriwether et al., “Gene Flow and Genetic Variation in the Yanomama as Revealed by Mitochondrial DNA,” in *America Past, America Present: Genes and Languages in the Americas and Beyond*, ed. Colin Renfrew (Cambridge, England: McDonald Institute for Archaeological Research, 2000), 117.

50. Bishop, “Strands of Time,” A1.

in America (see the section “Old World Diseases in the New World” above), and perhaps it also relates to the transoceanic linkage that Neves and colleagues saw for early Brazilian skeletal specimens.⁵¹ Testing such hypotheses deserves serious research, but that hardly seems imminent.

One of the most recent syntheses of genetic studies on the origin of Amerindians reaches very different conclusions from ideas considered current only a few years past. Arnaiz-Villena et al. have found that (1) the Bering Strait was probably not the only entrance to America; Pacific Ocean boat trips may have contributed as well. They have also concluded that (2) American Indians share most genetic characteristics with Pacific Islanders, and (3) they have created a model that does not support the classic picture of “three waves” of population entering via Alaska but, rather, calls for immigration also via the Pacific coast.⁵² At the least, these results demonstrate that the comprehensive biological history of human settlement in America when it is soundly documented is going to be much more complex than previously thought.

A considerable to-do has been made about a supposed lack of Jewish DNA in American Indians in the light of the Book of Mormon report of migrations from Jerusalem to Mesoamerica.⁵³ Such assertions have been discussed at length by DNA scientists and other scholars.⁵⁴ Their views suppose that attempts to answer the question are premature at best and possibly futile. The key problem is still the same as Mourant pointed out some time ago; that is, we don't know the genetic composition of the Jews at the

51. Neves et al., “Extra-continental Morphological Affinities,” 260.

52. A. Arnaiz-Villena et al., “The Origin of Amerindians and the Peopling of the Americas According to HLA Genes: Admixture with Asian and Pacific People,” *Current Genomics* 11/2 (April 2010): 103–14.

53. Simon G. Southerton, *Losing a Lost Tribe: Native Americans, DNA, and the Mormon Church* (Salt Lake City: Signature Books, 2004); and Thomas W. Murphy, “Simply Implausible: DNA and a Mesoamerican Setting for the Book of Mormon,” *Dialogue* 36/4 (2003): 109–31.

54. See essays by Butler, Whiting, McClellan, Sorenson, Roper, and others in Peterson, *Book of Mormon and DNA Research*; also Terryl L. Givens, “Common Sense Meets the Book of Mormon,” in *Revisiting Thomas F. O’Dea’s ‘The Mormons’: Contemporary Perspectives*, ed. Cardell K. Jacobson, John P. Hoffman, and Tim B. Heaton (Salt Lake City: University of Utah Press, 2008), 88–89.

time of the Diaspora when the Lehite and Mulekite parties left the land of Israel.⁵⁵ Given that basic lack of data, no valid comparison can be made. Even in the unlikely case of such information becoming available, formidable methodological problems would make fruitful investigation of the issue unlikely.⁵⁶

A quite different type of genetic analysis than the usual mtDNA/Y-chromosome treatment provides support for challenging the scholarly view of an Amerindian gene pool uncontaminated by transoceanic voyagers. Guthrie examined human lymphocyte antigens (HLAs) as evidence for the intrusion of Old World human biological characteristics into the New World.⁵⁷ HLAs are proteins on white blood cells that function to produce antibodies. At least 29 families of these substances have been identified, and their distributions among some of the world's population groups have been determined.⁵⁸ Their distribution shows that certain HLA alleles are common in the Old World among a certain percentage of many populations, yet groups in America often display the same features, but with lesser frequencies. This could mean that the American peoples share in the descent from the Old World groups. Few scientists have paid attention to explaining how or when these proteins arrived in American populations. The usual explanation for the exotic (in the New World) HLAs that are much more frequent in the Old World has been that they came from an admixture of genes that European and African people produced in American Indian populations after Columbus. Guthrie argues that a much more likely explanation for the presence of many Old World HLAs is that some Amerindian populations

55. Arthur E. Mourant, "The Jews in Palestine," in *The Genetics of the Jews*, ed. Arthur E. Mourant et al. (Oxford: Clarendon, 1978), 17.

56. See John M. Butler, "A Few Thoughts from a Believing DNA Scientist," *Journal of Book of Mormon Studies* 12/1 (2003): 36–37; Michael F. Whiting, "DNA and the Book of Mormon: A Phylogenetic Perspective," *Journal of Book of Mormon Studies* 12/1 (2003): 24–35; and David A. McClellan, "Detecting Lehi's Genetic Signature: Possible, Probable, or Not?," in Peterson, *Book of Mormon and DNA Research*, 99–155.

57. James L. Guthrie, "Human Lymphocyte Antigens: Apparent Afro-Asiatic, Southern Asian, and European HLAs in Indigenous American Populations," *Pre-Columbiana: A Journal of Long-Distance Contacts* 2/2 (2000): 90–163.

58. L. Luca Cavalli-Sforza et al., *The History and Geography of Human Genes* (Princeton, NJ: Princeton University Press, 1994), appendix 2.

assimilated a significant number of foreigners from across the oceans prior to the 1492 European discovery of America.

He also reviews data on the differential presence of transferrins, immunoglobins, and other blood features in Old and New World populations. These data provide additional support for his interpretation of the arrival of human lymphocyte antigen material: "The distributions of HLA types, combined with supporting data from other genetic systems, provide strong evidence that some American populations have assimilated significant numbers of foreigners"⁵⁹ anciently into the base population (the nominal ancestors of the American Indians) who had come from Northeastern Asia.

Practically the entire body of data used to this point for the genetic study of American Indian populations has come from gene samples taken from living natives (usually self-identified "Indians"). Very little information has been gained from *ancient* specimens (compare the statement above from Mourant). With present information, we do not know enough about the actual genetics of Mesoamerica's early inhabitants to allow general statements to be made as to whether transoceanic voyagers may or may not have entered into the hemispheric gene pool. At the present limited rate and scope of research on this sensitive topic, it will be years before reliable generalizations will be possible using DNA samples from the bones of a large number of actual ancient persons. But the combination of present knowledge of genetics added to other (nongenetic) evidence of human biological immigration from the Old World already reviewed (plant and disease transfers from overseas, art representations of foreign phenotypes, confirming morphological indicators, and traditions of incoming voyagers) convincingly shows that some Old World peoples definitely lived as minorities among the inhabitants of the New World. The data to which attention has been drawn in this chapter do not contradict that possibility but directly support it.

It is a rational conclusion that this picture of human physical variation within the Americas, limited as it is, points to Old World populations having reached this hemisphere by sea voyages. This constitutes a fundamental correspondence or convergence between the scientific evidence and the historical account in the Book of Mormon, regardless of any unanswered questions.

59. Guthrie, "Human Lymphocyte Antigens," 91.

Chapter 13

Political Economy

The contest for political dominance was the most persistent theme in the history of Book of Mormon peoples. The rivalry between the Lamanites and the Nephites began and ended as a dispute over who should wield power to rule over Lehi's descendants. The issue began with the reluctance of older brothers Laman and Lemuel to accept their father's leadership and continued with their rejection of the ascendance of younger brother Nephi as successor to their father. Reynolds showed that Nephi's lengthy introduction to the Book of Mormon (the books of 1 and 2 Nephi, written late in his life) actually constituted a political tract in which he set out to justify the legitimacy of his succession and leadership.¹

This chapter is devoted to the issue of political economy because of its fundamental importance for all the other characteristics of Nephite and Lamanite societies discussed throughout the book. To consider political structure or economy as separable aspects of the life of the people treated in the Book of Mormon could lead to confusion, for those two modern analytical categories do not separate out advantageously when an attempt is made to apply them to ancient societies.

The key issue is laid out clearly in arguments presented in the first century BC by leaders of opposing factions (Alma 54). Moroni₁, the Nephites' military commander, received a message from Ammoron, the Lamanite

1. Noel B. Reynolds, "The Political Dimension in Nephi's Small Plates," *BYU Studies* 27/4 (1987): 15–37; and Reynolds, "Nephi's Political Testament," in *Rediscovering the Book of Mormon*, ed. John L. Sorenson and Melvin J. Thorne (Salt Lake City: Deseret Book and FARMS, 1991), 220–29.

king. The latter was a dissenter from the Nephites who had joined the Lamanites, had (with his brother) usurped rule over that people, and was then leading a major attack against the Nephites in an attempt to conquer and rule over them also. That this was a major dispute, not a trivial disagreement, is shown by Moroni₁'s harsh response. He charged Ammoron with hypocrisy and deceit. Because the war with the Lamanites was deemed critical to the survival of the Nephites, Moroni₁ then insisted to Ammoron with uncharacteristic passion, "I will come against you with my armies; yea, even I will arm my women and my children, and I will come against you, and I will follow you even into your own land . . . ; yea, and it shall be blood for blood, yea, life for life; and I will give you battle even until you are destroyed from off the face of the earth" (Alma 54:12).

The king's response was classically cheeky: "Behold, your fathers did wrong their brethren [Laman₁ and Lemuel], insomuch that they did rob them of their right to the government when it rightly belonged unto them. And now behold, if ye will lay down your arms, and subject yourselves to be governed by those to whom the government doth rightly belong, then will I cause that my people shall lay down their weapons" (Alma 54:17–18).

Why the right to govern was considered so crucial was clarified some 80 years later by one Giddianhi, "the governor of . . . the secret society of Gadianton," a different alignment of dissenters (3 Nephi 3:9). In pressing his claim to rulership upon Lachoneus, chief judge over the Nephites at that time, Giddianhi demanded, "Yield up unto this my people, your cities, your lands, and your possessions, rather than that they should visit you with the sword. . . . I hope that ye will deliver up your lands and your possessions, without the shedding of blood, that this my people may recover their rights and government, who have dissented away from you because of your wickedness in retaining from them their rights of government" (vv. 6, 10). Gadianton's followers were in many cases "people who professed the blood of nobility" (Alma 51:21), who were also spoken of as "those of high birth, and they sought to be kings; and they were supported by those who sought power and authority over the people" (v. 8). From what line of descent those claimants came is unclear. They might have been of the same line as Zarahemla or descended from Benjamin or Mosiah₁ (compare Mosiah 29:1–3). Demarest and Valdés observed that some centuries later in

the Maya area, armed conflict may have been caused by the growth of the noble class, meaning that growth in the numbers of those claiming noble status led to intense competition for the limited positions in society open to the nobility.²

Important social and material benefits accrued to those in the power roles. In Nephite, Lamanite, and Jaredite societies, as in all ancient civilizations, governance followed these principles:

1. By divine (or at least traditional) right, elite descent lines were expected to dominate society. With few exceptions, political, social, and economic power was controlled by this social stratum with a king as head. He nominally “owned” most or all resources. Control over those resources was allotted down a chain of affiliation and favor to subordinates (usually kin), ultimately reaching dependent commoners.
2. With this power came responsibilities—a ruler was charged to settle disputes among his subjects, to lead in activities that unified the society, to glorify the group (which normally meant glorifying the elite), and to defend against external threats by mustering and leading the army.
3. In return, the public had the responsibility to support the elite members either by gifts or by formally assessed taxes, tribute payments, or labor service.
4. Usually a cult and associated priests provided important ritual, mythical, and ideological anchors that justified and legitimized the position of the ruler and associated elites.

Obviously these rights of government allowed the ruler and his entourage not only to support themselves, but even to enrich themselves at the expense of tribute-paying citizens of lesser status. Their dominance was typically validated by an ideology that conferred rights on them by divine power or at least by hoary tradition. People in power sometimes temporarily

2. Arthur A. Demarest and Juan Antonio Valdés, “Guerra, regresión política y el colapso de la civilización maya clásica en la región Petexbatun,” in *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1995), 777–81.

oppressed their subjects by living an excessively luxurious lifestyle. Yet ultimately rulers were limited in what they could demand for tribute and privilege because they needed the support of their people in case of war. Rebellion (even assassination) was accepted as a possible reaction to inappropriate actions by the nobles.³

Even during the Nephites' period of rule by judges, many of the same entrenched notions about government were adhered to—judges were said to “reign” and “rule,” to provide military leadership (compare Alma 2:16), to sit on “thrones,” and under some conditions to amass wealth on the basis of their position (60:7, 11, 21; Helaman 7:4–5).

Such modern political concepts as republican representation, the use of an apparatus of public employees or bureaucrats, public record keeping, the notion of factions or parties formally competing in elections, and other rights such as one might expect from Joseph Smith's familiarity with the political institutions and thought of Jacksonian America were all absent, or virtually so, from Book of Mormon societies. Instead we see in the record institutions and ideas familiar only in ancient societies.

Power and authority were constantly on the minds of all the elite or would-be elite, Nephites and Lamanites alike. The ultimate institution used to settle disputes about those matters was armed conflict, or at least the threat of it. Thus Moroni₁, having no other option, “commanded that his army should go against those [defiant, rebellious] king-men, to pull down their pride and their nobility and level them with the earth” (Alma 51:17). Later, when he thought a dissident faction had taken over the government, Moroni₁ again responded in the only way with which he was familiar: “I will come unto you, and . . . stir up insurrections among you, even until those who have desires to usurp power and authority shall become extinct” (60:27).

The Nephite idea that the political elite had formal ownership, or at least use rights, over property is signaled repeatedly in the Book of Mormon by the words *possess* and *possessions*. Although sometimes the meaning may denote mere physical occupancy (as when an army “took possession” of a

3. These points are documented at length in John L. Sorenson, “The Political Economy of the Nephites,” in *Nephite Culture and Society: Collected Papers*, ed. Matthew R. Sorenson (Salt Lake City: New Sage Books, 1997), 195–226.

site), more often the concept included taking control in order to receive traditional economic benefits. We see this in Mosiah 23:29, for example, where Alma₁ and his brethren “went forth and delivered themselves up into [the hands of the Lamanites]”; thereupon the Lamanites *took possession* of the land of Helam and proceeded to profit from the lands and labors of Alma’s people by assessing tribute (23:38–39; 24:9). The Zeniffites, from whom Alma₁’s group had fled, had been taxed in turn by Lamanite overlords who exacted “one half of all we have or possess” (7:22). Their own ruler, rapacious King Noah, had laid on his people “a tax of one fifth part of all they possessed” (11:3). Profiting from tribute payments of this order constituted a primary attraction of holding rulership.

Specific settlements and localities were owned or “possessed” by designated lords; customarily lands and settlements were called “after the name of him who first *possessed* them” (Alma 8:7); usurper Amalickiah “entered the [Lamanite] city Nephi with his armies, and *took possession*” of it (47:31, 35); Nephite commander Moroni₁ “went to the [recaptured] city of Mulek with [subcaptain] Lehi₂, and took command of the city and *gave* it unto Lehi” (53:2). Equally common was the idea that it was natural, and under certain conditions legitimate, for political dominants to “get gain” in connection with their roles (e.g., Helaman 6:17; 7:5, 21; Alma 10:32).

The basic source of wealth was agriculture. This meant that control/ownership of sufficient land and labor was essential to stable government. That economic fact was recognized throughout the Nephite record: “We did sow seed, and we did reap again in abundance” (2 Nephi 5:11); “the people of Nephi did till the land, and raise all manner of grain, and of fruit” (Enos 1:21); the king of the Zeniffite branch of the Nephites “did cause that the men should till the ground, and raise all manner of grain and all manner of fruit of every kind” (Mosiah 10:4). A failure in agriculture, of course, led to societal disaster, as when there came a “great famine upon the land, among all the people of Nephi.” Owing to the fact that “the earth . . . did not yield forth grain in the season of grain” (Helaman 11:5–6), society virtually unraveled.

Trade was a secondary source of wealth. Once the Lamanites became civilized, with an agricultural base, they “began to increase in riches, and began to trade one with another and wax great” (Mosiah 24:7). In the late

first century BC, one of the greatest periods of prosperity, both Nephites and Lamanites “did raise grain in abundance . . . and they did flourish exceedingly,” including by the labor of “their women [who] did toil and spin, and did make all manner of cloth” (Helaman 6:12–13). However, nowhere in the text is a direct reference to trade in subsistence goods at local markets. The distances between settled centers that were frequently separated by wilderness no doubt normally made luxury goods the most feasible items of trade by which one could “become rich” (Helaman 6:11). At best, “they did have free intercourse one with another, to buy and to sell, and to get gain” (Helaman 6:8). Such prosperity allowed rulers, if they chose to do so, to “glut themselves with the labors” of their subjects’ hands (Mosiah 9:12). Noah, the second king over the Zeniffites, aggressively taxed his subjects “to support himself, and his wives and his concubines; and also his priests, and their wives and their concubines.” Their wealth also was used to build “many elegant and spacious buildings” and “a spacious palace” with “a very high tower” near the temple in the capital (11:3–4, 8–13).

Among the Zoramites the poor complained that “our priests . . . have cast us out of our synagogues which we have labored abundantly to build with our own hands” (Alma 32:5). In the third century AD the Nephites proceeded to “build up churches unto themselves, and adorn them with all manner of precious things” (4 Nephi 1:41). Even earlier, the Nephites carried their system to its logical extreme by developing a class society on the backs of the farmers: “There were many merchants in the land, and also many lawyers, and many officers. And the people began to be distinguished by ranks, according to their riches and their chances for learning. . . . And thus there became a great inequality in all the land” (3 Nephi 6:11–12, 14).

It would be misleading, however, to suppose that the structure of rank, privilege, and wealth was truly basic to continuance of the society. What concerned the upper levels of society in the Book of Mormon account was not the same as the everyday concerns of the masses. Since literacy was largely confined to the elite, the history recorded by those who were literate concerned matters deemed important to their rank or class. The commoners’ relationship to the political economy, or to any other aspect of life, is particularly hard to detect in any ancient historical study. But two special

situations reported in the Book of Mormon give us glimpses of the fundamentals of social structure as it persisted among everyday people.

According to Mormon's account, around AD 25 Nephite society and the state government that was its political expression suffered a crisis from which it never fully recovered. That trauma reveals the structure that underlay the political arrangement we have been describing. The catalyst for this change was a renewed lust of an elite faction for rule by kings. Certain judges (of second rank) secretly combined "to destroy the governor [the chief judge], and to establish a king over the land" (3 Nephi 6:29–30). They secretly murdered the governor. Failing to find a consensus for choosing a successor, "the people . . . did separate one from another into tribes, every man according to his family and his kindred and friends; and thus they did destroy the government of the land. And every tribe did appoint a chief or a leader over them; and thus they became tribes and leaders of tribes. Now . . . there was no man among them save he had much family and many kindreds and friends; therefore their tribes became exceedingly great" (7:2–4). Within those units their "leaders did establish their laws . . . ; nevertheless they were enemies" to one another (v. 11). Yet they were jointly opposed to rule by a king. Furthermore, despite the enmity between tribes, "they had come to an agreement that they would not go to war one with another; but they were not united as to their laws, and their manner of government, for they were established according to the minds of those who were their chiefs" (v. 14).

Each tribe was no doubt constituted on the principle of descent from a common ancestor ("friends" could be incorporated on a fictive-kin basis). Leaders, both tribal and local, probably consisted of senior personnel from sublineages that were held in the greatest respect and represented the greatest number. They would have had power to settle internal disputes but not to make decisions involving relations with other tribes.

This fragmented, localized political structure prevailed among the Nephites throughout the rest of their history. At no subsequent point is there any hint of a functioning central government. In the Nephites' final decades, successors to the tribes mentioned earlier coalesced support around a military chief, Mormon, but real political unity and effective overall government was still lacking (compare Mormon 2:7–8, 21, "as much as it were possible," and Moroni 9:18–19). Here we see the bare-bones structure

that underlay the earlier upper-level government headed by either kings or judges.

Mormon's record describes unprecedented devastation of Book of Mormon lands and peoples by natural disasters at the time of the death of Jesus Christ in the Old World (3 Nephi 8; see chapter 24 herein). That occurred only a few years after the collapse of the Nephite government just discussed. This catastrophe resulted in massive deaths and injuries, destruction of settlements, disruption of normal travel, and momentary social chaos. Even the control exercised by the tribes must have been significantly reduced. We can suppose that in the areas affected (which apparently did not include all of Mesoamerica but mainly the isthmian portion), such political economy as emerged from the dismantling of government plus the effects of natural catastrophe surely resulted in extreme localization or fragmentation of the organizational structures. The level of government and civilization in Book of Mormon lands plunged dramatically in the first century AD according to the Nephite record. During the recovery that followed, the basic pattern of living would still have remained much like what had prevailed some two and a half centuries previously, before the more garish superstructure of the civilization in which they participated had been built up.

Although Mesoamerican scholars have written vast amounts about the ancient societies of that area, "political economy" in the sense used above is not a common topic, nor one that has been described concisely. The following pages summarize what is known about the subject, although the description leaves out many details and variations in the pattern; there was a general pattern clear enough that it can be summarized, and we can see that the typical political economy in Mesoamerica resembled in important ways what is described in the Book of Mormon after the tribalization.

In some cases, land was owned in common by the people of a community, although a local leader administered it as though he were owner. He allotted plots for cultivation each year as one of his duties. Many communities were occupied by one "name group" (in essence, a small tribe), all members of which were obligated to assist one another. The community temple also had lands permanently assigned for its (and the priests') support, cultivated by agricultural labor contributed on a schedule by community members. Variations on this basic organizational scheme were numerous.

When a central community had other settlements politically dependent on it (which entailed an obligation by the larger center to coordinate defense of the smaller places), part of the tribute payments from lower-level communities was passed upward in the hierarchy of governance for the support of leaders, their families, and essential institutions. Local male citizens were also obliged to participate in the community militia if called on by chiefs. Rulers in these circumstances might more aptly be called "bosses" than "kings," although their qualifications for leadership might include some degree of noble descent. In order for them to rule a locality, town, or region stably, they needed to carefully balance the obligations placed upon them from above against support from the masses below. Attempts to build political units of large scale were subject to collapse because of strong fissioning (splitting) tendencies due to rivalries and cultural differences. Factions among the elites were always anxious to build up power along lines advantageous to themselves, so some degree of political instability was normal.

A certain amount of conflict was quite common, with name groups or language groups occasionally fighting among themselves; or, more likely, the larger state of which the community was a component precipitated a conflict and the smaller units were called upon for support. Boundary disputes were often a cause of conflict. Insults and slights long remembered historically could also engender disputes.

Priests held considerable power; they were usually drawn from the elite stratum and so had common interests with the rulers. In fact, the nominal ruler himself held some priestly office. The most literate people were the priests, who kept track of a ritual calendar intricately interwoven with a structure of myths that told of a range of divine powers.

Social and political divisiveness and active conflict were counteracted in part when elites of different communities or regions contracted marriages across political boundaries with peers of the same class level from other localities. Leaders and commoners were far apart socially, perhaps as much as in 16th- or 17th-century Europe.

Many elite people in Mesoamerica considered themselves to be descendants of foreigners. Local groups sometimes actually favored being ruled by foreign leaders, thinking that such men would be neutral in regard to old local rivalries and petty disputes. Commerce in luxury goods was

advantageous to the elites in several ways, and so trade was facilitated, especially long-distance trade in highly valued goods. The desire to maintain such trade exerted a pacifying influence across political or ethnic boundaries.

These political and economic features were especially characteristic of Mesoamerican societies in the last few centuries before the European conquerors arrived. There might have been variations on some of the points in earlier times; nevertheless, there is reason to suppose that the social pattern was essentially similar as much as 2,000 years before the Spanish conquest.

The scheme of resource control and power that we see in ancient Mesoamerica fits well with the natural geographical realities of the area. In Old World territories, the lay of the land enabled the growth of geographically extensive political and economic units. For example, Egypt was unified by the Nile drainage, and Mesopotamia was integrated by its two rivers and a joint floodplain (not to mention the existence of beasts of burden and wheeled vehicles). But Mesoamerican peoples lived in a highly broken landscape. Building large political units was difficult and rarely succeeded for long.

It is apparent that the fundamental elements of political economy underlying Mesoamerican civilization were essentially like those pictured in the Nephite record. Moreover, the Book of Mormon's picture of its societies was completely out of character with conditions in early 19th-century America.

The characteristics of the political economy in both venues, Mesoamerica and Book of Mormon lands, are so integrated into a functional whole that it is difficult to separate out discrete correspondences. It seems preferable at this point simply to state that the major dimensions of the political economy of the Nephites correspond with those of ancient Mesoamerica and it is not necessary to make a long list of correspondences.

Chapter 14

Society

Unlike in the modern world where individuals often have little to do with any single social group, even family after adulthood, “in Mesoamerica almost always the ‘person’ is invested within a corporate group. That is, [his or her] obligations, responsibilities, kinship relations, and culpability are incorporated in the group, not in the individual.”¹ One’s orientation to society throughout life was through one’s family. However, in Nephite and Lamanite societies, as in virtually all ancient social groups, “family” was seen as a more extensive group than the nuclear family with which we modern people begin our socialization.

Beyond Family: Lineage and House

Sometimes the notion of lineage or some other social institution based on kinship ties has been used to organize understanding and provide context for Mesoamerican domestic groups.² A lineage is a set of individuals who

1. Stephen D. Houston and Héctor L. Escobedo, “Grande es bello: Piedras Negras y el urbanismo de las tierras bajas mayas,” in *Incidents of Archaeology in Central America and Yucatán: Essays in Honor of Edwin M. Shook*, ed. Michael Love et al. (Lanham, MD: University Press of America, 2002), 532.

2. For example, Ralph L. Roys, “Lowland Maya Native Society at Spanish Contact,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 3:661–63, discusses “name group” for the lowland Maya; and Suzanne W. Miles, “Summary of Preconquest Ethnology of the Guatemala-Chiapas Highlands and Pacific Slopes,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 2:280–81, discusses a similar unit for highlanders.

trace descent from a common ancestor considered the founder of the lineage unit. Still, some features used to describe Mesoamerican native societies do not fit the lineage concept without strain, for links among the people composing the unit are established not only by descent but not infrequently also on the basis of nonkinship considerations such as friendship. Genealogical ties may be optional as societal glue; adoptive or fictive ties can also be influential in forming groups.³

In recent years, the concept of “the house” has been proposed as key for understanding the patterning of Mesoamerican domestic and community relations. There is merit in the idea, although it does not solve all the problems of classification. This view holds that “in certain societies, people conceive and enact kin or ‘kin-like’ relationships as a group by virtue of their joint localization to a ‘house.’ The house as a social group . . . is much more than a household. Groups referred to by the term ‘house’ are corporate bodies, sometimes quite large, organized by their shared residence, [common] subsistence, means of production, origin, ritual actions, or metaphysical essence.”⁴ These houses hold and maintain a body of property, which can be said to materialize the social group. Houses define themselves by the preservation of their joint property.

At a rudimentary level, a household has much of the flexibility and adaptability of a full-fledged house concept. A modern household in Western society may contain the occasional aunt or uncle who is routinely accepted as a member; and friends, companions, or servants at times may also be considered to have place within the unit. But in the sense being considered here, the house can include multiple generations and intricate patterns of relationship. Anthropologists have come to realize that houses in this broad sense are a widespread social phenomenon. The literate public is already vaguely familiar with the concept through literary and media

3. Susan D. Gillespie, “Beyond Kinship: An Introduction,” in *Beyond Kinship: Social and Material Reproduction in House Societies*, ed. Rosemary A. Joyce and Susan D. Gillespie (Philadelphia: University of Pennsylvania Press, 2000), 1; and Gillespie, “Rethinking Ancient Maya Social Organization: Replacing ‘Lineage’ with ‘House,’” *American Anthropologist* 102 (2000): 467.

4. Gillespie, “Beyond Kinship,” 1.

references to “the house of Windsor,” England’s most recent royal establishment, or to “the house of Israel” of the Bible.⁵

Often the continued existence of such a house is tied to a “physical structure and the objects that go with it—furnishings, curated heirlooms, and graves”—at a certain location.⁶ In society after society, “the word for ‘house’ also refers to a group of people associated with some spatial locus. . . . In practical discourse and action the house may represent social, economic, political, and ritual relationships among various individuals, who may form a permanent or temporary collectivity.”⁷

The house concept sheds considerable light on Book of Mormon social structure. The Nephite record makes clear that that people followed historical precedent in forming houses as described above. “The house of Jacob,” “the house of Israel,” “the house of David,” and “the house of Joseph [the son of Jacob]” are specifically recalled in the text.

A broad example of a house (though never named as such) that is most fully characterized in the Book of Mormon was called variously “the Nephites,” “the people of Nephi,” or “the people of the Nephites” (e.g., Helaman 1:1; Alma 23:5; 43:9). In a narrow sense, this entity centered on a restricted population called, at times, “the descendants of Nephi” (Mosiah 25:2, 13; Mormon 1:5). The ruling power over and chief emblem of this social entity was first embodied in kings (Jacob 1:9; Mosiah 29:47), then by chief judges/governors (Alma 1, heading; Helaman 1:5). The legitimacy of the unit as a major force was signaled and reinforced by their possession of sacred curated heirlooms of great prestige (Alma 37:2, 14, 21, 24, 38, 47; 63:1, 11). Upon the “descendants of Nephi” alone the right to rule “the kingdom had been conferred” (Mosiah 25:13) as well as the right to hold the most treasured artifacts. However, by an act of adoption, those who were not literal descendants of Nephi or even of his family might affiliate with the core group. For example, descendants of the priests of Noah who “were displeased with the conduct of their fathers . . . would no longer be called by the names of their fathers, therefore they took upon themselves the name of Nephi, that they might be called the children of Nephi and be numbered

5. See *Oxford English Dictionary*, 2nd ed., s.v. “house,” sense 6.

6. Gillespie, “Beyond Kinship,” 3.

7. Gillespie, “Beyond Kinship,” 6.

among those who were called Nephites” (v. 12). Their ancestors had been Nephites in a political sense, being from Zarahemla, but this changed affiliation in the descendants must have been in a more focused sense. In a further example, the people of Zarahemla, who were more numerous than the co-resident Nephites, “were numbered with [but not ‘among’] the Nephites” (v. 13).

The house of Laman in the largest sense also must have come to include various adjunct groups under its umbrella. Thus the Lamanites consisted of “a compound of [the descendants of] Laman and Lemuel, and the sons of Ishmael, and all those who had dissented from the Nephites, who were Amalekites and Zoramites, and the descendants of the priests of Noah” (Alma 43:13). The text gives too little detail, however, to allow us to decide whether this “compound” qualified as a house in the anthropological sense or only as a political entity with a more diffuse sense of identification and privilege.

Houselike social arrangements also become apparent among the Nephites at the time of the breakup of government rule by judges, as described in the previous chapter and in chapter 24. In summary, around AD 25 the Nephites “did separate one from another into tribes, every man according to his family and his kindred and friends. . . . And every tribe did appoint a chief or a leader over them. . . . Now behold, there was no man among them save he had much family and many kindreds and friends; therefore their tribes became exceeding great” (3 Nephi 7:2–4). Furthermore, each of these divisions, despite their ad hoc basis, had an independent political status: “They were not united as to their laws, and their manner of government, for they were established according to the minds of those who were their chiefs and their leaders. But they did establish very strict laws that one tribe should not trespass against another” (v. 14). That is, the entities each controlled a specific territory with their own cities, leaders, customary laws, rites, and beliefs, despite apparently having heterogeneous populations overall. In short, they considerably resembled what are now called “houses” by Mesoamericanist scholars.

Consider as a further example Alonso de Zorita's description of the Aztec *calpullec* unit of society that is at least generally like a house:

A *calpulli* . . . is a barrio [neighborhood or ward composed] of known people or an ancient lineage which holds its lands and boundaries from a time of great antiquity. These lands belong to the said kindred, barrio, or lineage, and they call such lands *calpulli*, meaning the lands of that barrio or lineage. . . . The lands these barrios possess they obtained in the distribution made when these people first came to this land. . . . They do not hold them individually but communally. The *calpullec* of New Spain are what the Israelites called “tribes.”⁸

Perusal of the Jaredite account in the book of Ether shows that groups in that tradition who held or vied for political/cultural control were sometimes constituted on a similar basis. The dynastic history of the Jaredites could well be considered to picture permanent conflicts among property-based houses. The Book of Mormon’s secret societies perhaps constituted aggregations that served some of the functions of historically based house structures on behalf of ambitious men who otherwise would have been in a weak social position (compare Ether 8:10–15; 10:9).

The house concept applied incipiently also at a lower level, both in Mesoamerican society and among the Nephites. Amulek, for instance, befriended itinerant priest Alma₂ as he entered the city of Ammonihah and proceeded to attach the stranger to “his house” (Alma 8:20–27). Amulek’s was a substantial institution (his father was probably the formal head); to a large public gathering he recited his and his house’s credentials: “I am also a man of no small reputation . . . ; yea, and behold, I have many kindreds and friends” and “much riches” (10:4). Alma₂ was attached to his host’s establishment as a kind of house priest, and Amulek stated, “He hath blessed mine house, he hath blessed me, and my women, and my children, and my father and my kinsfolk; yea, even all my kindred hath he blessed” (v. 11). Yet when Amulek put his affiliation with Alma₂’s unpopular cause (the church) ahead of the immediate welfare of his own house, he as an individual was forced to give up “all his gold . . . and his precious things, which were in the land

8. Benjamin Keen, trans., *Life and Labor in Ancient Mexico: The Brief and Summary Relation of the Lords of New Spain*, by Alonso de Sorita (New Brunswick, NJ: Rutgers University Press, 1963), 106–7.

of Ammonihah, . . . being rejected by those who were once his friends and . . . by his father and his kindred” (15:16). As an alternative arrangement, Alma₂ “took him to his own house [in Zarahemla, where Alma₂ was high priest over the church that was based in that city], and did administer unto him in his tribulations” (v. 18).

It does not matter that the anthropologists’ particular conceptual label “house” is not regularly referenced in the Book of Mormon. The examples cited show that a societal unit essentially similar in nature was present, among the Nephites at least, whatever it might have been called.

Families

Mesoamerican nuclear families were of course positioned within houses, but those small family units were generally of secondary importance as structures of reference. Their economic welfare depended on the integrity of the larger unit (as we have seen in the case of Amulek), but socialization of children to the prevailing norms and values was still heavily dependent on interaction among fathers, mothers, and siblings. For example, “parents were in the habit of preaching long homilies to their children. . . . The Mexicans were greatly addicted to moral discourses.”⁹ An example of this kind of “moral discourse” transmitted from father to son is found in the Book of Mormon at Alma 37:32–37.

Amulek’s reference to “my women” in Alma 10:5 is one among several clues in the Book of Mormon text documenting or implying the occasional practice of taking multiple wives (Jacob 2; Mosiah 11:2, 4; Ether 10:5; 14:2). There was ambivalence in regard to the custom; Jacob condemned it in the founding generation (Jacob 3:5–10), but Mosiah 11:4 shows that the proscription had been ignored by some of the populace. In general the socially inferior status of women is plain in Nephite society,¹⁰ as it was, of course, in Mesoamerica and elsewhere in the ancient world.

9. Thomas A. Joyce, *Mexican Archaeology* (1914; repr. New York: Kraus, 1969), 162; also Frances F. Berdan, *The Aztecs of Central Mexico: An Imperial Society* (New York: Holt, Rinehart and Winston, 1982), 86–87.

10. Camille S. Williams, “Women in the Book of Mormon: Inclusion, Exclusion, and Interpretation,” *Journal of Book of Mormon Studies* 11 (2002): 66–79.

Class

Classes were also a feature of Nephite society, echoing the social arrangement that had prevailed in Iron Age Jerusalem, whence the founders came. One of the first recorded new developments in Nephite history was Nephi's implicit validation of a rank distinction separating nobility from commoners (2 Nephi 5:18; 6:2; compare Jacob 1:9–11). Nobility continued as an active social category when Mosiah's party left the land of Nephi for Zarahemla (Omni 1:19) and combined with the people of Zarahemla. Claims to social and political privilege due to "the blood of nobility" (Alma 51:21) continued through at least the first part of the Nephite period of rule by judges. By the early first century AD, the people had become "distinguished by ranks, according to their riches and their chances for learning" (3 Nephi 6:12) so that "there became a great inequality in all the land [of Zarahemla]" (v. 14). Two centuries later they were again explicitly "divided into classes" (4 Nephi 1:26).

Mesoamerican society was similarly divided. For example, the privileges of Mexica (Aztec) nobility reached into every aspect of life expressed in terms of "power, privilege, prestige, and property." The nobility "as a group controlled most of the strategic economic resources of the empire, especially land,"¹¹ while commoners were craftspeople and tillers of the soil. They all paid tribute to one noble or another, and they constituted the rank and file of the military as well. Among the Cuicatec, who dwelt farther south in central Mexico, many of the same distinctions prevailed: "To say that two major classes or estates existed among the Cuicatec is not far from the truth. They were distinctly different in kin networks, wealth, political power, and prestige."¹² The lowland Maya had basically the same layered social structure.¹³ Scholars have inferred from archaeology and art that the pattern had a long history—since at least 2,500 years ago and perhaps longer.

In addition to the two basic classes, there were also slaves, although, naturally, little is said or shown about them in art or inscriptions. For the

11. Berdan, *Aztecs of Central Mexico*, 45, 48.

12. Eva Hunt, "Irrigation and the Socio-political Organization of Cuicatec Cacicazgos," in *Chronology and Irrigation*, ed. Frederick Johnson (Austin: University of Texas Press, 1972), 221.

13. Roys, "Lowland Maya Native Society," 3:662.

Maya, Tozzer noted evidence for their presence not only from eyewitnesses in the Spanish contact period but also as shown in Classic-period art.¹⁴ Conquistador Bernal Diaz reported that the Chiapanec, who were military dominants over the Zoque-speaking inhabitants of the Central Depression of Chiapas, used slaves to perform all manual labor.¹⁵ Slaves were also economically exploited by the Aztecs.¹⁶

Slavery prevailed at times among Book of Mormon peoples. Despite the fact that King Benjamin (Mosiah 2:13) made it illegal for the Nephites, there remained a social expectation that it was acceptable (Alma 27:9). And regardless of the nominal prohibition, slavery apparently continued among some of Lehi's descendants (3 Nephi 3:7).

In the Aztec world social differentiation included beggars found in the cities. Cortez reported "there are many places [in native Mexico] in which they suffer for want of bread, and there are many poor who beg amongst the rich in the streets, and at the market places."¹⁷ The presence of beggars on a routine basis among the Nephites is documented in Mosiah 4:16, 24.

Another role having great prominence in ancient Mesoamerican society was that of merchant. This profession was followed particularly by lesser nobles who sometimes possessed great wealth and enjoyed considerable autonomy from the rulers.¹⁸ Merchants among the Aztecs were organized into groups having some of the characteristics of a guild, with their own traditions, rites, and deities.¹⁹ In the Basin of Mexico, "this guild organization

14. Alfred M. Tozzer, ed. and trans., *Landa's Relación de las Cosas de Yucatan: A Translation*, Peabody Museum of American Archaeology and Ethnology Papers 18 (Cambridge, MA: Harvard University, 1941), 35–36, 233–39; compare Roys, "Lowland Maya Native Society," 3:662.

15. Gareth W. Lowe, "Los olmecas, mayas y mixe-zoques," in *Antropología e historia de los mixe-zoques y mayas: Homenaje a Frans Blom*, ed. Lorenzo Ochoa and Thomas A. Lee Jr. (Mexico City: Universidad Nacional Autónoma de México and Brigham Young University, 1983), 127.

16. Berdan, *Aztecs of Central Mexico*, 61–63.

17. Francis Augustus MacNutt, trans. and ed., *Fernando Cortés: His Five Letters of Relation to the Emperor Charles V* (Glorieta, NM: Rio Grande, 1977), 1:221.

18. Tozzer, *Landa's Relación*, 302–3.

19. Berdan, *Aztecs of Central Mexico*, 26, 187; and Robert S. Santley, "Obsidian Trade and Teotihuacan Influence in Mesoamerica," in *Highland-Lowland Interaction*

[was] characterized by exclusive residence, internal laws and codes, control over membership, rank in the organization and dispersal and allocation of tasks and rewards.”²⁰ In the Aztec case, they also acted as de facto diplomatic representatives or spies when they traveled abroad.²¹

Archaeological data show the antiquity of organized long-distance commerce and hence of merchants. High-value, exotic materials were often exchanged,²² such as obsidian, a vital mineral that was moved many hundreds of miles as long ago as the Olmec period.²³ Mound 5 at Chiapa de Corzo (ca. 1 BC) revealed a cache of 830 pottery vessels that had been imported from places as distant as El Salvador on the one hand and Oaxaca on the other.²⁴

Book of Mormon peoples apparently engaged in commerce on a substantial scale. By 130 BC, after dissident Nephites who lived in the land of Nephi taught literacy to the Lamanites in the area, the latter “began to increase in riches, and began to trade one with another and wax great, and began to be a cunning and a wise people” (Mosiah 24:7).²⁵ A century later considerable intermixture of the two basic populations, Nephites and Lamanites, temporarily occurred, and “they did have free intercourse one

in Mesoamerica: Interdisciplinary Approaches, ed. Arthur G. Miller (Washington, DC: Dumbarton Oaks, 1983), 101.

20. Berdan, *Aztecs of Central Mexico*, 26.

21. Berdan, *Aztecs of Central Mexico*, 31; Miguel León-Portilla, “La institución cultural del comercio prehispánico,” *Estudios de cultura nahuatl* 3 (1962): 23–54; compare France V. Scholes and Dave Warren, “The Olmec Region at Spanish Contact,” in Wauchope and Willey, *Handbook of Middle American Indians*, 3:785.

22. Michael D. Coe, *America’s First Civilization* (New York: American Heritage, 1968), 110–11; and Santley, “Obsidian Trade,” 101.

23. Robert H. Cobean et al., “Obsidian Trade at San Lorenzo Tenochtitlan, Mexico,” *Science* 174 (1971): 666–71.

24. Gareth W. Lowe, *Mound 5 and Minor Excavations, Chiapa de Corzo, Chiapas, Mexico*, New World Archaeological Foundation Papers 12 (Provo, UT: BYU New World Archaeological Foundation, 1962).

25. The role of trade in the development of “civilization” is explained in Lee A. Parsons and Barbara J. Price, “Mesoamerican Trade and Its Role in the Emergence of Civilization,” in *Observations on the Emergence of Civilization in Mesoamerica*, ed. Robert F. Heizer and John A. Graham, Contributions 11 (Berkeley: University of California Archaeological Facility, 1971), 180–95.

with another, to buy and to sell, and to get gain." As a result, "they became exceeding rich, both the Lamanites and the Nephites" (Helaman 6:7–9).

Secret Groups

The Book of Mormon also makes reference to a "secret society" or to "secret combinations" at four periods in Jaredite and Nephite history. Those terms are not used in contemporary discourse among Mesoamericanist scholars; nevertheless, characteristics of organizations that did exist agree at a number of points with the nature and modus operandi of secret institutions in Book of Mormon societies. According to Mormon's record and Ether's account, as well as general sociological and historical studies of this phenomenon, this class of social groups or movements would have attracted adherents who were frustrated by limited chances for social mobility in the conventional social structure.

Social scientists and historical researchers have found that these units tend to arise in times of societal stress.²⁶ Societies of aggrieved parties would be organized to evade established norms as they sought power by subversive and sometimes violent means. Commonly they recruited followers with promises of power, wealth, and sensual satisfaction. Initiates had to rise through successive levels of membership. Early on in their history, these institutions promise to alleviate grievances of the masses, but participants who rise to higher levels of the "inner knowledge" learn that that is mainly propaganda. "The constant rule of the secret societies is that the real authors never show themselves," nor are their objectives transparent.²⁷

Among the Nephites, the schemers "commit[ted] secret murders, and . . . rob[bed]. . . and plunder[ed]" (Helaman 6:17). They entered into covenants and oaths to protect one another from discovery or punishment by the law. They had "their signs, yea, their secret signs, and their secret

26. Stanford M. Lyman, "Chinese Secret Societies in the Occident: Notes and Suggestions for Research in the Sociology of Secrecy," *Canadian Review of Sociology and Anthropology* 1 (1964): 89–90; Norman MacKenzie, ed., *Secret Societies* (New York: Holt, Rinehart, and Winston, 1967); and Nesta H. Webster, *Secret Societies and Subversive Movements*, 7th ed. (London: Britons, 1955).

27. Webster, *Secret Societies and Subversive Movements*, 188; and John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1985), 300–301.

words. . . . And whosoever of . . . their band should reveal . . . their wickedness . . . [was] tried . . . according to the laws” of their own organization (vv. 21–24). Such groups had not only a social but an ideological rationale that was expressed through “idols” and “their own [cultic] ways” (v. 31).²⁸ Giddianhi, a leader of this “band of robbers” (3 Nephi 3:1) in the first century AD, offered to the Nephite chief judge partnership in his society if Nephite rulers would surrender “your cities, your lands, and your possessions” (3 Nephi 3:6) to his army-sized cohort. He claimed that his secret society was “of ancient date” (v. 9) and that they were only trying to “recover their rights and government” that they claimed had been unjustly denied them (v. 10). Yet despite a flattering propaganda front, their chief concern was the accumulation of wealth and power (Helaman 6:17, 39).

Certain Mesoamerican correspondences come to mind. Among the Aztecs, the *pochteca* consisted of merchants organized to be notably autonomous from, yet cooperative with, the political elite. They were structured in a complex hierarchy of ranks; a series of rites of passage were necessary for an individual to rise to be an esteemed or powerful member of this merchant guild. These promotions required the accumulation of sufficient wealth from distant, high-yield trading ventures to pay for a series of initiatory feasts.²⁹ Carlson thought the militarists shown in the famous murals of Cacaxtla were of the Olmeca-Xicalanca (no relationship to the ancient Olmec), who were well known in Mexican tradition—a body of “multiethnic, multilingual Mayanized ‘Mexicans’ from the Gulf Coast region—ruled by a *pochteca*-style merchant elite” and organized in “guilds.”³⁰ In short, they appear to have been an army controlled by exploiters who had

28. John L. Sorenson, “Religious Groups and Movements among the Nephites, 200–1 B.C.,” in *The Disciple as Scholar: Essays on Scripture and the Ancient World in Honor of Richard Lloyd Anderson*, ed. Stephen D. Ricks, Donald W. Parry, and Andrew H. Hedges (Provo, UT: FARMS, 2000), 201–3.

29. Berdan, *Aztecs of Central Mexico*, 66; and Rudolf Van Zantwijk, “Las organizaciones social-económica y religiosa de los mercaderes gremiales aztecas,” *Boletín de estudios latino-americanos* 10 (1970): 1–20.

30. John B. Carlson, *Venus-Regulated Warfare and Ritual Sacrifice in Mesoamerica: Teotihuacan and the Cacaxtla “Star Wars” Connection* (College Park, MD: University of Maryland, Center for Archaeoastronomy, 1991), 59.

taken over a subject people—just as Giddianhi did with the help of certain ambitious Lamanites and hoped to do as well with the Nephites.³¹

The *pochteca* phenomenon had a long history in Mesoamerica. Brown³² was confident that Teotihuacán merchant guilds that engaged in trade with Kaminaljuyu in the Early/Middle Classic period had all the characteristics of their later Aztec counterparts. Santley believed that Teotihuacán merchants formed a distinct societal entity with their own guildlike organization, complete with a distinct cult and rules of entry and conduct.³³ Others think the pattern began centuries earlier among the Olmec.

Secrecy-based predatory groups in Mesoamerica of course took varied forms. One example was the *nahualistas*. According to the 16th-century Spanish priest Bernardino de Sahagún, they were “people like the assassins [a secret society of the Near East that took its name from use of the hashish drug], daring and accustomed to kill, they carried on their persons pieces of jaguar skin . . . to make them powerful, brave and fearsome.”³⁴ To obtain this power, one had to be trained in black magic after undergoing severe initiation. The jaguar was especially employed as a guardian spirit, being considered lazy, cunning, and pleasure loving as well as the most terrifying beast to its enemies.³⁵ This brings to mind the jaguar shown on Relief 4 at Chalcatzingo, Morelos,³⁶ where it is shown attacking a hapless human victim. Bennyhoff saw “secret societies” in the early “Chalcatzingan tradition”

31. The Anufo, a West African people, were an example of a secret society that in the 19th century grew to become an army and an ethnic group over time; see Jon P. Kirby, “The Non-Conversion of the Anufo of Northern Ghana,” *Mission Studies* 2/2 (1985): 15–25.

32. Kenneth L. Brown, “The Valley of Guatemala: A Highland Port of Trade,” in *Teotihuacan and Kaminaljuyu: A Study in Prehistoric Culture Contact*, ed. William T. Sanders and Joseph W. Michels (University Park: Pennsylvania State University Press, 1977), 205–395.

33. Santley, “Obsidian Trade,” 101.

34. Miguel Covarrubias, *Mexico South: The Isthmus of Tehuantepec* (New York: Knopf, 1947), 77–78.

35. Covarrubias, *Mexico South*, 76.

36. Carmen Cook de Leonard, “Sculptures and Rock Carvings at Chalcatzingo, Morelos,” Contribution 3 (Berkeley: University of California Archaeological Research Facility, 1967), 57–84.

of the first millennium BC,³⁷ apparently based on the fact that masks began to be used then. Sometimes hallucinogenic substances were used to induce visions of an animal guardian spirit. According to one researcher, in colonial Spanish times the *nahualistas* continued a pre-Columbian pattern in which they “formed a coherent association extending over most of southern Mexico and Guatemala,” and members were classified under different degrees or levels, each advancement demanding further initiation rites and revelations of new secret knowledge to the initiate.³⁸

There are other Mesoamerican institutions that may be compared to the Nephite/Jaredite secret societies in certain ways. Some scholars believe that Aztec military orders,³⁹ such as the “Eagle Warriors,” were military sodalities foreshadowed by earlier tightly knit groups of warriors, perhaps in the period of Teotihuacán.

Since the inner motives—the incentive engines—of such groups were kept largely secret, it is unlikely that we will learn much more about their nature and history than we know now, but it seems that the Book of Mormon's picture of secret organizations tends to agree in significant ways with one or more Mesoamerican social models.

Factions

A central feature of Mesoamerican social structure was factionalism. It not only was very obvious in the political arena, where various segments of society vied for power, but it also could appear in a variety of other social relationships. Control of land resources, appointments to military leadership or priesthood roles, comparative honor and prestige in the treatment of one sector as against others, and the renown of ancestry in traditions and myths are examples of areas in which factions—whether among houses, lineages, cliques, or ethnic groups—jostled to gain advantage. For example, “competition and factionalism are common in house societies, and are manifested

37. James A. Bennyhoff, “The Preclassic Background for the Emergence of Civilization in the Mexican Highlands,” Burg Wartenstein Symposium, 1970 (New York: Wenner-Gren Foundation for Anthropological Research, 1970), 25.

38. Daniel G. Brinton, “Nagualism: A Study in Native American Folk-Lore and History,” *Proceedings of the American Philosophical Society* 33 (1894): 26, 28.

39. Berdan, *Aztecs of Central Mexico*, 65.

not only in conflict between different houses, but also within the [leadership of a] great house. The adoption of a hybrid ethnicity [recall the Nephites joining with the people of Zarahemla] seems to have played a role in spurring competition among families within K'iche'an great houses [in highland Guatemala]—families that “vied for titles and privileges.”⁴⁰ Santley et al. observed about the famous city of Tula, “The picture that emerges is one involving continual political strife and occasional open hostilities between factions of the city's elite, not effective centralization of authority.”⁴¹ In highland Guatemala “incessant competition for prestige and political leverage provided a dynamic, propelling transformation of egalitarian alliances to successively more coercive and hierarchical social relations.”⁴² As an example, we may observe that the Cakchiquel people originally were part of (or were under) the Quiché hierarchy but revolted against them to begin their independent rapid expansion, partly at the expense of their former allies.⁴³

At one level, this kind of disputing could lead to endemic conflict. High-intensity episodes apparently resulted among the carriers of Olmec civilization. Coe called attention to the “awe-inspiring” destruction of stone monuments at San Lorenzo, “surely a mark of the iconoclastic fury” visited on these symbols of one Olmec elite faction by another.⁴⁴ Such fury might go beyond the angry supplanting of a ruler or a dynasty all the way to virtual genocide. Around AD 760 the inhabitants of the Petexbatun territory in

40. Geoffrey E. Braswell, “Ethnogenesis, Social Structure, and Survival: The Nahuaization of K'iche'an Culture, 1450–1550,” in *Maya Survivalism*, ed. Ueli Hostettler and Matthew Restall, *Acta Mesoamericana* 12 (Markt Schwaben, Germany: Saurwein, 2001), 12:55.

41. Robert S. Santley et al., “The Politicization of the Mesoamerican Ballgame and Its Implications for the Interpretation of the Distribution of Ballcourts in Central Mexico,” in *The Mesoamerican Ballgame*, ed. Vernon L. Scarborough and David R. Wilcox (Tucson: University of Arizona Press, 1991), 9.

42. John W. Fox, “Political Cosmology among the Quiché Maya,” in *Factional Competition and Political Development in the New World*, ed. Elizabeth M. Brumfiel and John W. Fox (Cambridge: Cambridge University Press, 1994), 158.

43. Garry R. Walters and Lawrence H. Feldman, “On Change and Stability in Eastern Mesoamerica,” *Current Anthropology* 23 (1982): 591–92.

44. Michael D. Coe, “San Lorenzo Tenochtitlan,” in *Supplement to the Handbook of Middle American Indians*, ed. Jeremy A. Sabloff (Austin: University of Texas Press, 1981), 1:142.

the lowland Maya area suffered “a state of endemic siege and fortification warfare” at the hands of neighboring rivals. As a consequence, within decades only 5 to 10 percent of the original population remained.⁴⁵

At a lower level of factional rivalry, tensions could drag on over generations, as Bove has observed of the Late Classic Maya in general: “Internal factions within the royal lineages . . . competed . . . resulting in rising political tension.”⁴⁶ And the disputes seem to have involved not just rivalrous would-be rulers but whole peoples. Jones noted that “the element of socio-cultural diversity within Maya civilization is seldom emphasized, owing mostly to the difficulty in detecting this kind of variability in the archaeological record,” but “it is becoming increasingly clear that Classic Maya civilization was sustained by a population that spoke more than one language.”⁴⁷ That diversity might well have fueled some of the conflict not only at the termination (“collapse”) of the Classic era among the Maya but also at other historical moments throughout Mesoamerica.

The Book of Mormon text is filled with instances of factional conflict, not just between the Nephites and Lamanites (Jacob 1:13) but also between lesser blocs within Nephite society (e.g., Alma 51:4–6).⁴⁸

Ethnicity

Ethnicity too could influence social patterning. For the Book of Mormon, the Lamanite-Nephite distinction was cast in ethnic terms (skin color

45. Arthur A. Demarest et al., “Classic Maya Defensive Systems and Warfare in the Petexbatun Region: Archaeological Evidence and Interpretations,” *Ancient Mesoamerica* 8 (1997): 248.

46. Frederick J. Bove, “El colapso del período Clásico en la Costa Sur de Guatemala,” in *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1995), 764.

47. Robert J. Sharer, “Diversity and Continuity in Maya Civilization: Quirigua as a Case Study,” in *Classic Maya Political History: Hieroglyphic and Archaeological Evidence*, ed. T. Patrick Culbert (Cambridge: Cambridge University Press), 187.

48. John L. Sorenson, “Last-Ditch Warfare in Ancient Mesoamerica Recalls the Book of Mormon,” *Journal of Book of Mormon Studies* 9/2 (2000): 46–47; and Sorenson, “Seasonality of Warfare in the Book of Mormon and in Mesoamerica,” in *Warfare in the Book of Mormon*, ed. Stephen D. Ricks and William J. Hamblin (Salt Lake City, UT: Deseret Book and FARMS, 1990), 462–74.

in addition to perceived prejudicial norms of behavior) from the very beginning of Nephite history (2 Nephi 5:21, 24). Nephite rulers came to consider the Lamanites uncivilized as well as darker skinned. However, skin color is not specifically mentioned as a basis for distinction beyond the first century after the arrival of Lehi's party. In fact, around AD 10 certain Lamanites "who had united with the Nephites were numbered among the Nephites; and . . . their skin became white like unto the Nephites" (3 Nephi 2:14–15). Thereafter there is no mention of phenotypical (visible, biological) characteristics as markers, although sociocultural distinctions were apparent. Nor were language differences clearly denoted, although they could well have been present. The normal defining differences in populations who constituted ethnic groups were in traditions of origin and other cultural features that the groups maintained.

The study of ethnic differences in ancient Mesoamerica has been complicated by the difficulty of identifying ethnic parameters from archaeological materials, but increasingly research and interpretation are leading toward the conclusion that the situation was complex. For example, in Colima (western Mexico) at the time of the Spanish conquest, an "incredible variety" of languages were spoken, with three or four tongues used simultaneously in some communities.⁴⁹ The conflict between Maya and adjacent Mixe-Zoquean groups identified by Lowe has already been referred to several times.

Foreign Rulers

Another feature found in Mesoamerican social patterns, as already mentioned, is rulership by foreigners over natives. For example, in the Maya area

49. Carolyn B. Reed Czitrom, *Figurillas sólidas de estilo Colima: Una tipología*, in Colección científica: Arqueología 66 (Mexico City: Instituto Nacional de Antropología e Historia, 1978), 12. Among many others, recent commentators on the ancient complexity and competition include Elizabeth M. Brumfiel, "Ethnic Groups and Political Development in Ancient Mexico," in Brumfiel and Fox, *Factional Competition and Political Development*, 89–102; Helen Perlstein Pollard, "Ethnicity and Political Control in a Complex Society: The Tarascan State of Prehispanic Mexico," in Brumfiel and Fox, *Factional Competition and Political Development*, 79–88; Jon Schackt, "Los mayas: El origen del término y la creación del pueblo," *Revista estudios interétnicos* 10/16 (2002): 7–26; and William M. Ringle et al., "The Return of Quetzalcoatl: Evidence for the Spread of a World Religion during the Epiclassic Period," *Ancient Mesoamerica* 9 (1998): 183–232.

local rulers frequently brought a revered name and status with them when they intruded from elsewhere.⁵⁰ Houston reviewed the arguments favoring the idea of disruption of dynastic lines and concluded that usurpation by intruders had been a fact of history.⁵¹ “We know that Mesoamerican . . . hierarchies could shift and realign themselves with surprising speed, sometimes within a generation or two,” confirmed Mayanist David Stuart.⁵²

In the area of present-day eastern Puebla, the Olmeca-Xicalanca group established themselves in an area where another population already existed. This process had begun perhaps by AD 500.⁵³ Eva Hunt’s superb ethno-historical study on rulership among the Cuicatec shows that the nobility there at the time of the Spanish conquest had originally been a foreign group. Furthermore, “it seems highly probable that [neighboring] Mixtec elites [also] were originally a foreign group, who did not speak [the same tongue] [but] had imposed itself on an older, Mixtec-speaking local population.”⁵⁴ Intruders generally maintained their own cultural patterns—such as having their own gods and ancestor cults—and maintained their own prestigious genealogies as well.⁵⁵

The Book of Mormon account is replete with stories of intrusive rulers. Nephi’s faction of the original Lehite immigrant party has to be seen as moving in and dominating a local population in their “land of Nephi” (see chapter 22 herein). The same process no doubt ensued in the case of the Lamanite faction, as well as in the original Jewish party under prince

50. Norman Hammond et al., “A Maya ‘Pocket Stela’?,” in *Studies in Ancient Mesoamerica II*, ed. John A. Graham, Contributions 27 (Berkeley: University of California Archaeological Research Facility, 1975), 26.

51. David A. Freidel et al., “Early Classic Maya Conquest in Words and Deeds,” in *Ancient Mesoamerican Warfare*, ed. M. Kathryn Brown and Travis W. Stanton (Walnut Creek, CA: Altamira Press, 2003), 214–15.

52. David Stuart, “‘The Arrival of Strangers’: Teotihuacan and Tollan in Classic Maya History,” *P.A.R.I. Online Publications*, Newsletter 25 (1998), http://www.mesoweb.com/pari/publications/news_archive/25/strangers/strangers.html.

53. Diana López de Molina, “Excavaciones en Cacaxtla: Tercera temporada,” *Comunicaciones proyecto Puebla-tlaxcala* (Puebla, Mexico) 16 (1979): 141–48.

54. Hunt, “Irrigation and the Socio-political Organization,” 217.

55. Roys, “Lowland Maya Native Society,” 3:672.

Mulek of Judah.⁵⁶ The Jaredite immigrants also obviously incorporated indigenes when establishing a kingdom in the immigrants' new Mexican location.⁵⁷ Nephite king Mosiah₁ ruled over the people of Zarahemla, who were much larger in number (Mosiah 25:2) than the group that arrived with Mosiah₁. The Amulonites gained control over Alma₁'s people (24:8) and later "usurped the power and authority over" certain Lamanites (Alma 25:5). As on many similar occasions, the Lamanite leader of an invasion tried to "usurp great power over . . . the Nephites" (43:8). Amalickiah, the Nephite archdissenter, defected to become king of the Lamanites by intrigue and murder (Alma 47).

Religion as a Social Differentiator

Cult or religious affiliation is another dimension of social structure reported in the Book of Mormon. Social groups were formed and maintained on the basis of unique religious beliefs or practices.

Mesoamerican social entities were constituted in large measure on a religious basis. Gabbert has accurately stated,

Neither in preconquest Yucatán nor in medieval Spain was political legitimacy derived from a cultural or biological relationship between rulers (and nobles) and commoners. It was based rather on the claim to a special relationship with God, or the gods and ancestors.⁵⁸

A prime example in Mormon's record of religion as a social differentiator is Alma₁'s original church grouping, which later became a much larger element under the leadership of Alma₂ (Alma 5:3). The membership formed a distinct segment of Nephite society (Mosiah 26:38; 27:1–2). When this church had expanded to include most of the Nephites (Alma 16:15), the

56. See John L. Sorenson, "The 'Mulekites,'" *BYU Studies* 30/3 (1990): 6–22, and chapter 22 herein.

57. See John L. Sorenson, "When Lehi's Party Arrived in the Land, Did They Find Others There?," *Journal of Book of Mormon Studies* 1 (1992): 32–34; and Sorenson, "Viva Zapato! Hurrah for the Shoe!," *Review of Books on the Book of Mormon* 6/1 (1994): 356; and see chapter 21 herein.

58. Wolfgang Gabbert, "On the Term 'Maya,'" in *Maya Survivalism*, ed. Ueli Hostettler and Matthew Restall (Markt Schwaben, Germany: Saurwein, 2001), 28.

Lamanites recast their longstanding enmity in terms of religious differences (“if they should fall into the hands of the Lamanites, . . . whosoever should worship God in spirit and in truth . . . the Lamanites would destroy,” 43:10). We see another example in the case of the Zoramites, where the crucial issue in their separating from the Nephites and aligning with the Lamanites was refusal to carry on certain orthodox Nephite “performances,” that is, rituals (31:8–12; 43:4). The order of Nehor (24:28–29) was another divergent religious system whose followers maintained independence from orthodox Nephite social categories and ritual and ideological norms. And again, around 90 BC, Aaron, one of King Mosiah₂’s sons, visited the city of Jerusalem in the Lamanite-controlled land of Nephi to preach his faith; the settlement was composed of Lamanites plus Amalekites and Amulonites, each of the three practicing different cults (21:2–10).

In Mesoamerica, a people or community commonly worshipped a particular deity as their particular god and considered themselves to be under his special watchcare. The Lamanites who converted to the Nephite religion through the ministry of the sons of Mosiah₂ were called “Anti-Nephi-Lehies” and identified with the Nephite deity (“our god,” Alma 24:7–16) whom they trusted to guard them against imminent attack from unreconstructed Lamanites. The same concept is reflected in the comment by Giddianhi, leader of the “secret society of Gadianton,” which he made to the Nephite leaders whom he threatened: “Ye do stand well, as if ye were supported by the hand of a god, in the defence of your liberty, and your property, and your country” (3 Nephi 3:2).

Later, near the beginning of the third century AD, the Nephites, who had for decades all been deemed adherents to the “church of Christ,” “began to be divided into classes; and they began to build up [different] churches unto themselves.” At this time when there was no large-scale political structure, there came to be “many churches in the land” (4 Nephi 1:26–27). Three decades later “there arose a people who were called the Nephites, and they were true believers in Christ. . . . And . . . they who rejected the gospel were called Lamanites” (vv. 36, 38).

Mesoamerican divisions in society on the basis of cult were common. Nicholson identified as “an important feature of Mesoamerican religion in

general”⁵⁹ the concept of a special guardian relationship between a deity and a particular sociopolitical group. The Mesoamerican conception of linguistic entities (political entities were closely related) was tied up with religion. Of the region of Rabinal in highland Guatemala, it is said on the basis of the Popol Vuh that “their ethnic name, Tohil, is also the name of the god of the people of Rabinal.”⁶⁰ In that light we understand why the great variation of art styles and traditions at and around Kaminaljuyu in the Late Pre-Classic period were considered by art historians Miles and Parsons to signify “politico-religious complexity.”⁶¹

We have seen that where the social structures of Book of Mormon groups are manifest, Mesoamerican structures were similarly ordered. On the other hand, there is nothing to support the idea that the Book of Mormon reflected a frontier New York setting. It seems impossible to account for what the volume says unless ancient Mesoamerican hands made the record.

59. Henry B. Nicholson, “Religion in Pre-Hispanic Central Mexico,” in *Handbook of Middle American Indians*, ed. Gordon F. Ekholm and Ignacio Bernal (Austin: University of Texas Press, 1971), 10:409.

60. Lyle Campbell, “Quichean Prehistory: Linguistic Contributions,” in *Papers in Mayan Linguistics*, ed. Nora C. England, Miscellaneous Publications in Anthropology 6 (Columbia: University of Missouri-Columbia, 1978), 28.

61. Jonathan Kaplan, “From Under the Volcanoes: Some Aspects of the Ideology of Rulership at Late Preclassic Kaminaljuyú,” in Love et al., *Incidents of Archaeology in Central America and Yucatán*, 355–56.

Chapter 15

Population and Its Distribution

Comparisons of significance between Book of Mormon cultures and Mesoamerican civilization also occur in the areas of population, demography, and the cultural use of space (settlement patterns).

Population

Demography and population are particularly difficult to study for past civilizations because birth and death numbers are never more than roughly inferable from archaeological material. Estimating the total population of Mesoamerica has been particularly troublesome for scholars. Efforts to calculate the numbers have yielded such variable results that it has been difficult to agree even on the correct order of magnitude.¹ At the upper extreme, Wagner estimated 40 million inhabitants at the time of the Spanish conquest for the territory of present-day Mexico alone, and potentially two to three times more than that.² Today's scholarship, however, is more comfortable estimating the population of Mesoamerica at between 20 and 25 million at the time of the conquest. In the Late Pre-Classic (the period that

1. See, for example, William M. Denevan, *The Native Population of the Americas in 1492* (Madison: University of Wisconsin Press, 1976), 1–4, 289–92; and Henry F. Dobyns, "Estimating Aboriginal American Population: An Appraisal of Techniques with a New Hemispheric Estimate," *Current Anthropology* 7/4 (1966): 396–97, 415.

2. Helmuth O. Wagner, "Subsistence Potential and Population Density of the Maya on the Yucatan Peninsula and Causes for the Decline in Population in the Fifteenth Century," *Proceedings of the 38th International Congress of Americanists (Stuttgart-Munich, 1968)* (Munich: Renner, 1969), 1:194.

the Book of Mormon documents most fully), an estimate between 10 and 15 million does not seem unlikely for all of Mesoamerica.

The Book of Mormon provides enough information on population at two points in history to enable us to test that record's plausibility in terms of Mesoamerican figures. Around AD 380, in the final battle that resulted in the extermination of the Nephite people, Mormon reported a Nephite force of 230,000 under his command (Mormon 6:10–15), although it is unclear whether the number referred only to warriors or to the total population of the Nephites at the battle.³ A legitimate question to ask is whether a quarter-million combatants, or even half a million (counting both sides), would make sense in Mesoamerican terms.

One relevant comparative datum comes from a tradition about the Toltecs in the 10th century. Native historian Alva Ixtlilxochitl reported a tradition claiming that a three-year war resulted in 5.6 million Toltec deaths.⁴ Even discounting vastly for probable exaggeration, the size of the armies engaged in that conflict in central Mexico would have been of an order of magnitude that easily encompasses the Nephite figure. Furthermore, certain peoples in highland Guatemala shortly before the conquest are reported to have fought with armies of up to 200,000 on a side for decade after decade.⁵

The record of the Jaredites as abridged by Moroni₂ contains a second case where a concrete number is reported. A few years before their final demise, which occurred soon after 600 BC, the historical account reported the last Jaredite king lamenting that “two millions of mighty men, and also their wives and their children” (Ether 15:2) had already been slain in decades-long conflict. We do not know the basis for such a casualty figure,

3. James E. Smith, “How Many Nephites? The Book of Mormon at the Bar of Demography,” in *Book of Mormon Authorship Revisited: The Evidence for Ancient Origins*, ed. Noel B. Reynolds (Provo, UT: FARMS, 1997), 286.

4. Fernando de Alva Ixtlilxochitl, *Obras históricas*, ed. Alfredo Chavero (ca. 1600; 1891–92; repr., Mexico City: Editora Nacional, 1952), 1:57. See also Milton R. Hunter and Thomas Stuart Ferguson, *Ancient America and the Book of Mormon* (Oakland, CA: Kolob Books, 1950), 385.

5. Samuel K. Lothrop, *Atitlan: An Archaeological Study of Ancient Remains on the Borders of Lake Atitlan, Guatemala*, Publication 444 (Washington, DC: Carnegie Institution, 1933), 9–14.

so again the numbers could be exaggerated; nevertheless, the actual number had to have been huge.

In regard just to the San Lorenzo Tenochtitlán area in the Isthmus of Tehuantepec, which can be taken to have been a Jaredite “great city,” Symonds points out that a high population density in the area was clearly indicated.⁶ As our knowledge of the population of the late Olmec-related civilization deepens, it seems plausible that a number of the order noted in the book of Ether could have lived in southern Veracruz in the middle of the first millennium BC, although no documentation of such a magnitude can yet be provided.

For the Nephite period (mainly the Late Pre-Classic), the scriptural text gives no hint of there being a significant population in the immediate isthmian (“narrow neck”) area (see, for example, Alma 50:29–36). The limited archaeological research conducted so far in the zone indicates that a “drastic depopulation, . . . a dramatic decrease in population and settlement” occurred following the Olmec era,⁷ a time when the Book of Mormon leads us to expect a negligible population there.

Archaeologists sometimes base their population estimates on the number of discovered structures that were inhabited in an area. When such studies are used to compare one site with another that has been studied in the same manner, the numbers have some worthwhile, though limited, uses. But any absolute values of population drawn from such archaeological surveys cannot be taken as realistic. Such estimates assume that essentially all structures of a given period have been identified and that the dwelling space in such buildings can be translated into the total occupying population. Many flaws are inherent in the assumptions such research makes, so estimates of total population produced in this manner are of little historical value.

6. Stacey Symonds, “The Ancient Landscape at San Lorenzo Tenochtitlán, Veracruz, Mexico: Settlement and Nature,” in *Olmec Art and Archaeology in Mesoamerica*, ed. John E. Clark and Mary E. Pye (Washington, DC: National Gallery of Art, 2000), 70–71; see chapter 22 herein.

7. Symonds, “Ancient Landscape at San Lorenzo Tenochtitlán,” 69.

Demography

The demographic processes by which a particular level of population was reached are also of concern. Our knowledge of ancient survival conditions is inescapably poor. For instance, the average length of life in ancient Mesoamerica is not known with much confidence. Some calculations based on surviving skeletons have concluded that life expectancy, presumably for the common people, must have been short.⁸ Yet Houston notes that the Maya inscriptions “indicated that many Classic rulers lived to a ripe old age . . . [and] not a few people lived into their eighties and beyond”⁹ (compare Ether 10:4, 13, 16–17). Such uncertain information prevents us from placing much confidence in demographic calculations for Mesoamerica in antiquity, but nothing in the Book of Mormon on this topic appears implausible.

Ethnic Amalgamation

As will be explained particularly in chapter 22, the population naturally descended from the initial Israelite immigrants who settled in the land of Nephi could not possibly account for the numbers of “Nephites” implied by the historical record soon afterward. The same can be assumed for the Lamanite faction. Surely both Nephites and Lamanites incorporated others—natives—beyond the number descended from the Israelite immigrants.¹⁰ Obviously the same thing had gone on among the Nephite population as among the Quiché Maya people in roughly the same area in the centuries shortly before the Spanish conquest. Fox and other sources make it clear that the population of the Quiché “grew from the inclusion of vanquished enemies” as well as from natural fecundity.¹¹ But the groups

8. As, for example, shown by Lourdes Marquez Morfín, “Paleoepidemiología en las poblaciones prehispánicas mesoamericanas,” *Arqueología mexicana* 4/22 (1996): 8.

9. Stephen D. Houston, “Archaeology and Maya Writing,” *Journal of World Prehistory* 3 (1989): 22, citing Tatiana Proskouriakoff, “Historical Implications of a Pattern of Dates at Piedras Negras, Guatemala,” *American Antiquity* 25 (1960): 454–75.

10. John L. Sorenson, “When Lehi’s Party Arrived in the Land, Did They Find Others There?,” *Journal of Book of Mormon Studies* 1 (1992): 1–34; compare Smith, “How Many Nephites?”

11. John W. Fox, “On the Rise and Fall of Tuláns and Maya Segmentary States,” *American Anthropologist* 91 (1989): 665.

incorporated were not necessarily co-opted enemies; they may well have included nonrelated folks attracted to an expanding ethnic or political entity. At least the Tarascans of western Mexico increased in numbers by such means: “Despite clear indications of earlier ethnic heterogeneity in central Michoacán . . . by the sixteenth century, the population was self-identifying and being identified by others as solely Tarascan.”¹² That is, Tarascan political power exercised by a ruling Tarascan-speaking minority had overwhelmed earlier heterogeneous ethnic groups so that even they—the varied subject groups—came to consider themselves Tarascans. Freddolino confirmed the incorporation process by comparing traditional Tarascan history with the archaeological record.¹³ She found no evidence in the artifacts of the arrival of an immigrant group such as was described in Tarascan tradition. She concluded that while the story of arriving immigrants may have been accurate from the point of view of a small intruding elite, the tradition did not reflect the broad flow of events in the geographical area they dominated. The elites did not have a noticeable impact on the archaeological record—it reflected primarily the history of the local indigenous population that joined under the newcomers’ rule. The unexplained large numbers of the Nephites (and the Lamanites) seen in the Book of Mormon account probably were due to a similar process.

Even with a slow shift in the biological characteristics of the elite population as a result of melding with incorporated populations, the combined, enlarged group could still claim identification with the elite in terms of records kept or traditions maintained by the Tarascan elite newcomers in the Mexico case and Israelite migrants in the case of the intruding Lehite and Mulekite parties. Contemporary evidence of such a process is shown in the Bené-Israel group of self-identified Jews in Bombay, India, which originated in the early 20th century from just seven Jewish families. By 1978 there were 23,000 “descendants”—10,000 in Bombay, plus 10,000 more who had

12. Helen Perlstein Pollard, “Ethnicity and Political Control in a Complex Society: The Tarascan State of Prehispanic Mexico,” in *Factional Competition and Political Development in the New World*, ed. Elizabeth M. Brumfiel and John W. Fox (Cambridge: Cambridge University Press, 1994), 80.

13. Marie Kimball Freddolino, “An Investigation into the ‘Pre-Tarascan’ Cultures of Zacapu, Michoacan, Mexico” (PhD diss., Yale University, 1973).

moved to Israel and 3,000 others located elsewhere in India.¹⁴ They now resemble local Indians physically, which means that they had incorporated a large proportion of local outsiders and their genes into their ranks. Similarly, Falasha Jews in Ethiopia differ physically but little from their African neighbors, in blood groups at least. And the Lemba people of southeast Africa present a “thoroughly Negroid blood group picture” yet are adamant that they descended from ancient Jews, and they even continue some Jewish practices.¹⁵ By comparison, in the Valley of Mexico there was not a single uniform Aztec tradition that passed down to colonial Mexico, according to Sahagún, the best observer in the 16th century. Rather, there were 21 identifiable populations/cultures clustered under the “Aztec” umbrella in the Valley of Mexico, each of which had its own variant history.¹⁶

Local populations of different degrees of genetic “Nephiteness” might have resulted in variations in cultural traditions coming out of the base population. The Book of Mormon notes the incorporation of one especially large group under the Nephite sovereign umbrella. Once the “people of Zarahemla” were introduced in the record (Omni 1:14–19), the Nephite history proceeds to ignore them almost completely, even though they were said early on to be more numerous than the true Nephites who were their rulers (Mosiah 25:2). For most purposes they were all just considered Nephites.

Other amalgamations took place too; thus the actual Nephite population at a given historical moment could depend, like the Tarascans’, as much on the success of an expansionary political policy as on the fertility of the original people. The Amulonites began as 23 Nephite refugee priests who abducted Lamanite wives (Mosiah 19:21; 20:17–23), yet within two generations their numbers were reported to have become “as numerous nearly as were the Nephites” (Alma 43:13–14)! Only by incorporation of disparate populations can such growth be explained.

14. Arthur E. Mourant, “The Jews in Palestine,” in *The Genetics of the Jews*, ed. Arthur E. Mourant et al. (Oxford: Clarendon, 1978), 25.

15. Mourant, “Jews in Palestine,” 39.

16. Michel Graulich, “The Metaphor of the Day in Ancient Mexican Myth and Ritual,” *Current Anthropology* 22/1 (1981): 53; compare Robert M. Laughlin, “The Tzotzil,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Evon Z. Vogt (Austin: University of Texas Press, 1969), 7:152–94, for a similar complication among some Maya.

A related matter is the numerical superiority of the Lamanites that is continually noted in the Nephite record. Early on, the written account comments in a formulaic manner on the barbarity of the Lamanites (2 Nephi 5:21–24; Enos 1:20). Emphasis was then placed on their being nomadic hunters. But nomadic Lamanites could never have produced the mass of population indicated by the Book of Mormon when reporting the armies facing the Nephites in later centuries (Alma 2:24, 28; 49:6; 51:11; Helaman 1:19). Hunting cannot support such large numbers. Clearly, they could have come about only if the Lamanite faction of the original immigrant party had incorporated native agricultural populations under its rule.¹⁷ This phenomenon is entirely in agreement with what we know about the growth of population in many Mesoamerican polities.

Details of Population Variations

In certain historical aspects, the record in the Book of Mormon fits the external Mesoamerican population data nicely.

Population hiatus on the Pacific coast around the time of Lehi's landing

Lehi's immigrant group arrived on the Pacific coast of Central America early in the sixth century BC. Archaeologists have discovered that the Olmec-related and Modified Olmec-related cultural manifestations that had flourished along the coastal lowlands of Guatemala and southern Chiapas (the Soconusco) from 1500 BC had declined in vigor with the end of the Conchas period ("D" subphase, ending around 600 BC). At that time the coastal zone was substantially reduced in population and the groups there were politically insignificant.¹⁸ There is no reason to believe that a small

17. See the discussion in Sorenson, "When Lehi's Party Arrived in the Land," 28–30.

18. There was tremendous social and political change from the Middle Pre-Classic (first half of the first millennium BC) to the Late Pre-Classic (second half). Michael D. Coe and Kent V. Flannery, *Early Cultures and Human Ecology in South Coastal Guatemala*, Contributions to Anthropology 3 (Washington, DC: Smithsonian, 1967): 89; Michael Blake et al., "Radiocarbon Chronology for the Late Archaic and Formative Periods on the Pacific Coast of Southeastern Mesoamerica," *Ancient Mesoamerica* 6 (1995): 161–83; Michael Love, "Ceramic Chronology and Chronometric Dating: Stratigraphy and Seriation at La Blanca, Guatemala," *Ancient Mesoamerica* 4 (1993): 20; and Love, "Ceramic Chronology of Preclassic Period Western Pacific Guatemala and Its Relationship to Other

party of Lehites intruding on the southern Pacific coast of Mesoamerica would have faced opposition by the scattered inhabitants that archaeology indicates were present there at that time.

Wilderness in a northerly direction from the land of Nephi

At one time, only “wilderness” lay between the lands of Nephi and Zarahemla. In the last two centuries BC, when the fullest description of the land of Nephi is provided by the Book of Mormon, all indications are that the area between those centers was either unsettled or was just receiving its first settlers from the area to the east. Alma₁ and his followers settled in wilderness in the unoccupied “land of Helam” to the north and west of Nephi.¹⁹ Two generations before, the party led by Zeniff apparently encountered no settlements on its way to Nephi until arriving within sight of the land (valley) of Nephi (Mosiah 9:4–5). About 50 years later, Limhi and his people fled the land of Nephi and felt safe soon after departing the immediate area of the city (22:11–12). Some decades later, the sons of Mosiah₂ came into the land of Nephi as missionaries along the same route and reached a point within one or two mountain valleys from the city of Nephi before finding inhabitants (Alma 17).

Archaeologists have found that the western highlands of Guatemala (the region correlated with the Book of Mormon area we have just been discussing) were almost entirely vacant until well into the Late Pre-Classic period (about 200 BC or after). Wauchope supposed the first settlers of that area did not predate the first century AD.²⁰ Adams found that the Quiché and Alta

Regions,” in *Incidents of Archaeology in Central America and Yucatán: Essays in Honor of Edwin M. Shook*, ed. Michael Love et al. (Lanham, MD: University Press of America, 2002), 67–68.

19. John L. Sorenson, *The Geography of Book of Mormon Events: A Source Book*, rev. ed. (Provo, UT: FARMS, 1992), 228–29, 331, map.

20. Robert Wauchope, *Zacualpa, El Quiché, Guatemala: An Ancient Provincial Center of the Highland Maya*, Middle American Research Institute Publication 39 (New Orleans: Tulane University, 1975), 48–49.

Verapaz zones lacked any trace of inhabitation earlier than “about 100 BC.”²¹ Arnauld considered the same territory “unoccupied” in BC times.²²

Political and ethnic differentiation of settlement according to ecological zones

We have already discussed reports that at the time of the Spanish conquest relatively darker-skinned people lived in the hot littoral plain adjacent to the Pacific,²³ similar to the Book of Mormon description of the dark-skinned Lamanites living in the coastal zone near the west sea. The lighter-hued Nephites inhabited the highlands. It is reasonable that ecological conditions had something to do with both situations.

The Mayal/Zoque boundary zone

As discussed earlier, Lowe drew to the attention of archaeologists that speakers of Mayan languages historically occupied the area east of a line running from the Gulf Coast south to where the Mexican-Guatemalan border reaches the Pacific.²⁴ He argued that this line marked an area of tension where the occupation zones of the peoples of the two language families “saw-sawed back and forth”²⁵ in ancient times. That line matches more or less what the Book of Mormon calls a “narrow strip of wilderness” that long separated Lamanite lands from those of the Nephites in the last centuries BC²⁶ and against which boundary the Lamanites were continually pressing northward. Geographically, linguistically, ethnically, and archaeologically,

21. Richard E. W. Adams, “Maya Highland Prehistory: New Data and Implications,” in *Studies in the Archaeology of Mexico and Guatemala*, ed. John A. Graham (Berkeley: University of California Archaeological Research Facility, 1972), 16:7.

22. Marie-Charlotte Arnauld, “Arqueología de la Alta Verapaz occidental: Sociedad y patrones de asentamiento,” *Antropología e historia de Guatemala* (1980), 2:26.

23. For discussion, see the first several pages of chapter 12 herein.

24. Gareth W. Lowe, “The Mixe-Zoque as Competing Neighbors of the Lowland Maya,” in *The Origins of Maya Civilization*, ed. Richard E. W. Adams (Albuquerque: University of New Mexico Press and School of American Research, 1977), 197–248.

25. Gareth W. Lowe et al., *Izapa: An Introduction to the Ruins and Monuments*, New World Archaeological Foundation Papers 31 (Provo, UT: BYU New World Archaeological Foundation, 1982), 11.

26. Sorenson, *Geography of Book of Mormon Events*, 244, 251, 334.

this boundary area just about perfectly fits both the Nephite record and the transition zone between the areas occupied by speakers of the two major language groups of the time. (Even though a linguistic difference between Nephites and Lamanites can only be inferred, a difference seems likely.)

The extermination of the Nephites

In the final phase of the war of extermination described in Mormon 1–6, we are told that between about AD 320 and 380 the Nephites and their armies were driven from the land of Zarahemla into “the land northward” for an ultimate rendezvous with their genocide in the land around the hill Cumorah. In chapter 7 it was established that the land of Zarahemla of the Nephites consisted largely of the basin of the Sidon River; in turn we saw that that area correlates closely with the territory drained by the Grijalva River (the Central Depression of Chiapas) in southern Mexico.

As will be discussed in detail in chapter 25, Chiapas was largely depopulated during the mid-fourth century AD. The Chiapa VIII period (ca. AD 200–350, called the Jiquipilas phase at the largest site, Chiapa de Corzo) saw a spectacular cultural florescence in the earliest portion of the Early Classic era. But after AD 350 there was a “general abandonment of most archaeological sites” in central Chiapas.²⁷ A scattering of new inhabitants—a “transitory elite”²⁸—resettled a handful of sites. The Central Depression became a virtual no-man’s-land for an extended period after AD 350, as the Nephite record implies for the land of Zarahemla at precisely that time.

27. Gareth W. Lowe and J. Alden Mason, “Archaeological Survey of the Chiapas Coast, Highlands, and Upper Grijalva Basin,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 2:226. See also Donald L. Brockington, *The Ceramic History of Santa Rosa, Chiapas, Mexico*, New World Archaeological Foundation Papers 23 (Provo, UT: BYU New World Archaeological Foundation, 1967).

28. Pierre Agrinier, *Mounds 9 and 10 at Mirador, Chiapas, Mexico*, New World Archaeological Foundation Papers 39 (Provo, UT: BYU New World Archaeological Foundation, 1975), 99, 100.

Other widespread demographic changes took place at the same time as the extermination of the Nephites

The population of practically all regions of southern/eastern Mesoamerica was reduced greatly during the Early Classic.²⁹ In some cases this change was locally preceded by overt warfare (see further in chapter 25).³⁰

The population and demographic history at a number of historical moments in the Late Pre-Classic to Early Classic period fits clearly with what the Book of Mormon describes.

Settlement Patterns

The settlement forms mentioned in the Nephite record are all those we expect to see in an ancient civilization: “small villages” (or hamlets), villages, towns, cities, and great cities. The form and function of those settlements are more significant than their absolute population size. A city, for instance, had some formal parameters beyond mere numbers of inhabitants. For example, the “city” of Helam, founded by Alma₁ and his followers, had a population of only around 450 (Mosiah 18:35) when it was “built.” The record states that “while they were in the land of Helam, yea, in the city of Helam, while tilling the land round about, behold an army of Lamanites was [discovered] in the borders of the land. . . . The brethren of Alma fled from their fields, and gathered themselves together in the city of Helam”

29. See, for example, Marion Popenoe de Hatch, “New Perspectives on Kaminaljuyú, Guatemala: Regional Interaction during the Preclassic and Classic Periods,” in Love et al., *Incidents of Archaeology in Central America and Yucatán*, 288; Richard E. W. Adams et al., “Transformations, Periodicity, and Urban Development in the Three Rivers Region,” in *The Terminal Classic in the Maya Lowlands: Collapse, Transition, and Transformation*, ed. Arthur A. Demarest et al. (Boulder: University Press of Colorado, 2004), 328; Thomas G. Garrison, “La transición del Preclásico Tardío al Clásico Temprano en la zona intersitio de Xultun y San Bartolo en Petén,” in *XVIII Simposio de investigaciones arqueológicas en Guatemala, 2004*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2005), 1–6.

30. For example, at Holmul, Francisco Estrada-Belli, “Lightning, Sky, Rain, and the Maize God: The Ideology of Preclassic Maya Rulers at Cival, Peten, Guatemala,” *Ancient Mesoamerica* 17 (2006): 75; and at Becán, David L. Webster, *Defensive Earthworks at Becán, Campeche, Mexico: Implications for Maya Warfare*, Middle American Research Institute Publication 41 (New Orleans: Tulane University, 1976), 86–87.

(23:25–26). The fact that the land and city were practically conterminous demonstrates the limited extent of the settlement's territory (it probably occupied a mountain valley). Despite its minuscule population, the place was defined as “a [planned?] city.” Other cities with no evidence of long history of inhabitation are also mentioned: Jerusalem (Alma 21:1–2), Jacobugath (3 Nephi 9:9), and various garrison settlements (Alma 50:13–15).³¹

“Great cities” constituted an especially interesting category in the Nephite system of settlements. Six such places are mentioned specifically, and others are referred to generally.³² One of the six (Jerusalem) was in Lamanite territory, and one was Jaredite built. This last-mentioned city was established around 1400 BC by King Lib “by the narrow neck of land, by the place where the sea divides the land” (Ether 10:20). All the others existed in the first century BC or first century AD.

The characteristics of Mesoamerican settlement patterns are reported in a large literature.³³ Both broad and specific similarities with the Book of Mormon are apparent:³⁴

- Size per se did not make a Mesoamerican settlement politically or socially important. The site known as Jalieza in Valle Grande, Oaxaca, had an estimated 12,000 people on 1.5 square miles (4 sq km), while Monte Albán had 16,500, only marginally more, yet the former had few carved stone monuments and only one-fifteenth the volume of mounded architecture of the latter.³⁵ Jalieza

31. John L. Sorenson, “The Settlements of Book of Mormon Peoples,” in *Nephite Culture and Society: Selected Papers*, ed. Matthew R. Sorenson (Salt Lake City: New Sage Books, 1997), 140–44.

32. Sorenson, “Settlements of Book of Mormon Peoples,” 141–42.

33. For example, Evon Z. Vogt and Richard M. Levanthal, eds., *Prehistoric Settlement Patterns: Essays in Honor of Gordon R. Willey* (Cambridge, MA: Peabody Museum of Archaeology and Ethnology, Harvard University, 1983).

34. First discussed in Sorenson, “Settlements of Book of Mormon Peoples,” 150–51.

35. Richard E. Blanton and Stephen A. Kowalewski, “Monte Albán and After in the Valley of Oaxaca,” in *Supplement to the Handbook of Middle American Indians*, ed. Jeremy A. Sabloff (Austin: University of Texas Press, 1981), 1:101.

was a large town, but Monte Albán was unquestionably a city. In the Book of Mormon, too, size was not the most important criterion. Zarahemla was not considered as great a city or prize of conquest as were the cities in “the most capital parts of the land” downriver, yet the record does not name even one of the settlements in the latter area (Helaman 1:27). The scripture contains useful size comparisons in that Old World Jerusalem was called a “great city,” while the village of Nazareth was labeled a “city” (1 Nephi 1:4; 11:13). Obviously the political and cultural criteria used in making such categorical assignments are less than clear to us, but certainly other criteria were employed besides population size.

- In Mesoamerica, city and land often shared the same name and at times were not conceptually distinguished from each other.³⁶ So too is Mormon’s record.
- Ruler and place ruled sometimes bore the same name.³⁷ Again the scripture corresponds.
- Fortified sites could qualify as cities despite lack of any other criterion.³⁸ (The same was true of the term for *city* in Old World Israel; compare the garrison “instant” cities of Alma 50:13–15.)
- A city often contained various ethnic or linguistic groups in different residential sectors (barrios or wards).³⁹
- Cities sometimes seem to have been planned and designated as

36. Joyce Marcus, “On the Nature of the Mesoamerican City,” in Vogt and Leventhal, *Prehistoric Settlement Patterns*, 206–8. See Alma 53:3.

37. Marcus, “Nature of the Mesoamerican City,” 207. See Alma 50:28.

38. Marcus, “Nature of the Mesoamerican City,” 210. See Alma 50:13; 51:27.

39. Ralph L. Roys, “Lowland Maya Native Society at Spanish Contact,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 3:664; and Edward E. Calnek, “The Internal Structure of Cities in America: Pre-Columbian Cities; The Case of Tenochtitlan,” *Proceedings of the 41st International Congress of Americanists (Mexico, 1974)* (1976): 353. See Mosiah 25:4, 15–21, 23; Alma 21:4.

such from their founding.⁴⁰ The term for *city* was applied on a conceptual, not just a functional, basis.⁴¹

- Internal arrangements in cities could, of course, be complex; there were multiple markets in the “great city” of Zarahemla (“chief market,” Helaman 7:10), as was the case at various ancient places in Mexico.⁴²
- Private gardens were sometimes a feature of residences among the Nephites (Helaman 7:10: “Nephi had bowed himself [to pray] upon the tower which was in his garden, which tower was also near unto the garden gate by which led the highway” to the city). Private temples (presumably with “towers”) for ritual were constructed adjacent to residences at Cholula. “It is said that noblemen had their personal temples built next to or as part of their homes,” and some of those temples were situated in fields on the outskirts of the city.⁴³

40. George L. Cowgill, “Teotihuacan, Internal Militaristic Competition, and the Fall of the Classic Maya,” in *Maya Archaeology and Ethnohistory*, ed. Norman Hammond and Gordon R. Willey (Austin: University of Texas Press, 1979), 53; Hernando Gomez Rueda, “Nuevas exploraciones en la región Olmeca: Una aproximación a los patrones de asentamiento,” in *El Preclásico o Formativo: Avances y perspectivas*, ed. Martha C. Macias (Mexico City: Museo Nacional de Antropología; Instituto Nacional de Antropología e Historia, 1989), 91–100; Michael Love et al., “La cerámica de El Ujuxte, Retalhuleu: Un estudio preliminar,” in *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1995), 19–24; and Michael D. Coe, “An Olmec Design on an Early Peruvian Vessel,” *American Antiquity* 27 (1962): 579–80. See Alma 50:13–15; Ether 10:20.

41. John E. Clark, “Ciudades tempranas olmecas,” in *Reconstruyendo la ciudad maya: El urbanismo en las sociedades antiguas*, ed. Andrés Ciudad Ruiz et al. (Madrid: Sociedad Española de Estudios Mayas, 2001), 183–210; and Andrzej Wiercieński, “Time and Space in the Sun Pyramid from Teotihuacan,” *Polish Contributions in New World Archaeology* 1 (1977): 87–103. See Mosiah 23:20, 25–26; Alma 50:13–14; 21:2.

42. Benjamin Keen, trans., *Life and Labor in Ancient Mexico: The Brief and Summary Relation of the Lords of New Spain*, by Alonso de Sorita (New Brunswick, NJ: Rutgers University Press, 1963), 152; and Blanton and Kowalewski, “Monte Albán and After,” 1:106.

43. Joseph Mountjoy and David Peterson, *Man and Land at Prehispanic Cholula*, Anthropology Publication 4 (Nashville: Vanderbilt University, 1973), 4, citing Bartolomé de las Casas, *Apologética historia de las Indias*, Nueva Biblioteca Autores Españoles 13 (ca. 1540; Madrid: Bailly, Bailliere e hijos, 1909). Compare Román Piña Chan,

- Some cities had formal entrances, apparently based on converging roads. That was the case for Monte Albán.⁴⁴ At Cholula, the royal sector bore a name that meant “place of the gate or entrance of the wall.”⁴⁵ The 16th-century Yucatan Maya town plan described by Landa was not laid out with regular streets, yet each of the town’s four ceremonial entrances faced a “cardinal” point.⁴⁶ This arrangement seems to correspond to the situation Alma₂ found at the city of Ammonihah. He was expelled from the city in an easterly or northerly direction⁴⁷ but purposely reentered from the south where he was not recognized (Alma 8:18). In Mosiah 22:6 we learn that the city of Nephi had multiple formal entry points, the equivalent of gates.
- At a more cosmic level, the Mesoamericans, like the Nephites, conceived of the surface of the earth as divided into quarters.⁴⁸ This concept prevailed among the Maya,⁴⁹ as well as among the Aztecs: “The directions south, east, north, and west were viewed not as distinct points, but as quadrants.”⁵⁰ The notion of four quarters,

“Commerce in the Yucatan Peninsula: The Conquest and Colonial Period,” in *Mesoamerican Communication Routes and Cultural Contacts*, ed. Thomas A. Lee Jr. and Carlos Navarrete, New World Archaeological Foundation Papers 40 (Provo, UT: BYU New World Archaeological Foundation, 1978), 37.

44. Kent V. Flannery and Joyce Marcus, “Borrón, y Cuenta Nueva: Setting Oaxaca’s Archaeological Record Straight,” in *Debating Oaxaca Archaeology*, ed. Joyce Marcus (Ann Arbor: University of Michigan Museum of Anthropology, 1990), 53.

45. Mountjoy and Peterson, *Man and Land at Prehispanic Cholula*, 5.

46. Alfred M. Tozzer, ed. and trans., *Landa’s Relación de las Cosas de Yucatan: A Translation*, Peabody Museum of American Archaeology and Ethnology Papers 18 (Cambridge, MA: Harvard University, 1941), 139; and Michael D. Coe, “A Model of Ancient Community Structure in the Maya Lowlands,” *Southwestern Journal of Anthropology* 21/2 (1965): 102.

47. Sorenson, *Geography of Book of Mormon Events*, 235.

48. Sorenson, “Settlements of Book of Mormon Peoples,” 136–37.

49. Ralph L. Roys, *The Book of Chilam Balam of Chumayel*, Publication 438 (Washington, DC: Carnegie Institution, 1933; repr., Norman: University of Oklahoma Press, 1967), 170–72.

50. Frances F. Berdan, *The Aztecs of Central Mexico: An Imperial Society* (New York: Holt, Rinehart and Winston, 1982), 122–23.

with “the navel of the earth” at the center point where the temple sat, was common in the Near East, from whence the Nephites’ ancestors came.⁵¹ Jerusalem was considered such a “navel.”⁵² These concepts are part of the large complex of cosmic features, rites, and beliefs common to both the Near East and Mesoamerica (discussed in chapter 20).

Internal Settlement Differentiation

Settlement segregation inside a community is seen in the description of the assembly where Mosiah₂ formally received the Nephite kingship from his father. The majority group (the Mulekites) was separated from those who were descended from King Mosiah₁’s party and who had migrated from the land of Nephi (the Nephites proper). “All the people of Nephi were assembled together, and also all the people of Zarahemla . . . were gathered together in two bodies” (Mosiah 25:4). These groups, after all, spoke different languages (Omni 1:17–18). The king must have had his address translated for the benefit of the people of Zarahemla.

A similar division in a major city was found by archaeologists who excavated at the site of Santa Rosa in the Central Depression of Chiapas. (This place was probably the city of Zarahemla, Mosiah₂’s capital.) In the center of Santa Rosa, archaeologist Donald Brockington excavated part of the site’s largest pyramid mound, dating to the second and first centuries BC.⁵³ He found that beneath a plaster floor, near the top of the mound, a layer of gravel had been spread. The gravel was of two completely different types, obviously brought from separate sources. A straight line separated the two; it was oriented approximately east–west, dividing the structure exactly in half. Furthermore, the site’s residential area was found to consist of two

51. “The basic ancient Near Eastern view of the cosmos [was] made up of four quadrants or quarters.” M. O’Connor, “Cardinal-Direction Terms in Biblical Hebrew,” in *Semitic Studies in Honor of Wolf Leslau*, ed. Alan S. Kaye (Wiesbaden, Germany: Harrassowitz, 1991), 2:1153.

52. Mary E. King, “Tree Worship in Mesoamerica and Some Asiatic Comparisons” (master’s thesis, Columbia University, 1958); and Edwin O. James, *The Tree of Life* (Leiden, The Netherlands: Brill, 1966).

53. Brockington, *Ceramic History of Santa Rosa*.

wing-shaped zones on either side of an extension of the east–west line of separation in the pyramid. The archaeologist concluded that the gravel had been fetched and spread by two distinct social groups (moieties) who must have been related to each other by ritual and formal political ties.⁵⁴ (See map 7.)

Details of housing inside cities also provide correspondences, although they may be too general to have much significance. For example, multiple families forming a single household were fairly typical in Mesoamerican settlements. Multiple nuclear families inhabited some Nephite houses; a clear case was the dwelling of Amulek (Alma 10:10–11; compare Ether 7:2; 10:5).

In light of the correspondences mentioned in this chapter, we may well ask once again, how did the Book of Mormon writer or writers come up with so many apt descriptions, observations, and implications that are in agreement with ancient Mesoamerican lifeways? And why are no features of the picture sketched in the book contradicted by the Mesoamerican scene? The only answer seems to be that the book's author was a Mesoamerican writing in a Mesoamerican context, just as the volume says or implies.

54. Brockington, *Ceramic History of Santa Rosa*, 60–61.

Chapter 16

Material Culture

No members of a migrating group, once moved to a distant locale, can maintain the same pattern of adaptation to the environment they were used to in their homeland because, of course, their new environment differs. Nor could the Book of Mormon groups in America reproduce more than a fraction of the Near Eastern ideas and material techniques their predecessors once had known in their Southwest Asian homeland.

For that reason we cannot hope to find a single integral set of correspondences between Old World and Mesoamerican civilizations, especially in their material cultures. Nevertheless, the cultures described in the Book of Mormon as well as those from their Near Eastern homeland show numerous specific parallels with those of Mesoamerica. The sum of the resemblances constitutes impressive evidence of a direct link between the civilization pictured in the Nephite book and what archaeologists have found on the Mesoamerican scene.

Agriculture

Chapter 13 drew attention to the fact that the Book of Mormon points to agriculture as the Nephites' fundamental economic activity. The first Jaredites likewise began to "till the earth" after arriving by sea (Ether 6:13, 18); that activity is described later (10:25) as the basis for their subsistence and growth in population. Some Nephite record keepers emphasized that their people were sophisticated cultivators, unlike the early Lamanites, who were not reported to be agriculturists, although that stark contrast later evaporates upon careful reading of the record. Only an agricultural base

could have supported the extensive population the Lamanites drew on to mount armies greater than the Nephites' armies generation after generation.¹

Book of Mormon peoples probably worked the land entirely by hand. The Jaredites wrote of making "tools to till" the earth, "to plow and to sow" (Ether 10:25), wording that seems to imply that "plowing" may have been done manually, along with sowing, hoeing, and reaping (although the next verse enigmatically reports making tools "with which they did work their beasts"). The Nephite portion of the record adds no details of agricultural operations. In Mesoamerica all tillage was carried on without the use of animal power.

Among crops mentioned in the Nephite/Lamanite repertoire, two are of special interest. The Zeniffites (a branch of the Nephites) cultivated corn (maize), very likely in the Valley of Guatemala, in the second century BC (Mosiah 7:22). Soon afterward "corn" appears at the head of a short list of crop plants grown among the same people (9:9). Thieving Lamanites stole it from the field as their grain of choice (v. 14). Maize was a native American plant that had been cultivated for centuries before the Nephite/Lamanite ancestors arrived in the land. It does not grow wild; details of its origin remain unclear. To cultivate it successfully, Mesoamericans depended on preceding generations for the seed and knowledge of cultivating and consuming the crop. There can be no question that the "corn" of the Nephite record was passed down from earlier inhabitants to the Israelite immigrants. They would also have received a complex of customs about how to grow and utilize this crucial grain.²

The Book of Mormon also mentions barley as a cultivated grain in the late centuries BC (e.g., Alma 11:7, 15). This crop has not yet been discovered to have been grown in ancient Mesoamerica, but a species of barley (although different than Old World barley) was discovered in ruins of the Hohokam culture in southern Arizona about 30 years ago.³ The Hohokam

1. John L. Sorenson, "When Lehi's Party Arrived in the Land, Did They Find Others There?," *Journal of Book of Mormon Studies* 1 (1992): 26–29.

2. John L. Sorenson, "Religious Groups and Movements among the Nephites, 200–1 B.C.," in *The Disciple as Scholar: Essays on Scripture and the Ancient World in Honor of Richard Lloyd Anderson*, ed. Stephen D. Ricks et al. (Provo, UT: FARMS, 2000), 203–4; and Sorenson, "When Lehi's Party Arrived in the Land," 5, 20.

3. Daniel B. Adams, "Last Ditch Archaeology," *Science* 83 (December 1983): 32; and

people appeared in southern Arizona around 300 BC, apparently having migrated from Mexico. Over the following millennium, their population grew to hundreds of thousands living in more than 20 “cities” that were supported by a complex system of irrigation canals. Many archaeologists are confident that key features of this incipient civilization were connected with Mexico, so direct evidence may yet come forth for the cultivation of a variety of barley in ancient Mexico.

One plant that is named among the foods of the Zeniffites (Mosiah 9:9, second century BC) is “sheum.” The text gives no clue as to what the modern botanical identification of this plant might be; however, a precise match for the name is found in Akkadian (i.e., ancient Babylonian). There, *she'u* or *she'um* signifies “barley” or “grain” (compare Sumerian *she*, “barley”; in Old Assyrian the word meant “wheat”), “the most popular ancient Mesopotamian cereal name.”⁴

Of course, the original Jaredite home was Mesopotamia, the place of “the great tower” (Ether 1:33), popularly known as the tower of Babel (Genesis 11:1–9). Where sheum is mentioned in the Book of Mormon (at Mosiah 9:9), it is listed alongside wheat and barley, so we know that in Zeniffite/Nephite culture it was distinct from either of those crop plants. It is tempting to look to the Jaredites as the source for the *sheum* name. They might have applied it to some grain that is not now apparent. When they departed from Mesopotamia, the Jaredite party moved to a “valley which was northward,” one named after Nimrod the “mighty hunter” (Ether 2:1; compare Genesis 10:8–9). The preparation at that location for their epic journey to the seashore (Ether 2:5–6) included collecting “seeds of every kind” (v. 3). The area where they most likely obtained their seeds was northern Mesopotamia, which is where the name *she'um* was at home in languages

John L. Sorenson and Robert F. Smith, “Barley in Ancient America,” in *Reexploring the Book of Mormon*, ed. John W. Welch (Provo, UT: Deseret Book and FARMS, 1992), 130–32. Subsequently it was also found at sites in the US Midwest.

4. Robert F. Smith, “Some Neologisms from the Mormon Canon,” in *Conference on the Language of the Mormons, 1973* (Provo, UT: BYU Language Research Center, 1973), 66, citing H. Lewy, “On Some Old Assyrian Cereal Names,” *Journal of the American Oriental Society* 76 (1956): 201–2; compare John A. Brinkman et al., *The Assyrian Dictionary of the Oriental Institute of the University of Chicago* (Chicago: Oriental Institute, 1992), 17:345, 354.

of the third millennium BC. In the Jaredites' American land the name might, of course, have been transferred to some other species during the more than two millennia until the Nephite historian mentioned the word. Mention of a crop by the patently Mesopotamian name *sheum* thus could be explained in the book's own terms by reference to the Jaredites. In Mesoamerica the name might be linked to *ixim* (pronounced *eesheem*), the most common term for maize in Mayan languages.⁵

Those who believe Joseph Smith created the Book of Mormon on his own in early 19th-century New England are hard-pressed to explain the means by which the ancient Mesopotamian grain name *sheum* came to be included in the Book of Mormon.

It is also of interest that the *she* morpheme in this name for *barley* had secondary Mesopotamian meanings of "price" and "a unit of measure."⁶ In the exposition of the Nephite monetary system (Alma 11:5–19), the writer explained that their money values were calculated on the basis of "a measure of barley" (v. 7). The discussion also lists the monetary units in use as including "*shum*," "*shiblon*," and "*shiblum*," as well as "*senine*," "*senum*" ("either [of the two units] for a measure of barley"), and "*seon*." It is possible that the emphasized portions of these names relate ultimately to Akkadian or Sumerian *she*. Presumably, these morphemes would have come into Nephite society from Jaredite survivors via the people of Zarahemla. The Nephite money nomenclature was specifically said not to be of Jewish derivation (v. 4).

The Book of Mormon also refers to other grains ("all manner of grain," Enos 1:21 and Alma 62:29) in addition to "corn," "wheat," "barley," and "sheum." Elsewhere I have pointed out eight other species of grain crops used in or near Mesoamerica—two species of amaranth, huauzontle, chia, a millet, and three kinds of teosinte.⁷ These findings give credence to the Book of Mormon statement that the Nephites cultivated a variety of grains.

5. See John L. Sorenson, *Images of Ancient America: Visualizing Book of Mormon Life* (Provo, UT: Research Press, 1998), 24–25.

6. Brinkman et al., *Assyrian Dictionary*, 17:354. The same page refers to *she* "as a fraction of a shekel of volume, weight."

7. John L. Sorenson, "Viva Zapato! Hurray for the Shoe!," *Review of Books on the Book of Mormon* 6/1 (1994): 338–39.

Exactly what species Nephite “wheat” referred to is unclear, but it apparently was not the wheat familiar to us, which was unknown in Mesoamerica; presumably the name was applied to one of the aforementioned grains.

The Book of Mormon mentions one other unidentified cultivated plant: “neas” (Mosiah 9:9). No Mesoamerican identification can presently be suggested for it.⁸

Linguistic comparison suggests the possibility that Book of Mormon peoples were familiar with beans. In Hebrew, beans were called *pól*,⁹ while *buul* or *bol* is the general Mayan term for bean.¹⁰ Incidentally, the most common sort of bean—the kidney bean—was native to America but has also been identified in ancient Mesopotamia.¹¹

Since few plants are actually named in the Book of Mormon, our list of correspondences on a lexical basis is short. However, the record credits the Nephites with extensive knowledge of herbal remedies (“excellent qualities of the many plants and roots . . . to remove the cause of diseases, to which men were subject by the nature of the climate,” Alma 46:40). The high degree of herbal and medical knowledge the Mesoamerican cultures controlled is well documented.¹²

8. A possible lexical link, however, might be seen in the name for *chili pepper* (*nij*) in Mixean in south-central Mexico. Alejandro Sánchez Castro, *Luis Nicolas Guillemaud, interesante historia de un buen Francés que vino a México en 1830: Los mixes, historia, leyendas, música* (Mexico City: 1947), 112.

9. United Bible Societies Committee on Translations, *Fauna and Flora of the Bible: Helps for Translators* (London: United Bible Societies, 1972), 97.

10. Ralph L. Roys, *The Ethno-botany of the Maya*, Middle American Research Institution Publication 2 (New Orleans: Tulane University, 1931), 218.

11. The Sumerians had a name for them. Martin Levey, *Early Arabic Pharmacology* (Leiden: Brill, 1973), 55. For archaeological specimens of beans in India as early as 1600 BC, see A. K. Pokharia and K. S. Saraswat, “Plant Economy during Kushana Period (100–300 AD) at Ancient Sanghol, Punjab,” *Pragdhara* 9 (1999): 99.

12. Ronald Spores, “The Zapotec and Mixtec at Spanish Contact,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 3:972; Francisco Hernández, *Historia de las plantas de Nueva España*, 3 vols. (first published before 1580; Mexico City: Imprenta Universitaria, 1942–46); and John L. Sorenson, ed., “A Bibliography for Yucatan Medicinal Plant Studies by William E. Gates,” *Tlalocan: Revista de fuentes para el conocimiento de las culturas indígenas de México* 3/4 (1957): 334–43.

The only beverage the Book of Mormon explicitly mentions is “wine.” The Spanish conquerors of Mexico reported a number of types of wine in use. These were made from substances as varied as bananas, palm sap, tree bark plus honey, the maguey plant, pineapple, and other fruits.¹³ Technically these would be classed today as beers rather than wines,¹⁴ but 16th-century Spaniards called all of them “wine.” Mesoamericans apparently had no knowledge of the distilling process, so when in Alma 55:32 the Nephite historian writes of “all their liquors,” we can infer that he refers only to “wines,” as the context makes more or less clear.

Although grapes were sometimes used in the manufacture of wine (the Opata of northern Mexico made a red wine of native grapes;¹⁵ grapes were known in the Gulf Coast area¹⁶ and also among the Maya of Yucatan),¹⁷ we need not read the “vineyards” (Mosiah 11:15) of Zeniffite King Noah as referring to grape plantings. In 17th-century Guatemala, Father Thomas Gage spoke of “vineyards” of maguey plants from which the drink *pulque* was made.¹⁸

Our understanding of wine in ancient Mesoamerica was enhanced 30 years ago when Martínez M. excavated a site of Late Pre-Classic date (first centuries BC and AD) beside the Grijalva River in Chiapas (the location that is taken here to be the land of Zarahemla). There he carefully recovered and studied all traces of plant remains. He found seeds of *Vitis vinifera*, the wine

13. Felix Webster McBryde, *Cultural and Historical Geography of Southwest Guatemala*, Institute of Social Anthropology Publication 4 (Washington, DC: Smithsonian Institution, 1945), 36; Alfred M. Tozzer, ed. and trans., *Landa's Relación de las Cosas de Yucatan: A Translation*, Peabody Museum of American Archaeology and Ethnology Papers 18 (Cambridge, MA: Harvard University, 1941), 92; Cyrus L. Lundell, *The Vegetation of Petén*, Publication 478 (Washington, DC: Carnegie Institution, 1937), 179; and J. Eric S. Thompson, ed., *Thomas Gage's Travels in the New World* (Norman: University of Oklahoma Press, 1958), 76.

14. Weston La Barre, “Native American Beers,” *American Anthropologist* 40 (1938): 224–34.

15. La Barre, “Native American Beers,” 232.

16. France V. Scholes and Dave Warren, “The Olmec Region at Spanish Contact,” in Wauchope and Willey, *Handbook of Middle American Indians*, 3:784.

17. Tozzer, *Landa's Relación*, 198.

18. Thompson, *Thomas Gage's Travels in the New World*, 76.

grape known in Europe, from which he concluded that the fruit had been used to manufacture wine equivalent to that of the Old World.¹⁹ Thus the Book of Mormon statements about wine could turn out to refer either to that drink in the usual European sense or to alternative Mesoamerican intoxicants that were based on other fruits.

The Book of Mormon says nothing about crop-planting practices, although one body of inference about cultivation proves interesting. The city of Zarahemla was adjacent to the river Sidon. An armed force of political dissenters from within Nephite society, the Amlicites, came from downriver to contend against the loyalist army based at Zarahemla. The initial battlefield was “upon the hill Amnihu” (Alma 2:15), just across the river east of the city. After fighting, maneuvering, and losing contact overnight, the two armies met again, clashing head-on just upstream from the city as the government army was fording the river to reach the west bank (vv. 15–35). The Amlicites had been joined by a large army of Lamanite invaders from the land of Nephi.

Defeated at the battle of the ford, the Lamanites and Amlicites fled downstream along the floodplain, then veered away from the river (and the capital city) into nearby “wilderness.” As a consequence of this battle activity, in the year that followed, the people of the whole local land of Zarahemla were reported “greatly afflicted . . . for the loss of their fields of grain, which were trodden under foot and destroyed” by the combatants (4:2). It is obvious that the food supply of the city and (local) land of Zarahemla depended heavily on fields planted adjacent to the river, presumably where periodic floods deposited silt.

These precise conditions were met anciently alongside the upper Grijalva River, near where the city of Zarahemla (presumed to be the site of Santa Rosa) fits on the basis of current geographical data.²⁰ Concerning the ecology of the Santa Rosa area, Warren reported that “annual rains . . . flood

19. Alejandro C. Martínez Muriel, “Don Martín, Chiapas: Inferencias económico-sociales de una comunidad arqueológica” (thesis, Universidad Nacional Autónoma de México, 1978), 102ff., 125.

20. See chapter 7 herein and John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1985), 149–50, 154; also Sorenson, *Mormon's Map* (Provo, UT: FARMS, 2000).

over the banks of the river [Grijalva] and deposit . . . rich soil which makes the flooded areas near the river banks most desirable for agricultural purposes.”²¹ Water for culinary use and for crops in the valley is largely confined to this very narrow strip just upstream from Santa Rosa near a ford across the river.²² Given this unique ecological situation, it is apparent how damage to the vital grain crop on the river plain by large numbers of battling soldiers could produce the food shortage reported in Alma 4.

These small correspondences between the physical setting at Santa Rosa and the cultivation pattern fit so exactly with the incident of the Nephite-Amlicite conflict and its ecological consequences that we must conclude that an ancient author in Zarahemla wrote the story.

Animals

The role of animals in the economy of Book of Mormon peoples was very significant. The record reports subsistence hunting at a number of points: for the Jaredites, Ether 10:19; for the Lamanites, Enos 1:20; and for the Nephites, Enos 1:3, and so forth. Hunting is recognized as an important supplement to agriculture in Mesoamerica.²³ Little is written about the means for providing meat for the food supply, but that does not mean that meat was a trivial component. The Spanish conquistadores reported that for the Valley of Mexico “raw or cooked meat from the following was regularly available in the major marketplaces: deer, rabbits, hares, opossum, armadillos, pocket gophers, wild boars, and tapirs.”²⁴ At least the tropical tapirs did not live in the central Mexico habitat, so there must have been a salient supply mechanism for such meat to be acquired from a moderate distance and marketed.

21. Bruce W. Warren, “The Sociocultural Development of the Central Depression of Chiapas, Mexico: Preliminary Considerations” (PhD diss., University of Arizona, 1977), 5.

22. Gareth W. Lowe, *Archaeological Exploration of the Upper Grijalva River, Chiapas, Mexico*, New World Archaeological Foundation Papers 2 (Orinda, CA: New World Archaeological Foundation, 1959), 44–45.

23. Ralph L. Roys, “Lowland Maya Native Society at Spanish Contact,” in Wauchope and Willey, *Handbook of Middle American Indians*, 3:661; and Brian D. Dillon, “Meatless Maya? Ethnoarchaeological Implications for Ancient Subsistence,” *Journal of New World Archaeology* 7 (1988): 59–70.

24. Frances F. Berdan, *The Aztecs of Central Mexico: An Imperial Society* (New York: Holt, Rinehart and Winston, 1982), 25.

The Nephite record frequently mentions “flocks” and “herds” (more rarely among the Jaredites and only occasionally for the Lamanites). Both English words are, of course, ambiguous as to what animals might be meant. Fowl naturally come to mind under the heading “flocks.” Mesoamericans exploited many species of fowl, although scholars have supposed that humans kept few species systematically. However, an increasing body of data indicates that the food supply included a considerable number of species; some of them were tamed or gentled rather than fully domesticated.²⁵ (The Book of Mormon never uses the term *domesticated*; it uses only *raise[d]* in Helaman 6:12 and Alma 62:29.) At sites in the Maya area, archaeologists have found stone pens that suggest the confinement and feeding of fowl or small mammals. Besides holding fattened small dogs, which were at times fed to and welcomed as food by the Spaniards, such pens could have also contained captured iguanas or turkeys and other fowl such as chachalacas, guans, curassows, tinamous, doves, and quail, according to Dillon.²⁶

Archaeologists have found additional indications that animals were kept in captivity for deliberate use later. Hamblin reported “pen-like stone circles” on Cozumel Island, off Yucatan, ranging in size up to 49 feet (15 m) across, with walls of dry-laid masonry up to 5 feet (1.5 m) high.²⁷ From Mayapan (Yucatan), Pollock et al. noted “evidence that pens may have been built to keep small animals and birds until they were needed,”²⁸ while at the site of Seibal, excavators “uncovered a relatively large, walled structure resembling a pen” that contained fragments of deer antler.²⁹ Manzanilla found evidence that hares and rabbits were kept at Teotihuacán; since the remains of young individuals were among them, she proposed that these animals

25. Dillon, “Meatless Maya?,” 61.

26. Dillon, “Meatless Maya?,” 60, 64; and Jaime Garduño Argueta, “Introducción al patrón de asentamiento del sitio de Coba, Quintana Róo” (master’s thesis, Escuela Nacional de Antropología e Historia, 1979), 107–8.

27. Nancy L. Hamblin, *Animal Use by the Cozumel Maya* (Tucson: University of Arizona Press, 1984), 93–94.

28. Harry E. D. Pollock et al., *Mayapan, Yucatan, Mexico*, Publication 619 (Washington, DC: Carnegie Institution, 1962), 267.

29. Mary E. D. Pohl and Lawrence H. Feldman, “The Traditional Role of Women and Animals in Lowland Maya Economy,” in *Maya Subsistence: Studies in Memory of Dennis E. Puleston*, ed. Kent V. Flannery (New York: Academic Press, 1982), 299.

were being intentionally bred—that is, they were domesticated.³⁰ These data clearly show why Puleston insisted that archaeologists have it wrong if they suppose, as many still do, that kept animals were of little utility in the Maya area.³¹

Today “a great diversity of species are [still] caught or born into captivity and form pair bonds with individuals.”³² In any traditional Indian town, village, or hamlet in the rural parts of Yucatan, Belize, Guatemala, and Honduras, there are a number of wild creatures visible that have been gentled or tamed and live as pets. For example, “the paca [a rodent the size of some pigs], deer, peccary [a kind of pig], and various bird species are kept and bred in various parts of Guatemala even today.”³³ The modern presence of tamed animals in rural Mesoamerican communities suggests continuance of an ancient pattern. Those include, in order of popularity, birds kept primarily for their feathers (green parrots, macaws, toucans, and parolets), as well as finches, motmots, oropendulos, and doves; small mammals, including coatimundis, spider monkeys, and occasionally ocelots and margays (felines); and even large mammals such as “anteaters, peccaries, deer,” and so on.³⁴ “Animal taming here may have a history reaching back several more millennia than the four thousand years or so we now accept.”³⁵ Note that since bones found at an archaeological site cannot tell us whether an animal was domesticated, tamed, or wild, archaeologists’ assumption that bones in a site are the result of hunting is not trustworthy. The bones might as easily be from kept flocks or herds.

30. Linda Manzanilla, “Corporate Groups and Domestic Activities at Teotihuacan,” *Latin American Antiquity* 7/3 (1996): 228–46.

31. Dennis E. Puleston, “The Role of Semi-domesticated Animal Resources in Middle American Subsistence” (paper presented at the 37th Annual Meeting of the Society for American Archaeology, 5 May 1972, Bal Harbour, FL).

32. Dillon, “Meatless Maya?,” 64–65.

33. Puleston, “Role of Semi-domesticated Animal Resources,” 8.

34. Dillon, “Meatless Maya?,” 69. For further information on the species available in Mesoamerica and those that were actually exploited, see Ricardo E. Latham, *Los animales domésticos de la América pre-Colombiana*, Museo de Etnología e Antropología Publication 3 (Santiago, Chile: Cervantes, 1922); and A. Starker Leopold, *Wildlife of Mexico: The Game Birds and Mammals* (Berkeley: University of California Press, 1959).

35. Dillon, “Meatless Maya?,” 64.

Dillon further reported, "Some Mayanists are convinced that small herds of tamed or semi-domesticated deer ranged through Maya sites, with a result not dissimilar in some respects to the 'deer parks' of European royalty."³⁶ Harris believed that "the possibility of the semidomestication or free-range management of deer" in Mesoamerica should be considered, and he further thought that "critical examination of animal bones recovered from Maya sites might throw some light on the possibility that deer populations were brought into a state of semidomestication."³⁷ Turner and Harrison believe that their "reevaluation of the literature indicates that the Maya may have tamed, semi-domesticated, and possibly domesticated several other animals."³⁸

Chronicler Peter Martyr explained how this might have worked. He recounted a conversation he had in Santo Domingo with an Indian who had come from the territory of present South Carolina. The man reported that in that area, when a party of Spaniards visited in 1521, they "noticed herds of deer similar to our herds of cattle. These deer bring forth and nourish their young in the villages of the natives," Martyr was told. "During the daytime they wander freely through the woods in search of their food, and in the evening they come back to their little ones, who have been cared for, allowing themselves to be shut up in the courtyards and even to be milked, when they have suckled their fawns."³⁹

Given the still-haphazard nature of the scientific data available to us on this topic, it is presumptuous to suppose that we already know most of what there is to find out about animal husbandry in ancient Mesoamerica.

36. Dillon, "Meatless Maya?," 60; see Jean Birrell, "Deer and Deer Farming in Medieval England," *Agricultural History Review* 40/2 (1992): 112–26; and H. Sorayya Carr, "Precolumbian Maya Exploitation and Management of Deer Populations," in *The Managed Mosaic: Ancient Maya Agriculture and Resource Use*, ed. Scott L. Fedick (Salt Lake City: University of Utah Press, 1996), 251–61.

37. David R. Harris, "The Agricultural Foundations of Lowland Maya Civilizations: A Critique," in *Pre-Hispanic Maya Agriculture*, ed. Peter D. Harrison and B. L. Turner II (Albuquerque: University of New Mexico Press, 1978), 310.

38. B. L. Turner II and Peter D. Harrison, "Implications from Agriculture for Maya Prehistory," in Turner and Harrison, *Pre-Hispanic Maya Agriculture*, 351–52.

39. John R. Swanton, "The First Description of an Indian Tribe in the Territory of the Present United States," in *Studies for William A. Read: A Miscellany Presented by Some of His Colleagues and Friends*, ed. Nathaniel M. Caffee and Thomas A. Kirby (1940; Freeport, NY: Books for Libraries, 1968), 327.

The literature increasingly leads me to believe that tamed or domesticated animals were of substantial significance in the economies of Mesoamerican peoples. This tends to bring the Mesoamerican record toward agreement with the Book of Mormon.

Book of Mormon terminology fails to clarify what species composed Nephite “flocks” and “herds.” Was a Nephite “horse” a specimen of our *Equus equus*? When they saw Spanish horses, the Aztecs called them “the Spaniards’ deer,”⁴⁰ while to Europeans, small Mexican brocket deer were considered “goats.”⁴¹ In the Isthmus of Tehuantepec, the tapir was called “once an ass.”⁴² These examples show the difficulty of translating the names of unfamiliar beasts.

Some species of animals commonly considered long extinct in Mesoamerica may have lasted down to the time when humans occupied the area. The book of Ether says that in the time of the early Jaredites (estimated on the order of 2300 BC), “there were elephants” (Ether 9:19) known to that people, yet there is no later mention of those animals. “Elephants”—surely mammoths or mastodons—survived in America for some time after the Pleistocene, although just how late is uncertain. In Florida and Utah, mastodon remains have been dated by radiocarbon to around 5000 BC,⁴³ around the Great Lakes to 4000 BC,⁴⁴ in the Mississippi Valley to near 3300 BC,⁴⁵

40. Arthur J. O. Anderson and Charles E. Dibble, trans., *The War of Conquest: How It Was Waged Here in Mexico; The Aztecs' Own Story as Given to Fr. Bernardino de Sahagun* (Salt Lake City: University of Utah Press, 1978), 28, 35, 60.

41. Ernest Noyes, trans., *Fray Alonso Ponce in Yucatan, 1588*, Research Series 4 (New Orleans: Tulane University, 1932), 307.

42. Kamar al-Shimas [pseud.], *The Mexican Southland* (Fowler, IN: Benton Review Shop, 1922), 112.

43. Robert A. Martin and S. David Webb, “Late Pleistocene Mammals from the Devil’s Den Fauna, Levy County,” in *Pleistocene Mammals of Florida*, ed. S. David Webb (Gainesville: University Presses of Florida, 1974), 144–45; and Wade E. Miller, “*Mammot Americanum*, Utah’s First Record of the American Mastodon,” *Journal of Paleontology* 61/1 (1987): 168–83.

44. Wenner-Gren Foundation for Anthropological Research: Report for 1974 (New York: 1975), 22; and James (Jim) J. Hester, “Late Pleistocene Extinction and Radiocarbon Dating,” *American Antiquity* 26 (1960): 70–71.

45. Stephen Williams, “The Island 35 Mastodon: Its Bearing on the Age of Archaic Cultures in the East,” *American Antiquity* 22 (1957): 359–72.

and in Florida as late as 100 BC.⁴⁶ Mastodon bones (along with those of horses) were found in eastern Yucatan dated possibly as late as 1800 BC.⁴⁷ These data have apparently had an effect on current dating for the survival of the mammoth. *ScienceDaily* (4 September 2008, p. 1), an online newspaper for scientists, referred in a routine article to “the last of the woolly mammoths—which lived between 40,000 and 4,000 years ago.”

A number of scholarly treatments report traditions among North American Indians about beasts that are described as being like mammoths or mastodons,⁴⁸ although some doubt the accuracy of such descriptions as a matter of principle.⁴⁹ Some nondecisive evidences from art also suggest possible human coexistence with “elephants” in America: a mastodon petroglyph, a mound whose plan is in mastodon shape, carved elephant pipes, figurines carved from mammoth bone in Belize, and elephant-like representations in Maya codices and on stelae.⁵⁰

46. James (Jim) J. Hester, “Agency of Man in Animal Extinction,” in *Pleistocene Extinctions: The Search for a Cause*, Proceedings of the International Association for Quaternary Research 6, VII Congress, ed. Paul S. Martin and Herbert E. Wright Jr. (New Haven: Yale University Press, 1967), 185.

47. Velázquez found mastodon bones with implements of the “preceramic period” that ended in Yucatan about 1800 BC. Ricardo Velázquez Valadéz, “Recent Discoveries in the Caves of Loltun, Yucatan, Mexico,” *Mexicon* 2 (1980): 54–55. Buttles radiocarbon-dated the preceramic phase in eastern Yucatan to between 3400 and 900 BC. Palma Buttles, “The Importance of Colha in Belize Archaeology,” in *Archaeological Investigations in the Eastern Maya Lowlands: Papers of the 2003 Belize Archaeology Symposium*, ed. Jaime Awe et al. (Belmopan, Belize: Institute of Archaeology, 2004), 281–94.

48. William D. Strong, “North American Indian Traditions Suggesting a Knowledge of the Mammoth,” *American Anthropologist* 36 (1934): 81–88; Horace P. Beck, “The Animal That Cannot Lie Down,” *Journal of the Washington Academy of Sciences* 39 (1939): 294–301; M. F. Ashley Montagu, “An Indian Tradition Relating to the Mastodon,” *American Anthropologist* 46 (1944): 568–71; and Mary C. Edmonston, “The Mammoth and the Mastodon in the Folklore of the Indians of North America” (master’s thesis, Columbia University, 1949).

49. For example, Loren C. Eiseley, “Myth and Mammoth in Archaeology,” *American Antiquity* 11 (1945): 84–87.

50. Beej Averitt and Paul Averitt, “Mastodon of Moab,” *Desert Magazine* (1947): 24–27; Averitt and Averitt, “The Moab Mastodon Pictograph,” *Scientific Monthly* 41/4 (1935): 378–79; Cyrus Thomas, *Report on the Mound Explorations of the Bureau of Ethnology* (Washington, DC: Smithsonian Institute, 1894), 91–93; Henry W. Henshaw,

The buffalo, which some Spaniards called *vaca* (cow), apparently lived in Central America down to the time (perhaps after 1000 BC) when pottery-making peoples inhabited the area.⁵¹ One early Spanish source even said that Amerindians domesticated and “milked” bison.⁵² The Mexican ruler’s zoo at Tenochtitlán, the Aztec capital, contained buffalo, which the Spaniards called “the Mexican bull.”⁵³

The horse is another beast of an indeterminate class. The Book of Mormon gives only a few ambiguous references to horses. The Jaredites are said to have “had” them (Ether 9:19), although the text says nothing of their use. Then in the forest near where they first settled, Lehi’s newly landed party found wild creatures that they named “horses” (1 Nephi 18:25; probably in coastal Guatemala). The text also mentions horses as present in limited areas. Among Lamanites in the land of Nephi (Alma 18:9–12; 20:6), horses were associated vaguely with “chariots,” although they were used only to “conduct” a traveling party on a journey. Nephites possessed them at another time (3 Nephi 3:22; 4:4), but in that case the text implies that they were part of the food supply kept for use during a prolonged siege. The text suggests no other ways they might have been utilized.

The scientific record is muddled as to whether Mesoamericans used horses or some equivalent animal. Figures in art occasionally picture humans riding on animals, usually deer.⁵⁴ The top of a ceramic incense burner

“Animal Carvings from the Mounds of the Mississippi Valley,” in *Second Annual Report of the Bureau of Ethnology (for 1880–81)* (Washington, DC: Smithsonian Institution, 1883), 155–57; David M. Pendergast, “Altun Ha, Honduras Británica (Belize), Temporadas 1966–1968,” *Estudios de cultura maya* 8 (1972): 45; W. Stempell, “Die Tierbilder der Mayahandschriften,” *Zeitschrift für Ethnologie* 40 (1908): 704–18; and Grafton E. Smith, *Elephants and Ethnologists* (London: Kegan Paul, Trench, Trubner, 1924), 5, 11–19, 20–34.

51. Howel Williams, *Geologic Observations on the Ancient Human Footprints near Managua, Nicaragua*, American Anthropology and History Contribution 52 (Washington, DC: Carnegie Institution, 1952), 28, 30; and Alan L. Bryan, “New Light on Ancient Nicaraguan Footprints,” *Archaeology* 26 (1973): 146–47.

52. Latcham, “Los animales domésticos,” 150–51.

53. Henry B. Nicholson, “Montezuma’s Zoo,” *Pacific Discovery* 8/4 (1955): 3–11.

54. David M. Pendergast, *The Prehistory of Actun Balam, British Honduras*, Art and Archaeology Occasional Papers 16 (Toronto: Royal Ontario Museum, 1969), fig. 12; and Mary Pohl, “Maya Ritual Faunas: Vertebrate Remains from Burials, Caches, Caves, and Cenotes in the Maya Lowlands,” in *Civilization in the Ancient Americas: Essays in Honor*

from Poptun, Guatemala, was adorned with the sculpted figure of a deer on which a man is mounted, holding the deer's horns.⁵⁵ Perhaps naive observers like newly arrived Lehites could have construed those creatures as equivalent to horses. In the Quiché Maya language of highland Guatemala, the word for *deer*, *keh*, appears as a root in the modern Quiché words *kieheh* (mount, ride), *kiehebal* (steed), *kiehen* (ride), and so on.⁵⁶ Other representations of or comments about the riding of animals are cited in my extensive annotated bibliography on animals in the Book of Mormon.⁵⁷ However, in terms of the Nephite record, riding is no particular issue, since at no point does the book either say or imply that any animal was ridden or used in draft.

In Yucatan at Mayapan, horse remains were excavated in Cenote (water hole) Ch'en Mul.⁵⁸ Two teeth were taken from the bottom stratum of mud (beneath 7 feet [2 m] of overlying cultural debris, including pottery scattered throughout). The archaeologist and mammalogist responsible for conducting the dig and studying the material provided no explanation for the presence of the teeth except to suggest feebly that ancient people perhaps collected fossil horse teeth from somewhere (why?) and deposited them in the *cenote*. Back in 1895, paleontologist Henry Mercer excavated horse bones in three caves in Yucatan, and in 1947, Robert Hatt discovered additional horse bone fragments and teeth in another cave.⁵⁹

of Gordon R. Willey, ed. Richard M. Leventhal and Alan L. Kolata (Cambridge, MA: University of New Mexico Press and Harvard University Peabody Museum, 1983), 86.

55. Alfred V. Kidder, "Miscellaneous Archaeological Specimens from Mesoamerica," *Notes on Middle American Archaeology and Ethnology*, no. 117 (Washington, DC: Carnegie Institution of Washington, 1954), fig. 4e.

56. Munro S. Edmonson, *Quiche-English Dictionary* (New Orleans: Middle American Research Institute, 1965), 57–58.

57. John L. Sorenson, "Animals in the Book of Mormon: An Annotated Bibliography" (Provo, UT: FARMS, 1992), 51.

58. Clayton E. Ray, "Pre-Columbian Horses from Yucatan," *Journal of Mammalogy* 38 (1957): 278; and Harry E. D. Pollock and Clayton E. Ray, "Notes on Vertebrate Animal Remains from Mayapan," *Carnegie Institution of Washington Department of Archaeology, Current Reports* 41 (1957): 638.

59. Henry C. Mercer, *The Hill-Caves of Yucatán: A Search for Evidence of Man's Antiquity in the Caverns of Central America* (Philadelphia: Lippincott, 1896), 172; and Robert T. Hatt et al., "Faunal and Archeological Researches in Yucatan Caves," *Cranbrook Institute of Science Bulletin* 33 (1953).

In 1977, Mexican archaeologists returned to the same area and excavated in Loltun Cave. In some of the lower of the 16-layer sequence, they found bones of extinct animals. In the topmost seven levels, pottery and other cultural materials were also found. In some of those seven levels, horse bones accompanied the artifacts. The carbon-14 date for layer seven, the lowest one where horse bones and pottery were found together, was around 2225 BC (calibrated). The responsible scientist was puzzled by this finding, for, of course, conventional interpretation does not allow for the association of pottery with any indication of horses. "Something went on here that is still difficult to explain," he observed.⁶⁰ (He did not seem to be aware of the find of the horse teeth at Mayapan.)

Within the last decade, further efforts have been made to clarify whether some possible American horse bones are really ancient. Under the auspices of the Foundation for Ancient Research and Mormon Studies (now the Neal A. Maxwell Institute for Religious Scholarship), research has sought to reexamine specimens of purported pre-Columbian origin. Because the

60. Peter (Pedro) J. Schmidt, "La entrada del hombre a la península de Yucatán," in *Orígenes del hombre americano*, comp. Alba Gonzalez-Jácome (Mexico City: Secretaria de Educación Pública, 1988), 255. In a personal communication to the author in January 2008, Terry Stocker described excavating a horse tooth at Tula, Hidalgo (the site that excavators assume to have been the Toltecs' fabled city of Tula), that was never mentioned or accounted for in the final report of the work. Zooarchaeologist Simon J. M. Davis (*The Archaeology of Animals* [New Haven and London: Yale University Press, 1987]) raised serious questions about "various pitfalls" in the recovery of animal bones from archaeological sites and how these may be interpreted and presented in print. "A long chain of events occurs between the original collection and slaughter of animals in antiquity, their incorporation within an archaeological site, their ending up on the faunal analyst's workbench, and their final publication. One sometimes wonders whether there is any similarity between a published bone report and the animals exploited by ancient humans" (p. 23). "A fundamental problem in zoo-archeology, to which we all too infrequently address ourselves, is what do these bones really represent in terms of the living animals and man's exploitation of them? . . . Examination of the debris from a temporary encampment [of, for example, the Maasai, an East African herding population] may not reveal any trace of cattle—the mainstay of their economy—for they may only be rarely slaughtered. Also, animals exploited, say, for traction or riding, may not necessarily have been consumed and may only be represented by an occasional bone introduced by scavenging dogs. The problem of correlating between excavated bones and the economic importance of the animals in antiquity is far from being resolved" (p. 24).

research is ongoing, little has been published from it. In the project, a physicist and a paleontologist have radiocarbon-dated as many horse remains in North or Middle America as paleontologists have suspected might predate the arrival of European explorers. Scores of specimens have been dated, although in the case of some of the most promising possibilities the purported bones have proved to be inaccessible (i.e., “cannot now be found”). In three instances the results yield apparently reliable pre-Columbian dates. If or when additional specimens are dated as pre-Columbian, a scientific report will be published by W. Miller, the paleontologist.⁶¹

Possible added support comes from a linguistic reconstruction of the (pre-European) Proto-Yuman language (in northern Mexico and southern California). Although the lexicon contains a term for *horse* having “first-order validity” according to linguistic scientist Howard Law, he did not take the result seriously in a zoological sense.⁶²

Further dating studies are planned and obviously are needed to settle the question of whether pre-Columbian specimens of *Equus equus* have been found. It may yet turn out that actual horses were present among Book of Mormon peoples, or it may not.

Yet the “horses” mentioned in the Book of Mormon might have referred to some beast other than the one we think of when we hear the word, as already noted. A large literature discusses the terminological problem that explorers of new territories face when they come across unfamiliar animals; they usually dub these with names of similar and more familiar creatures. These names prove misleading if taken literally.⁶³ As mentioned previously, Aztec scribes wrote of Spanish horses as “deer-which-carried-men-on-their-backs, called horses” and also of “the deer they rode, that is, the horses.”⁶⁴ In the 16th century, Fray Ponce gave the example of the tapir, which the Maya

61. 830 BC, AD 815, and AD 1260–1400; Wade E. Miller, *Science and the Book of Mormon: Careloms, Cumoms, Horses and More* (Laguna Niguel, CA: KCT & Associates, 2009), 77.

62. Howard W. Law, “A Reconstructed Proto-culture Derived from Some Yuman Vocabularies,” *Anthropological Linguistics* 3/4 (1961): 54.

63. On the general problem, see Wilma George, “Sources and Background to Discoveries of New Animals in the Sixteenth and Seventeenth Centuries,” *History of Science* 18 (1980): 79–104.

64. Anderson and Dibble, *War of Conquest*, 55, 57ff.

call *tzimin*, a name they also gave to Spanish horses “because they say they resemble them greatly.”⁶⁵ Others see in tapirs a likeness to the buffalo, the ass, the elephant, the ox, or even the rhinoceros.⁶⁶

In explaining how Amerindian peoples conferred names on Spanish and Portuguese cattle when they first saw them, Kiddle pointed out four kinds of solutions to the naming problem. Upon encountering the new species, they (1) gave the animal a descriptive name, (2) used the name of a familiar animal they considered the new species to resemble, (3) combined the foreign name with a native term that indicated the animal's origin (e.g., “Spanish deer”), (4) adopted the (often-distorted) foreign name borrowed from the newcomers⁶⁷ (e.g., Mayan *wacash* [cattle], derived from Spanish *vacas*).⁶⁸ The Lehites would have been limited to the same kinds of solutions when immediately after their landing they found various strange “beasts in the forests of every kind” (1 Nephi 18:25). They labeled some of those as “the cow and the ox, and the ass and the horse, and the goat and the wild goat.” Since the animals known by those names in their West Asian homeland seem not to have been present in nature in coastal Mesoamerica (or, probably, anywhere else in the New World), the Lehites would have followed one or more of the processes Kiddle described in adapting their Hebrew nomenclature to apply to the new fauna they encountered. Elsewhere I have identified plausible species of American animals that might fit with each of the English terms used in 1 Nephi 18:25 to translate the Nephite names for those animals.⁶⁹

Some names of animals used in the Nephite record could merely be literary figures of speech drawn from their Israelite cultural heritage rather than names of actual animals found in the new land. Examples in the text are “neither cast ye your pearls before swine” (3 Nephi 14:6) and “as a hen

65. Noyes, *Fray Alonso Ponce in Yucatan*, 308.

66. Sorenson, *Animals in the Book of Mormon*; see index s.v. “tapir.”

67. Lawrence B. Kiddle, “Spanish and Portuguese Cattle Terms in Amerindian Languages,” in *Italic and Romance Linguistic Studies in Honor of Ernst Pulgram*, ed. Herbert J. Izzo (Amsterdam: Benjamins, 1980), 273.

68. Terrence Kaufman, *El Proto-Tzeltal: Fonología comparada y diccionario reconstruido* (Mexico City: Universidad Nacional Autónoma de México, 1972), 5:15.

69. Sorenson, *Ancient American Setting*, 299.

gathereth her chickens" (3 Nephi 10:4–6). Neither chickens nor pigs are commonly supposed to have been in the New World until the Spaniards brought them (but see below), so an explanation for the use of *hen* and *swine* in the Book of Mormon text might be that the references, if not literary borrowings, were to, say, the ubiquitous quail or the common peccary. Or perhaps those terms were no more realistic to Book of Mormon peoples than our term *unicorn* is to us.

But scientific information now shows that "hen" and "swine" were realities in Mesoamerica. A word for "chicken" has been documented in the reconstructed Proto-Mixe-Zoquean tongue in a Book of Mormon time frame,⁷⁰ and a specimen of chicken bone (*Gallus gallus*) has been excavated from the Classic Maya site Caracol.⁷¹ Carter presents considerable evidence for native use of chickens at the time of Spanish discovery.⁷² Peccaries, near relatives of the domesticated pig, lived in large numbers in ancient Mesoamerica. Herds were maintained to be used ritually and for food.⁷³

If we look for a moment at the "wild" animals pictured in the Book of Mormon, a further plausible picture emerges. They "fought like lions for their prey" (Mosiah 20:10) could obviously refer to the jaguar, the most feared animal in tropical America. Other possible "lions" in that area include the cougar, ocelot, jaguarundi, and margay. "Vultures of the air" are referred to as consuming human corpses (12:2; Alma 2:38). This is an unlikely bird for a New England writer to be acquainted with at all or to mention, but the vulture (*zopilote* in Spanish) is omnipresent in Mesoamerican skies. The

70. Søren Wichmann, *The Relationship among the Mixe-Zoquean Languages of Mexico* (Salt Lake City: University of Utah Press, 1995), 76, 276; however, Wichmann seems later to have waffled on the matter.

71. Wendy G. Teeter, "Animal Utilization in a Growing City: Vertebrate Exploitation at Caracol, Belize," in *Maya Zooarchaeology: New Directions in Method and Theory*, ed. Kitty F. Emery, Cotsen Institute Monograph 51 (Los Angeles: University of California, 2004), 182.

72. George F. Carter, "Pre-Columbian Chickens in America," in *Man across the Sea: Problems of Pre-Columbian Contacts*, ed. Carroll L. Riley et al. (Austin: University of Texas Press, 1971), 178–218; and Carter, "The Chicken in America: Spanish Introduction or Pre-Spanish?," in *Across before Columbus? Evidence for Transoceanic Contact with the Americas Prior to 1492*, ed. Donald Y. Gilmore and Linda S. McElroy (Edgecomb, ME: New England Antiquities Research Association, 1998), 151–60.

73. Dillon, "Meatless Maya?," 60.

literary picture sketched in Mosiah 12:2 fits that scene exactly: wicked men “shall be slain; and the vultures of the air, and the dogs, yea, and the wild beasts, shall devour their flesh.”

Fitting also is the imagery of “dragons” (“like dragons did they fight,” Mosiah 20:11; Alma 43:44). The obvious “dragon” of Mexico and Central America is the crocodile, or caiman. A colonial Spanish observer described that saurian in this dramatic way: “Very ferocious, and greatly feared. . . . Some of the caymans are from twenty to thirty feet [in length]. . . . Their tails are very powerful and dangerous; and their mouths are large, with three rows of formidable teeth.”⁷⁴ This creature was a powerful image to represent a warrior.

To summarize, technical sources enumerate a dozen animals that were present in Mesoamerica and were reported to have been either domesticated or tamed at one time or another, or they could have been had men chosen to do so. Animals in this category include the small hairless dog, hare, rabbit, paca, agouti, antelope, deer, brocket deer, tapir, buffalo, guinea pig, and perhaps alpaca or llama.⁷⁵ In addition, Mesoamericans are known to have domestically exploited more than a dozen species of birds.

The bottom line is that what the Book of Mormon text says in regard to “herds and flocks” is not far from the picture researchers now understand of the economic use of animals in Mesoamerican civilization. While the two sources are not yet perfectly congruent, they look increasingly like they could match each other more fully as we learn more.

Structures

After disembarking from their ship, the Lehite colonists found themselves in a tropical area (very likely Pacific coastal Guatemala) that was heavily forested (1 Nephi 18:25). Later areas they inhabited also included forested territories (e.g., Alma 2:37). This would account for the occasions

74. Diego Garcia de Palacio, *Carta dirigida al rey de España* (1576; New York: Norton, 1860), 25.

75. US Navy engineer John J. Williams reported that “a few alpaca” were found in the heart of the Isthmus of Tehuantepec. *The Isthmus of Tehuantepec, Being the Results of a Survey for a Railroad to Connect the Atlantic and Pacific Oceans* (New York: Appleton, 1852), 204.

when, throughout the land southward, parties found themselves lost or able to hunt or hide in the wilderness (Enos 1:3; Mosiah 8:8; 20:8; 21:25; 22:16; 23:30). No doubt trees of these forests provided timber as prime building material. With population growth in subsequent centuries, deforestation ensued and the lack of timber became a problem in some areas (Helaman 3:6–11). The text does not specifically mention the use of stone for buildings, but according to a Nephite historian, the dearth of timber in a portion of the land northward (west and north of Tehuantepec) led the people to erect “houses [and, by extension, public structures] of cement” (v. 9). The time period specified for this episode was the middle of the first century BC.

Lime cement came into use as building material in central Mexico as well as in southern Mesoamerica in the centuries just before and after the time of Christ.⁷⁶ Archaeology has revealed the degree of sophistication those artisans achieved. Margain commented on “the abundance of flat surfaces made of concrete” in central Mexico.⁷⁷ At El Tajín in Veracruz, roofs were formed of slabs of concrete that covered up to 246 square feet (23 sq m). The cement was poured into prepared wooden forms. Sometimes the builders filled the space for a planned room with stones and mud, smoothed the surface on top, and then poured a concrete mix thereon. Once the roof dried, they removed the fill beneath.⁷⁸ The first-century-BC appearance of cement in the Book of Mormon agrees strikingly with the archaeology of central Mexico.

The use of tents also provides a correspondence. The Book of Mormon mentions these shelters more than 50 times. Most instances refer to military use as housing for expeditions, but other contexts include ceremonial

76. David S. Hyman, *Precolumbian Cements: A Study of Calcareous Cements in Prehispanic Mesoamerican Building Construction* (Baltimore: Johns Hopkins University Press, 1970); David S. Hyman, “Cements at Teotihuacan: A Criticism of Margain’s Appraisal,” *American Anthropologist* 75 (1973): 313–14; Maurice Daumas, ed., *Histoire générale des techniques*, vol. 1 (Paris: Presses Universitaires de France, 1962); and Carlos R. Margain, “Pre-Columbian Architecture of Central Mexico,” in *Handbook of Middle American Indians*, ed. Robert Wauchope et al. (Austin: University of Texas Press, 1971), 10:54–56.

77. Margain, “Pre-Columbian Architecture of Central Mexico,” 54.

78. Instituto Nacional de Antropología e Historia, *El Tajin: Official Guide* (Mexico City: INAH, 1976), 14.

settings and housing on routine journeys. I have previously written about Mesoamerican tents, with full documentation from the ethnohistorical, Spanish-conquest, and archaeological literatures.⁷⁹ The Mexica/Aztecs distinguished at least five types of temporary field military shelters, several of which the Spaniards labeled *tiendas* (tents). They were formed of mats, pieces of textile, or branches. The Maya of the Yucatan used similar temporary shelters. Tent sites are unlikely ever to be documented archaeologically, of course.

Bricks of clay, both fired and unfired, were also used in southern Mexico.⁸⁰ Inasmuch as the same material served widely and long for structures in the Near East, reports of a Near Eastern origin for building elements used by the Book of Mormon's founding population would seem to be supported. Yet it may seem that use of such material is obvious—that it might have been discovered independently in the two areas. However, use of bricks is evidently not obvious, as shown by the fact that most of the world's cultures have *not* used bricks.

When we consider the forms and functions of public structures instead of the mere materials, further correspondences between the Book of Mormon account and the cultures of Mesoamerica become apparent. *Torres* (towers) is the term the Spanish conquerors used to refer to the pyramidal substructures or temples⁸¹ that still so interest archaeologists. “The great tower” was the archetypal structure in Mesopotamia at the foundation moment of Jaredite history (Ether 1:3, 33; Omni 1:22; Genesis 11:1–9). The concept was first embodied in the ziggurat (stepped pyramid) of Mesopotamia.⁸² Then later it was reflected in conceptually similar forms in other Near Eastern lands.⁸³

79. Sorenson, “Viva Zapato! Hurray for the Shoe!,” 331–35.

80. For example, at La Venta, Michael D. Coe, “Archaeological Synthesis of Southern Veracruz and Tabasco,” in Wauchope and Willey, *Handbook of Middle American Indians*, 3:679–715; and in Oaxaca, Jorge R. Acosta, “Preclassic and Classic Architecture of Oaxaca,” in Wauchope and Willey, *Handbook of Middle American Indians*, 3:833.

81. Bernal Diaz del Castillo, *The Bernal Diaz Chronicles: The True Story of the Conquest of Mexico*, trans. and ed. Albert Idell (Garden City, NY: Doubleday, 1956), 151.

82. André Parrot, *Ziggurats et tour de Babel* (Paris: Michel, 1949).

83. Richard J. Clifford, *The Cosmic Mountain in Canaan and the Old Testament* (Cambridge, MA: Harvard University Press, 1972); and William F. Albright, “The High

But the tower's context was itself important. "It seems to be a characteristic of Semitic religion that the holy place is not merely the precise spot, a [temple, tower] altar or sanctuary, where worship is performed; it includes also a certain space around the temple or altar. . . . Solomon's temple [for example] was surrounded by a courtyard,"⁸⁴ all of which constituted the sacred area. This was also true of the Nephite temple, as shown by Mosiah 2:5–7. Mesoamerican sacred centers also consisted of not only the central structure but also an extensive surrounding area, as shown for example, in the center of the Aztec capital of Tenochtitlán, where a vast walled zone contained the major temples.⁸⁵ At Cholula a double wall enclosed the most impressive temple and its large courtyard.⁸⁶

Because they had a copy of the Torah, the Nephites knew the ideology of the great tower in Southwestern Asia (Mosiah 28:17; Helaman 6:28) and may have copied the idea from the description in the written record. The Nephite history refers to architectural "towers" that one could climb atop (Mosiah 2:7; 11:12–13; Moroni 9:7). Detailed parallels in beliefs between Mesoamerica and the Near East in regard to pyramid towers confirm the obvious structural similarity: (1) the massive structures were conceived as artificial mountains;⁸⁷ (2) the emblematic ziggurat, or tower, was believed to have been blown down at one time by a great wind;⁸⁸ (3) the stepped

Place in Ancient Palestine," in *Supplements to Vetus Testamentum* (Leiden: Brill, 1957), 242–58.

84. Roland de Vaux, *Ancient Israel: Its Life and Institutions*, trans. John McHugh (1961; Grand Rapids, MI: Eerdmans, 1997), 274–75.

85. For example, Ignacio Marquina, *Arquitectura prehispánica* (Mexico City: Instituto Nacional de Antropología e Historia, 1951), 1: plate 54. For the Maya, see Roys, "Lowland Maya Native Society," 672.

86. Joseph Mountjoy and David Peterson, *Man and Land at Prehispanic Cholula*, Anthropology Publication 4 (Nashville: Vanderbilt University, 1973), 4.

87. Clifford, *Cosmic Mountain*; H. G. Quaritch Wales, *The Mountain of God* (London: Bernard Quaritch, 1953), 8–16; and Doris Heyden, "Caves, Gods, and Myths: World-View and Planning in Teotihuacan," in *Mesoamerican Sites and World-Views*, ed. Elizabeth P. Benson (Washington, DC: Dumbarton Oaks, 1981), 1–35.

88. For Mesopotamia, see Parrot, *Ziggurats et tour de Babel*, 33–36; for Cholula, see Fernando de Alva Ixtlilxochitl, *Obras históricas*, ed. Alfredo Chavero (ca. 1600; 1891–92; repr., Mexico City: Editora Nacional, 1952), 1:21.

form represented layers of the cosmos;⁸⁹ (4) some of the terraces included plantings;⁹⁰ and many more. See chapter 20 herein for a much fuller description of the Near Eastern–Mesoamerican temple/tower correspondences complex.⁹¹

In one place the Book of Mormon refers to a household “tower” belonging to the prophet Nephi₂. From the top of this tower, which stood in his private garden in the city of Zarahemla, Nephi prayed loudly to his God in personal worship (Helaman 7:10–11). Mesoamericans used family or personal ritual structures of this kind.⁹²

In Mesoamerican civilization, religious beliefs and practices were the basis for the existence of virtually all public structures: “Central Mexican architecture consists almost entirely of constructions related to religion. . . . Religion was the predominant motivation of Mesoamerican architecture.”⁹³ Religious purposes also accounted for most Nephite public structures—temples, synagogues, churches, and sanctuaries. The Nephites’ only purely secular buildings mentioned in the text are (in a single instance) “spacious buildings,” including a palace (Mosiah 11:8–9), plus various prisons (e.g., Alma 14:27–28). Jaredite religious constructions are nowhere mentioned,

89. Parrot, *Ziggurats et tour de Babel*, 33–36; Andrzej Wiercieński, “Pyramids and Ziggurats as the Architectonic Representations of the Archetype of the Cosmic Mountain,” *Katunob* 10 (1976): 69–121; Wiercieński, “Time and Space in the Sun Pyramid from Teotihuacan,” *Polish Contributions in New World Archaeology* 1 (1977): 87–103; and Wiercieński, “Canon of the Human Body, Mexican Measures of Length and the Pyramid of Quetzalcoatl from Teotihuacan,” *Polish Contributions in New World Archaeology* 2 (1980): 103–23.

90. Paul Kirchoff, “El problema del origen de la civilización mexicana,” in *México prehispánico: Culturas, deidades, monumentos*, ed. Jorge A. Vivó (Mexico City: Editorial Emma Hurtado, 1946), 99–108; and Richard F. S. Starr, *Nuzi: Report on the Excavations at Yorgan Tepe near Kirkuk, Iraq, Conducted by Harvard University in Conjunction with the American Schools of Oriental Research and the University Museum of Philadelphia, 1927–1931* (Cambridge, MA: Harvard University Press, 1939), 1:374–75.

91. See John L. Sorenson, *A Complex of Ritual and Ideology Shared by Mesoamerica and the Ancient Near East*, Sino-Platonic Papers 195 (Philadelphia: Department of East Asian Languages and Civilizations, University of Pennsylvania, 2009); a pdf version is accessible at <http://sino-platonic.org>.

92. Mountjoy and Peterson, “Man and Land at Prehispanic Cholula,” 4.

93. Margain, “Pre-Columbian Architecture of Central Mexico,” 67, 69.

only (at one time) “spacious buildings” (by implication including a palace) and prisons again (Ether 10:5–6).⁹⁴ A Nephite *sanctuary* (Alma 21:6) might be compared with an *oratory* among the Maya; those structures could be very large and were the locus of much of the private worship in Maya communities.⁹⁵ Judging by the Near Eastern origin of the label, a *synagogue* of the Nephites and Lamanites would have been a congregational worship site for religious instruction.⁹⁶ In physical terms such a site might have been like the area Hammond referred to at Cuello, Belize: “About 450 B.C. the [earlier small] courtyard [in the ceremonial core] was converted into a broad open platform capable of holding a large audience.”⁹⁷

Mesoamerican archaeologists frequently speak of large-scale ceremonial loci as “temples,” but they rarely attempt to define that term. However, Roys’s characterization is useful: “The temple proper was a small structure, often with masonry walls and apparently often thatched [at the roof]. . . . It was erected on a pyramidal base with a ceremonial stairway and set in a parklike plaza, which must have been surrounded by a wall, for we read of its patio, or court. We are told of a somewhat small[er] room [than the temple proper] and an altar. . . . Many important ceremonies . . . were performed either on the platform in front of the door or in the patio below.”⁹⁸

For the Nephites, the ultimate model for temples was the temple of Solomon (2 Nephi 5:16).⁹⁹ At Zarahemla, the later Nephite capital, the people who gathered for the coronation of a new king, Mosiah₂, “came up to the temple,” where “they pitched their tents round about” (Mosiah 2:5). They were so numerous, however, that aged King Benjamin could not address all “within the walls of the temple” (v. 7). The typical physical arrange-

94. For Mesoamerican prisons, see, e.g., Martín Alfonso Tovilla, *Relación histórica-descriptiva de las provincias de la Verapaz e la del Manché* (Guatemala: Editorial Universitaria, 1960), 218; and Idell, *Bernal Diaz Chronicles*, 129.

95. Roys, “Lowland Maya Native Society,” 672.

96. William J. Adams Jr., “Synagogues in the Book of Mormon,” *Journal of Book of Mormon Studies* 9/1 (2000): 4–13.

97. Norman Hammond, “The Emergence of Maya Civilization,” *Scientific American* 225/2 (1986): 108.

98. Roys, “Lowland Maya Native Society,” 672.

99. Compare William J. Hamblin and David Rolph Seely, *Solomon’s Temple: Myth and History* (New York: Thames & Hudson, 2007).

ment of the sacred assembly area is evident in this description. It was also comparable to the setting for the Feast of Tabernacles in the Near Eastern Jerusalem of their fathers.¹⁰⁰

Friar Torquemada observed, "It is also worth noting the division of this [Aztec] temple; because we find that it has an interior room, like that of Solomon, in Jerusalem, in which the room was not entered by anyone but the priests."¹⁰¹ Moreover, the floor plans of various Mexican temples are shown with "two [nonstructural] pillars at the entrance, at Tenayuca, Malinalco, Tepoztlan, Tetitla, Palenque, Yaxchilan, [and] Piedras Negras,"¹⁰² and in Late Pre-Classic Oaxaca.¹⁰³ Since the temple in the city of Nephi was specifically patterned after the first Israelite temple (2 Nephi 5:16), it would have incorporated the two-pillar feature discussed by, for example, Meyers.¹⁰⁴ It could have in turn modeled the feature for subsequent Mesoamerican temples.

Another architectural feature of note might or might not have been incorporated in temples: the true arch. For years it was assumed that Mesoamericans lacked knowledge of the true (keystone) arch. Over the years, reported finds have demonstrated the contrary,¹⁰⁵ but only very recently has a comprehensive survey of those cases definitely shown that the principle was widely known, though little used. Hohmann now states unequivocally that "the principle of the true arch was already known amongst the Maya in

100. John A. Tvedtnes, "King Benjamin and the Feast of Tabernacles," in *By Study and Also by Faith: Essays in Honor of Hugh W. Nibley*, ed. John M. Lundquist and Stephen D. Ricks (Salt Lake City: Deseret Book and FARMS, 1990), 2:197–237.

101. Juan de Torquemada, *Monarquía Indiana*, 3rd ed. (1723; repr., Mexico City: Editorial Salvador Chavez, 1943), 2:160.

102. Laurette Sejourné, "El templo prehispánico," *Cuadernos americanos* 149 (1966): 129–67.

103. Joyce Marcus, "Archaeology and Religion: A Comparison of the Zapotec and Maya," *World Archaeology* 10/2 (1978): 176–77, 184.

104. Carol Meyers, "Jachin and Boaz," in *Anchor Bible Dictionary*, ed. David N. Freedman (New York: Doubleday, 1992), 3:597–98.

105. For example, Linton Satterwaite Jr., review of *Archaeological Reconnaissance in Campeche, Quintana Roó, and Petén*, by Karl Ruppert and John H. Denison, *American Antiquity* 10 (1944): 217.

the preclassic period.”¹⁰⁶ He adds that the principle was also used at Monte Albán by around AD 600 and still later at Chichen Itza. The arch was, of course, widely known in some Old World centers much earlier. If the concept was not imported by transoceanic migrants, we would have to accept the somewhat questionable idea that it was invented independently on opposite sides of the earth. In light of the extensive evidence of cross-oceanic voyaging presented in chapter 9, it is more plausible that knowledge of this architectural feature was imported to Mesoamerica, whether by a group reported in the Book of Mormon or by others. The arch principle may or may not have been used in Nephite sacred buildings in this hemisphere (it was not used in Solomon’s temple), but the probability that the keystone arch came to Mesoamerica from the Old World supports the Nephite record’s historical assertion about the Near Eastern origin of the founders of its tradition.

Industries and Crafts

Cogent correspondences are also found in such aspects of culture as the manufacture and use of ceramics, metals, tools, textiles, papermaking, and various other aspects of technology. The Book of Mormon mentions a number of such processes and products, but they are offhanded mentions and are without details. Nevertheless, the parallels between the Nephite record and Mesoamerican culture history are of considerable significance.

First consider the archaeologist’s favorite material: ceramics. Pottery making in Mesoamerica goes back beyond 2000 BC but apparently not a great deal earlier. From its first appearance, ceramic ware was technically sophisticated; known finds in no way represent the efforts of pioneer ceramists who were just inventing the process in America. We may reasonably look for inspiration to other areas of the world that produced ceramics far earlier.¹⁰⁷

106. Hasso Hohmann, “A Maya Keystone Vault at La Muñeca,” *Mexicon* 27/4 (2005): 77.

107. Japan, from at least 12,700 years ago (C. Melvin Aikens, “First in the World: The Jomon Pottery of Early Japan,” in *The Emergence of Pottery: Technology and Innovation in Ancient Societies*, ed. William K. Barnett and John W. Hoopes [Washington, DC: Smithsonian Institution Press, 1995], 11–21); North Africa, between 5,000 and 6,000

It should not be thought that the invention of ceramics was a simple thing that could be easily repeated in different places and times. Distinguished anthropologist (and non-diffusionist) Robert Lowie, contrary to another famous culture theorist who had claimed that sun-dried clay puddles virtually invited the invention of pottery, considered “the invention of ceramics as little short of miraculous” and believed it happened only once.¹⁰⁸ If so, Mesoamerican pottery making logically came already developed from somewhere else. Pacific coastal South America or East Asia are possibilities, but so is the Near East. American archaeology is still too incomplete to tell the truth of the matter, but obviously the Jaredites are in the running as a source for the origin of ceramics in Mesoamerica.

The preeminent “industrial material” for Mesoamerican tools was obsidian. Huge amounts of this volcanic glass were picked up or dug up and carried to all corners of Mexico and Central America. Sharp flakes were removed from nodules of the mineral to serve as cutting and scraping implements. The razorlike edges of obsidian flakes could shave hair, drill wood, cut weeds, or slay warriors all at a comparatively cheap cost.

Mormon’s record does not specify what materials they used for their sharp implements. Mention is made of “the sharp pointed arrow” (Jarom 1:8), “heads shaven” (Enos 1:20), and “tools to till the earth” (Ether 10:25). Such things could not have been accomplished without hard, sharp materials discovered in nature or manufactured from natural resources.

The most revealing passage in the Book of Mormon about material for arms is in a story about a large body of Lamanite men who rebelled against their king’s attempt to impress them into a war with the Nephites. “They fled to Onidah, to the place of arms,” which was a few miles from the Lamanite capital, the city of Nephi-Lehi.¹⁰⁹ There they “gathered themselves together upon the top of the mount which was called Antipas, in prepa-

years ago (Angela E. Close, “Few and Far Between: Early Ceramics in North Africa,” in Barnett and Hoopes, *Emergence of Pottery*, 23–37); and northwestern South America, 6,000 years ago (Betty J. Meggers, “El origen transpacífico de la cerámica Valdivia: Una reevaluación,” *Boletín del Museo Chileno de Arte Precolombino* 2 [1987]: 9–31).

108. Robert H. Lowie, review of *Pots and Pans, the History of Ceramics*, by H. S. Harrison, *American Anthropologist* 31 (1929): 504.

109. John L. Sorenson, *The Geography of Book of Mormon Events: A Source Book*, rev. ed. (Provo, UT: FARMS, 1992), 259–60.

ration to battle” against the king’s forces (Alma 47:5, 7). The only fitting location for this historical sketch is an area where an outcrop of obsidian existed that could be exploited for sharp “arms.” By occupying that place, the rebels gained strategic leverage; they denied the official army access to the source of arms.

Kaminaljuyu, the ancient archaeological site at Guatemala City, identified above as the city of Nephi (or Nephi-Lehi), received virtually all its obsidian supply in Nephite times from the El Chayal area, about 10 miles (16 km) to the northeast.¹¹⁰ The description of military movements in Alma’s account fits well on the Kaminaljuyu/El Chayal scene. And with the geographical fit comes technological correlation. The Lamanites, and no doubt the contemporary Nephites, surely depended on obsidian for most of their cutting implements. In my view, the “place of arms” of Alma 47 corresponds remarkably with El Chayal in a way that no other situation does.

Gemstones of some sort are also mentioned in the text: “precious stones,” which, along with gold and silver, indolent Lamanites sought “by murdering and plundering” among the Nephites (Alma 17:14). Elsewhere the text mentions “precious things” used for personal and architectural adornment (e.g., Jarom 1:8; Mosiah 11:9; Alma 31:28), and they could well have included gems. Given the prominence of jade and jadeite in Mesoamerican adornment, it seems possible that the “precious” objects in the Book of Mormon referred to those, although there is no specific reference from which we can be sure. The Book of Mormon mentions one other decorative feature, pearls, as part of elite costumes (4 Nephi 1:24: “costly apparel,” “all manner of fine pearls”). Pearls recovered from a tomb at Monte Albán, Oaxaca, date from around 500 BC,¹¹¹ and archaeologists working for Brigham Young University’s New World Archaeological Foundation found a pearl necklace at Chiapa de Corzo that dates to the Francesa period (450–

110. Eugenia Robinson et al., “En el final del Preclásico: Kaminaljuyu y su perifería oeste,” in *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2006), 150; and Michael D. Coe and Kent V. Flannery, “The Pre-Columbian Obsidian Industry of El Chayal, Guatemala,” *American Antiquity* 30 (1964): 43–44.

111. Carl L. Hubbs and Gunnar I. Roden, “Oceanography and Marine Life along the Pacific Coast of Middle America,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Robert C. West (Austin: University of Texas Press, 1964), 1:178.

250 BC).¹¹² The prevalence of pearls in Mesoamerica is evident because in early colonial times Mexico was known in Spain as the Land of Pearls.¹¹³

The role of metals in the cultures of Book of Mormon peoples is obscure. Gold, silver, and other metals are sometimes mentioned as worked and valued.¹¹⁴ However, only a limited number of the statements indicate any concern with utilitarian functions, and those occur only during the first two centuries of Nephite history.¹¹⁵ The Book of Mormon indicates that metals were mostly for luxury and for decorative and sacred uses. The archaeological history shows the same for Mesoamerica.¹¹⁶

Virtually all Mesoamericanist scholars assume that metals were not in use at all in the area until after AD 900, more or less. That assumption is problematic, to say the least. Over 150 specimens of metal have been recovered archaeologically that definitely or probably date as much as 1,500 years earlier than the time of this supposed AD 900 “metallurgical curtain” (see below). Another decisive evidence for the presence of Classic and Pre-Classic metallurgy is the fact that words for *metal* or (*metal*) *bell* appear in five reconstructed proto-languages of major families in Mesoamerica: Proto-Mayan, Proto-Mixtecan, Proto-Mixe-Zoquean, Proto-Huavean, and Proto-Otomanguean. Historical linguists estimate the dates for those reconstructed proto-languages as follows:

- Proto-Mayan (estimated at 2200 BC). Kaufman puts Proto-Tzeltal-Tzotzil (a branch of Proto-Mayan that also has a word for *metal*) at AD 500.¹¹⁷ However, Huastecan, another Mayance language, also

112. Gareth W. Lowe, “Current Reports: Eastern Mesoamerica,” *American Antiquity* 35 (1970): 513.

113. Nigel Sitwell, “The ‘Queen of Gems’—Always Stunning, and Now More Cultured Than Ever,” *Smithsonian* 15/10 (1985): 45.

114. The complete list of scriptural references is found in John L. Sorenson, “Metals and Metallurgy Relating to the Book of Mormon Text” (Provo, UT: FARMS, 1992).

115. Sorenson, “Metals and Metallurgy”; and Sorenson, *Ancient American Setting*, 281–82.

116. Clair C. Patterson, “Native Copper, Silver, and Gold Accessible to Early Metallurgists,” *American Antiquity* 36 (1971): 309–10, 313.

117. Kaufman, *El Proto-Tzeltal*, 118.

had such a word.¹¹⁸ Many linguists consider Huastecan to have split from the main Mayan group by 2000 BC.

- Proto-Mixtecan. Longacre and Millon found a word for *metal* or (*metal*) *bell* and estimated its date at around 1000 to 1500 BC.¹¹⁹
- Proto-Mixe-Zoquean. In a widely cited study, Campbell and Kaufman identified this proto-language as probably a (or the) tongue spoken by inhabitants of the Olmec area before 1000 BC.¹²⁰
- Proto-Huavean and Proto-Otomanguean. Escalante reported words for *metal* in these two proto-languages.¹²¹ The projected dates are unspecified but in any case are many centuries prior to AD 900.

In the light of this linguistic evidence, the fact that archaeologists do not accept material confirmation for pre-AD 900 metal merely shows that the discipline has unresolved problems in researching this topic. Easby aptly observed that the relative absence of metals in the early Americas constitutes “one of the most . . . infuriatingly enigmatic subjects in the history of technology,” while Willey called the question of native use of metals “the [Mesoamerican] anthropologist’s sorest dilemma.”¹²² Subsequent digging has not dispelled the problem.

To add to the difficulty, traditional accounts from the area (along with the Book of Mormon) report the earlier use of metals. For example, traditions report that the Toltecs, legendary paragons of advanced culture in

118. Marcelo Alejandro, *Cartilla huasteca con su gramática, diccionario y varias reglas para aprender el idioma* (Mexico City: Secretaria de Fomento, 1899), 84, 88.

119. Robert E. Longacre and René Millon, “Proto-Mixtecan and Proto-Amuzgo-Mixtecan Vocabularies: A Preliminary Cultural Analysis,” *Anthropological Linguistics* 3/4 (1961): 22.

120. Lyle Campbell and Terrence Kaufman, “A Linguistic Look at the Olmecs,” *American Antiquity* 41 (1976): 80–89.

121. Roberto Escalante, “El vocabulario cultural de las lenguas de Mesoamérica,” in *La validez teórica del concepto mesoamérica* (Mexico City: Sociedad Mexicana de Antropología e Instituto Nacional de Antropología e Historia, 1990), 155–65.

122. Dudley T. Easby Jr., “Early Metallurgy in the New World,” *Scientific American* 214/4 (1966): 73; and Gordon R. Willey, *An Introduction to American Archaeology* (Englewood Cliffs, NJ: Prentice-Hall, 1966), 1:23.

central Mexico, employed metallurgy. Opinions differ regarding whether the Toltecs were represented by Post-Classic inhabitants of Tula or by Classic-age Teotihuacanos, but in neither case has commonly accepted hard evidence for metal usage been found.¹²³ At Mayapan, the late capital in Yucatan, the site proved so poor in metal objects that excavators concluded, "It is difficult to say that the few objects that remain really give an adequate picture of what was once to be found there."¹²⁴ It could be expected that later inhabitants would recycle any metal objects left behind on any site. Easby candidly phrases the issue for Mesoamericanists: "The majority of scholars, relying on circumstantial evidence, believe that fine metallurgy in ancient Mexico was limited to a few centuries before the arrival of the Spaniards. Perhaps they are right, but it seems to me that their theory leaves much to be explained."¹²⁵

The orthodox interpretation is especially suspect because seaborne communication between Peru/Ecuador and Mexico is believed to go back on the order of 3,500 years,¹²⁶ and metalwork was established in Peru by 1700 BC

123. No metal objects have been located at Tula, although some painted figures in friezes "display yellow bracelets and necklaces which I believe were made of copper or gold." Richard A. Diehl, *Tula: The Toltec Capital of Ancient Mexico* (London: Thames & Hudson, 1983), 116. Compare Jorge R. Acosta, "Los Toltecas," in *Los señoríos y estados militaristas*, ed. Román P. Chan (Mexico City: Instituto Nacional de Antropología e Historia, 1976), 158.

124. William C. Root, "Report on the Metal Objects from Mayapan," in *Mayapan, Yucatan, Mexico*, ed. Harry E. D. Pollock et al., Publication 619 (Washington, DC: Carnegie Institution, 1962), 399. For other cases where metal could be expected but has not been found adequately represented, see, on the Tarascan area, Daniel F. Rubín de la Borbolla, "Orfebrería tarasca," *Cuadernos americanos* 3/15 (1944): 127, 129, 133; and in general, Warwick Bray, "Ancient American Metal-Smiths," *Royal Anthropological Institute of Great Britain and Ireland, Proceedings for 1971* (1971): 32. See also Peter R. S. Moorey, "The Archaeological Evidence for Metallurgy and Related Technologies in Mesopotamia, c. 5500–2100 BC," *Iraq* 44/1 (1982): 14.

125. Dudley T. Easby Jr., "Aspectos técnicos de la orfebrería de la Tumba 7 de Monte Albán," in *El tesoro de Monte Albán*, by Alfonso Caso (Mexico City: Instituto Nacional de Antropología e Historia, 1969), 394.

126. Presley Norton, "El señorío de Salangone y la liga de mercaderes: El cartel spondylus-balsa," *Miscelanea Antropológica Ecuatoriana* 6 (1986): 131–43; and Jorge G. Marcos, "De ida y vuelta a Acapulco con mercaderes de Mullu," in *Arqueología de la costa*

(calibrated date).¹²⁷ Knowledge of metals was communicated eventually to Mesoamerica from Peru,¹²⁸ yet the standard view is that Peruvian metallurgy was not seen in western Mexico until more than 2,000 years after seacraft from the south began to arrive.¹²⁹ This is very hard to believe.

Faced by the inconsistencies in this picture, I began more than 50 years ago to search out reports of discoveries of Mesoamerican metal artifacts that had been labeled “too early to be genuine” or “intrusive from modern times.” At first I found only a few such instances, but continued research increased the number. The fullest results were published in 1992. At that time a total of more than 153 specimens of metal (copper, gold, tumbaga, iron, bronze, and those described just as “metal”) had been identified that apparently dated between 400 BC and AD 900, although archaeologists writing about the culture history of the area never took historical account of them. Of those 153 specimens, I gave some 43 an A grade for the quality of the evidence for their date, meaning that an experienced archaeologist had excavated the specimen from a datable context. Evidence with a B grade comprised the remainder.¹³⁰

The conclusion is clear—conventional scholars have been too quick to comfortably disqualify (or at least to ignore) a large body of archaeological evidence that pushes back the chronological envelope for metallurgy in

Ecuadoriana: Nuevos enfoques, ed. Jorge G. Marcos (Guayaquil, Ecuador: Escuela Politécnica del Litoral; Corporación Editora Nacional, 1986), 163–96.

127. Joel W. Grossman, “An Ancient Gold Worker’s Tool Kit,” *Archaeology* 25/4 (1972): 272.

128. Dorothy Hosler, “Ancient West Mexican Metallurgy: A Technological Chronology,” *Journal of Field Archaeology* 15/2 (1988): 191–217.

129. Dorothy Hosler, “Ancient West Mexican Metallurgy: South and Central American Origins and West Mexican Transformations,” *American Anthropologist* 90 (1988): 832–55.

130. John L. Sorenson, “Indications of Early Metal in Mesoamerica,” *University Archaeological Society Bulletin* 5 (1954): 1–5; Sorenson, “A Reconsideration of Early Metal in Mesoamerica,” *Katunob* 9 (1976): 1–8; Sorenson, “Metals and Metallurgy,” 58–74. Documentation and abstracts of the relevant literature were provided in “Metals and Metallurgy” not only on the 153 items but also on another 68 objects that appeared to date between 400 BC and AD 900 on the basis of evidence rated with a C or D grade. Yet another 180 pieces may date early, although the evidence so far is deemed merely “incomplete.” No archaeologist or metallurgist has taken up the challenge these specimens pose to the orthodox chronology of Mesoamerican metal use.

Mesoamerica. Together with the linguistic data cited above, these data lead to the conclusion that the Book of Mormon's sketchy picture of metal usage among its peoples has extensive support.

Both the scripture and archaeology indicate that Nephites and Mesoamericans used specific metals, namely, copper, gold, and silver. Others are harder to pin down; brass (as in the "plates of brass") may refer to bronze (the word *bronze* is generally used in modern translations of the Old Testament where the King James Version uses *brass*).¹³¹

In his description of the great market in Texcoco in the Valley of Mexico, Cortez said that *latón* (brass) ornaments were being sold.¹³² Landa, also in the 16th century, wrote of the Maya having "a certain soft brass," some with a little gold mixed in it;¹³³ that product was probably the copper-gold alloy called *tumbaga*. But the Tarascans indeed made and used genuine brass (an alloy of copper and 15 percent zinc),¹³⁴ and alert archaeologists might yet find specimens of it.

Bronze objects were known in considerable numbers but are usually dated to the Post-Classic or Late Classic. Some suppose that this material may not have involved a conscious mixing of tin with copper but resulted from smelting copper ore that already contained tin ore naturally.¹³⁵

131. Merrill F. Unger, *The New Unger's Bible Dictionary*, ed. Roland K. Harrison, rev. ed. (Chicago: Moody, 1988), s.v. "mineral kingdom," 858. However, historians of metallurgy now know that actual brass, an alloy of copper and zinc, was known in the Near East centuries before Lehi's party left there. Robert J. Forbes, *Metallurgy in Antiquity* (Leiden: Brill, 1950), 276; Paul T. Craddock, "Europe's Earliest Brasses," *MASCA Journal* 1 (December 1978): 4–5; and Earle R. Caley, *Orichalcum and Related Ancient Alloys: Origin, Composition and Manufacture with Special Reference to the Coinage of the Roman Empire*, Numismatic Notes and Monographs 151 (New York: American Numismatic Society, 1964), 4–5.

132. Hernando Cortez, *Five Letters of Cortés to the Emperor*, trans. J. Bayard Morris (New York: Norton, 1969), 87.

133. Tozzer, *Landa's Relación*, 111, 121.

134. Dora M. K. de Grinberg, "Tecnologías metalúrgicas tarascas," *Ciencia y Desarrollo* 15/89 (1989): 51. For fuller references, see the index in Sorenson, "Metals and Metallurgy," s.v. "brass."

135. Clement W. Meighan, "Cultural Similarities between Western Mexico and Andean Regions," in *Pre-Columbian Contact within Nuclear America*, ed. J. Charles Kelley

Nevertheless, the alloy was deliberately made in western Mexico¹³⁶ and probably also in the Huastec region.¹³⁷

The text of Ether 10:23 suggests an interesting phenomenon that a hypothetical 19th-century author of the Book of Mormon unacquainted with actual metallurgical processes would very probably have failed to get right. The Jaredites are there said to have dug up “heaps of earth to get ore,” yet “they did *make* . . . brass.” If *brass* in this case should be translated *bronze*, as in the Hebrew Old Testament, the text in Ether proves to be precisely correct in making no mention of bronze *ore*, for there is no such thing. Bronze is something that men “make” by alloying copper with tin.

Most Mesoamerican archaeologists are unaware that iron was used in their area. Linné, however, noted Caso's find of part of a pre-Columbian “iron plate” in a tomb at Mitla, Oaxaca.¹³⁸ Rebetéz reported a number of iron artifacts from the Tarascan area.¹³⁹ A variety of other iron artifacts have been reported, although only a few are from Book of Mormon-era contexts.¹⁴⁰ Reference to “all manner of . . . iron” (2 Nephi 5:15) suggests that not only smelted iron but a meteoric source could have been involved among the Nephites; Nininger reported on huge meteorites found in Mexico. Iron from these had been used to manufacture artifacts.¹⁴¹ In Post-

and Carroll L. Riley, *Mesoamerican Studies* 4 (Carbondale: Southern Illinois University Museum, 1969), 14.

136. Charles F. Brush, “Pre-Columbian Alloy Objects from Guerrero, Mexico,” *Science* 138 (1962): 1336–38.

137. Guy Stresser-Péan, “Ancient Sources on the Huasteca,” in *Handbook of Middle American Indians*, ed. Gordon F. Ekholm and Ignacio Bernal (Austin: University of Texas Press, 1971), 11:590.

138. Sigvald Linné, *Zapotecan Antiquities and the Paulson Collection in the Ethnographical Museum of Sweden*, Ethnographical Museum of Sweden Publication 4 (Stockholm: Thule, 1938), 53; and Alfonso Caso and Daniel F. Rubín de la Borbolla, *Exploraciones en Mitla, 1934–1935*, Instituto Panamericano de Geografía e Historia Publicación 21 (Mexico City: Talleres Graficos, 1936), 10.

139. René Rebetéz, *Objetos prehispánicos de hierro y piedra* (Mexico City: Librería Anticuaria, n.d.).

140. See Sorenson, “Metals and Metallurgy,” index.

141. Harvey H. Nininger, *Our Stone-Pelted Planet* (Boston: Houghton Mifflin, 1933), 72–76. On further uses of meteoric iron, see, for example, its use in Teotihuacán artifacts in José M. Arreola, “Sellos, indumentaría, utensilios doméstico o numéricos,” in *La población*

Classic times the Cakchiquel rulers in highland Guatemala routinely collected iron, whether refined from ore or derived from meteorites, as an item of tribute.¹⁴² Furthermore, the metal's presence and use might date back to the Pre-Classic in the case where Shook and Kidder reported that a tomb at Kaminaljuyu contained "lumps of iron oxide" "molded to conical form."¹⁴³ (The suggestion that iron oxide was "molded" makes no sense; surely these were oxidized pieces of iron that had once existed whole in conical form.) Iron was also found at Teotihuacán in what has been interpreted as a smelting operation dated to the fourth century AD.¹⁴⁴ (Moorey comments on how iron is sometimes inadvertently produced as a by-product of copper smelting.)¹⁴⁵ Moreover, ferrous minerals worked as artifacts (e.g., hematite, ilmenite, and magnetite, as in Oaxaca¹⁴⁶ and at San Lorenzo)¹⁴⁷ were in some cases said to be of "iron" in the Near East.¹⁴⁸ From this perspective the Book of Mormon phrase "all manner of iron" takes on a broader meaning, as does "precious ore of every kind" (Helaman 6:11).

The mention of "steel" in the scripture used to be puzzling in relation to both the Bible and the Book of Mormon. But it has become clear to biblical scholars that the word *steel* in the King James Version should usually be read

del Valle de Teotihuacán, ed. Manuel Gamio (Mexico City: Secretaría de Educación Pública, 1922), 1:218.

142. Daniel G. Brinton, *The Annals of the Cakchiquels* (1885; repr., New York: AMS Press, 1969), 19.

143. Edwin M. Shook and Alfred V. Kidder, *Mound E-III-3, Kaminaljuyu, Guatemala*, American Anthropology and History Contribution 53 (Washington, DC: Carnegie Institution, 1952), 33, 118.

144. Linné, *Zapotecan Antiquities*, 132.

145. Moorey, "Archaeological Evidence for Metallurgy," 29; also Strathmore R. B. Cooke and Stanley Aschenbrenner, "The Occurrence of Metallic Iron in Ancient Copper," *Journal of Field Archaeology* 2/3 (1975): 251–66.

146. Jane W. Pires-Ferreira, "Shell and Iron-Ore Mirror Exchange in Formative Mesoamerica with Comments on Other Commodities," in *The Early Mesoamerican Village*, ed. Kent V. Flannery (New York: Academic Press, 1976), 311–28.

147. Stacey Symonds, "Reconocimiento intensivo regional en San Lorenzo Tenochtitlan," in *Memoria del coloquio: Arqueología de centro y sur de Veracruz*, ed. Sara Ladrón de Guevara and Sergio Vásquez Zárate (Xalapa, Veracruz, Mexico: Universidad Veracruzana, 1997), 119–25.

148. Forbes, *Metallurgy in Antiquity*, 435.

“bronze” or “copper”; in other words, the English translation was unclear. Nevertheless, steel *was* known in the Iron Age in Israel (1200–500 BC). Congdon clarified that by a hammering process, “certain tools and possibly weapons” of iron were made into “steel” implements centuries, and perhaps millennia, before Lehi departed Jerusalem.¹⁴⁹

Finds of early Near Eastern steel are reported in Van der Merwe and Avery and in Wheeler and Maddin.¹⁵⁰ Iron/steel jewelry, weapons, and tools (including ones of tempered steel) have been found from as early as 1300 BC, and specimens have been excavated from sites in present-day Cyprus, Greece, Turkey, Syria, Egypt, Iran, Israel, and Jordan.¹⁵¹

Thus the steel blade of the sword of Laban that came into Nephi₁'s possession in sixth-century Jerusalem (1 Nephi 4:9; 2 Nephi 5:14) is entirely plausible and could have been appropriately classed as steel. In terms of chronology, around 600 BC Lehi₁ or Nephi₁ could have been well enough informed about the steel-making process in order to take it to the New World, as implied in Jarom 1:8. Centuries earlier, the Jaredites had a knowledge of “steel” (Ether 7:9).¹⁵²

A metal called *ziff* is mentioned in Mosiah 11:3, 8 (compare 2 Nephi 5:15–16). It was among the metals used to ornament a sacred Nephite building (in highland Guatemala). (Aztec temple interiors were decorated

149. Lenore O. K. Congdon, “Steel in Antiquity: A Problem in Terminology,” in *Studies Presented to George M. A. Hanfmann*, ed. David G. Mitten et al. (Mainz, Germany: Von Zabern, 1971), 17–19, 24–26. Forbes said, “The ancients possessed in the natural (meteoric) nickel-iron alloy a type of steel that was not manufactured by mankind before 1890.” Forbes, *Metallurgy in Antiquity*, 402.

150. Nikolas J. Van der Merwe and Donald H. Avery, “Pathways to Steel,” *American Scientist* 70 (1982): 146, 152; and Tamara S. Wheeler and Robert Maddin, “Metallurgy and Ancient Man,” in *The Coming of the Age of Iron*, ed. Theodore A. Werhane and James D. Muhly (New Haven: Yale University Press, 1980), 116, 121.

151. Patrick E. McGovern, “The Innovation of Steel in Transjordan,” *Journal of Metals* (July 1988): 50–52; Jane C. Waldbaum, *From Bronze to Iron: The Transition from the Bronze Age to the Iron Age in the Eastern Mediterranean*, Studies in Mediterranean Archaeology 54 (Göteborg, Sweden: 1978); summarized in John L. Sorenson, “Steel in Early Metallurgy,” *Journal of Book of Mormon Studies* 15/2 (2007): 108–9, 127. David Davis et al., “A Steel Pick from Mt. Adir in Palestine,” *Journal of Near Eastern Studies* 44/1 (1985): 41–51, explain the “steeling” process especially lucidly.

152. Compare Forbes on meteoric iron as “steel.” Forbes, *Metallurgy in Antiquity*, 402.

with precious metal,¹⁵³ as was, of course, the Israelite temple at Jerusalem.) Several Semitic terms with a sense of “brightness” or “overlaid with metal” have been suggested as possible ancestors to the word *ziff*,¹⁵⁴ but in any case the referenced metal presumably would have been one of the less common ones. In Mesoamerica one possibility for *ziff* is tin, which was mined in central Mexico before the Spaniards came. Early Spanish sources on Mexico mention the use of tin, but until recently no actual specimens had come to light. That fact led Caley and Easby to observe, in words that could well refer to Mormon’s record, “it is not prudent always to discount or ignore historical accounts as possible sources of technical information.”¹⁵⁵ But instead of tin, perhaps *ziff* was some relatively unknown alloy. Grinberg lists a number of those compounds produced by the Tarascans, including a “widely used copper-silver” mix as well as a white “bronze” mix that included as much as one-half silver.¹⁵⁶ Another candidate for *ziff* is the gold-silver alloy *oroche* (called electrum in the Old World), known in a specimen from Monte Albán’s Tomb 7.¹⁵⁷

We have enough hard information about the metal plates from which Joseph Smith translated the Book of Mormon that they become a datum of metallurgical interest. The volume of hammered metal sheets, each “not quite as thick as common tin,” according to Smith’s associates, was held together by metal rings. Estimates based on informants’ reports put its weight

153. Eduardo Noguera, “Minor Arts in the Central Valleys,” in Wauchope et al., *Handbook of Middle American Indians*, 10:267.

154. These terms include, for “brightness,” biblical and Aramaic *zîw* “splendor, brightness, freshness” and the KJV month name *Zif*; and, for “overlaid with metal,” biblical Hebrew *šippâ*, from *šāpâ* “overlay (with gold or copper), to plate,” and Akkadian *sippu* “decoration, coating, overlay (gold).” I thank Robert F. Smith for providing me with this information. These and many other suggestions and updates for Book of Mormon terms are being gathered and processed as part of the Book of Mormon onomasticon project, which should become available by fall 2013 as a website associated with the Harold B. Lee Library.

155. Earle R. Caley and Dudley T. Easby Jr., “New Evidence of Tin Smelting and the Use of Metallic Tin in Pre-Conquest Mexico,” *Proceedings of the 35th International Congress of Americanists, Mexico, 1962* (1964): 515.

156. Grinberg, “Tecnologías metalúrgicas tarascas,” 45, 51.

157. Alfonso Caso, “Lapidaria y orfebrería en Oaxaca,” in Piña Chan, *Los señortos y estados militaristas*, 344.

between 40 and 60 pounds (18–27 kg).¹⁵⁸ Putnam calculated that plates of pure gold of the dimensions indicated for Smith's set would have weighed as much as 100 pounds (45 kg) and thus would have been hard to carry.¹⁵⁹ But he also concluded the same object would have weighed only 53 pounds (24 kg) if made of tumbaga, a gold-copper alloy. Tumbaga had "the appearance of gold" (that is how witnesses described Mormon's plates) because artifacts of tumbaga were treated chemically in such a manner that only gold molecules remained on the surface of the underlying copper.

By successive hammering and annealing, Mesoamerican craftsmen produced metal sheets about 0.2 millimeter thick. The sheets could be made so even as to compare well "with today's machine-made product."¹⁶⁰

When we consider the processes employed by ancient Mexican metallurgists, we find an impressive list of technological skills—refining, annealing, welding, soldering, brazing, bimetallic fusing by casting, simple and lost-wax casting, granulation, gilding, depletion gilding, sintering, drawing wire, false filigree, and more. The materials treated were also numerous—copper, gold, silver, iron, meteoric iron, lead, tin, mercury, and various alloys including copper-tin (bronze), white copper-tin, copper-gold (tumbaga), gold-silver (oroche/electrum), and iron-sulfur.¹⁶¹ In fact, famous Mexican archaeologist Alfonso Caso observed that "all the techniques known in antiquity [in the Old World] for working precious metals were employed in Mexico, and especially in Oaxaca. The great difference between the Old and New Worlds lies in the date at which these processes were discovered."¹⁶²

Surely this information puts a heavy burden on "independent invention" as an explanation for the duplication. It took thousands of years for the development of this massive corpus of skills in the Near East, and many centuries of development for part of them in the Andean area, yet we are asked to

158. Kirk B. Henrickson, comp., "How Witnesses Described the 'Gold Plates,'" *Journal of Book of Mormon Studies* 10/1 (2001): 16–21.

159. Read H. Putnam, "Were the Golden Plates of Mormon Made of Tumbaga?," *Improvement Era*, 1966, 788–89, 828–31.

160. Warwick Bray, "Gold-Working in Ancient America," *Gold Bulletin* 11/4 (1978): 137–38.

161. See Sorenson, "Metals and Metallurgy."

162. Alfonso Caso, "Lapidary Work, Goldwork, and Copperwork from Oaxaca," in Wauchope and Willey, *Handbook of Middle American Indians*, 3:917.

believe that these identical techniques were invented anew in Mesoamerica in little more than 600 years. Little wonder that Easby challenged the generally accepted view that Mesoamerica experienced an unusually rapid rate of metallurgic innovation: "It seems to me that their theory [of a short period of development] leaves much to be explained."¹⁶³

The lack of archaeological specimens that would allow a full reconstruction of the history of the area's metals is a subject for frequent comment among scholars. For example, Noguera, after noting "the huge quantities of . . . golden objects that were made in Mesoamerica," lamented that "unfortunately, most of the metal objects were melted and made into bars [by the Spaniards]."¹⁶⁴ Naturally, similar losses would have occurred in pre-Hispanic periods of conquest and looting. In any case, natural and cultural processes deny archaeologists anything resembling a decent sample of the metalwork that once existed.

In the face of the short-chronology dilemma, some unconventional researchers have proposed that American metallurgy originated through influences from across the ocean. In two important pieces, Heine-Geldern showed strong evidence of Southeast Asian influence in elements of metallurgy in South America.¹⁶⁵ Chadwick saw the intrusion of a "prospector culture" from the Bronze Age Bell-Beaker tradition of Iberia and North Africa and supported his view with significant data from physical anthropology, the Spanish chronicles, and exotic ceramic forms.¹⁶⁶ Stone and Balser pointed out 35 types of artifacts, 8 features connected with casting, and 11 "decorative elements and artifacts [types] of metal which are found in both Asia and America." From this set of parallels they concluded that a "long continuance of transpacific contacts would be implied"¹⁶⁷ (a conclu-

163. Easby, "Aspectos técnicos," 394.

164. Noguera, "Minor Arts in the Central Valleys," 266.

165. Robert von Heine-Geldern, "Die asiatische Herkunft der südamerikanischen Metalltechnik," *Paideuma* 5 (1954): 347–423; and Heine-Geldern, "American Metallurgy and the Old World," in *Early Chinese Art and Its Possible Influence in the Pacific Basin*, ed. Noel Barnard (New York: Intercultural Arts Press, 1972), 3:787–822.

166. Robert E. L. Chadwick Jr., "Archaeological Synthesis of Michoacan and Adjacent Regions," in Wauchope et al., *Handbook of Middle American Indians*, 11:677.

167. Doris Stone and Carlos Balser, *Aboriginal Metalwork in Lower Central America* (San Jose, Costa Rica: printed by authors, 1967), 26, 43–44.

sion that makes sense in conjunction with the plant and animal evidence for voyages across the ocean, cited in chapter 9). Zevallos Menéndez thought that “many of the fundamental techniques came from Asia.”¹⁶⁸ Eliade considered that American metallurgy “is probably Asiatic in origin.”¹⁶⁹ Horne compared the small cast-copper bells widespread in Mesoamerica with similar ones (*tintinnabulae*) known anciently from the area between the Mediterranean and India. He pointed out at least 10 parallels between the bells in concept, manufacturing method (lost-wax casting), material, design, and decoration that seem to indicate a common source connected by transoceanic diffusion.¹⁷⁰

Specific complex metallurgical techniques are of themselves strong, perhaps conclusive, evidence that bodies of metallurgical knowledge were transferred whole to America. Lost-wax work is one of those. It involves use of a preliminary sculpture delicately wrought in wax that is then packed within a mold. As molten metal is poured in, the wax melts and the metal takes the exact shape of the wax form. Another is the process called granulation, whereby copper hydroxide is mixed with glue that then serves to bond fine globules of gold in place. When heated, the metals bond as the glue burns away.¹⁷¹

Both the lost-wax technique and the technology involved in granulation were in use in Mesopotamia by 3000 BC.¹⁷² Moorey, quoting C. S. Smith, says that by the middle of the third millennium BC at Ur, the material excavated from gravesites “reveals knowledge of virtually every type of metallurgical phenomenon except the hardening of steel that was exploited .

168. Carlos Zevallos Menéndez, “Estudio regional de la orfebrería precolombina de Ecuador y su posible relación con las áreas vecinas,” *Revista del Museo Nacional* 34 (1965–66): 78; compare José Pérez de Barradas, *Viejas y nuevas teorías sobre el origen de la orfebrería prehispánica en Colombia* (Bogotá, Colombia: Banco de la República, 1956).

169. Mircea Eliade, *The Forge and the Crucible: The Origins and Structures of Alchemy*, 2nd ed. (Chicago: University of Chicago Press, 1978), 22.

170. John H. Horne, *Bells, Cascabeles & Tintinnabulum*, Museum of Anthropology Publications 2 (Thatcher: Eastern Arizona College, 1990).

171. Bray, “Gold-Working in Ancient America,” 141.

172. James D. Muhly, “Mining and Metalwork in Ancient Western Asia,” in *Civilizations of the Ancient Near East*, ed. Jack M. Sasson et al. (New York: Scribner's Sons, 1995), 3:1507.

in the entire period up to the end of the 19th century AD.”¹⁷³ Most of those processes appeared in the Americas centuries later in essentially identical form. It is difficult to accept that the human mind coincidentally came up with the same intricate sequence of mechanical and chemical innovations in two distant locations when voyages between Asia and America that are known from biological evidence to have taken place offer a simpler explanation for the correspondences.

Conventional culture historians have generally devalued or entirely ignored logic and sources such as those cited above as unacceptable speculation, but metallurgical skills are indeed logical candidates for complexes that could have reached America by shipborne voyagers.

Another line of evidence for an Old World connection in metalworking is from linguistics, although so far it is only slightly developed. Charency believed that the Mayan term *nab* (gold) related to Egyptian *noub* (properly *nb* or *nbw*, gold).¹⁷⁴ The comparison may or may not have been accurate, yet it is still of possible interest when considered with other word pairings from the field of metallurgy. For example, Yucatec Mayan *tau* or *taau* (lead, tin; literally “moon excrement”) can be compared with Arabic *taus* (moon). Could Zoquean *hama-tin* (gold, silver) relate to Egyptian *hmty* (copper)? Zoquean *?anak* (lead, tin) suggests a connection with Akkadian (Babylonian) *annakum* (tin).¹⁷⁵ These possibilities call for more focused linguistic study.

We can hope that more hard evidence to aid in the reconstruction of Mesoamerica’s metalworking history will be forthcoming from archaeologists. Metalwork was likely carried out typically in work zones outside residential areas rather than in the center of cities, where excavation usually takes place.¹⁷⁶ A relevant example comes from work at the Quiché capital of Utatlán, in highland Guatemala, where excavators found, by sheer luck, a

173. Moorey, “Archaeological Evidence for Metallurgy,” 13–14.

174. Hyacinthe de Charency, “Les noms des métaux chez différents peuples de la Nouvelle Espagne,” *Proceedings of the 8th International Congress of Americanists* (Paris, 1890; repr., Nendeln, Liechtenstein: Draus, 1968), 536–47.

175. Personal communication, Robert F. Smith, 1977, with technical documentation.

176. “Metal finds are very rare, at the best of times, in temple or settlement excavations.” Moorey, “Archaeological Evidence for Metallurgy,” 14.

large copper-manufacturing site outside the city itself.¹⁷⁷ Sufficient new archaeological finds (or detailed reexamination of specimens already suggested to be early)¹⁷⁸ would at last free scholars from the intellectual burden of defending the questionable claim that American metalworking technology quickly arose entirely from indigenous roots.

The naïveté that has prompted some archaeologists to adopt the duplicate-invention notion is illustrated by a statement by Lothrop, who thought that discovery of the idea of metalworking would not really have been difficult: “If [a] house [containing an attractive nugget picked up as a curiosity] burned [down] in a high wind, you would automatically learn that metal could be melted.”¹⁷⁹ But Cyril S. Smith, an eminent historian of metallurgy, considered that the invention of metallurgy is much harder to imagine, in regard to bronze work at least. He thought that the process must have been invented only once in world history.¹⁸⁰ Anthropologist Robert Lowie echoed assent for the general principle that technological invention is not easy. Commenting on the origin of pottery, he wryly observed: “Those who glibly assume that mechanical inventions, domestication of animals, and so forth, may have recurred an indefinite number of times in the history of culture may profitably occupy their leisure moments trying to manufacture earthenware vessels from local clays.”¹⁸¹

The Book of Mormon scenario of multiple cultural diffusions from centers of Old World civilization to Mesoamerica has not yet been fully substantiated. However, when we look at aspects of material culture, the likelihood of such connections stands up well at a number of points against the orthodox supposition that the parallels pointed out—various forms of exotic technology—sprang up in America *ex nihilo*.

177. John W. Fox et al., “The Emergence of the Quiché Elite: The Putun-Palenque Connection,” in *Mesoamerican Elites*, ed. Diane Chase and Arlen F. Chase (Norman: University of Oklahoma Press, 1992), 185.

178. Namely, those listed in part 4 of Sorenson, “Metals and Metallurgy.”

179. Samuel K. Lothrop, “Random Thoughts on ‘Men Out of Asia,’” *American Anthropologist* 50 (1948): 570.

180. James D. Muhly, “The Beginnings of Metallurgy in the Old World,” in *The Beginning of the Use of Metals and Alloys*, ed. Robert Maddin (Cambridge, MA: Massachusetts Institute of Technology, 1988), 15.

181. Lowie, review of *Pots and Pans*, 506.

Textiles and Clothing

Judging by statements in Mormon's record, some Book of Mormon peoples considerably emphasized the technology of textiles and clothing (as in Helaman 6:13). Mesoamerican civilization also gave major attention to textiles and clothing.¹⁸² Even in Olmec times, according to Coe and Diehl,¹⁸³ stone sculptures show what appear to have been "magnificent textiles" (compare Ether 10:24). In addition to "all manner of good homely cloth" (Alma 1:29), woven so that "we might clothe our nakedness" (Mosiah 10:5), the Nephites made and wore "costly apparel" (Helaman 13:28), including "fine silks" and "fine-twined linen" (Alma 4:6). Sumptuous Mesoamerican clothing is shown in murals, such as those at Bonampak and on Maya painted vases, in codices, and on clay figurines.¹⁸⁴ The only references to textile workers in the Book of Mormon indicates that this was seen as a woman's task (Mosiah 10:5; Helaman 6:13), as was also the case almost universally in Mesoamerica.

References to materials termed *silk* and *linen* are of specific interest because some critics of the Book of Mormon have considered mention of them to be anachronisms reflecting 19th-century New York authorship of the book, rather than an origin in ancient America. Hence, evidence of the pre-Spanish Mesoamerican manufacture of fabrics comparable to silk and linen is relevant.

Linen is a cloth composed of fibers derived from the flax plant "or similar fabric."¹⁸⁵ The cloth is a somewhat stiff, hard-wearing fabric. Flax was not cultivated in the Americas, but cloth that looked and felt like flax linen was made. The most common cloth of this kind in Mesoamerica was woven

182. Patricia R. Anawalt, *Indian Clothing before Cortés: Mesoamerican Costumes from the Codices* (Norman: University of Oklahoma Press, 1981); and Barbara Ann Hall, "Spindle Whorls and Cotton Production at Middle Classic Matacapán and in the Gulf Lowlands," in *Olmec to Aztec: Settlement Patterns in the Ancient Gulf Lowlands*, ed. Barbara L. Stark and Philip J. Arnold III (Tucson: University of Arizona Press, 1997), 115–19.

183. Michael D. Coe and Richard A. Diehl, *In the Land of the Olmec: The Archaeology of San Lorenzo Tenochtitlan* (Austin: University of Texas Press, 1980), 1:387.

184. Anawalt, *Indian Clothing before Cortés*; for illustrated examples, see Sorenson, *Images of Ancient America*, 88–91, 109.

185. Merriam-Webster's Collegiate Dictionary, 10th ed., s.v. "linen."

of fiber (*henequen*) from the leaf of the agave, or maguey, plant. Fibers of the yucca and other plants gave similar results. Bernal Diaz, one of the Spanish conquerors under Cortez, said that *henequen* garments of the natives seemed “like linen.”¹⁸⁶

In Mexico silk was spun from cocoons of wild moths.¹⁸⁷ It was equivalent in nearly every way to what East Asians produced from thread that came from larvae of the moth *Bombyx mori*. A different wild moth yielded thread and cloth that the classical Greeks knew as “silk.”¹⁸⁸ But the earliest-known “silk” in the Mediterranean region was from Egypt (ca. 1000 BC), not from China.¹⁸⁹

Mesoamericans also produced fabrics comparable to silk. In Yucatan, fiber (*kapok*) from the seed pods of the ceiba tree was gathered and spun into cloth “as soft and delicate, and perhaps more so, than silk.”¹⁹⁰ Another silk-like cloth was made of fiber from the *pita floja* (silkgrass, *Achmea*

186. Bernal Diaz del Castillo: *The Discovery and Conquest of Mexico*, trans. A. P. Maudslay (New York: Farrer, Straus, and Cudahy, 1956), 24.

187. Irmgard W. Johnson, “Basketry and Textiles,” in Wauchope et al., *Handbook of Middle American Indians*, 10:312; Matthew Wallrath, “Excavations in the Tehuantepec Region, Mexico,” *Transactions of the American Philosophical Society* 57/2 (1967): 12; and Anawalt, *Indian Clothing before Cortés*, 12.

188. Gisela M. A. Richter, “Silk in Greece,” *American Journal of Archaeology* 33/1 (1929): 27–33; and William T. M. Forbes, “The Silkworm of Aristotle,” *Classical Philology* 25/1 (1930): 22–26.

189. Eva Panagiotakopulu, *Archaeology and Entomology in the Eastern Mediterranean: Research into the History of Insect Synanthropy in Greece and Egypt*, Archaeological Report 836 (Oxford: BAR, 2000), 87; and Irene Good, “On the Question of Silk in Pre-Han Eurasia,” *Antiquity* 69/265 (1995): 959–68.

190. Francesco Saverio Clavigero, *History of Mexico I*, trans. Charles Cullen (Philadelphia: Thomas Dobson, 1817), 41; and Landa, in Tozzer, *Landa's Relación*, 201. Incidentally, anonymous ancient voyagers from Mesoamerica carried the ceiba tree to the island of Hainan, off the south coast of China, and thence to Java and India. On Hainan, fibers from the tree were woven into an alternative to Chinese silk during the Tang dynasty in an ironic instance of “carrying coal to Newcastle,” as the saying goes! Edward H. Schafer, *Shore of Pearls* (Berkeley: University of California Press, 1970), 64; and John L. Sorenson and Carl L. Johannessen, “Biological Evidence for Pre-Columbian Transoceanic Voyages,” in *Contact and Exchange in the Ancient World*, ed. Victor H. Mair (Honolulu: University of Hawai'i Press, 2006), 259.

magdalenae) grown in the Guatemalan piedmont.¹⁹¹ Leaves of the wild pineapple plant supplied yet another silk-equivalent fiber and cloth.¹⁹² The Aztecs wove silky cloth from the fine hair of the underbelly of rabbits.¹⁹³ In addition, their best cotton textiles compared in delicacy with silk; Cortez reported that the Aztec emperor “Moctezuma presented me with a large quantity of articles of cloth, which, though fashioned of cotton and not silk, could not be equaled by anything else in the world for texture, richness of colors, and workmanship. They included many marvelous garments for men and women, hangings for beds, incomparably finer than any made of silk.”¹⁹⁴ Fabric excavated from Teotihuacán, 1,000 years earlier than the Aztec civilization, was said also to be “exceedingly fine” and “of gossamer thinness.”¹⁹⁵

These references perhaps constitute overkill in the documentation of “silk” textiles in Mesoamerica. I have aimed simply to warn readers that attempts either to deny or assert parallels between a historical source (the Book of Mormon here) and archaeology may remain inconclusive unless pursued to great length. In light of the extensive documentation just presented, the silk and linen mentioned in the Book of Mormon on the one hand and Mesoamerican textile technology on the other surely must be considered valid correspondences.

The scripture says little about garment forms, and that only for men. “Coat[s]” are mentioned with the implication that this was common male garb (Alma 46:12–24). Moreover, the translated term *coat* was also applied to the garment, famed from the Hebrew Torah, worn by Joseph, son of Jacob, who was sold into Egypt (Genesis 37:31–33; Alma 46:24). This Joseph was an ancestor of Lehi₁ (1 Nephi 5:14). The terms *coat* and *cloak* are

191. McBryde, *Cultural and Historical Geography*, 149.

192. William E. Safford, “Food Plants and Textiles of Ancient America,” *Proceedings of the 19th International Congress of Americanists* (Washington, DC, 1915) (1917): 17.

193. Johnson, “Basketry and Textiles,” 311–12; and Woodrow Borah, *Silk Raising in Colonial Mexico* (Berkeley: University of California Press, 1943), 109–10.

194. Benjamin Keen, trans., *Life and Labor in Ancient Mexico: The Brief and Summary Relation of the Lords of New Spain*, by Alonso de Sorita (New Brunswick, NJ: Rutgers University Press, 1963), 155–56.

195. Elizabeth Stromberg, quoted in Sigvald Linné, *Mexican Highland Cultures*, Ethnographic Museum of Sweden Publication 7 (Stockholm: Ohlssons, 1942), 158–59.

the primary names of men's garments in the Book of Mormon text. We have insufficient information to say much more about Nephite clothing (and nothing whatsoever about that of the Jaredites), except that the Nephite cloak had "skirts," no doubt the lowest extension of the garment (Helaman 9:31). The cloak seems to have been longer and a more inclusive outer garment than the coat. Both coat and cloak forms fall within the range of garments widely worn in Mesoamerica.¹⁹⁶

Note, however, that when the Nephite account records the risen Jesus Christ appearing to the Nephites, he is said to have worn a white "robe" (3 Nephi 11:8). Mormon's abridgment (Mosiah–Mormon 7) makes no other mention of a "robe," from which we may infer that Jesus's garment, perhaps the familiar style worn by Jewish males in Judea at the time he lived, was distinct from the Nephites' regular garments. (Again, an upstate New York creative writer probably would not have made that subtle distinction.)

Lamanite warriors were said to go to war (in Nephite lands, at least) nearly naked, in some degree of contrast to the Nephites (Alma 43:20–21). It is plausible that tropical climatic conditions usually favored freedom from clothes (compare 51:33). Nephites at least sometimes wore "armor" consisting of "thick clothing" (43:19; one Lamanite army soon imitated the Nephites by donning "very thick garments" [49:6] for an attack, although there is no subsequent mention of those garments). This type of armor recalls the thick, quilted cotton garments worn in battle by native Mexican combatants¹⁹⁷ and also adopted by some Spaniards who had observed their effectiveness.

We may presume that Nephite "costly apparel" would have entailed dyeing, although the text says nothing about colors or techniques. Two famous dyes were available both in the Near East/Mediterranean area and Mesoamerica. One is purple derived from small shellfish, and the other is crimson from the cochineal scale insect. Born is one of many observers who have described the intricate process for obtaining purple shellfish dye.¹⁹⁸

196. Anawalt, *Indian Clothing before Cortés*.

197. Tozzer, *Landa's Relación*, 35, 121; and Ross Hassig, *Aztec Warfare* (Norman: University of Oklahoma Press, 1988), 88.

198. Wolfgang Born, "The Use of Purple among the Indians of Central America," *Ciba Review* 4 (1937): 124–27.

Mexican collectors entered rocky coastal waters where the shellfish are found, picked up each individual mollusk, carefully squeezed out its fluid onto a piece of cloth, and (usually) replaced the mollusk to be “milked” again later.¹⁹⁹ The purple dye is not obvious at first; the color becomes visible only slowly as the mollusk’s body fluid is exposed to the air. Great effort and endurance are required to harvest the dye; hence cloth so dyed is very expensive. Purple was considered symbolic of fertility and royalty. Off the Phoenician coast the exact same process was followed, and the symbolism associated with the dyed fabric was similar. Because of the extreme unlikelihood that such an intricate combination of concepts and techniques could have arisen twice independently, numerous investigators besides Born (Carter, Jackson, Jett, Nuttall, Johnson, and Gerhard) have believed that this cultural complex represented a transfer of ideas and skills from the eastern Mediterranean (where it was known as early as 1600 BC in the area that became known as Phoenicia) to the New World.

Crimson dye’s use and significance are similarly parallel in the Near East and Mesoamerica. In the former area the color was obtained from a small insect (genus *Kermes*) that feeds on a type of oak and whose minute eggs are brilliant red (the English word *crimson* comes, via an Arabic term, from the name *kermes*). In Mesoamerica a closely related insect (of the same species) was collected from the leaves of an oak to furnish an essentially identical dye. Garments dyed with this red are known from antiquity. Because of the high cost in hand labor that the process entailed in both areas, garments colored crimson (as with purple) were usually restricted to the social elite. Gillow and Barnard observed that “it is a wonder that the many chemical interactions required [for dyeing processes such as these] should have been developed at all.”²⁰⁰ It is thus exceedingly unlikely that the processes originated independently, and far more likely that the complex of notions involved in crimson dyeing, like that for purple dyeing, was diffused from western Asia to Mesoamerica.

In no case does Mormon’s account say anything about dyes, but the

199. Peter Gerhard, “Shellfish Dye in America,” *Proceedings of the 35th International Congress of Americanists (Mexico, 1962)* (1964): 177–91.

200. John Gillow and Nicholas Barnard, *Traditional Indian Textiles* (London: Thames & Hudson, 1991), 33.

diffusion of complex dye techniques between the continents could be accommodated historically by reference to the voyages reported in the Book of Mormon, especially considering that the Mulekites likely traveled in a Phoenician ship.²⁰¹

Transportation

There is no question that the basic means for transporting goods in Mesoamerica has always been the human back.²⁰² What other modes might have been used is less than clear. In wet regions the use of boats is obvious, and a substantial network of roads suggests a concern with, and a certain sophistication in, modes of transport. But scholars have long operated on the assumption that the wheel was unknown in ancient American technology. The Book of Mormon implicitly agrees. In the rare case where transport of goods is specifically mentioned (Mosiah 21:3; compare 12:5 and 24:14–15), Lamanite masters forced the Zeniffites to carry “heavy burdens upon their backs.” Furthermore, no phrasing anywhere in the record indicates land transport other than on the backs of humans (compare Alma 56:27–28, 30).

In the late 1800s, Charnay excavated in central Mexico a miniature ceramic object mounted on wheels that he called a “chariot.”²⁰³ That was the first of a series of finds (often called “wheeled toys”) over more than a century that have continued to puzzle Mesoamerican archaeologists, who still generally believe that people of the area failed to put the wheel to practical use. However, it seems extremely doubtful that any Mesoamerican, no matter how inventive, would have come up with the wheel concept “out of the blue” merely to construct a toy. No world culture provides satisfactory evidence for development of the wheel concept independent of the one discovery event demonstrated archaeologically to have occurred in the Near East around 3500 BC.²⁰⁴ From there the feature spread throughout most areas of

201. John L. Sorenson, “The ‘Mulekites,’” *BYU Studies* 30/3 (1990): 6–22.

202. Margain, “Pre-Columbian Architecture of Central Mexico,” 65.

203. Désiré Charnay, *The Ancient Cities of the New World* (London: Chapman & Hall, 1887), 170–71, 174–75.

204. Mary A. Littauer and J. H. Crouwel, *Wheeled Vehicles and Ridden Animals in the Ancient Near East* (Leiden: Brill, 1979).

the Old World.²⁰⁵ The apparent uniqueness of that historic invention establishes with high probability that diffusion of the concept to Mesoamerica must account for the American wheeled toys also.

Ekholm reviewed the post-Charnay examples of these Mesoamerican artifacts. Most of them are ceramic figurines of animals. Axles running through the legs of the animals are attached to wheels. Ekholm pointed out that they were unlikely to have been mere toys, and he urged caution on fellow scholars in interpreting the meaning of the apparent lack of everyday vehicles. His reason was that “remarkably similar” miniature objects are known from ancient Mesopotamia, where the models imitated full-scale wagons as well as wheeled animal figurines.²⁰⁶ Wheeled miniatures that are considered to be cult objects eventually ranged throughout Eurasia and date from the Early Bronze Age through medieval times.²⁰⁷ Yet archaeology shows few remains of practical vehicles. Piggott observed that “in all the land between the [Eurasian] steppe and the North Sea the only direct evidence of the ancient use of wheeled vehicles consists of model wheels made of pottery and of a single model wagon.”²⁰⁸ That sounds nearly like ancient Mexico.

The Mesoamerican picture has expanded along interesting lines in recent decades. As many as a hundred of these “toys” are now known.²⁰⁹ Specimens have come from El Salvador on the south to Sinaloa and the

205. In fact, wheeled toys of an apparent ritual nature occur in Eurasia. See, for example, V. M. Masson, “The Decline of the Bronze Age Civilization and Movements of the Tribes,” in *History of Civilizations of Central Asia*, ed. A. H. Dani and V. M. Masson (Paris: Unesco, 1992), 1:353; Littauer and Crowell, *Wheeled Vehicles and Ridden Animals*; Robert Forrer, “Les chars culturels préhistoriques et leurs survivances aux époques historiques,” *Préhistoire* 1 (1932): 19–123; and Stuart Piggott, “The Beginnings of Wheeled Transport,” *Scientific American* 219/7 (1968): 86. These Eurasian examples have occasionally been suggested as precursors of the Central American ones; see Matthew W. Stirling, “Wheeled Toys from Tres Zapotes, Veracruz,” *Amerindia* 1 (1962): 43–49; Gordon F. Ekholm, “Wheeled Toys in Mexico,” *American Antiquity* 11 (1946): 224–26; and Wolfgang Marschall, *Influencias asiáticas en las culturas de la América antigua: Estudios de su historia* (Mexico City: Ediciones Euroamericanas Klaus Theile, 1979).

206. Ekholm, “Wheeled Toys,” 227.

207. Forrer, “Les chars culturels préhistoriques.”

208. Piggott, “Beginnings of Wheeled Transport,” 86.

209. Terry Stocker et al., “Wheeled Figurines from Tula, Hidalgo, Mexico,” *Mexicon* 8/4 (1986): 69–72.

Huasteca regions on the north. Presumably a large number of other specimens are yet undiscovered, as shown by the fact that parts of or whole figures were made using a mold—that is, they were mass produced. Hence the total number of figures made must have been great. They were quite numerous at Teotihuacán.²¹⁰ In central Mexico they date from near the time of Christ to the 16th century. Among them are variants that show that this long-lasting complex involved a variety of technological details. For example, wheels were attached to animal figures in at least five ways. The figures were associated with several esoteric concepts and the animals represented included dogs, deer, felines, monkeys, alligators, and even a human shown in an animal posture.²¹¹

Two unusual examples demonstrate that at least some Mesoamericans grasped not only the concept of the wheel but also the concept of actual wheeled vehicles. Von Winning showed a monkey (or perhaps only its hide) stretched over a triangular stand that is mounted on a rectangular platform. Beneath the platform are tubes holding axles.²¹² (See fig. 16.1.) The figure came from central Veracruz. Von Winning and the excavator, Medellín Zenil, tentatively dated this style to between AD 600 and 800.

Interestingly, for whatever it may mean, a very similar miniature wheeled platform bearing a carved figure of a lion was excavated from Susa, in Iran. That artifact is dated to between the 13th and 12th centuries BC. It has been suggested that such objects might have been “part of an imperial [Elamite] funerary cult,”²¹³ or possibly were toys.

More provocative is Von Winning's publication of an artifact showing a male person seated on a wheeled platform. The platform rests upon four legs (as tall as the seated figure) that are perforated to hold tubular receptacles for axles.²¹⁴ In a 1989 personal communication, Von Winning reported

210. Florencia Müller, *La cerámica del centro ceremonial de Teotihuacán* (Mexico City: Instituto Nacional de Antropología e Historia, 1978), 111.

211. For a comprehensive survey of variants and interpretations, see my paper “Wheeled Figurines in the Ancient World” (Provo, UT: FARMS, 1981).

212. Hasso Von Winning, “Further Examples of Figurines on Wheels from Mexico,” *Ethnos* 25 (1960): 67; and Von Winning, “Figurillas de barro sobre ruedas procedentes de México y del Viejo Mundo,” *Amerindia* 1 (1962): 11–39.

213. “Worldwide: Susa, Elam,” *Biblical Archaeology Review* 22/5 (1996): 80.

214. Von Winning, “Figurillas de barro,” 13.

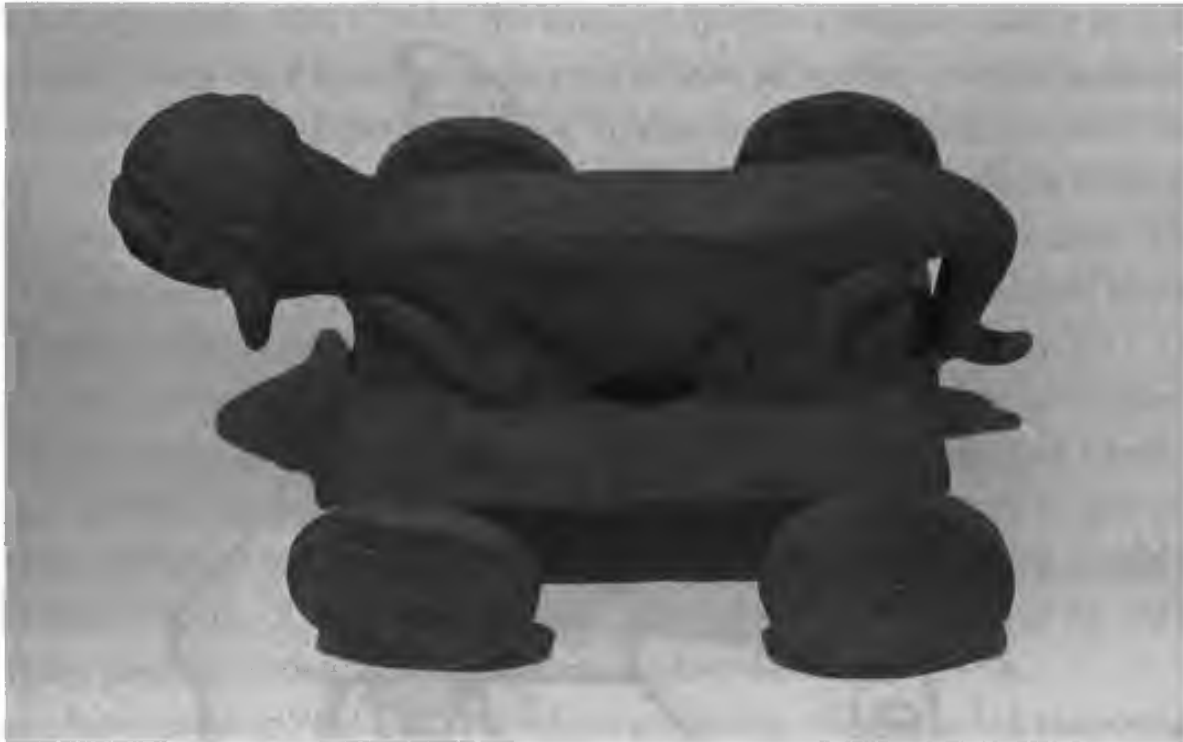


Figure 16.1. Wheeled platform from Veracruz

that the human figure—in an easily recognized Nayarit style—probably is a modern piece substituted for a missing figure that clearly had once occupied the same position, but on stylistic grounds he was sure that the platform piece was genuine and dated before AD 1000. There is no doubt that it is a (cultic?) vehicle of some sort. (See fig. 16.2.)

Bits of information passed down through the early Spaniards suggest that practical wheeled vehicles were not unknown in Mesoamerica. When in 1523 Alvarado and his mixed Spanish and native army set out to conquer the Quiché of highland Guatemala, near the Quiché capital they found the defenders equipped with “several military machines, or small portable castles, formed of beams and planks, which being placed on rollers were moved from one place to another by armed men” who pulled them about on the battlefield, distributing fresh munitions to the Quiché warriors.²¹⁵ Of course, in mountainous country like that, such mobile vehicles would have been feasible only locally.

Sahagún wrote about the Aztecs having *carros* (carts or cars) that

215. Domingo Juarros, *A Statistical and Commercial History of the Kingdom of Guatemala* (1823; repr., New York: AMS Press, 1971), 390.

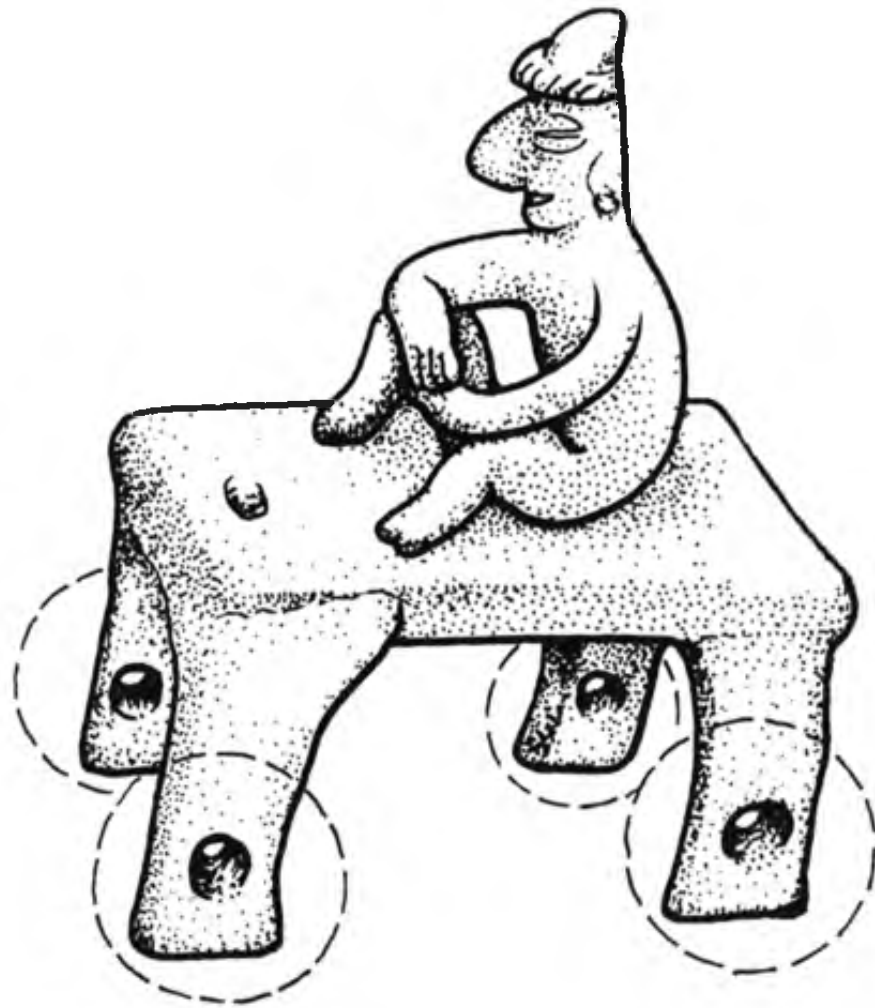


Figure 16.2. West Mexican wheeled platform

consisted of wheeled seats on which people sat and rolled about, apparently for play purposes.²¹⁶ The Paul Cheesman photographic collection (in the Harold B. Lee Library at Brigham Young University) includes a photo of a miniature ceramic effigy in which a man reclines on a legless, backed chair on wheels. This might represent the chair Sahagún referred to, but the picture provides no identification.

These bits of information suggest that Mesoamericans conceptualized use of the wheel well in advance of their technological capability to take practical

216. Miryam Cupello, in *Incógnitas del Nuevo Mundo* (Caracas, Venezuela: Cuadernos Lagoven, 1990), 36, mentions these and compares them broadly to Mesoamerican wheeled models. However, I have been unable to find a source in Sahagún to corroborate her claim.

advantage of the idea. As with the true arch (see the discussion earlier in this chapter), they must have found the ratio of costs to benefits too high to make the concept of much practical value. In this they had cultural company. In the Near East and North Africa, ancient use of the wheel began a decline by about AD 200. That led to the wheel's complete disappearance from the vast area between Afghanistan and Morocco. It was not reintroduced until Western imperial powers became involved there in the 19th century.²¹⁷

Moser suggested that good reasons for the apparent absence of vehicles in Mesoamerica could have been lack of suitable draft animals, lack of certain specific operational needs (e.g., wheel lubricants), unconcern in general with matters of technology, and the excessive costs of maintaining a viable system of roads.²¹⁸ For similar reasons, the ancient Greeks failed to do anything practical with a model steam engine they invented.²¹⁹

Upon seeing Von Winning's figurine sitting on a wheeled platform, most observers agree that the people who constructed that object must have understood that wheels could be employed on a larger vehicle, whether or not they ever constructed one. But even the concept was subsequently lost in Mesoamerica. In parallel, for a couple of centuries at the site of Pashash, ancient Peruvians applied the principle of the wheel to make a type of lathe with which they fashioned stone vessels, only to have the technique disappear after a time.²²⁰

There is also the question of archaeological sampling—what if Pashash had not been excavated thoroughly enough to turn up the lathe wheel? Archaeologists would then have continued to say that the wheel had never been known in Peru. The same sampling issue plagues the history of the

217. Richard W. Bulliet, *The Camel and the Wheel* (Cambridge, MA: Harvard University Press, 1975); and Dolly Katz, "Keeping Camels Down on the Farm," *Science* 82 (September 1982): 80.

218. Christopher L. Moser, "The Wheel Problem in Ancient Mesoamerica," *Katunob* 10/1 (1977): 59–63.

219. Lionel Casson, "Why Did the Ancients Not Develop Machinery?," in *Mysteries of the Past*, ed. Lionel Casson et al. (New York: American Heritage, 1977), 139–54; and Casson, "Godliness and Work," *Science* 81 (September 1981): 36–43.

220. Terence Grieder, "Rotary Tools in Ancient Peru," *Archaeology* 28/3 (1975): 178.

wheel in ancient Palestine; no fragment of a chariot has ever been excavated there despite the Bible's reports of the presence of hundreds of them.²²¹

Considering the technological background of the Lehite and Mulekite peoples in Iron Age Israel, we can assume that their founding generation had direct knowledge of wheeled vehicles. But does the Book of Mormon say that subsequent generations possessed that knowledge? The answer is unclear. It depends on the interpretation of references to "chariots," all of which occur in only two brief historical situations in two limited areas (Alma 18:9, 10, 12; 20:6; 3 Nephi 3:22). What the equivalent term might have meant to historian Mormon is obscured by the fact that the Semitic root translated to English as "chariot" at places in the Bible included several senses: wagon, litter, portable couch, and even (in the Talmud) nuptial bed.²²²

In the light of the wheeled platform from Nayarit, it is possible that the Nephites, Lamanites, or other Mesoamericans did produce some sort of chariot, just as imitatively they came up with metal plates for record keeping, even though at this time it is impossible to cite concrete Mesoamerican parallels for either custom. Yet the fact that the Near Eastern immigrants reported in the Book of Mormon say nothing about implementing these and many other Old World elements of material culture in their Mesoamerican promised land suggests that they quickly conformed to New World technological ways, spending little time trying replicate Near Eastern artifacts about which they might have retained only vague or nonoperational ideas.

One feature of Mesoamerican life that neither had to be invented nor brought from abroad was roads. Any repeated movement of people from one place to another produces a potential path that may become a road with greater use. Sahagún's informants described for him no fewer than seven types of roads that were distinguished among the Aztecs, ranging from a barely discernible track to "royal roads" that were very smooth and reserved for travel by the elite.²²³ Roads were made and used for at least

221. Mary A. Littauer and J. H. Crowel, "Chariots," in Freedman, *Anchor Bible Dictionary*, 1:891.

222. William Wilson, *Wilson's Old Testament Word Studies* (Grand Rapids, MI: Kregel, 1978), 73–74.

223. Kenneth Hirth, "Roads, Thoroughfares, and Avenues of Power at Xochicalco,

2,500 years before the Spanish conquest, beginning with the Olmec people at San Lorenzo.²²⁴ Hundreds of miles of them have now been discovered in locations ranging from the state of Zacatecas on the north to Yucatan and Atlantic Guatemala on the south. The consensus view is that they were rarely important for commercial travel but were used mostly for ceremonial purposes. Yet local traffic was frequent.²²⁵ Certain roads, in Yucatan at least, date to the Late Pre-Classic period (100 BC–AD 200).²²⁶

This information sheds light on the mention of roads in the Book of Mormon. Near the time of Christ, “highways [were] cast up, and many roads [were] made” (3 Nephi 6:8). 3 Nephi 8:13 refers to “level roads.” The phrasing indicates at least two levels of technological sophistication—highways were “cast up,” while roads were “made.” The most striking roads in the lowland Maya area (less is known for other regions) were “cast up.” The principal *sacbe*, or highway, at Dzibilchaltun was 66 feet (20 m) wide and up to 7 feet (2 m) high, with edges made of great limestone blocks. Between the limestone edges, coarse fill was leveled with fine gravel and then paved with plaster. This highway ran for some 1.6 miles (2.6 km). Seven such highways led from the site to secondary centers.²²⁷ Such massive construction surely qualifies as “cast up” (see a Maya example in fig. 16.3). The date is approximately the same as when the Nephite record mentions highways. In addition, of course, several sorts of roads were “made,” as enumerated by Sahagún.

One further notable fact in regard to transportation has to do with shipping by sea. The only place in the Book of Mormon that mentions this medium dates to the first century BC. Alma 63 (vv. 5–8, 10) speaks of one

Mexico,” in *Ancient Road Networks and Settlement Hierarchies in the New World*, ed. Charles D. Trombold (Cambridge: Cambridge University Press, 1991), 212.

224. Symonds, “Reconocimiento intensivo regional,” 122.

225. Ross Hassig, *Trade, Tribute, and Transportation: The Sixteenth-Century Political Economy of the Valley of Mexico* (Norman: University of Oklahoma Press, 1985), 31–32.

226. Edward B. Kurjack and Silvia Garza T. de Gonzalez, “Una visión de la geografía humana en la región serrana de Yucatán,” in *Memoria del Congreso Interno, 1979* (Mexico City: Instituto Nacional de Antropología e Historia, 1981), 48.

227. E. Wyllys Andrews, “Archaeology and Prehistory in the Northern Maya Lowlands: An Introduction,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 2:303.



Figure 16.3. *Maya sacbe*, or “cast up” highway

Hagoth who “built him an exceedingly large ship” at the narrow neck of land on the west sea. He sailed the ship, laden with colonists and provisions, into the land northward via the west sea. “Other ships” were built and sent out; however, nothing was ever heard back from them, so the shipbuilding activity was terminated. The geography indicated here places Hagoth’s port on the shore of Laguna Superior, one of two large lagoons on the Pacific side of the Isthmus of Tehuantepec. A decade later, the record mentions that timber was exported to the relatively treeless land northward “by the way of shipping” (Helaman 3:10).

The only area of Mesoamerica where we know significant long-distance shipping took place within the Book of Mormon time period was the west coast of Mexico. Trade in the valued *Spondylus* shell apparently drew and depended on mariners sailing large rafts from Ecuador all the way to west Mexico. Such voyages may have begun before 1500 BC and continued up to the Spanish conquest.²²⁸ Evidence indicates that such “ships” long visited the

228. Jorge G. Marcos, “Breve prehistoria del Ecuador,” in Marcos, *Arqueología de la costa ecuatoriana*, 25–50; Marcos, “De ida y vuelta a Acapulco”; Norton, “El señorío de

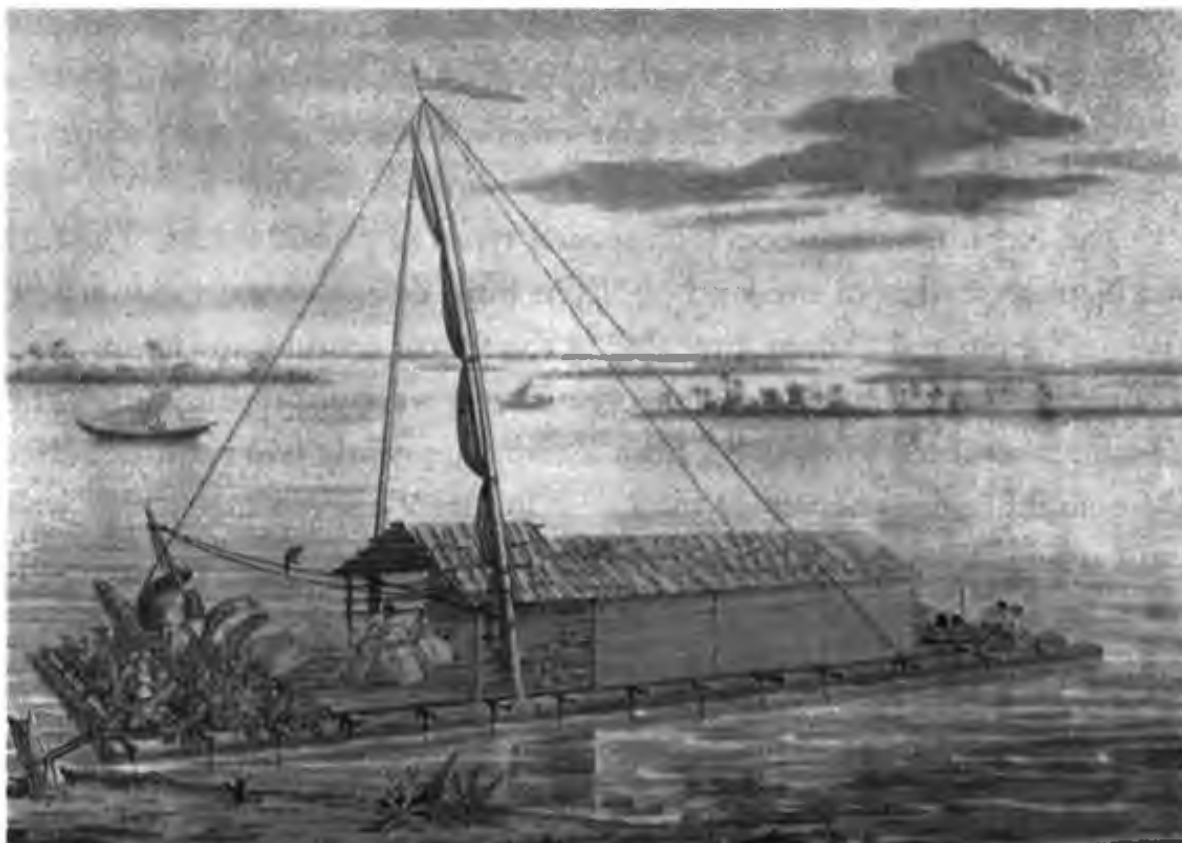


Figure 16.4. A 19th-century Ecuadorean raft

Pacific coast of Mesoamerica, although that area bears no material indication of shipbuilding. (See fig. 16.4.) Peruvian (Inca) buildings reported from central Mexico can be explained only by the presence of maritime travelers from Peru.²²⁹

It is not illogical to suppose that Hagoth's "ships" were balsa rafts copied after the form of visiting South American ones. Balsa wood logs were used in Ecuador to make such rafts. Balsa trees grow on the upper Coatzacoalcos River in the Isthmus of Tehuantepec, where the timber was in use in the 19th century to make small rafts, only a few miles from Hagoth's probable port.²³⁰ The Nephites' shipping enterprise might have failed partly because

Salangone"; David H. Kelley, "Eurasian Evidence and the Maya Calendar Correlation Problem," in *Mesoamerican Archaeology: New Approaches*, ed. Norman Hammond (Austin: University of Texas Press, 1974), 135–43; and Robert C. West, "Aboriginal Sea Navigation between Middle and South America," *American Anthropologist* 63 (1961): 133–35.

229. Chadwick, "Archaeological Synthesis," 11:677.

230. Williams, *Isthmus of Tehuantepec*, 95.

they lacked the expertise that the Ecuadoreans had developed over many centuries in sailing the rafts. The correspondence between shipping tradition on the west coast of Mesoamerica and the Book of Mormon's report of Hagoth's vessels in the corresponding area seems significant.

The Nephites also undertook several types of public works. The initial Nephite settlers of the land of Nephi built defensive walls around the cities of Nephi and Shilom, probably in the fourth century BC (Jarom 1:7). Those walls were subsequently abandoned and were not repaired until the Zeniffites returned to the land from Zarahemla nearly two centuries later (Mosiah 9:8). (See chapter 23 for a description of a seven-meter-high wall built around Kaminaljuyu, Guatemala, no later than the fourth century BC) King Noah built many large public structures at the city of Nephi in the mid-second century BC, including "a very high tower" (i.e., pyramidal foundation) near the center of the city (11:12).

The Book of Mormon specifically mentions the laying out and building of cities and connecting highways (3 Nephi 6:7–8) as well as the planning of massive fortification systems (Alma 48:8). To these may be added the possible construction of irrigation systems based on engineering knowledge accumulated in the Near East by Iron Age times.

Irrigation was highly developed in the case of Kaminaljuyu in the Valley of Guatemala in the late centuries BC.²³¹ There at least three major canals several kilometers in length were built to irrigate intensively cultivated land near the city. The largest canal was six meters wide and .8 meters deep with intricate control gates and a complex distributary network.²³² Extending into Kaminaljuyu was a long elevated structure (the Montículo de la Culebra—the mound of the serpent), more than two miles in length, that may have served as an aqueduct bringing water into the city; it was in use by the fifth

231. Marion Popenoe de Hatch, *Kaminaljuyú/San Jorge, evidencia arqueológica de la actividad económica en el Valle de Guatemala, 300 a.C. a 300 d.C.* (Guatemala: Universidad del Valle de Guatemala, 1997), 15.

232. Tomás J. Barrientos, "Evolución tecnológica del sistema de canales hidráulicos en Kaminaljuyú y sus implicaciones sociopolíticas," in *X Simposio de investigaciones arqueológicas en Guatemala, 1996*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1997), 61–66.

century BC.²³³ In the Tehuacán Valley of central Mexico, an ambitious dam that backed up the lake by hundreds of meters was constructed by the first century BC.²³⁴ City and major structural planning are evident at many early sites.²³⁵ All such engineering features are compatible with the level of civilization described in Mormon's book.

233. Edgar René Ortega et al., "El Montículo de la Culebra, Kaminaljuyu: Proyectos de rescate arqueológico," in *IX Simposio de investigaciones arqueológicas en Guatemala, 1995*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1996), 461–76.

234. Richard B. Woodbury and James A. Neely, "Water Control Systems of the Tehuacan Valley," in *Chronology and Irrigation*, ed. Frederick Johnson (Austin: University of Texas Press, 1972), 81–153.

235. For example, Michael Love et al., "La cerámica de El Ujuxte, Retalhuleu: Un estudio preliminar," in *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1995), 19–24.

Chapter 17

Government and Political Processes

The Book of Mormon account speaks of several forms of government, but the variety is more apparent than significant. The fundamental pattern centers upon a privileged ruler (king or lord) considered to be appointed and directed by divine power to maintain the integrity of the nation or tribe by exercising sound administration and leading effective defense. This was the scheme of things in all archaic civilizations; ancient Israel was organized in this way, as were the constituent kingdoms of Mesoamerican society.¹

Ideally the Mesoamerican king was descended directly from individuals of the highest status, and he had a spouse of equal rank from a complementary political area. For exercising his abilities in specified ways, he (and his kin) received personal services and payments by way of tribute from his subjects. “Lesser people supported kings and nobles as a kind of political covenant in return for the obvious advantages of elite and royal service.” However, “the coercive powers of . . . [such] rulers were feeble.”² A ruler’s success depended upon his charisma and adroit social, political, and

1. The important powers, duties, and privileges of the ruler are spelled out in chapter 13. Notice that this pattern of governance had nothing in common with the republicanism that characterized the America of Joseph Smith’s day, nor did the Jacksonian ideals that Smith admired relate in the least either to the ancient society of Iron Age Israel or to that pictured in the Book of Mormon.

2. David Webster, “Groundhogs and Kings: Issues of Divine Rulership among the Classic Maya,” in *Incidents of Archaeology in Central America and Yucatán: Essays in Honor of Edwin M. Shook*, ed. Michael Love et al. (Lanham, MD: University Press of America, 2002), 443–44.

ceremonial actions in dealing with not only his own people but also a network of leading families in adjacent areas.³

It is important to realize that in such societies—in Mesoamerica, the ancient Near East, and, according to the Nephite record, Book of Mormon lands—government was not as much concerned with individuals as with corporate social groups. In Mesoamerica, “almost always the ‘person’ is invested within a corporate group. That is, obligations, responsibilities, kinship relations, and culpability are incorporated in the group, not in the individual.”⁴

The fragmented physical environment of Mesoamerica made it difficult to establish and maintain governmental power over extensive areas because the everyday circumstances and adaptive cultural forms of one group often were much different from those of neighboring groups. Normally the zone of practical rulership extended out only a limited distance from a regional center that acted as a communication, economic, social, and ceremonial nexus. Amalgamation or control of sets of regional centers farther removed sometimes resulted in wider units of governance, but schismatic tendencies were always at work trying to break down larger units. Thus smaller chiefdoms often coexisted with more complex or extensive sociopolitical entities.

The State Level of Political Integration

Ultimately, an area with sufficient economic resources and population might integrate social forces sufficiently to become what political theorists and anthropologists consider *states*. In a state, governmental power (ultimate coercive power) is exerted through institutions that persist over multiple generations so that patterns of leadership and administration of public affairs remain more or less stable. A state may not be able to exist unless writing is in use, permitting the continuity of those institutions and customs that protect the fragile structure of governance across generations and regions.

3. Ronald Spores, *An Archaeological Settlement Survey of the Nochixtlan Valley, Oaxaca*, Publications in Anthropology 1 (Nashville: Vanderbilt University, 1972), 181.

4. Stephen D. Houston and Héctor L. Escobedo, “Grande es bello: Piedras Negras y el urbanismo de las tierras bajas mayas,” in Love et al., *Incidents of Archaeology in Central America and Yucatán*, 532.

A common tongue and common ethnic identity among the people are not required for a state, although they help; multiethnic and multilingual kingdoms and states were fairly common in ancient times. Frequently in Mesoamerica, as pointed out in a previous chapter, those who dominated socially and politically were foreigners, often speaking a language and having customs unfamiliar to the masses. For example, Carmack says the “Quichean civilization [state]” of highland Guatemala included speakers of not only the Quiché Mayan language but at least four related language groups, although relative cultural homogeneity showed up beneath the linguistic variation.⁵

Kingdoms with populations of different ethnic and language groups are described in the Book of Mormon. Though they were fewer in number and spoke a different language, the Nephites under Mosiah₁ came among the people of Zarahemla and established rule over them (Omni 1:13–19). At a later time, Lamanite rulers in the land of Nephi, whose ancestors had come from abroad in Lehi's party, governed a variety of groups—Lamanites, Zeniffites, Ishmaelites, Amalekites, Amulonites—and also exhibited expansionist intentions to control Nephites and Mulekites.

The operations of state government are described at several points in the Nephite record. Around 80 BC, Moroni₁ was appointed “chief captain over the Nephites” and “took all the command, and the government of their wars” (Alma 43:16–17). Such separation of military functions from political operations was a common feature of Mesoamerican governments in times of war. In a letter he addressed to Pahoran, the chief judge over the Nephites, Moroni₁ complained bitterly about the government's failure to send supplies and manpower to a crucial defensive front, as a state government ought to have done. “Do ye suppose,” he asked, “that the Lord will still deliver us, while we sit [passively] upon our thrones . . . ? Yea, will ye sit in idleness while ye are surrounded with thousands of those, yea, and tens of thousands, who do also sit in idleness . . . ?” (Alma 60:21–22). This sort of sociopolitical complexity likely would not happen in a government at the lesser, chiefdom level; Nephite rule was undoubtedly of the state type at that moment.

5. Robert M. Carmack, *Quichean Civilization: The Ethnohistoric, Ethnographic, and Archaeological Sources* (Berkeley: University of California Press, 1973), 6.

About a century later (ca. AD 25), the Nephite sociopolitical system was again described in a manner that points to a state: “There were many cities built anew, . . . and there were many highways cast up, and many roads made, which led from city to city” (3 Nephi 6:7–8). Furthermore, “there were many merchants in the land, and also . . . many officers. And the people began to be distinguished by ranks, according to their riches and their chances for learning” (vv. 11–12). We see that at least for a century or more of the Mesoamerican Late Pre-Classic period (ca. 100 BC–AD 50), the Book of Mormon record portrays its peoples in a political situation that sounds very much like what surely prevailed at major centers like El Mirador, Kaminaljuyu, and the Horcones period at Chiapa de Corzo.⁶

Environmental variety meant that large-scale sociopolitical structures at the state level of government sometimes coexisted with, or encompassed, sociopolitical structures at a more restricted, local level—like chiefdoms in which communities were dominated by certain lineages or “houses.” There was constant tension between smaller and larger governmental units caused by the wider integrative tendencies of government or ethnic group. For instance, Becker believed that at Tikal, the great Maya site, once the role of the kings was disrupted in the sixth and seventh centuries AD, “strong local lineages . . . regained their former status as paramount organizers of social and political activity.”⁷ Such interplay between two levels of sociopolitical integration was common enough that patterns of governance were volatile. The Book of Mormon gives a vivid example of such a bi-level arrangement in its report that when the state government of the Nephites collapsed, an alternative, default apparatus of local governance by “tribes” was there to fall back on (3 Nephi 7:2–3).

6. Richard E. W. Adams, *The Ceramics of Altar de Sacrificios*, Peabody Museum of Archaeology and Ethnology Papers 63.1 (Cambridge, MA: Harvard University Press, 1971), 157.

7. Marshall J. Becker, “Kings and Classicism: Political Change in the Maya Lowlands during the Classic Period,” in *Highland-Lowland Interaction in Mesoamerica: Interdisciplinary Approaches*, ed. Arthur G. Miller (Washington, DC: Dumbarton Oaks, 1983), 171.

Basic Cultural Rules Governing Kingship

What qualified a person to be a ruler? A king, of course, was supposed to have the right ancestors. A certain lineage held the right to rule. Any others had to usurp that right, perhaps by fudging their genealogy. For example, a person with the name *Feathered Serpent* was traditionally revered as the ancestor of many of the important ruling families of Mesoamerica. Such descent was considered a necessary attribute of legitimate rule.⁸ Herrera, reporting on the Yucatec Maya near the time of the Spanish conquest, said, "They [leaders] were accustomed to be great boasters concerning their descent,"⁹ while Coggins concluded that "the ruling Maya were overwhelmingly preoccupied with lineage."¹⁰ Fox called this "an obsession with genealogy."¹¹

In the Maya area, when rulers came from some other area, which was not uncommon, they tried to bring a revered name and symbols of high status with them. Usurpers of power felt obliged to present an acceptable genealogy. Typically there was "the necessity of an invading group to justify and explain, on a religious level, its presence and superiority over the locals."¹² Mosiah's takeover from the Mulekite chief Zarahemla is an example of the taking of power by an outsider; another Book of Mormon example is the case of Amalickiah and his brother Ammoron among the Lamanites. A usurper pure and simple, Amalickiah hastened to marry the widowed queen to provide himself with a legitimating cover. After his death, his brother

8. Norman Hammond et al., "A Maya 'Pocket Stela'," in *Studies in Ancient Mesoamerica II*, ed. John A. Graham (Berkeley: University of California Archaeological Research Facility, 1975), 20–22, 26.

9. Alfred M. Tozzer, ed. and trans., *Landa's Relación de las Cosas de Yucatan: A Translation*, Peabody Museum of American Archaeology and Ethnology Papers 18 (Cambridge, MA: Harvard University, 1941), 218.

10. Clemency C. Coggins, "The Manikin Scepter: Emblem of Lineage," *Estudios de cultura maya* 17 (1988): 134.

11. John W. Fox, "On the Rise and Fall of Tuláns and Maya Segmentary States," *American Anthropologist* 91 (1989): 656.

12. Diana López de Molina, "Un informe preliminar sobre la cronología de Cacaxtla," in *Interacción cultural en México Central*, ed. Evelyn C. Rattray et al. (Mexico City: Universidad Nacional Autónoma de México, 1981), 172.

MAPS

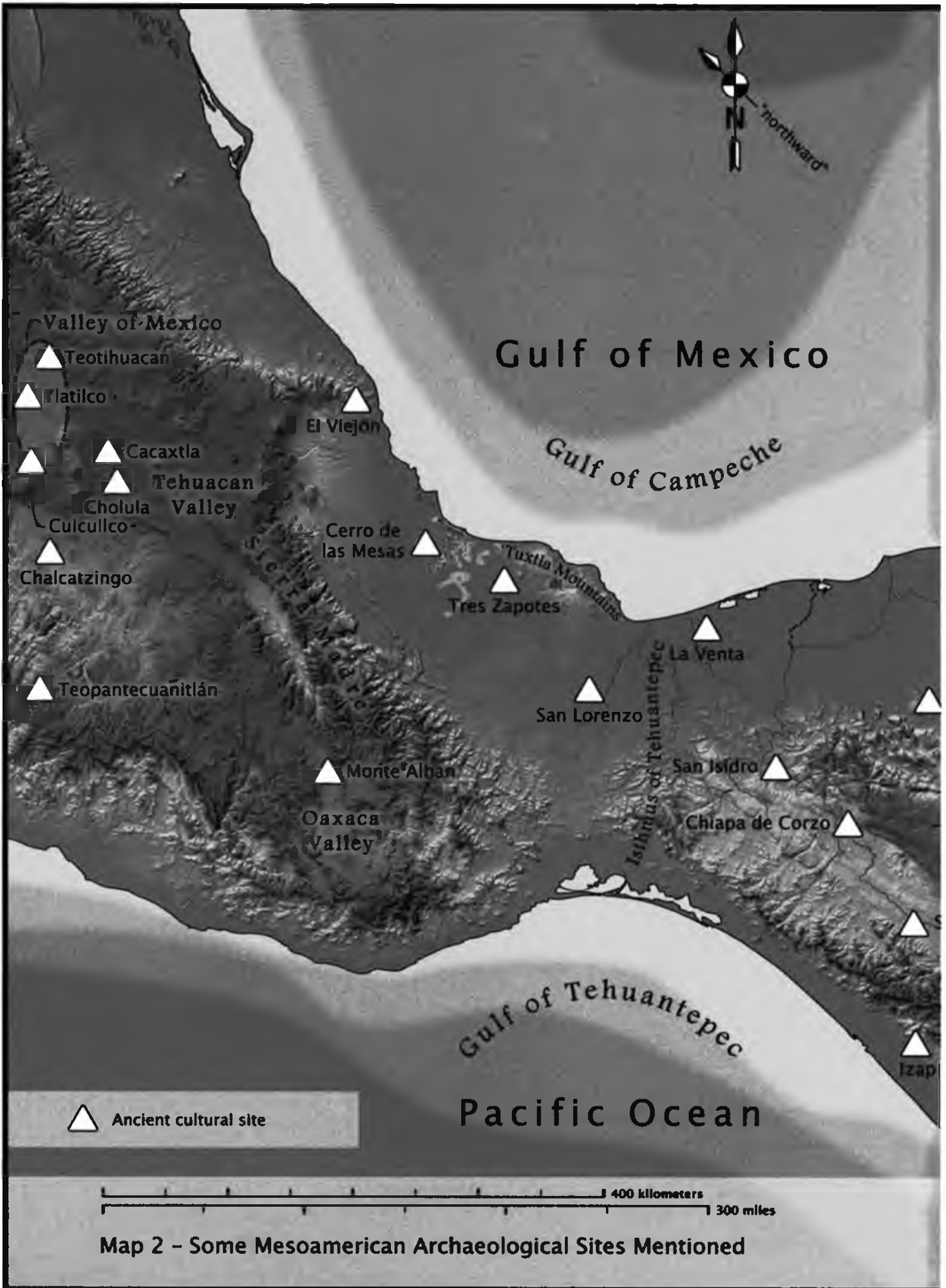
"Mormon's Map" shows the most plausible arrangement of Nephite and Lamanite geographical features based on all the information in the record of Mormon and his son Moroni₂. (Capitalization of names follows the practice of the published text of the Book of Mormon.)

LEGEND

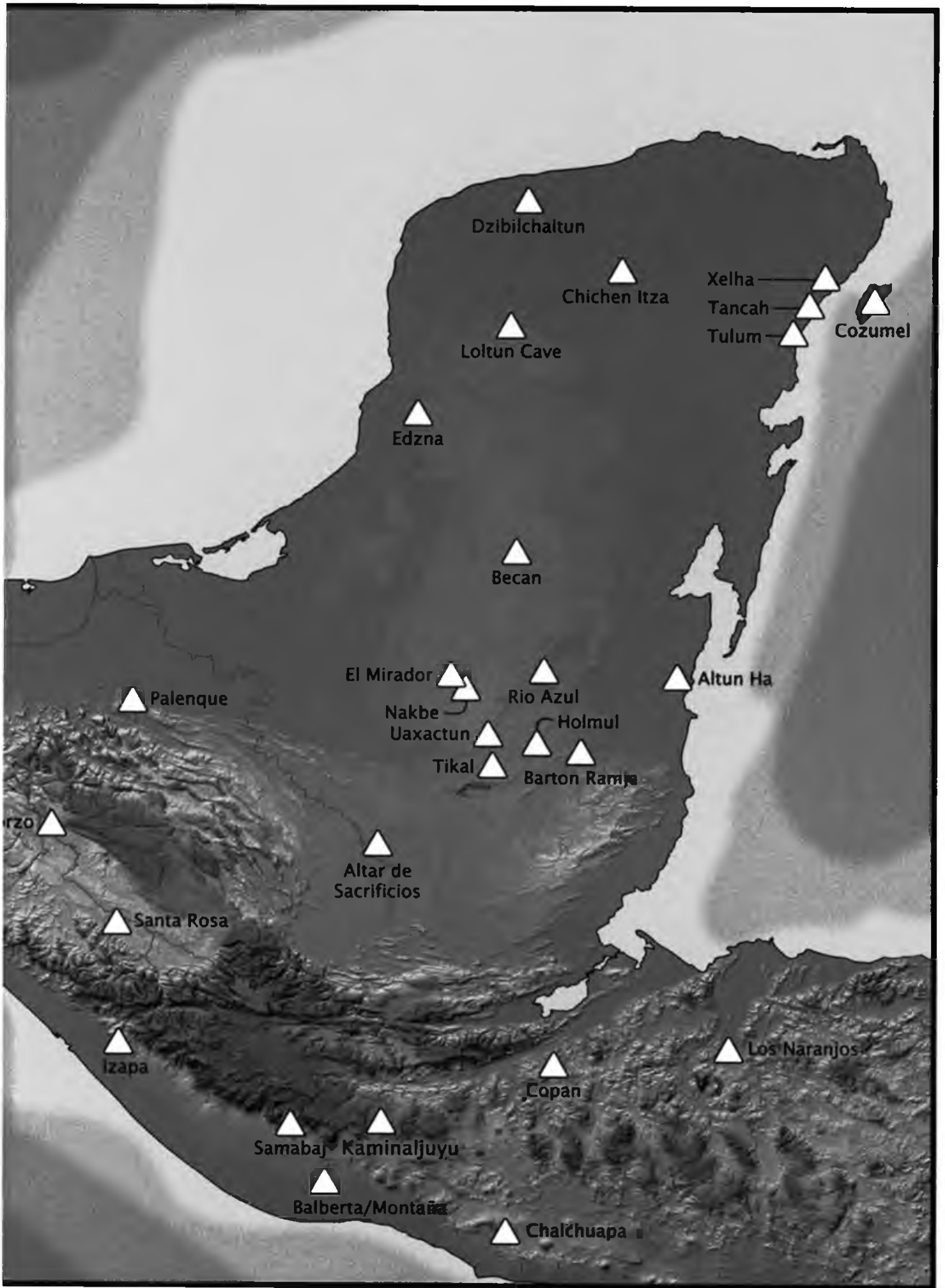
1. waters of Ripliancum
2. limit of Nephite final retreat
3. Shiz's death; plates left
4. hill Shim
5. narrow pass or passage
6. Hagoth's shipbuilding site
7. Moroni₁'s camp
8. Nephites' refuge between the land Bountiful and the land of Zarahemla (see 3 Nephi 3:23, 25)
9. hill Onidah
10. hill Amnihu
11. hill Riplah
12. valley of Alma
13. dispersal point of the sons of Mosiah₂
14. waters of Mormon
15. hill north of Shilom
16. mount Antipas
17. place Onidah
18. wilderness on the west of the land Zarahemla
19. wilderness on the west in the land of Nephi
20. Lamanite king's land
21. land of first inheritance
22. wilderness (see Alma 43:22)
23. mountain pass
24. Hagoth's possible destination
25. wilderness of Hermounts
26. "line" between Desolation and Bountiful
27. defense "line"



Map 1 - Mormon's Map of Book of Mormon Lands



Map 2 - Some Mesoamerican Archaeological Sites Mentioned



Dzibilchaltun

Chichen Itza

Xelha

Tanchah

Tulum

Cozumel

Loltun Cave

Edzna

Becan

Altun Ha

El Mirador

Rio Azul

Palenque

Nakbe

Holmul

Uaxactun

Tikal

Barton Ramja

Altar de Sacrificios

Santa Rosa

Izapa

Los Naranjos

Copan

Samabaj

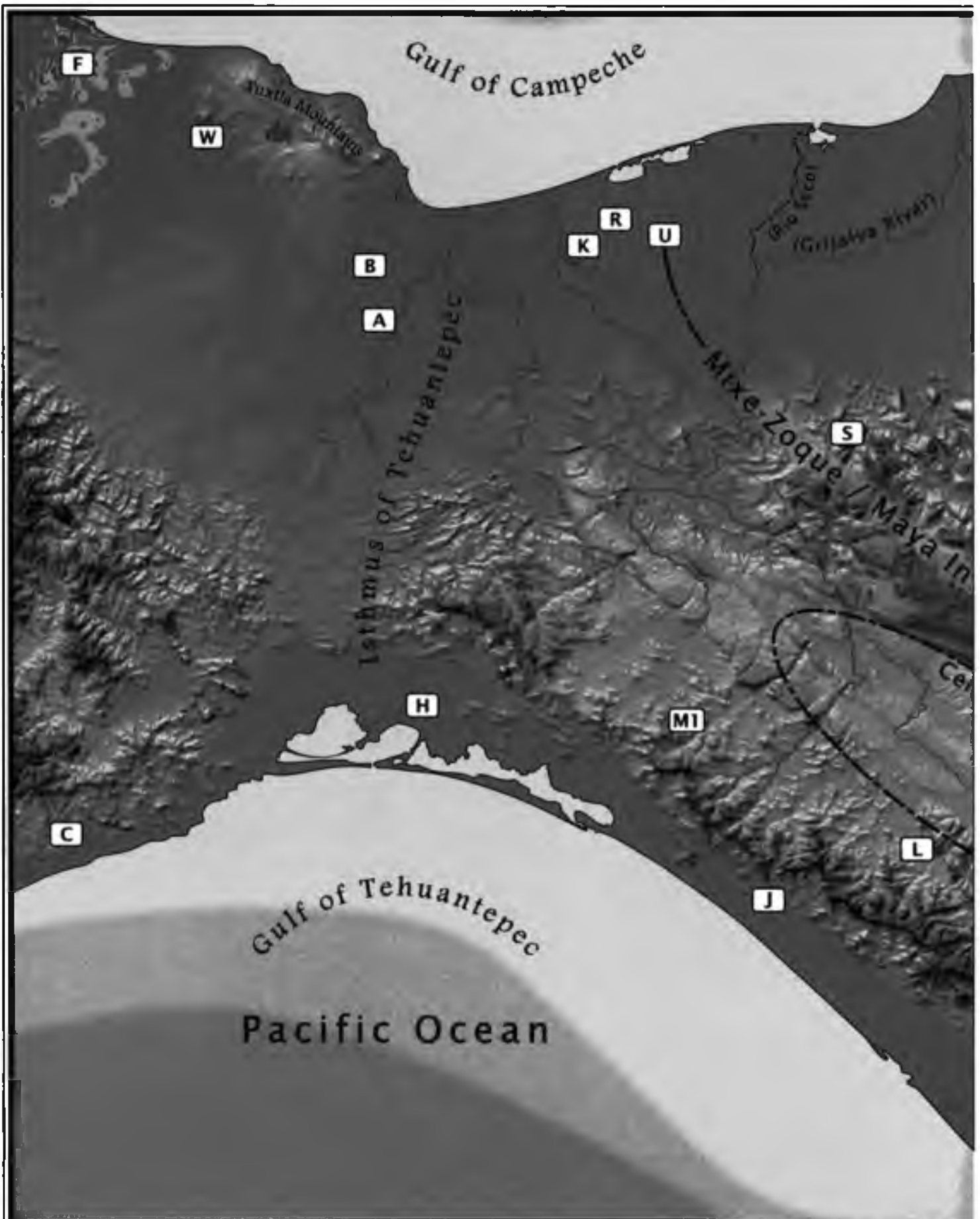
Kaminaljuyu

Balberta/Montaña

Chalchuapa

LEGEND

- A** A consistently defensible line; probable river
- B** A “narrow pass that led by the sea into the land northward”
- C** No good land passage northward
- D** The city of Zarahemla, “in the heart of our country”
- E** The city of Nephi (or Lehi-Nephi)
- F** Waters of Ripliancum
- G** Waters of Mormon
- H** Hagoth's shipbuilding site
- J** West sea coast
- K** The arrival point of the Mulekites; city of Mulek
- L** The cordilleran mountain chain
- M1** Mountain pass
- M2** Mountain pass
- N** The “most capital parts” of the land (Hel. 1:27)
- P** Hill Amnihu
- Q** East wilderness
- R** The “borders by the east sea”
- S** “Narrow strip of wilderness”
- T** The headwaters of the river Sidon
- U** Nephite-Lamanite interaction zone




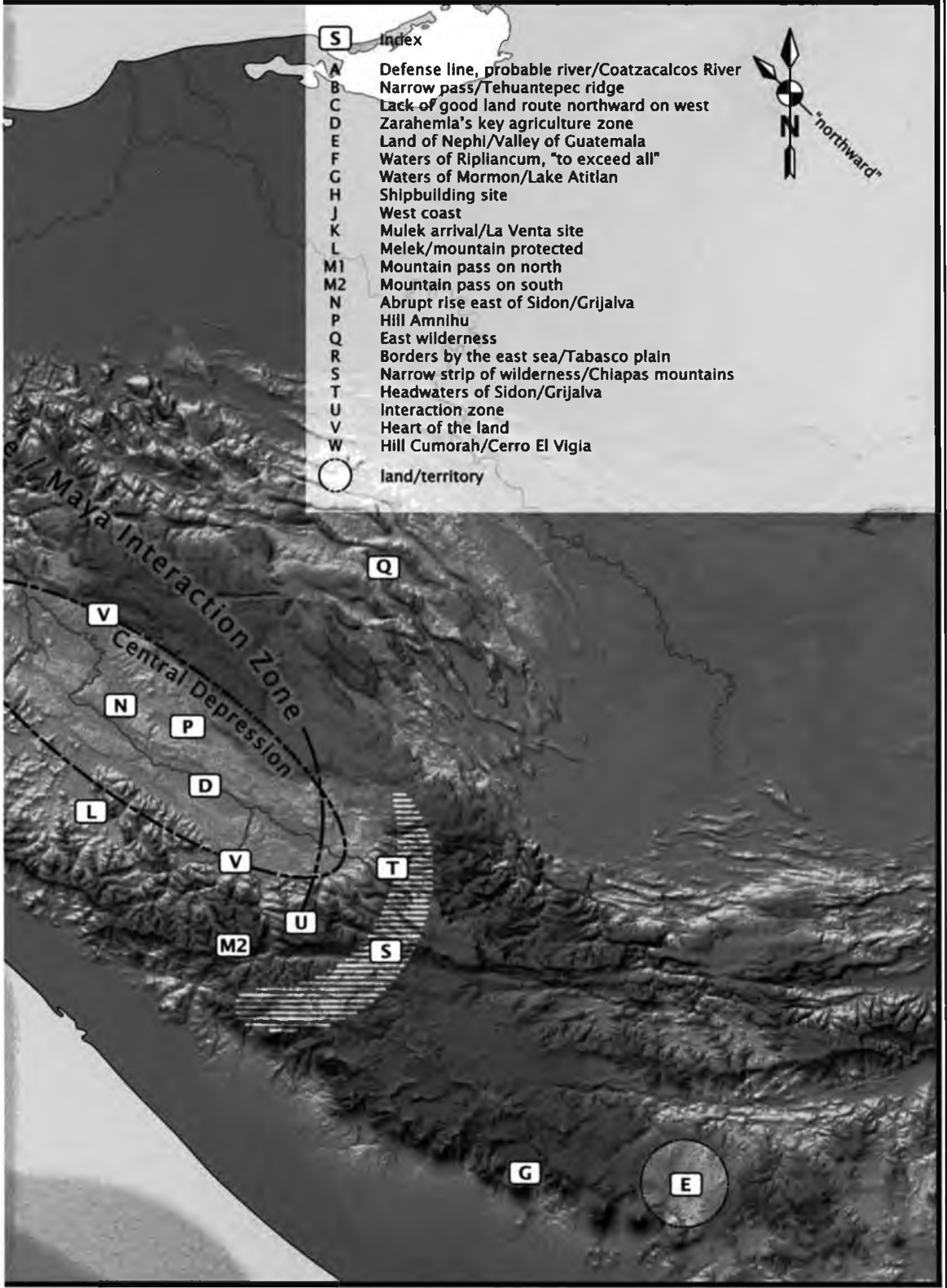
200 kilometers
150 miles

Map 4 - Mesoamerican Geographical Correspondences to Mormon's Map

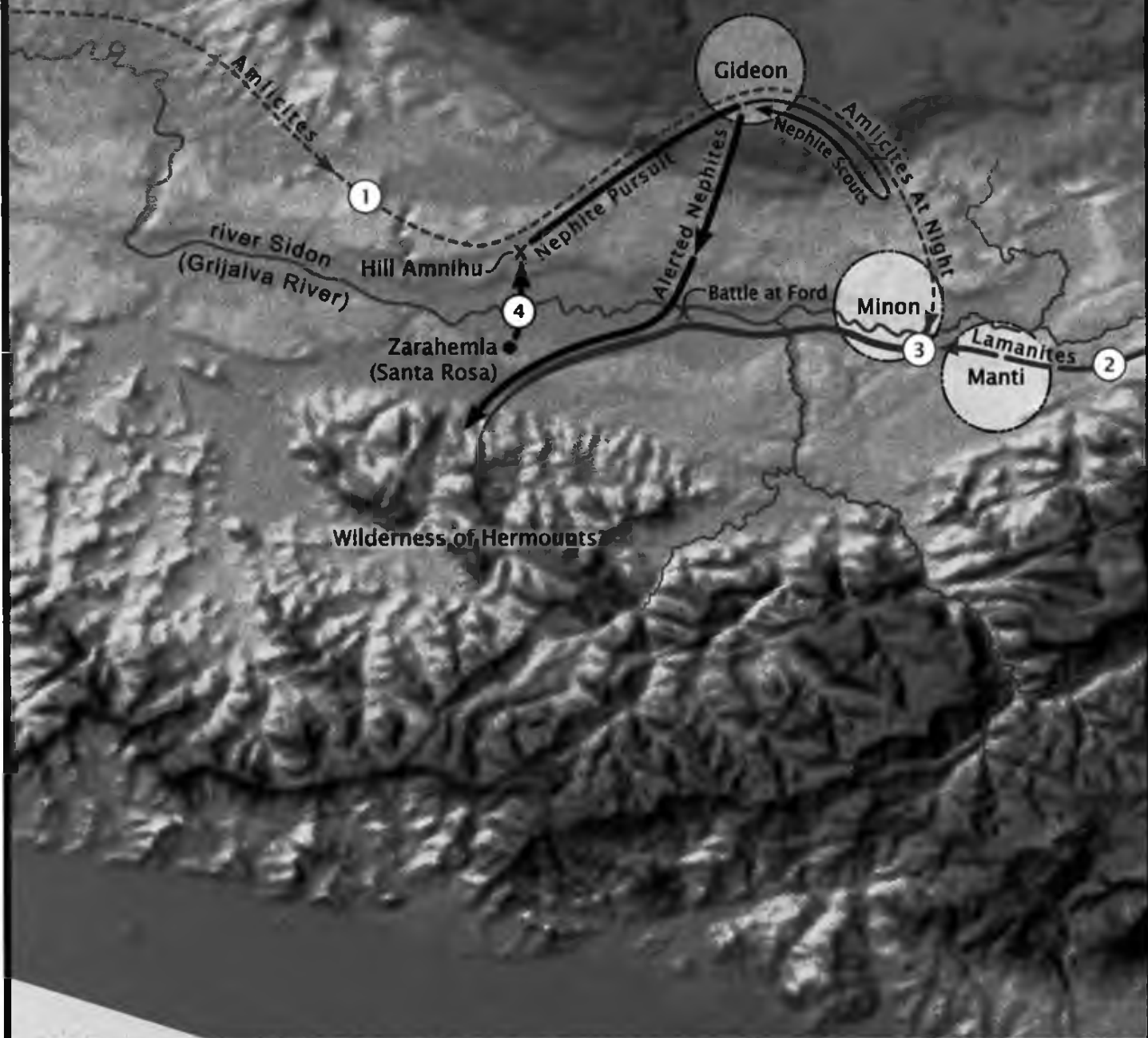
S Index

- A** Defense line, probable river/Coatzacoalcos River
- B** Narrow pass/Tehuantepec ridge
- C** Lack of good land route northward on west
- D** Zarahemla's key agriculture zone
- E** Land of Nephi/Valley of Guatemala
- F** Waters of Ripliancum, "to exceed all"
- G** Waters of Mormon/Lake Atitlan
- H** Shipbuilding site
- J** West coast
- K** Mulek arrival/La Venta site
- L** Melek/mountain protected
- M1** Mountain pass on north
- M2** Mountain pass on south
- N** Abrupt rise east of Sidon/Grijalva
- P** Hill Amnihu
- Q** East wilderness
- R** Borders by the east sea/Tabasco plain
- S** Narrow strip of wilderness/Chiapas mountains
- T** Headwaters of Sidon/Grijalva
- U** Interaction zone
- V** Heart of the land
- W** Hill Cumorah/Cerro El Vigia

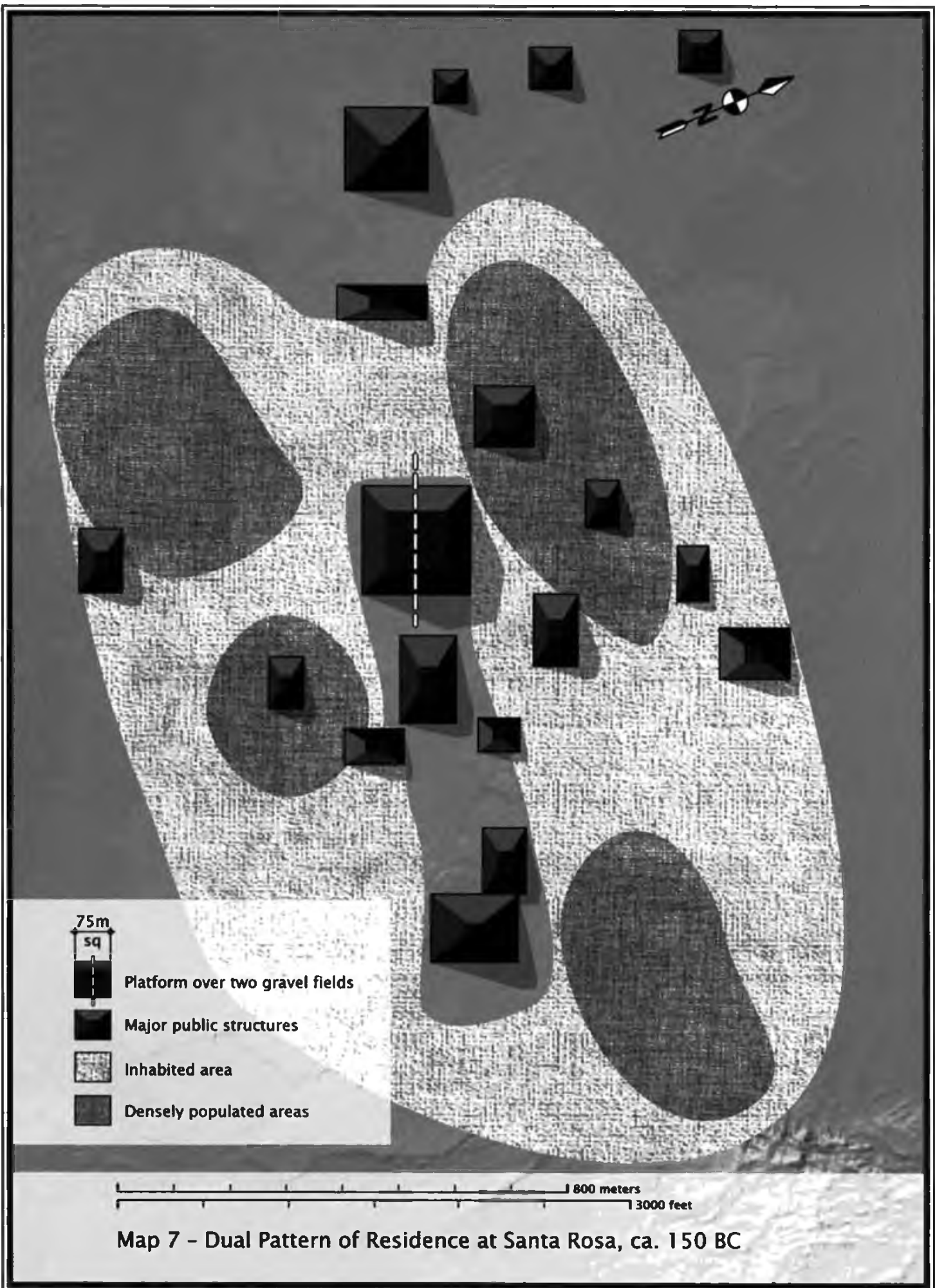
 land/territory



- land/territory
- X battle
- ① Amlicite armies
- ② Lamanite armies
- ③ Amlicites join Lamanites
- ④ Nephite defensive moves



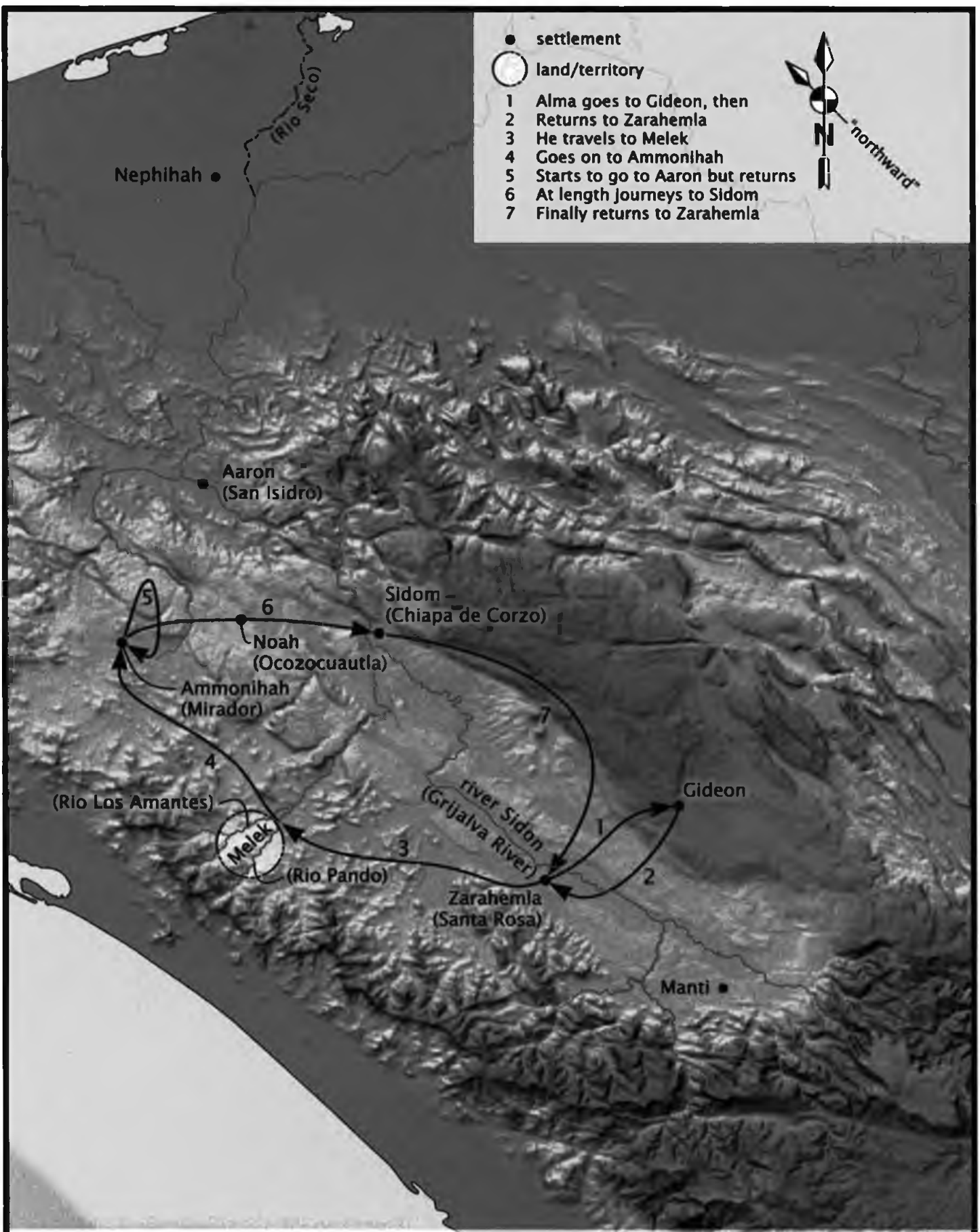
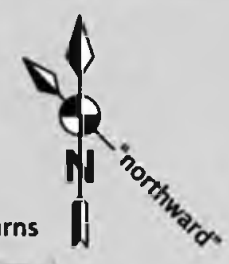
Map 6 - Plausible Chiapas Arena for the Amlicite Battles



Map 7 - Dual Pattern of Residence at Santa Rosa, ca. 150 BC

- settlement
- land/territory

- 1 Alma goes to Gideon, then
- 2 Returns to Zarahemla
- 3 He travels to Melek
- 4 Goes on to Ammonihah
- 5 Starts to go to Aaron but returns
- 6 At length journeys to Sidom
- 7 Finally returns to Zarahemla

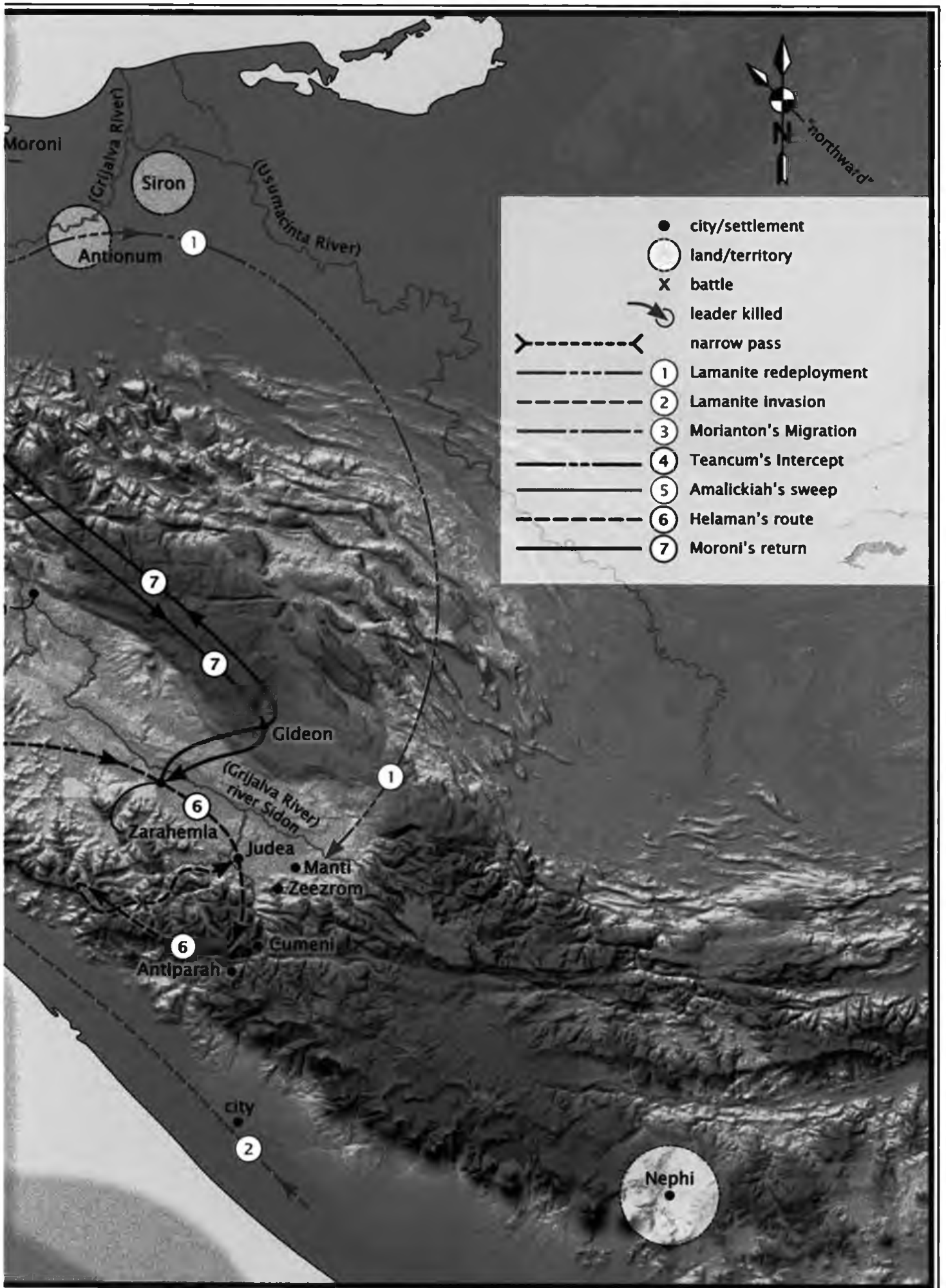


150 kilometers
100 miles

Map 8 - Plausible Areas of Alma₂'s Preaching Journey



Map 9 - Plausible Sites of the Nephite Wars



Moroni

(Grijalva River)

Siron

(Usimachta River)

Antionum



- city/settlement
- land/territory
- X battle
- ↪ leader killed
- ↔ narrow pass
- ① Lamanite redeployment
- ② Lamanite invasion
- ③ Morianton's Migration
- ④ Teancum's Intercept
- ⑤ Amalickiah's sweep
- ⑥ Helaman's route
- ⑦ Moroni's return

⑦

⑦

Gideon

①

⑥

Zarahemla

Judea

● Manti

● Zeezrom

⑥

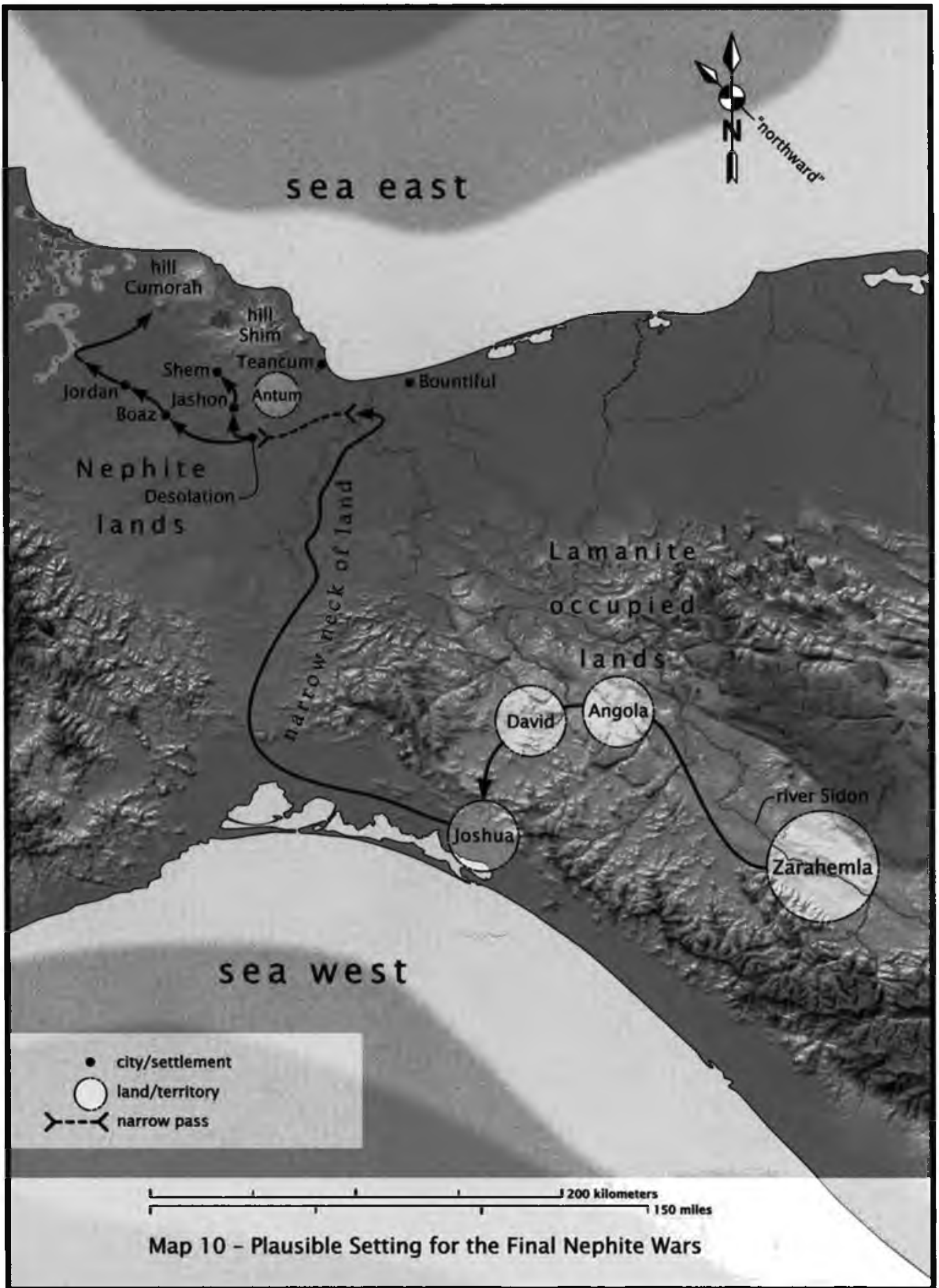
Antiparah ●

● Cumeni

city ●

②

Nephi ●

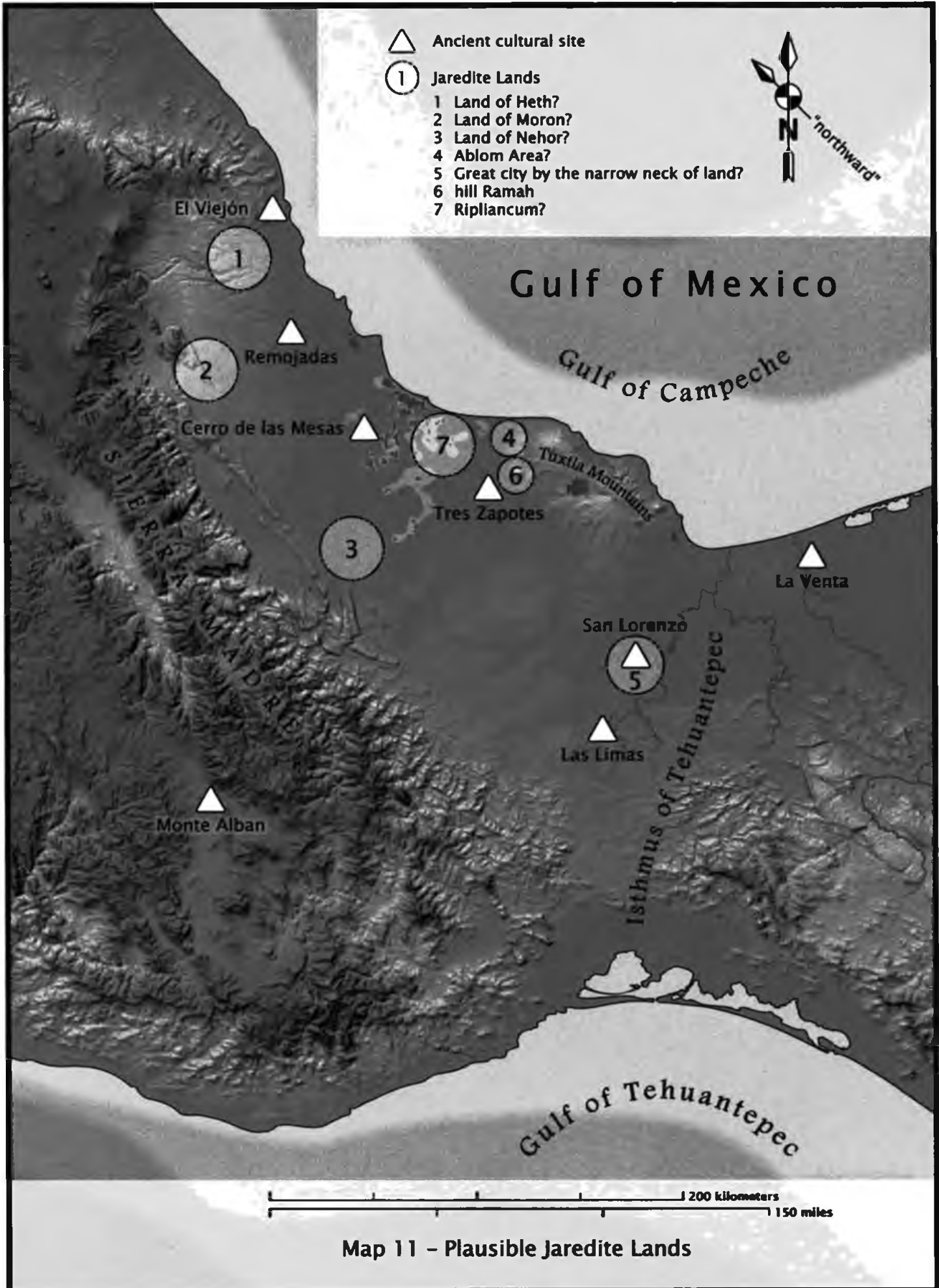


Map 10 - Plausible Setting for the Final Nephite Wars

△ Ancient cultural site

① Jaredite Lands

- 1 Land of Heth?
- 2 Land of Moron?
- 3 Land of Nehor?
- 4 Ablom Area?
- 5 Great city by the narrow neck of land?
- 6 hill Ramah
- 7 Ripliancum?



Map 11 - Plausible Jaredite Lands

**ARTIFACTS
AND
PHOTOGRAPHS**



Figure 7.1. Lake Atitlan, Guatemala



Figure 7.2. Cerro El Vigía, Veracruz



Figure 12.1. Ethnic variety in ancient Mesoamerican human figurine faces

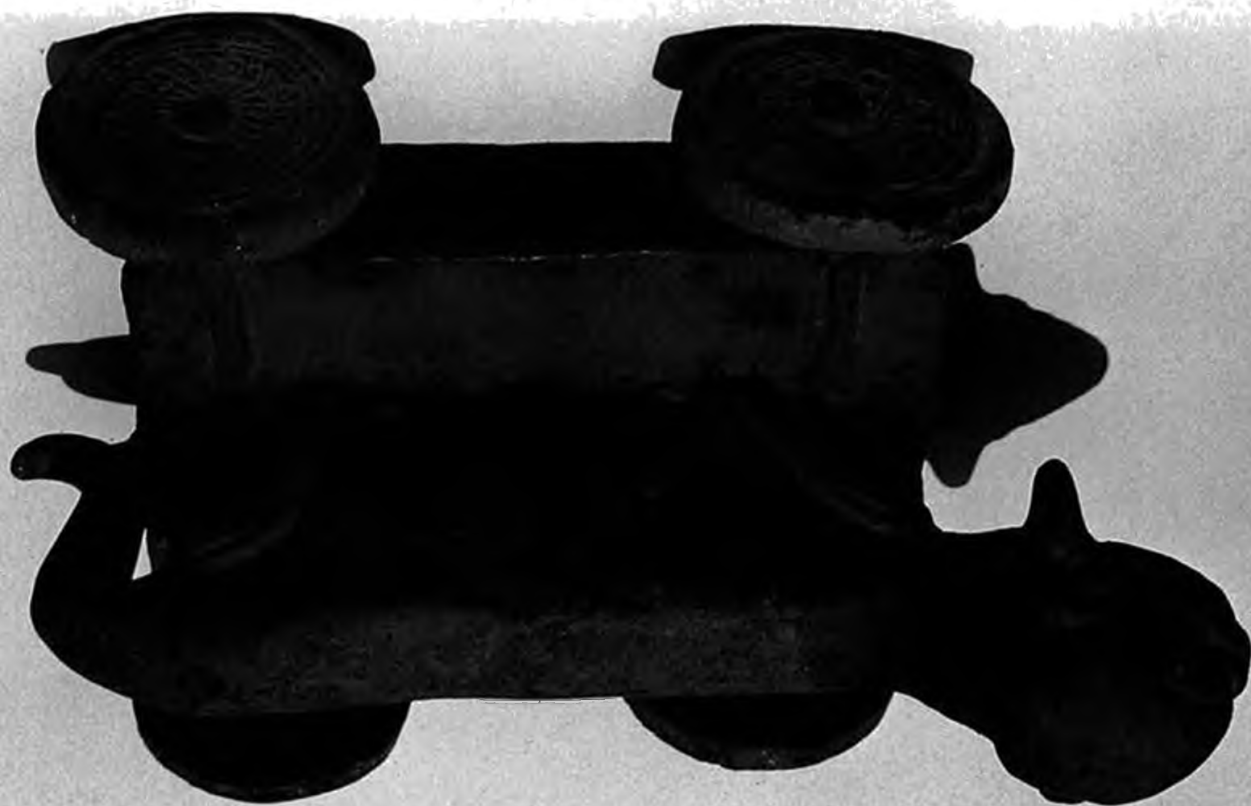


Figure 12.2. Light- and dark-skinned people in art at Chichen Itzá



Figure 12.3. Maya carved wooden figure with elaborate mustache

Figure 16.1. Wheeled platform from Veracruz



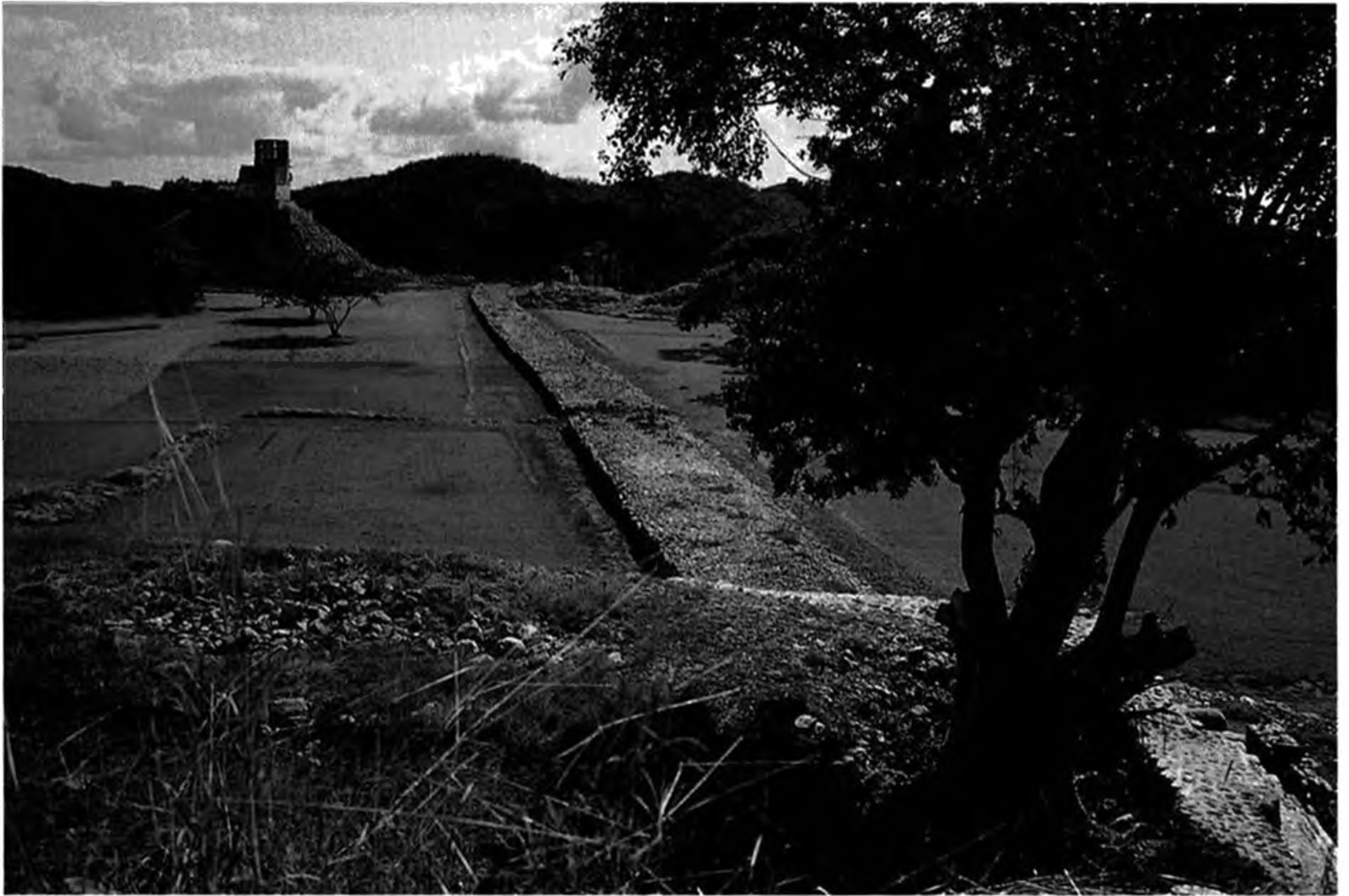


Figure 16.3. Maya sacbe, or "cast up" highway

Figure 16.4. A 19th-century Ecuadorean raft



Figure 18.2. Curved double dagger on Kaminaljuyu Stela 11



Figure 22.1a. La Venta Stela 3 as excavated

succeeded him—a pattern that follows a frequent Mesoamerican rule that a sibling should replace his brother.¹³

Both Nephites and Lamanites displayed similar customs in regard to rulership. At Alma 54:17–18 a Lamanite ruler bitterly claimed that the house of Nephi, “did rob” the Lamanites of “their right to the government when it rightly belonged unto them.” Ironically, Ammoron (the person writing) was not himself a Lamanite by descent but merely an ambitious Nephite dissenter/usurper. The last Nephite king, Mosiah₂, worried that there could be future disputes among his sons about the question of “to whom the kingdom doth rightly belong” (Mosiah 29:6–7). In fact, a great deal of trouble subsequently came about because of certain men “who professed the blood of nobility” (Alma 51:21), although “the kingdom had been conferred upon none but those who were descendants of Nephi” (Mosiah 25:13). Among the Maya, “one of the proofs of noble status was a knowledge [or at least an assertion] of one’s ancestry.”¹⁴

It was a feat of no mean significance to know one’s genealogy in detail. Amulek recited his genealogy to the people of Ammonihah to justify his speaking in support of the visitor Alma₂ (Alma 10:1–4). The would-be Nephite rulers who “professed the blood of nobility” (51:21) no doubt backed up their claims by recitals of genealogy, whether accurate or not.

Individuals prepared for the ruler role by proper education, for rulership involved mastery of the written script in order to pore over the sacred books that provided the intellectual and ceremonial backbone of the kingly corpus of knowledge.¹⁵ Books were primary among the concrete emblems of office that accompanied the regal position and served as “symbols of the power and esoteric knowledge of Quichean rulers” in highland Guatemala.¹⁶

Early in Nephite history, the value of state documents as historical guides and official emblems of rulership was established by their first king,

13. Lawrence H. Feldman, *Papers of Escuintla and Guazacapan: A Contribution to the History and Ethnography of South-Eastern Guatemala*, Occasional Publications in Mesoamerican Anthropology 7 (Greeley: University of Northern Colorado, 1974), 26.

14. Ralph L. Roys, “Lowland Maya Native Society at Spanish Contact,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 3:676.

15. Coggins, “Manikin Scepter,” 124.

16. Carmack, *Quichean Civilization*, 17.

Nephi₁ (2 Nephi 5:29; 1 Nephi 9:2–4). Later that pattern was reinforced by King Benjamin (Mosiah 1:2–7). He emphasized to his sons that a proper king must be instructed “in all the language of his [i.e., their] fathers, that thereby they might become men of understanding” (v. 2), men who “remember to search them [the records] diligently” (v. 7).

Conflict over who should rule sometimes had apocalyptic consequences in ancient Mesoamerica. Perhaps nowhere else in the annals of government of ancient civilizations are there so many evidences of a desire to eliminate totally all memory of previous monarchs or ruling lineages. Beginning in the Early Pre-Classic era, the desecration of the Olmecs' surviving monuments shows determined attempts to destroy images associated with past rulers. Some scholars think that even in that era there were political structures at the organizational level of a state.¹⁷ Coe spoke of the “awe-inspiring” destruction of stone monuments at Olmec San Lorenzo, “surely a mark of the iconoclastic fury” visited on these symbols of a previous Olmec elite; very few sculptures escaped disfiguration, despite being made of hard basalt stone.¹⁸ Most three-dimensional sculptures of Olmec individuals were decapitated.¹⁹ Moreover, the intermittent violence among or against the Olmec rulers was a traditional interfactional custom, as it went on for at least six centuries.²⁰ At length, the same violence happened at La Venta,²¹ and the pattern of bitter enmity was repeated in Late Pre-Classic and Classic times.²² The usual interpretation of this mutilation is that warring lineages

17. For example, Jonathan Haas, *The Evolution of the Prehistoric State* (New York: Columbia University Press, 1982); and David C. Grove, “The Formative Period and the Evolution of Complex Culture,” in *Supplement to the Handbook of Middle American Indians*, ed. Jeremy A. Sabloff (Austin: University of Texas Press, 1981), 1:378.

18. Michael D. Coe, “San Lorenzo Tenochtitlan,” in Sabloff, *Supplement to the Handbook of Middle American Indians*, 1:141–42.

19. John E. Clark, “The Arts of Government in Early Mesoamerica,” *Annual Review of Anthropology* 26 (1997): 220–22.

20. David C. Grove, “Olmec Monuments: Mutilation as a Clue to Meaning,” in *The Olmecs and Their Neighbors*, ed. Elizabeth P. Benson (Washington, DC: Dumbarton Oaks, 1981), 48–68.

21. Michael D. Coe, *Mexico: From the Olmecs to the Aztecs*, 4th rev. ed. (New York: Thames & Hudson, 1994), 74.

22. Gareth W. Lowe et al., *Izapa: An Introduction to the Ruins and Monuments*, New

were responsible, although in most cases it may have come down to individual rivalries. At least we know that individual kings were often expected to lead their armies into battle.²³

Last-ditch destruction was absolutely characteristic of Book of Mormon people. Amalickiah, who usurped power over the Lamanites, swore “with an oath that he would drink [Moroni,¹’s] blood” (Alma 49:27). The venom of the language escalated as Moroni, in turn threatened the successor Lamanite leader: “I will arm my women and my children, and I will come against you, and I will follow you even into your own land, . . . and it shall be blood for blood, yea, life for life; and I will give you battle even until you are destroyed from off the face of the earth” (54:12). Hatred was why the Lamanite armies slaughtered all 230,000 Nephite soldiers at the final battle at Cumorah around AD 380 (Mormon 6). The same pattern of savagery was exhibited in the sixth-century-BC extermination battles that culminated the last Jaredite civil war: “And when the night came they were drunken with anger, even as a man who is drunken with wine; and they slept again upon their swords” (Ether 15:22). The result was the complete annihilation of both armies, except for a single surviving combatant and one peaceful observer.

People who are uninformed about the varied patterns of ancient royal succession might suppose that the right to kingship always passed from father to son, but other arrangements were sometimes preferred. For instance, among the Quiché Maya, “the inheritance of titles usually passed from father to oldest son. [But] if the older son was not fit to succeed, a brother of the ruler might inherit the office.”²⁴ For the Chontal Maya of the Gulf Coast, “when a ruler died, he was succeeded by his brothers in turn, if any,

World Archaeological Foundation Papers 31 (Provo, UT: BYU New World Archaeological Foundation, 1982), 28; and William L. Fash and David S. Stuart, “Dynastic History and Cultural Evolution at Copan, Honduras,” in *Classic Maya Political History: Hieroglyphic and Archaeological Evidence*, ed. T. Patrick Culbert (Cambridge: Cambridge University Press, 1991), 147–79.

23. David Webster, “The Not So Peaceful Civilization: A Review of Maya War,” *Journal of World Prehistory* 11 (2000): 87; and Tozzer, *Landa’s Relación*, 62.

24. Sandra L. Orellana, *The Tzutujil Mayas: Continuity and Change, 1250–1630* (Norman: University of Oklahoma Press, 1984), 93–94.

before his oldest son succeeded."²⁵ The same practice prevailed among the Mexica (Aztecs) and elsewhere in Mesoamerica.²⁶

The Nephite pattern was similar: "Pacumeni was appointed, according to the voice of the people, to be a chief judge and a governor over the people, to reign in the stead of his [deceased] brother Pahoran; and it was according to his right" (Helaman 1:13). Seezoram killed his brother, presumably so he could succeed to his brother's office (9:6). The custom was similar among the Lamanites: in the one case recorded in the Book of Mormon, when Amalickiah, the Nephite defector who had usurped rule over the Lamanites, was killed, "the brother of Amalickiah was appointed king over the people" (Alma 52:3).

One of the things a king inherited was a formal title. According to Quiché Maya tradition, their "first lord" was a man who had six sons. He "engendered Keh Nay and five other sons, who were provided by this king as governors. Hence until the Spaniards came the kings had this name [title] of Keh Nay because it is like [the title for many kings] 'Caesars' among the natives."²⁷

The Nephite account tells us that Lehi, had six sons. One of them, Nephi₁, became king of the Nephite faction of the immigrant population. After "Nephi began to be old . . . he anointed a man [presumably a son] to be a king and a ruler over his people" (Jacob 1:9). His people being "desirous to retain in remembrance his name," the succeeding kings "were called by the people, second Nephi, third Nephi, and so forth, according to the reigns of the kings; and thus they were called by the people, let them be of whatever [personal] name they would" (v. 11). Because of how far apart they are chronologically, the two instances (Quiché and Nephite) of the same practice are unlikely to be historically connected, but the parallel custom of giving a personal name as a royal title is at least extremely interesting.

Kaplan observed that Classic Maya kings are shown seated on four-legged thrones that represent "governing power."²⁸ At Late Pre-Classic

25. Roys, "Lowland Maya Native Society," 677.

26. Thomas A. Joyce, *Mexican Archaeology* (1914; New York: Kraus, 1969), 114.

27. Munro S. Edmonson, trans., *The Book of Counsel: The Popol Vuh of the Quiche Maya of Guatemala* (New Orleans: Tulane University, 1971), 230.

28. Jonathan Kaplan, "El Monumento 65 de Kaminaljuyu y su ilustración de ritos

Kaminaljuyu, clearly the thrones served as the formal seats for monarchical rulers who, while sitting on them, disposed of important civil and sacral business. Epigraphers who have studied lowland Maya inscriptions have identified a glyph that reads as “CHUM-wan (locative)” and means “seated.” Kaplan believes that this manner of representation first occurred at Kaminaljuyu about 150 BC and was transferred to the Maya lowlands not long afterward.²⁹ So it is of interest to learn that both Pahoran (Alma 50:40) and Lachoneus (3 Nephi 6:19), each a Nephite chief judge (ruler) in his day, “did fill the *seat* of his father.” Noah, a Zeniffite (i.e., Nephite) king, sat on a throne at an earlier date (Mosiah 11:9), as did later Nephite judges (Alma 60:7, 11, 21).

The choice of a successor ruler was not automatic, however. Sometimes it had to be ratified by the people. For the Aztecs, selection of a new head from among qualified candidates was by election, though voting was restricted to the nobles.³⁰ According to central Mexican tradition, leaders at the Teotihuacán metropolis had been chosen by election. Moreover, at Cholula a “Captain General” and council of nobles were elected, probably by lineage heads.³¹ Many passages in Mormon’s record (e.g., Mosiah 7:9; 29:39; Alma 2:6–7; Helaman 1:5) report that “the voice of the people” was necessary for the choice of a leader to be legitimated.

In another cultural pattern, a princely successor was given his credentials and began to govern while an “emeritus” king lived out his last years; that was so at least among the Aztecs.³² Mosiah₂ ruled for three years after his investiture before his aged father, Benjamin, actually died (Mosiah 6:3–6).

dinásticos de gobierno del Preclásico Tardío,” in *IX Simposio de investigaciones arqueológicas en Guatemala, 1995*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1996), 454.

29. Kaplan, “El Monumento 65 de Kaminaljuyu,” 2:454.

30. Elizabeth M. Brumfiel, “Ethnic Groups and Political Development in Ancient Mexico,” in *Factional Competition and Political Development in the New World*, ed. Elizabeth M. Brumfiel and John W. Fox (Cambridge: Cambridge University Press, 1994), 91–92.

31. Pedro Carrasco, “Los barrios antiguos de Cholula,” in *Estudios y documentos de la región de Puebla-Tlaxcala* (Puebla, Mexico: Instituto Poblano de Antropología e Historia, 1971), 18.

32. Benjamin Keen, trans., *Life and Labor in Ancient Mexico: The Brief and Summary*

Courtly Staff

Naturally, any ruler of a complex society had to be assisted by subordinates. As noted above, the Book of Mormon indicates that this was true for Nephite and Lamanite apparatuses of government too (Mosiah 23:39; 29:29; Alma 20:26; 46:4–5; 60:7, 11, 21; 62:47; 3 Nephi 6:11). In Mesoamerica the custom was common. Webster observed that “kings were surrounded by lesser hereditary nobles, officials, and courtiers, many of whom held titles and displayed carved benches, altars, and façade sculpture in their own impressive households.” These dependent rulers and aides were attached to a chief ruler’s court by, as it were, a type of bribery. “Like kings, these great lords had direct or indirect access to the labor and taxes of commoners.”³³ “A successful monarch was one who brought in an adequate amount of tribute each year or had a sufficient store of goods on hand to squelch [i.e., buy off] most sources of internal dissent.”³⁴ Or, in the case of the Aztecs, the king might give rich gifts to those nobles, judges, warriors, priests, and others who served him faithfully.³⁵

In the Book of Mormon, King Noah dispensed privileges to his close followers in the form of wives and concubines, the use of precious materials, their own buildings, and sumptuous subsistence (Mosiah 11:2–15). Alma 17:21–24 reports that Nephite prince Ammon was offered one of King Lamoni’s daughters in marriage when he made his royal identity known to the king, and Lamoni’s father, the great Lamanite king, offered to Ammon, under duress, “whatsoever thou wilt ask, even to half of the kingdom” (20:23). Book of Mormon kings obviously had considerable discretion in conferring gifts on subordinates to maintain their loyalty.

Relation of the Lords of New Spain, by Alonso de Sorita (New Brunswick, NJ: Rutgers University Press, 1963), 91.

33. Webster, “Not So Peaceful Civilization,” 87.

34. Robert S. Santley et al., “The Politicization of the Mesoamerican Ballgame and Its Implications for the Interpretation of the Distribution of Ballcourts in Central Mexico,” in *The Mesoamerican Ballgame*, ed. Vernon L. Scarborough and David R. Wilcox (Tucson: University of Arizona Press, 1991), 16.

35. Santley et al., “Politicization of the Mesoamerican Ballgame,” 16; and Frances F. Berdan, *The Aztecs of Central Mexico: An Imperial Society* (New York: Holt, Rinehart and Winston, 1982), 101.

Factions and Schisms

Yet despite the advantages of loyalty to the constituted rulers, dissent and political fission were frequent. In central Mexico, "the process of internal migration, colonization, and later political fission or 'schismogenesis' . . . seems to have been endemic until the time of the Conquest,"³⁶ and those processes were general throughout most of Mesoamerica. Division and rivalry over rulership among lineages in southern Mesoamerica were so continual that "jealousy of siblings is virtually institutional in Mayan society." In fact, "in Quiché it is significant that *ch'ak'imal* 'younger-brotherhood' is the word for 'jealousy', while *atz* 'older sibling' also means 'specter.'"³⁷

In Book of Mormon terms, one thinks of the deadly and enduring split between the descendants of older siblings Laman₁ and Lemuel and Nephi and his descendants₁. Both Nephite and Jaredite histories describe a string of rebellions and flights to new territory by this or that segment of the population. Mosiah₁, Zeniff, Alma₁, Amulon, Amlici, Amalickiah, and Morianton₂ at different times and places shared the ambition of Jacob₃, who wished to flee with his followers to an area where they aimed to "build up unto themselves a kingdom" (3 Nephi 7:12). That process even continued past the battle at Cumorah. According to Moroni₂'s very last description of prevailing conditions, "the Lamanites are at war one with another; and the whole face of this land is one continual round of murder and bloodshed; and no one knoweth the end of the war" (Mormon 8:8). That sounds much like Levi-Strauss's characterization of "Indian America" as "a kind of Middle-Ages that lacked a Rome: a confused mass."³⁸

One factor in this process of division in government must have been the multiplication of the sons of the nobility (especially when the lords had multiple wives) without enough legitimate sociopolitical roles for them all to fill. For example, in Yucatan "these 'nobles' or 'lords' . . . ruled the towns, acted as judges and divided the land, and they also had . . . exemption

36. Eva Hunt, "Irrigation and the Socio-political Organization of Cuicatec Cacicazgos," in *Chronology and Irrigation*, ed. Frederick Johnson (Austin: University of Texas Press, 1972), 173.

37. Edmonson, *Book of Counsel*, 93.

38. In Terrence Kaufman, "Areal Linguistics and Middle America," in *Native Languages of the Americas*, ed. Thomas A. Sebeok (New York: Plenum, 1977), 2:84.

from tribute and food and gifts from the lower classes.”³⁹ However, Wolf suggested that the development of native revolutions was due to large populations of those elite men whose “hereditary position fits them to rise to positions of power in societies but in which there are [comparatively] few such positions.”⁴⁰ That analysis would explain the problem among the Nephites, where rebellion was engendered by and among “those people who professed the blood of nobility” (Alma 51:21).

Palaces as Symbols of Kingship

A powerful Mesoamerican ruler presided in a palace at his capital city. Best known is the palace of the Aztec ruler, described with open-mouthed wonder by Spanish writers. What archaeologists and historians consider palaces are known at least at Yagul and Mitla in Oaxaca, in the Quiché area in highland Guatemala, and in the lowland Maya area. The earliest reported structure classified as a palace by archeologists was “an actual *palace* or royal residence” at Monte Albán in phase II (100 BC–AD 200),⁴¹ which existed at about the same time as the palace built by King Noah in the city of Nephi (Mosiah 11:9).

Effective capital cities are recognizable not only by their unusually lavish structures but also by their crucial geographical positions.⁴² The “king which was over all the land” of the Lamanites was reported in the early first century BC to inhabit a “palace” (Alma 22:1, 2) at his capital, the city Lehi-Nephi (the presence of a palace in a capital city tends to confirm a state-level government). Appropriately, his son Lamoni, a subordinate king ruling over a single, restricted land, dwelt in a mere “house” (19:18), and his seat is nowhere said to be in a city. In the land of Zarahemla, the three early kings over their limited domain, Mosiah₁, Benjamin, and Mosiah₂,⁴³ as well as the subsequent chief judges, are not reported to have occupied palaces.

39. Tozzer, *Landa's Relación*, 62.

40. Fash and Stuart, “Dynastic History,” 175.

41. Kent V. Flannery and Joyce Marcus, “Evolution of the Public Building in Formative Oaxaca,” in *Cultural Change and Continuity, Essays in Honor of James Bennett Griffin*, ed. Charles E. Cleland (New York: Academic Press, 1976), 217; emphasis in the original.

42. Hunt, “Irrigation and the Socio-political Organization,” 171.

43. John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1985), 190–97.

Jurisprudence

Aides and courtiers of rulers often served in the role of judge. We know the most about the Aztec judicial apparatus. León-Portilla described basic dispute resolution as being in the hands of a panel of judges who sat in a public place where they received complaints daily “until two hours before the sunset.”⁴⁴ The judicial system at Tenochtitlán, the capital, was elaborate and apparently efficient; it was administered by a hierarchy of special officials, at the head of whom stood the *Ciuacoatl*, or chief justice.⁴⁵ “In matters of appeal there were twelve judges who had jurisdiction over all the others, and they used to sentence with sanction of the ruler.”⁴⁶ The Aztec ruler himself was nominally the supreme judge, so every 12 days he would meet with all of the judges to consider the difficult cases.⁴⁷

Sanctions applied to violators of the law were frequently harsh. Crimes considered most serious were punishable by death, and there were many such statutes.⁴⁸ Among the Tzutujil Maya of highland Guatemala, “treason, sorcery, murder, incorrigible thievery and killing quetzal birds were capital offenses.”⁴⁹ Among the Maya of Yucatan, the penalty for certain offenses was death or enslavement.⁵⁰ Sahagún’s post-conquest informants in the Valley of Mexico left him vivid sketches of several modes of Aztec punishment.⁵¹ At

44. Miguel León-Portilla, *Aztec Thought and Culture: A Study of the Ancient Nahuatl Mind* (Norman: University of Oklahoma Press, 1963), 151.

45. Joyce, *Mexican Archaeology*, 130.

46. León-Portilla, *Aztec Thought and Culture*, 151.

47. Keen, *Life and Labor*, 126, 130; and Francis A. MacNutt, trans. and ed., *Fernando Cortés: His Five Letters of Relation to the Emperor Charles V* (Glorieta, NM: Rio Grande, 1977), 1:259.

48. For example, for the Aztecs, see Jacques Soustelle, *The Daily Life of the Aztecs on the Eve of the Spanish Conquest*, trans. Patrick O’Brian (New York: Macmillan, 1962), 142–43, 156–57.

49. Orellana, *Tzutujil Mayas*, 92.

50. Roys, “Lowland Maya Native Society,” 670.

51. Bernardino de Sahagún, *Florentine Codex: General History of the Things of New Spain*, trans. Arthur J. O. Anderson and Charles E. Dibble (Santa Fe, NM: School of American Research and University of Utah, 1961), 8: illustrations 66–68. Two of these images are reproduced in color in John L. Sorenson, *Images of Ancient America: Visualizing Book of Mormon Life* (Provo, UT: Research Press, 1998), 117.

Texcoco in the Valley of Mexico, the punishment for “unnatural [i.e., sexual] crimes” was torture and burning.⁵² In the kingdom of the Cakchiquel, who were neighbors of the Tzutujil and Quiché peoples, “if the decision of the judges was approved [by an oracle who looked into a sacred, polished stone for confirmation], the sentence was immediately inflicted.”⁵³

From the beginning, the Nephites reported that “the laws of the land were exceedingly strict” (Jarom 1:5). Among the Nephites, the sizable body of traitorous “king-men who had been taken and cast into prison . . . were executed according to the law. . . . And whosoever was found denying their [the people’s] freedom was speedily executed according to the law” (Alma 62:9–10). The Lamanite rulers were apparently more arbitrarily violent; King Lamoni made it a practice to slay, without any trial, those servants who allowed his flocks to be scattered and stolen (Alma 17:28; 18:6). The Book of Mormon records that Abinadi was condemned at a trial before Noah, king of the Zeniffites, and he was burned to death (Mosiah 17:12–20). Within Nephite society, the inhabitants of the city of Ammonihah slew many prisoners by burning (Alma 14:8–14). Other instances of immediate execution are reported in Alma 1:14–15 and 3 Nephi 4:28.

Within the overall Aztec polity, “in the provinces were a number of local courts of limited jurisdiction, from which cases of any importance were sent to the capital for trial, and there existed besides in the capitals a number of small courts . . . which dealt summarily with small offences, but from which appeal could be made to the higher courts.”⁵⁴ Judges were not to sentence those on trial according to their whims; the laws were codified by successive rulers,⁵⁵ as was the case with Mosiah₂’s laws (Mosiah 29:25; Alma 1:1; Helaman 4:22).

The Nephite system of courts also had successive layers of jurisdiction.

52. Hubert H. Bancroft, *Native Races of the Pacific States* (1875; repr., San Francisco: Bancroft, 1883), 2:329; and Janne M. Sjodahl, *An Introduction to the Study of the Book of Mormon* (Salt Lake City: Deseret News Press, 1927), 234–35.

53. Domingo Juarros, *A Statistical and Commercial History of the Kingdom of Guatemala* (1823; repr., New York: AMS Press, 1971), 384.

54. Joyce, *Mexican Archaeology*, 131; and Keen, *Life and Labor*, 126–30.

55. Sonya Lipset-Rivera, “Law: Pre-Hispanic and Colonial Periods,” in *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*, ed. David Carrasco (Oxford: Oxford University Press, 2001), 2:110.

King Mosiah₂ explained the system of judges that would be followed as soon as he abdicated: “Choose you by the voice of this people, judges, that ye may be judged according to the laws which have been given you by our fathers. . . . And now if ye have judges, and they do not judge you according to the law . . . ye can cause that they may be judged of a higher judge” (Mosiah 29:25, 28). Korihor, preaching in the land of Gideon against the established order of society, was “carried before . . . the chief judge over the [local] land” (Alma 30:21). When that hearing failed to be decisive, “the [local] chief judge . . . caused that he should be bound; and they delivered him up into the hands of the officers, and sent him to the land of Zarahemla [the capital], that he might be brought before . . . the chief judge who was governor over all the land” of Zarahemla (v. 29). (To some degree the role of chief judge may have been copied after the judges described in the Israelite scripture before the rise of the monarchy, though the Old Testament stories describe an office of a more restricted nature.)

Of course, the details of the systems of jurisprudence varied in different times and places in Mesoamerica. “Six elected nobles” held the legal power at Cholula; they met at the “place of the gate or entrance of the wall”⁵⁶ (that venue reminds us of the Israelite elders who conducted business at “the gate,” e.g., Deuteronomy 21:18–21).⁵⁷ But in Guatemala “the supreme council of the monarch of the Quiché [Indians] was composed of 24 grandees, with whom the king deliberated on all political and military affairs. These counsellors were invested with great distinctions and many privileges” and duties, including the administration of justice.⁵⁸ Among the Tzutujil, neighbors of

56. Joseph Mountjoy and David Peterson, *Man and Land at Prehispanic Cholula*, Anthropology Publication 4 (Nashville: Vanderbilt University Publications in Anthropology, 1973), 4–5.

57. Compare William J. Adams Jr., “Synagogues in the Book of Mormon,” *Journal of Book of Mormon Studies* 9/1 (2000): 7.

58. Juarros, *Statistical and Commercial History*, 18. Welch argued that there were 24 priests in the council that advised Noah, the Zeniffite king, when he condemned Abinadi to death and that the number 24 had sacred significance in Jewish jurisprudence. John W. Welch, “Number 24,” in *Reexploring the Book of Mormon*, ed. John W. Welch (Salt Lake City: Deseret Book and FARMS, 1992), 272–74. The city of Nephi, where Noah dwelt, very likely was located less than 50 miles from the much later Quiché capital; perhaps no direct connection should be assumed for the number 24.

the Quiché, court personnel included “agents, accountants, and treasurers,” while a man with the title of “K’ael . . . served as a . . . counselor who helped to explain, question, and decide cases”; in short, he was a court lawyer.⁵⁹

Prisons existed, but they were not normally used to punish people by lengthy incarceration (at least among the Maya, where “punitive confinement seems to be unknown”).⁶⁰ They were, rather, holding facilities pending execution or formal judicial proceedings involving the prisoners. The Book of Mormon also reports only that kind of confinement when it mentions prisons. Interestingly, in the process of the Spanish conquest, Cortez sent two natives he had taken captive at the coast as messengers to his Tlaxcalan allies, but they were imprisoned before they could tell who they were and had to wait two days to be freed and heard.⁶¹ In the Book of Mormon, when four men of a Nephite exploring party penetrated “the land of Nephi . . . they were surrounded by the king’s guard, and were taken, and were bound, and were committed to prison. And it came to pass when they had been in prison two days they were again brought before the king” and allowed to identify themselves (Mosiah 7:7–8). The same pattern or motif occurred again when five men were imprisoned without being able to explain why they were found at the place where the Nephite chief judge had been murdered. It was only after a night in jail that they could get their explanation heard (Helaman 9:1–14). Welch pointed out that among the Nephites, prisons were used to hold “accused persons pending trial or judgment.”⁶²

Stoning is a form of punishment common to both Mesoamerica and the Nephite account. Examples in the Book of Mormon include Alma 15:1, 26:29, 38:4, and Helaman 13:33. This, of course, had been a practice among the Nephites’ Israelite ancestors. Sahagún pictures a Mexica (Aztec) man attempting to flee while being stoned.⁶³

59. Orellana, *Tzutujil Mayas*, 90–91.

60. Roys, “Lowland Maya Native Society,” 670.

61. Bernal Díaz del Castillo, *The Conquest of New Spain*, trans. J. M. Cohen (New York: Penguin Books, 1963), 140–41.

62. John W. Welch, *The Legal Cases in the Book of Mormon* (Provo, UT: Brigham Young University Press and Neal A. Maxwell Institute, 2008), 166, 368.

63. Sahagún, *Florentine Codex*, 5: illustration 68. This image is reproduced in color in Sorenson, *Images of Ancient America*, 117.

Administrative Control and Foreign Relations

Ultimately, the greatest violence executed by Mesoamerican rulers was not against subjects within their political system but against those who remained marginal to it. In cases where conquered, or at least not fully assimilated, groups refused to follow the dictates of the nominal ruling government, they were controlled in the only institutional way known in pre-Spanish times—by military attack, or its threat. After sufficient manifestations of rebellion or political dissent, such rebels were warned, sometimes more than once, of what they faced. If they persisted in disobedience or rebellion, the central governing power would attack their local or regional center of power. Typically, large numbers of the people would not be slain, but the local rulers would be displaced, imprisoned, sacrificed, or executed, and new local lords would be installed.⁶⁴ Retribution in the form of added tribute would be assessed, and life would go on. Mesoamerican societies routinely operated in this manner.

The Book of Mormon relates stories of the same pattern, such as the case of the people of Morianton (Alma 50:29–36), as well as that of the reluctant Lamanites of Alma 47:1–7. In the case of the dissident Nephite king-men, chief captain Moroni, “commanded that his army should go against those king-men, to pull down their pride and their nobility. . . . [And so] they were hewn down and leveled to the earth” (51:17–18).

One feature of the foreign relations aspect of governance was the marriage of elites from different polities. Mesoamericans of the upper class felt closer in some degree to their class peers in neighboring nations than they did to their own peasantry. Furthermore, marrying within the upper class across societal boundaries provided kinship links that could serve to allay tensions that otherwise might lead to war. Such social links also facilitated trade between peoples. For instance, “friendly relations between Cuicatecs [of central Mexico] of different states were reinforced not only by aristocratic intermarriage but also by the mythology of common descent transmitted by oral traditions and codices. All the aristocratic houses of the Cuicatec claimed descent from a single line of *caciques* (‘one House’) and

64. Compare the case of the Lamanite capture of the city of Zarahemla in which the chief judge was slain (Helaman 1:19–21), but apparently few others.

recognized each other as kin (*deudos*) originally headed by one mythical ancestor.”⁶⁵ Among the Maya, “kings were linked by conquest, marriage, clientage, or alliance to other rulers” at some distance.⁶⁶

We read in the Book of Mormon that Ammon, a prince in the Nephite kingdom, who undoubtedly showed his upper-class status by his speech, dress, armament, and other cultural characteristics, came among the people ruled by Lamoni, a Lamanite subordinate king. When Ammon was brought before the king, the latter “would that Ammon should take one of his daughters to wife” (Alma 17:24), a perfectly normal thing to do in the Mesoamerican context.

Further details could be presented, but enough have been spelled out to make clear that the book that Mormon left behind is full of convergences with Mesoamerican civilization in respect to patterns of government, both in overall structure and in small details. Furthermore, those patterns are directly contradictory at point after point to the sociopolitical structure and culture that prevailed in Joseph Smith’s upstate New York. Only an ancient Mesoamerican author could have come up with such a picture.

65. Hunt, “Irrigation and the Socio-political Organization,” 206.

66. David Webster, *The Fall of the Ancient Maya: Solving the Mystery of the Maya Collapse* (London: Thames & Hudson, 2002), 166.

Chapter 18

Warfare

More than one-third of the Book of Mormon text involves warfare, either directly or indirectly. Some 100 military actions or campaigns are reported in the text.¹ In an introductory analysis of war in the Book of Mormon, military historian William Hamblin framed the topic this way:

The wars and battles described in the Book of Mormon include some of the most detailed narratives of the book. . . . The Book of Mormon displays patterns of warfare that made sense only before gunpowder was used. This can be seen in both the general patterns and in the tiny details of the text. Descriptions of weapons and tactics in the Book of Mormon are definitely ancient. Furthermore, the warfare in the Book of Mormon differs from what we read about in the Bible. It differs in the same way that war in ancient Mesoamerica . . . differed from biblical warfare.²

In Mesoamerican civilization war was of great significance. For years scholars expert on that area were convinced that such war as there was had been insignificant until about AD 1000. (Keeley has shown that such a view regarding any level of civilization or time period is historically inaccurate.

1. John L. Sorenson, "Seasonality of Warfare in the Book of Mormon and in Mesoamerica," in *Warfare in the Book of Mormon*, ed. Stephen D. Ricks and William J. Hamblin (Salt Lake City: Deseret Book and FARMS, 1990), 462–74.

2. William J. Hamblin, "Warfare in the Book of Mormon," in *Rediscovering the Book of Mormon*, ed. John L. Sorenson and Melvin J. Thorne (Salt Lake City: Deseret Book and FARMS, 1991), 241.

Warfare is virtually a cultural universal.)³ However, in the last quarter century archaeological research has demonstrated that that old-fashioned view of Mesoamerican civilization was completely erroneous. Warfare was a massive undertaking in Mesoamerica for at least 1,500 years prior to the Spanish conquest and probably for at least another millennium before that.⁴

A large number of correspondences are visible between what is reported in the Book of Mormon and what has become apparent in recent years as the subject of war has come to the fore in scholarship on Mesoamerica.

Problems for Archaeology: Evidence for Warfare

How does one go about locating and excavating a battlefield? This rhetorical question points to many of the reasons why military conflict among the Maya went so long undetected by archaeologists. For example, David Webster, the leader in Mesoamerican war studies, observed, "If we had to rely *only* on archaeological materials, we would dismiss as inconsequential one of the most important components [i.e., warfare] in the structure and evolution of . . . society."⁵ One reason is that "weaponry is seldom recovered from archaeological contexts [although it] is frequently depicted in art."⁶ Yet artistic representations can be hard to turn into history. Rands's dissertation in 1952 showed substantial artistic evidence of armed conflict during the Mesoamerican Classic period,⁷ but hardly anyone picked up on it for another 25 years, when the excavation of the fortification at Becán was reported. Chase and Chase agree that "warfare is extremely difficult to see in

3. Lawrence H. Keeley, *War before Civilization* (New York: Oxford University Press, 1996).

4. David Webster, "The Not So Peaceful Civilization: A Review of Maya War," *Journal of World Prehistory* 14/1 (2000): 65–119; and James N. Ambrosino et al., "The History of Warfare at Yaxuná," in *Ancient Mesoamerican Warfare*, ed. M. Kathryn Brown and Travis W. Stanton (Walnut Creek, CA: Altamira, 2003), 109–23.

5. David Webster, "Warfare and Status Rivalry: Lowland Maya and Polynesian Comparisons," in *Archaic States*, ed. Gary M. Feinman and Joyce Marcus (Santa Fe, NM: School of American Research Press, 1998), 350–51.

6. Webster, "Not So Peaceful Civilization," 101–2.

7. Robert L. Rands, "Some Evidences of Warfare in Classic Maya Art" (PhD diss., Columbia University, 1952).

the archaeological record.”⁸ This is true not just for Mesoamerica but for anyplace in the world.⁹

A fundamental problem in interpreting the historical significance of warfare from the few remains revealed by archaeology was underlined by Stocker on the basis of Aztec history:

Were it not for the written record, conquest as *the* major variable in the expansion of the Aztec state would never have been known. Aztec history spanned some 200 years, and [we know from their documents] they conquered 250 major centers. These centers had their own tributaries; therefore, they in essence conquered approximately 1000 to 2500 centers. [They] placed governors and some of their own population at only eight of these conquered centers. There is no evidence of an Aztec conquest at centers without governors, nor is there any evidence of Aztec presence at . . . tributaries of the sites at which governors were placed.¹⁰

8. Diane Z. Chase and Arlen F. Chase, “Texts and Contexts in Maya Warfare: A Brief Consideration of Epigraphy and Archaeology at Caracol, Belize,” in Brown and Stanton, *Ancient Mesoamerican Warfare*, 171–88.

9. William Rathje, “Dr. Garbage” to archaeologists, has an authoritative word to say about the difficulties of battlefield archaeology: “At any battle site, archaeologists are enthralled by the specter of finding spear points and pieces of chain mail at the positions predicted by history or legend. Perhaps the most disappointed were the British archaeologists who excavated the reputed site of the Battle of Hastings, where William the Conqueror’s Normans decimated King Harold’s Anglo-Saxons, on the battle’s 900th anniversary in 1966. [All] the historical treasure trove they recovered consisted of a few human and horse teeth that survived the scavengers and the forces of nature. . . . After the deciding clash [at the Battle of Culloden] between the Scottish Clans and British troops on April 16, 1746, virtually all the dead were picked clean of weapons, armor, valuables, and clothing, down to the last memento, by the ubiquitous camp followers, both professional scavengers and ladies of the night. Then the bodies were neatly stacked in large piles and set ablaze.” William L. Rathje, “The World’s Oldest Profession,” *MSW Management (The Journal for Municipal Solid Waste Professionals)* (2002); at http://www.mswmanagement.com/MSW/Articles/The_Worlds_Oldest_Profession_3982.aspx.

10. Terry Stocker, “Conquest, Tribute and the Rise of the State,” in *Studies in the Neolithic and Urban Revolutions: The V. Gordon Childe Colloquium, Mexico, 1986*, ed. Linda Manzanilla, BAR International Series 349 (Oxford: BAR, 1987), 367.

If the same situation was the case in earlier centuries, then we must suppose that the archaeological evidence that has come forward in recent years in Mesoamerica must be seen as merely preliminary. Webster must be right in emphasizing the scale of the intellectual shift that has been required in coming to see a major role for warfare in Mesoamerican culture history.

Fortifications are the most obvious material evidence for armed conflict. The first serious study of Mesoamerican fortifications was published in 1948 (in English in 1951) by archaeologist Pedro Armillas (a mentor of mine),¹¹ but his work depended strictly on documentary sources on the Aztecs.¹² The study was largely ignored by Mesoamericanist colleagues, just as Rands's work was ignored by Mayanists. The conventional wisdom blinded experts to the significance of conflict in the cultures of the area. Decades later its importance became obvious as Webster and others "documented warfare over much of the [Maya geographical] range" by locating "destruction levels, mass burials, and fortifications from Middle and Late Preclassic times."¹³ However, Webster warned, "no conclusions about war can be drawn on the basis of the *lack* of fortifications. . . . [Their] absence may be more apparent than real. Very flimsy defenses were highly effective given [limited] Maya military capabilities, and few traces of such constructions might survive or be initially recognized."¹⁴

The failure of once-impressive walls to survive visibly is easy to document. An extreme example is a case recorded by the Spanish conquistadors. They reported the presence of a six-mile-long wall across a valley on the main route between the Valley of Mexico and neighboring Tlaxcala; the wall was 20 feet thick and nine feet high, with a wooden breastwork atop it.¹⁵ Yet no trace of it has been reported by archaeologists. Furthermore, in colonial days the Spaniards forced the Indians of the Valley of Mexico to erect

11. Pedro Armillas, "Fortalezas mexicanas," *Cuadernos americanos* 41/5 (1948): 143–63. For an English version, see Armillas, "Mesoamerican Fortifications," *Antiquity* 25 (1951): 77–86.

12. Angel Palerm, "Notas sobre las construcciones militares y la guerra en Mesoamerica," *Anales del Instituto Nacional de Antropología e Historia* 8 (1954): 123–34.

13. Webster, "Not So Peaceful Civilization," 69.

14. Webster, "Not So Peaceful Civilization," 74; emphasis added.

15. Hubert H. Bancroft, *Native Races of the Pacific States* (1875; repr., San Francisco: Bancroft, 1883), 2:416–17.

a great stone wall enclosing a huge area to contain the Europeans' cattle. More than two million natives labored for four months on the vast project, yet today no trace of it has been identified.¹⁶ In Yucatan shortly before the Europeans arrived, "the temples and houses of the lords [of Mayapan] were said [in tradition] to have been surrounded by a wall, of which no trace could be found" by excavators.¹⁷ Much less could we expect to find more ancient defensive structures that had been deteriorating for longer periods. At Kaminaljuyu, after generations of archaeological research by many parties, only in the early 1990s did Japanese archaeologists find a 164-foot (50 m) segment of what they termed the "great wall"¹⁸ that dates back perhaps to the first civilized period there (ca. the sixth century BC, making it the earliest discovered fortification wall in Mesoamerica). It had been built of piled-up soil 22 feet (6.7 m) high. Finding a short section of that 2,500-year-old construction within the Guatemala City urban area was strictly a matter of luck; most of the original must have been destroyed long ago. Obviously the feature would have been functionally meaningless unless it had been completed around at least the heart of the city (as was the case later at Cholula and other Mesoamerican cities).¹⁹ Since the site of Kaminaljuyu is here considered to be the city of Nephi, and Nephi had a wall around it (Jacob 7:25; Mosiah 7:10; 9:8) at about that time, discovery of the Guatemalan wall by these researchers provides a striking correspondence. (Presumably, the wall around the city of Nephi would have been modeled in concept on the one that surrounded Jerusalem; compare 1 Nephi 4 and 2 Nephi 5:16.)

A supplementary correspondence involving the wall is that it needed consistent repair in order to retain its protective power. The wall found by the Japanese archaeologists was simply of piled-up earth, probably coated

16. Henry F. Dobyns, "Estimating Aboriginal American Population: An Appraisal of Techniques with a New Hemispheric Estimate," *Current Anthropology* 7 (1966): 406.

17. Harry E. D. Pollock et al., *Mayapan, Yucatan, Mexico*, Publication 619 (Washington, DC: Carnegie Institution, 1962), 264.

18. Kuniaki Ohi et al., "Los resultados de las investigaciones arqueológicas en Kaminaljuyu," in *X Simposio de investigaciones arqueológicas en Guatemala, 1996*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1997), 93–94.

19. Joseph B. Mountjoy and David Peterson, *Man and Land at Prehispanic Cholula*, Anthropology Publication 4 (Nashville: Vanderbilt University, 1973), 3.

with a layer of clay. It would have been subject to erosion by the regular rains and thus required systematic maintenance. When the Zeniffites returned to the city of Nephi and reoccupied it, only a few years after Mosiah's people had abandoned the site, they immediately began to "repair the walls of the city" (Mosiah 9:8) to restore their previous function.

Archaeologists have been dealt a bad hand by history and the erosive forces of nature; nevertheless, through a combination of documentary history, art, and archaeology it has become possible to draw a partial picture of war in the Mesoamerican past. But so much depends on the mindset of the archaeologists who interpret the evidence that the picture may long remain incomplete and confusing. (Cowgill contrasts his conservative interpretation of the effects of war among the Maya with the views of military-minded Webster, even though they both dealt with the same set of facts.)²⁰

The Season When Wars Were Fought

In the ancient world, economic production was sufficiently constrained that the seasons when crops were planted and harvested largely determined the year's cycle of activities. The priority of agricultural needs meant that the manpower to make up armies was available only during the off-season for crop production. In Mesoamerica that meant that for the most part only the dry season (approximately November to March) could be spared for war. Since this was also the time in the tropical year of the driest weather, conditions for troop movements and living in the field were optimal then. Also, with the harvest finished at the beginning of that season, a maximum food supply would have been available either to be taken along by an expeditionary force or to be confiscated at the scene of a campaign. While we do not know in detail how the Nephite calendar related to the seasons of our year, it is apparent that the Book of Mormon account portrays the usual season for warfare as the time when agriculture had the lowest priority; the wars took place primarily in what the Nephites called the last months of their year and continued into the first months of their new year (see Alma 53:7).²¹ If we

20. George L. Cowgill, "Teotihuacan, Internal Militaristic Competition, and the Fall of the Classic Maya," in *Maya Archaeology and Ethnohistory*, ed. Norman Hammond and Gordon R. Willey (Austin: University of Texas Press, 1979), 62.

21. John L. Sorenson, "Seasons of War, Seasons of Peace in the Book of Mormon,"

make the most likely correlation with our calendar, this pattern was essentially the same as that for Mesoamerican wars, November through April.

The Nature of Warfare

Religion, or cult,²² was integral to the conduct of war in Mesoamerican cultures. Religion affected every aspect of warfare.²³ War was considered to occur on two interrelated planes: the supernatural and the natural. “Victory in the supernatural realm ensured victory in the natural world.”²⁴ “Victory not only secured wealth and power for the winners, it demonstrated to all that the gods were on their side.”²⁵

The Book of Mormon record asserts the same principle. For example, in regard to the long war between the Lamanites and Nephites as related in Alma 43–62, the Nephite historian prefaced his account (Alma 43:9–10) with the observation that the Nephites’ aim was

that they might preserve their rights and their privileges, yea, and also their liberty, that they might worship God according to their desires. For they knew that if they should fall into the hands of the Lamanites, that whosoever should worship God in spirit and truth, the true and the living God, the Lamanites would destroy.

Even more explicitly, the Nephite war chief Moroni, told Zerahemnah,

in Sorenson and Thorne, *Rediscovering the Book of Mormon*, 249–52; and Sorenson, “Seasonality of Warfare,” 462–74.

22. *Cult* emphasizes the formalistic or ritualistic aspect of *religion*.

23. Carlos R. Margain, “Pre-Columbian Architecture of Central Mexico,” in *Handbook of Middle American Indians*, ed. Robert Wauchope et al. (Austin: University of Texas Press, 1971), 10:45–91. Berdan stated, “Warfare was always entwined with religion.” Frances F. Berdan, *The Aztecs of Central Mexico: An Imperial Society* (New York: Holt, Rinehart and Winston, 1982), 105.

24. F. Kent Reilly III and James F. Garber, “The Symbolic Representation of Warfare in Formative Period Mesoamerica,” in Brown and Stanton, *Ancient Mesoamerican Warfare*, 132.

25. David A. Freidel et al., *Maya Cosmos: Three Thousand Years on the Shaman’s Path* (New York: William Morrow, 1993), 323.

the Lamanite leader of an expeditionary force that invaded Nephite territory (Alma 44:2–4):

Ye are angry with us because of our religion. But now, ye behold that the Lord is with us; and ye behold that he has delivered you into our hands. And now I would that ye should understand that this is done unto us because of our religion and our faith in Christ. And now ye see that ye cannot destroy this our faith. . . . Ye see that God will support, and keep, and preserve us, so long as we are faithful unto him, and unto our faith, and our religion.

The Nephite stance recalls the Israelite concept of “holy war.” As Ricks explained, warfare for the Near Eastern as well as the Mesoamerican Israelites was considered to be “under the direction of the gods.”²⁶

In line with that viewpoint, military leaders sometimes sought priestly or prophetic guidance about aspects of impending combat. Thus Nephite captain Zoram₂ sought inspired help from Alma₂, head of the Nephite church, concerning what operationally he should do next (Alma 16:5–6). And at Alma 43:23–24, chief captain Moroni₁ received knowledge from Alma₂ about how to solve a particular military issue. In fact, to shortcut the process of specifically seeking divine help, “it was the custom among all the Nephites to appoint for their chief captains . . . some one that had the spirit of revelation and also prophecy” (3 Nephi 3:19; see also Mosiah 23:1; 24:23; Alma 48:16).

In the same vein, a “[Guatemalan native] high priest, his [assistant] and four other priests were accustomed to meet to ascertain by sorcery and enchantment, if they should make war, or if foes were coming to attack them.” They then told the *caciques* (chiefs) “whether [or whither] they should go to meet them.”²⁷

The Mesoamericans’ feeling of dependence on the deities for success in

26. Stephen D. Ricks, “‘Holy War’: The Sacral Ideology of War in the Book of Mormon and in the Ancient Near East,” in Ricks and Hamblin, *Warfare in the Book of Mormon*, 103.

27. Lawrence H. Feldman, *Papers of Escuintla and Guazacapan: A Contribution to the History and Ethnography of South-Eastern Guatemala*, Occasional Publications in Mesoamerican Anthropology 7 (Greeley: University of Northern Colorado, 1974), 23.

battle could not displace natural considerations governing conflict, as shown particularly in demographic and logistical matters. Crucial agricultural production trumped war activity, as observed earlier; very rarely did a campaign try to go contrary to the parameters called for by nature. Furthermore, since the agricultural season was the time of rains, not only was it “costly and inefficient to detach large numbers of farmers from the land” during the season for cultivation, it was also a time when food stocks were low. Moreover, during wet season, rainfall made paths or roads difficult to traverse,²⁸ and camping out became miserable. Of course, the dry season itself presented other problems—for example, “finding drinking water for large numbers of men,”²⁹ yet such problems were countered by the fact that food supplies were most abundant then.³⁰

Reasons for Warfare

War among the Nephites was viewed as serious and costly business, not to be undertaken without sufficient cause (Alma 48:21–25). Only rarely in Book of Mormon history is an explicitly economic motivation for conflict reported, although such factors must almost always have been part of the background. The nominal causes tended to be either rivalry over political dominance or else ethnic bias, often framed in terms of competing belief systems (i.e., “religion”).

According to the Book of Mormon, the general aim of warring rulers was to gain control of their enemy’s power/administrative structure with its existing wealth-generating apparatus. Ancient governments rarely had competent personnel and organizational skills sufficient to allow the victors to occupy and rule over a subject people. It was sufficient for the purposes of the aggressors to see that conquered folks continued to be governed largely as they always had been but with the local rulers rendered compliant with the conquerors’ desires. What that usually meant was that the subjected

28. Webster, “Not So Peaceful Civilization,” 101.

29. Webster, “Not So Peaceful Civilization,” 101.

30. Ralph L. Roys, “Lowland Maya Native Society at Spanish Contact,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 3:671; and Sandra L. Orellana, *The Tzutujil Mayas: Continuity and Change, 1250–1630* (Norman: University of Oklahoma Press, 1984), 69.

rulers would make regular tribute payments and would not conspire in support of third-party rivals. Thus the normal object of war was not to destroy an enemy people but simply to subdue and incorporate them into the conquerors' political economy. For instance, among the Aztecs, the best documented of all Mesoamerican conquerors, a defeated land was "normally allowed to retain its traditional rulers, mode of government, and language and traditions. Rarely were cities razed or populations destroyed";³¹ in fact, those would have been counterproductive acts contrary to the goal of subjecting the population to productive subservience.

The same was true of the war policy of Book of Mormon rulers (e.g., Mosiah 7:21–22; 3 Nephi 3:6–8; Alma 48:1–3; 49:7). Cheeky Giddianhi, urging the Nephite leaders that they should surrender peacefully to his warriors and cede political control to him, offered to allow them to share the spoils as his underlings ("become our brethren," 3 Nephi 3:6–7). Only in the extreme cases of the final annihilation wars among the Jaredites (Ether 14–15) and Nephites (Mormon 6) did genocide become the aim.

The typical act that triggered fighting was some violation of boundaries by a neighboring group intent on harming a people or infringing on resources. Hunt reports that the Cuicatecs resorted to conflict to obtain sacrificial victims and tribute, to defend against colonizers who encroached on their agricultural lands and springs, and generally to protect their political autonomy.³² Among the Yucatan Maya, on the other hand, Landa assigned the blame to rivalries "between the . . . great princely houses . . . [who engaged in] great strifes and enmities" over their privileges.³³ Those privileges most often were the right to collect tribute payments. Cowgill agrees with that analysis and cites Webster in support.³⁴

The Book of Mormon Amlicites (and later "the king-men") launched a civil rebellion aiming to place their partisans at the head of the Nephite

31. Berdan, *Aztecs of Central Mexico*, 109.

32. Eva Hunt, "Irrigation and the Socio-political Organization of Cuicatec Cacicazgos," in *Chronology and Irrigation*, ed. Frederick Johnson (Austin: University of Texas Press, 1972), 210.

33. Alfred M. Tozzer, ed. and trans., *Landa's Relación de las Cosas de Yucatan: A Translation*, Peabody Museum of American Archaeology and Ethnology Papers 18 (Cambridge, MA: Harvard University, 1941), 40.

34. Cowgill, "Teotihuacan, Internal Militaristic Competition," 62.

government—that is, to gain access to the supply of public wealth (Alma 2:1–2), although the loyalist faction defined the conflict in terms of the rebels wanting to “deprive them of their rights and privileges of the church” (v. 4). Later, dissenter Amalickiah, having become king over the Lamanites, wanted “to bring them [the Nephites] into bondage” (48:4), indeed “to reign over all the land” (v. 2). That intent was essentially similar to what aggressive Mesoamerican sovereigns wanted.

To subject by the use of force, however, often invited a renewed attack later on, because lacking an effective system of direct administrative control, the victor could only subdue rebellion with a new, often more violent attack. The Aztecs routinely counted on such rebellions and violent re-subjections.³⁵ In the Book of Mormon the Zeniffites, defying their Lamanite overlords, rebelled again and again, despite forbidding odds (Mosiah 21:5–13). Moreover, when the “king-men” refused to comply with the demands of the Nephite central government, war chief Moroni₁ had only one recourse: to take up arms against them and put to death the unrepentant insurgents (Alma 62:2, 9). By that absolute means, the Nephite state, like the Aztecs, solved the immediate problem by (as Mormon’s record quaintly puts it) militarily “subjecting them to peace and civilization” (51:22). A little later, again seeing no alternative to retaliatory war, Moroni₁ threatened the same fate to the dissenter Ammoron, who had become the Lamanite king by usurpation: “I will come against you, and I will follow you even into your own land . . . ; yea, and it shall be blood for blood, yea, life for life; and I will give you battle even until you are destroyed from off the face of the earth” (54:12). Dominance by war inevitably begets more war (compare Mormon 8:8).

The recurrence of wars was attributable in part to rivalries between Mesoamerican houses (see chapter 14) or lineages that continually vied for dominance within Mesoamerican societies. Heller and Stark interpreted the archaeological evidence as showing this condition in Late Pre-Classic Guatemala, notably at Kaminaljuyu.³⁶ In that “unstable and highly

35. Ross Hassig, *Aztec Warfare: Imperial Expansion and Political Control* (Norman: University of Oklahoma Press, 1988), 26.

36. Lynette Heller and Barbara L. Stark, “Economic Organization and Social Context of a Preclassic Center on the Pacific Coast of Guatemala: El Balsamo, Escuintla,” in *New*

competitive period among local lineages,” these social entities independently sought to acquire luxury goods “that might validate their elite status.” This competition for prime position involved “genealogical continuity in leadership” and “the importance of the ancestral relationship, actual or fictive.” Also, both “orderly” succession and dramatic replacement are reflected in settlement patterns, the former by continuous occupation, renewal of certain centers, and refurbishment of public buildings, and the latter by the abandonment of centers that were supplanted by new ones.

The same kind of struggle for sociopolitical primacy was still being manifested in that area more than 1,500 years later among the Quiché and their neighbors. Carmack said of them that at first “a large [Quiché] conquest state was ruled over jointly by contesting lineages claiming descent from the Toltecs; these contests of power eventually broke out into open conflict and led to a splintering into . . . rival states.”³⁷ Farther north, in the fabled Toltec city of Tula, “the picture that emerges is one involving continual political strife and occasional open hostilities between factions of the city’s elite, not effective centralization of authority.”³⁸ That statement could equally be made of history at either Nephi or Zarahemla.

Similar rivalries over political and economic dominance were seen among the lowland Maya. Webster observes that “wars were . . . fought between traditional enemies for decades . . . as kings sought to redress old insults and ancestral defeats.”³⁹ Bove noted in regard to the Late Classic Maya collapse, “There existed internal factions within the royal lineages that competed, which were marked by intense conflicts resulting in rising political

Frontiers in the Archaeology of the Pacific Coast of Southern Mesoamerica, ed. Frederick Bove and Lynette Heller, Anthropological Research Papers 39 (Tempe: Arizona State University, 1989), 58–59.

37. Robert M. Carmack, “Toltec Influence on the Postclassic Culture History of Highland Guatemala,” in *Archaeological Studies in Middle America* (New Orleans: Tulane University, 1970), 85–86.

38. Robert S. Santley et al., “The Politicization of the Mesoamerican Ballgame and Its Implications for the Interpretation of the Distribution of Ballcourts in Central Mexico,” in *The Mesoamerican Ballgame*, ed. Vernon L. Scarborough and David R. Wilcox (Tucson: University of Arizona Press, 1991), 9.

39. David Webster, *The Fall of the Ancient Maya: Solving the Mystery of the Maya Collapse* (London: Thames & Hudson, 2002), 339.

tension and growth in rivalries.”⁴⁰ In the wars of extermination that decimated Maya society in the Petexbatun area of Guatemala in the eighth and ninth centuries AD, the region’s population was virtually destroyed by “a state of endemic siege and fortification warfare” as a result of lordly rivalries.⁴¹

The Book of Mormon picture is similar to what Heller and Stark portray for what is believed to be the same area of highland Guatemala.⁴² From the books of Jacob through Omni, the sociopolitical situation in that area’s land of Nephi is one of instability due to conflict between the two major claimant lineages or houses, the Nephites and the Lamanites; those ruling lineages were defined in terms of the same features Heller and Stark listed: ancestry and the display of sumptuary goods that validated status (note Noah’s public projects and concern with riches in Mosiah 11:9–13, as well as the Lamanite king’s desire for tributary wealth in Mosiah 19:15). What Heller and Stark call “unstable external exchange relations” remind us of the Anti-Nephi-Lehies and their king who “opened correspondence” with the Nephites, whereupon the more conservative Lamanite and dissenter groups nearby rebelled against him. Evacuation of the city of Nephi by the Lamanite king in order to allow Zeniff’s Nephite colonists to settle there, repair the place, and rule locally on a subservient basis further agrees with the frequent situation in highland Guatemala as reconstructed on the basis of archaeology.

As wars continued over generations, societal values came to glorify martial virtues (Words of Mormon 1:13–14; Alma 26:25; 48:17; 3 Nephi 3:2–4; Mormon 2:1; 3:9–10; Moroni 9:10). The result, of course, was a continuation of the cycle of conflict. In symbolic representations, the same values were conveyed, no doubt being manifested across the full spectrum of the arts.⁴³

40. Frederick J. Bove, “El colapso del período Clásico en la Costa Sur de Guatemala,” in *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1995), 764.

41. Arthur A. Demarest et al., “Classic Maya Defensive Systems and Warfare in the Petexbatun Region: Archaeological Evidence and Interpretations,” *Ancient Mesoamerica* 8 (1997): 248.

42. Heller and Stark, “Economic Organization.”

43. Consider the literary formula “having warred a good warfare” (Alma 1:1), as well as more literary forms, such as “fight like dragons” (Mosiah 20:11; compare Alma 43:44)

The process of glorifying military values is commonly visible among some Mesoamerican cultures. Berdan noted in regard to the Aztecs that “the culture nurtured ideals that were best realized on the battlefield.”⁴⁴ Nagao observed that “much of the imagery at Xochicalco and Cacaxtla overtly glorifies bellicosity, conquest, and sacrifice.”⁴⁵ Rands demonstrated the same phenomenon in Maya art.⁴⁶

Organization for War

Preparation for conflict and execution of a people's war policy were priority business for Mesoamerican as much as for Book of Mormon societies. They had, first of all, to define their enemy, which in turn meant identifying their allies. Those relationships depended on the specific situation. Sometimes battles were between local neighbors (e.g., Alma 50:25–26, as in the case of adjacent cities Morianton and Lehi that disputed the boundaries of their cultivable lands), but at other times natural rivals would be drawn together to oppose a common enemy (e.g., Mormon 2:28, where Lamanites and robbers were the joint foe of the Nephites, though they later fought among themselves, Moroni 1:2). At the moment when the Spaniards were approaching from Mexico to conquer Guatemala, the king of the Quiché, Kicab Tanub, was at war against his neighbors, the Tzutujil and the Mams. The imminent arrival of Alvarado's forces “obliged him to desist . . . and dispatch messengers to the other kings and chiefs, inviting them to confederate for their common defence” against the invading Spaniards.⁴⁷

Mustering a force of competitive size was obviously a major problem in preparing for war. Among the Nephites, just as in the ancient Near East and Mesoamerica, only one method was feasible—calling up militia. In no case

and “fought like lions” (Mosiah 20:10; compare Alma 14:29); and compare these to Bernal Diaz's use of the same image, referring to the Chiapanecs, who fought “like furious lions.” Domingo Juarros, *A Statistical and Commercial History of the Kingdom of Guatemala* (1823; repr., New York: AMS Press, 1971), 211.

44. Berdan, *Aztecs of Central Mexico*, 105.

45. Debra Nagao, “Public Proclamation in the Art of Cacaxtla and Xochicalco,” in *Mesoamerica after the Decline of Teotihuacan, A.D. 700–900*, ed. Richard A. Diehl and Janet C. Berlo (Washington, DC: Dumbarton Oaks, 1989), 99.

46. Rands, “Some Evidences of Warfare.”

47. Juarros, *Statistical and Commercial History*, 387.

were there sufficient resources to support a significant standing professional army; each community had to call up some or all of its able-bodied men as the situation demanded. Alma 16:3 illustrates how the system worked. A Lamanite force had invaded the land of Ammonihah near the west wilderness of the land of Zarahemla. “Before the Nephites could raise a sufficient army to drive them out of the land, they [the invading force] had destroyed the people who were in the city.” Clearly there was no regional defense force at the ready. The defenders had to be “raised,” and that required a certain interval to communicate to the men and for them to muster (compare Helaman 1:19). In this case, after their force was assembled, they pursued the intruders a distance on the order of 200 miles, overtook them, “scattered” them, and freed the prisoners they had taken (Alma 16:4–8). The released captives “were brought [back] by their brethren [i.e., their neighbors, the local militiamen who had constituted the armed pursuers] to possess their own lands” (v. 8) in the vicinity of Ammonihah.

A similar process of “raising” a force is pictured in Alma 46, where chief captain Moroni₁, in order to combat an army of dissenters, called upon “whosoever will maintain” their freedom to “come forth,” whereupon “the people came running together with their armor” (vv. 20, 21). In the aftermath Moroni₁ “sent forth” to various parts of the land “and gathered together all the people . . . who had . . . armed themselves” (vv. 28, 31).

Each regional force constituted an “army” with its own commander (Alma 62:34). Taken together, a number of these separate armies could also be called an army (v. 31). That composite body was under the operational control of a war chief, or “chief captain,” who “took all the command, and the government of their wars” (43:16–17). In the structure of leadership, some Nephites were classed as “captains” while others were “higher captains” and above them “chief captains,” of whom one was “chiefest” (2:13; 43:16–17; 3 Nephi 3:18). The Lamanites had a corresponding leadership structure (Alma 43:44; 48:5).

Among the Yucatan Maya, *batabs* were local chiefs, members of the noble class. *Batab* is translated to Spanish as *capitán* (*captain* in English). A *batab* went to war at the head of his people, although actual operations were directed by a *nacom*, or war chief.⁴⁸ In highland Guatemala “each settlement

48. Tozzer, *Landa's Relación*, 62.

had its fighting unit, which was under the leadership of one of the high officials . . . of the leading lineage. . . . This leader[’s title] . . . was translated as ‘captain.’”⁴⁹

The 2,000 young warriors led by Helaman were called his “sons” (Alma 56:10). Among the Quiché of highland Guatemala, “the warriors serving under [a commander] were conceptualized in a kinship framework as ‘sons.’”⁵⁰

As noted above for the Maya, a war chief (*nacom*) was typically given the command of military operations in the field. The Aztecs, too, split government power during wartime between a civil and a military ruler (a practice widespread throughout the world).⁵¹ However, unlike the Aztecs, who were almost perpetually at war and who had corps of military specialists to manage their militia forces, earlier and smaller Mesoamerican societies probably lacked comparable army leadership; all would have been amateurs. Yet one cannot be sure about how much experience was accumulated by senior war leaders of this sort. It could have been considerable. For instance, an old Quiché king is reported in tradition to have been “sinking under the burden of years and the violence of diseases brought on by continual fatigue” due to his extended service. He had been “schooled in military matters from the time of his youth.”⁵² One neighboring Tzutuhil lord was killed after 26 years of campaigns.⁵³ This reminds Book of Mormon readers of Moroni₁, who was the Nephite war chief and in the field campaigning from age 25 until 39, but even more so of Mormon, who became the last Nephite war chief when he was only 15, a role that he fulfilled periodically until his death about 68 years later (Mormon 2:2; 8:3).

As commonplace and extensive as warfare was in ancient times, its conduct required a great deal of immediate preparation. The numbers that

49. Carmack, “Toltec Influence,” 80.

50. Carmack, “Toltec Influence,” 80.

51. Charlotte McGowan, “The Philosophical Dualism of the Aztecs,” *Katunob* 10/4 (1977): 41–42.

52. Samuel K. Lothrop, *Atitlan: An Archaeological Study of Ancient Remains on the Borders of Lake Atitlan, Guatemala*, Publication 444 (Washington, DC: Carnegie Institution, 1933), 12.

53. Orellana, *Tzutujil Mayas*, 60.

would actually assemble for a campaign depended on how local leaders and their constituents could be motivated to respond to a supposed threat or to opportunities for conquest and plunder (e.g., Mormon 2:7, “we did gather in our people as fast as it were possible”). (Draconian sanctions were sometimes applied to those who refused military service, Alma 62:9). After Nephite dissident Amalickiah seized the kingship among the Lamanites, he set out to “inspire their hearts against the Nephites” in order to assemble an expeditionary force (48:2). Meanwhile, the armies of his antagonist, Nephite chief captain Moroni, “did increase daily because of the assurance of protection which his [defensive] works did bring forth unto [the people]” (50:12).

In the early days of their centuries-long conflict, when populations were relatively small, the Lamanite/Nephite wars must have been little more than raids (the first use of the term *army* or *armies* in the record was not until about 150 BC, Words of Mormon 1:13). The reported numbers of warriors involved and casualties suffered progressively increased over history. There was a respite from warfare for a couple of post-catastrophe, early AD centuries; then the numbers mounted again until the final slaughter of the Nephites late in the fourth century AD, at which time they comprised 230,000 men, likely plus women and children (Mormon 6:10–15).⁵⁴

Are these credible numbers according to Mesoamerican history? Yes. The Quiché force opposing the Spaniards numbered 232,000 despite the fact that some groups abstained from the alliance.⁵⁵ The Aztecs mustered a force of 400,000 in a fairly routine campaign against a nearby kingdom.⁵⁶ More problematic is Alba Ixtlilxochitl’s account of central Mexican history,⁵⁷ according to which a combined Aztec army at one point consisted of 700,000 men. Of the yet hazier past the historian said that in the last war of

54. James E. Smith, “How Many Nephites? The Book of Mormon at the Bar of Demography,” in *Book of Mormon Authorship Revisited: The Evidence for Ancient Origins*, ed. Noel B. Reynolds (Provo, UT: FARMS, 1997), 255–93.

55. Juarros, *Statistical and Commercial History*, 389; and John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1985), 193–95.

56. Diego Durán, *The History of the Indies of New Spain by Fray Diego Duran*, trans. and ed. Doris Heyden (Norman: University of Oklahoma Press, 1994), 420.

57. Hassig, *Aztec Warfare*, 55, 282.

the “Tultecs,” which lasted three years and two months, a total (including women) of 5,600,000 persons were slain.⁵⁸ Even if we skeptically and arbitrarily reduce that figure by 90 percent, the number would be of the same order of magnitude as the combined forces reported or implied in the Book of Mormon for the final battle at Cumorah.

It is unclear to what degree Book of Mormon characters engaged in military training beyond what they might have received in occasional militia service. Some Nephite leaders (e.g., Lehi₂ and Teancum) appear in campaigns over a number of years, as though they might form a “permanent” military cadre. As noted above, Mormon was designated leader of the Nephite armies at age 15 (Mormon 2:1–2; earlier Moroni₁ had become the Nephite commander at age 25), which suggests training at an even younger age. In Guatemalan history a Tzutuhil king prior to the Spanish conquest was succeeded on the throne by Rimal Ahaus, a youth only 19 years of age who became noted for prosecuting war “with all the eagerness peculiar to youth.”⁵⁹ That makes the case of Mormon plausible (he himself observed, “Notwithstanding I being young, was large in stature,” Mormon 2:1). At least in general one could qualify for military leadership in Mesoamerica at a young age.

Mormon’s account gives details on force sizes and casualties, an indirect source of information on army size, at some points in such detail (e.g., Alma 2:19 reports 12,532 slain on one side and 6,562 on the other, and Mormon 2:9 reports an army of 44,000 against 42,000) as to show the reader that on-the-ground historical data had been utilized. That does not mean that all the size figures given were accurate, but the order of their magnitude doubtless is.

As already observed, most of the army sizes recorded in the Book of Mormon are in the plausible range for societies in ancient Mexico and Guatemala. For further examples, a Quiché king attacked the Tzutuhil with 80,000 veteran soldiers, while the defenders numbered 60,000. Later the Quiché king attacked with 120,000 men, while the Tzutuhil used a force of

58. According to the English translation in Milton R. Hunter and Thomas Stuart Ferguson, *Ancient America and the Book of Mormon* (Oakland, CA: Kolob Books, 1950), 385.

59. Lothrop, *Atitlan*, 12.

90,000, but then the new king of the Quiché, Iquibalam, increased his army to 200,000 men!⁶⁰

Rules of War

That warfare was culturally structured, with rules governing how a war was to be “properly” fought, comes through as much in the Nephite record as in Mesoamerican data. The fact of there being such rules is a noteworthy correspondence in itself, but beyond that, certain specific rules are themselves in agreement.

A frequent standard of Aztec warfare was that attackers should notify the people to be attacked that war was imminent or formally declared (although that was not invariably done).⁶¹ One of a number of examples is reported by Durán in connection with Tenochtitlán’s war against the neighboring kingdom of Azcapotzalco.⁶² Mormon’s history records that in the course of his people’s final wars, after a period of truce of 10 years, the Lamanite king wrote and told them he was preparing to attack (Mormon 3:1, 4). The commander of a robber army, Giddianhi, operated similarly in addressing the Nephite governor Lachoneus (3 Nephi 3:2ff.).

Another cultural norm was making a time-specific appointment for battle. Coe noted that the Maya scheduled battles according to anticipated astronomical phenomena, with the expectation that the enemy would respect the inevitability of such a date.⁶³ Coe cited a study by Lounsbury and Miller that shows that the date for the famous battle pictured on the Bonampak mural had been set in accordance with an event in the synodic period of Venus. Carlson found what he considered battle scheduling according to the Venus calendar at Teotihuacán and Cacaxtla.⁶⁴

Setting an appointed time for battles may have been practiced in the

60. Lothrop, *Atitlan*, 9–13.

61. Hassig, *Aztec Warfare*, 48.

62. Durán, *History of the Indies*, 76–77.

63. Michael D. Coe, review of *Skywatchers of Ancient Mexico*, by Anthony F. Aveni, *Archaeoastronomy* 4/1 (1981): 39–40.

64. John B. Carlson, *Venus-Regulated Warfare and Ritual Sacrifice in Mesoamerica: Teotihuacan and the Cacaxtla “Star Wars” Connection* (College Park, MD: University of Maryland, Center for Archaeoastronomy, 1991).

early history of Zarahemla. When the Amlicites rebelled against the central Nephite government, both they and the loyalist forces knew precisely where and when the battle between them would take place (Alma 2:12–16). In 3 Nephi 3:8 is another such instance. There is no question about a third case. The final battle at the hill Cumorah was certainly prearranged: “I, Mormon, wrote an epistle unto the king of the Lamanites, and desired of him that he would grant unto us that we might gather together our people unto . . . a hill which was called Cumorah, and there we could give them battle. And . . . the king of the Lamanites did grant unto me the thing which I desired” (Mormon 6:2–3). The date was set four years in advance. (Inasmuch as the Jaredites [who also spent a four-year period “gathering together the people,” Ether 15:14] fought their final battle at the same hill, one can be quite sure that astronomical/astrological considerations involving the Jaredite destruction date entered into the arrangements at Cumorah between Nephites and Lamanites.)

That there were other norms for the conduct of war is apparent, although the information in the Book of Mormon is too brief to allow comparisons. In Alma 43:30 Moroni’s thinking in this regard is exposed when we are told that since he considered his objectives virtuous, “he thought it no sin that he should defend them by stratagem.” Battle tricks were apparently kosher if conducted within certain rules that are not revealed to us in the brief history.

An unusual Aztec custom involving warriors has been compared by Yerman⁶⁵ to a dramatic incident reported in Alma 17:37–39. The account in the Book of Mormon tells of Ammon, a Nephite who had gone among the Lamanites as a missionary. At one point he and other “servants of the king” (Lamoni, a local ruler) who were tending “the flocks” of the king were beset by a band of Lamanites who tried to take the animals. Ammon killed a number of the rustlers with his sling. When the others attacked him with clubs, “he smote off their arms with his sword.” These were carried back to the king as trophies to witness of their bravery and faithful defense of his property. Yerman showed by citing conquest-level reports that Mexica

65. Bruce H. Yerman, “Ammon and the Mesoamerican Custom of Smiting Off Arms,” *Journal of Book of Mormon Studies* 8/1 (1999): 44–47.

(Aztec) warriors cut off foes' arms and retained them as token of combat valor. (Similar behavior was known in the ancient Near East.)

One of those areas not very clear to us is the treatment of prisoners of war. At one time the Lamanites "had also retained many prisoners, all of whom are chief captains, for none other have they spared alive" (Alma 56:12).⁶⁶ Yet other conditions could prevail. Retreating Lamanites on one occasion took the Nephite "fathers and . . . women and . . . children" prisoners with them (58:31). On another occasion, warriors with their women and children were imprisoned by Lamanites at Gid, a city near the east sea (55:16–17). Sometimes prisoners were exchanged (54:1ff.), but at other times women and children were sacrificed "unto [the Lamanites'] idol gods" (Mormon 4:14–15, 21; Moroni 9:7–8). Whatever the rules, they were apparently culturally subtle.

Some sources on Aztec history indicate the people's dismay at the fact that the Spaniards operated under a different paradigm for war than the natives did.⁶⁷ The Europeans did not practice any version of "ritual warfare," or even ritual *in* warfare, as did the natives. A Lamanite army was upset when they found that Moroni₁ had prepared wholly novel defensive measures to protect the Nephite defenders; in the face of the innovations the Lamanites, frustrated, broke off their attack (Alma 43:19–22). (The standard ethic until then may have been that personal combat, "mano a mano," was the only "proper" way to fight.) A little later, Moroni₁ again modified the rules ("altered the management of affairs," 49:11). When the enemy came upon Nephite cities that he had fortified with high embankments, the Lamanites "were astonished exceedingly" (vv. 4–5, 9) and did not have any countertactic even to try out in the situation.

Further on Organization

The Nephites were organized into four levels of command. Beyond the three kinds of captains already mentioned, the Book of Mormon informs us that Nephite kings or chief judges sometimes led in battle (Omni 1:24;

66. A. Brent Merrill, "Nephite Captains and Armies," in Ricks and Hamblin, *Warfare in the Book of Mormon*, 266.

67. Miguel León-Portilla, ed., *The Broken Spears: The Aztec Account of the Conquest of Mexico*, expanded ed. (Boston: Beacon, 1992), xliii–xliv.

Alma 2:16). Since the Lamanite armies described were all expeditionary forces, it is not surprising that their top rulers are not usually mentioned as coming to battle (although Alma 49:10 suggests that such royal field leadership was sometimes employed by them too). One Lamanite king did lead an attack on the Zeniffites, who dwelled nearby (Mosiah 20:12).

In the Book of Mormon, nothing is said of specialized fighting units, although they might be expected from the presence of a variety of weapons (e.g., bows and arrows, darts, javelins, spears, swords, slings; see the section titled “Weapons” below). A majority of the warriors could probably be considered equivalent to modern infantry.

We know the most about Aztec forces. They were organized at the lowest level into units of four or five soldiers (equivalent to squads), then of 20 (platoons?), 100, 200, and 400. The standard size of an Aztec “army” was 8,000 men.⁶⁸ Each unit marched and camped together under its own commander, but it is unlikely that in battle the operations of the different units (separate militia armies) were articulated very effectively, given the lack of battlefield communication systems. The exact structure of units would of course have differed among other Mesoamerican peoples and at other times.

In general, Book of Mormon militia armies no doubt were structured much like those of Mesoamerica (and Israelite and others of pre-gunpowder days) despite the fact that details are not spelled out in the text, although at one point a particularly provocative convergence does appear. At the final battle of Cumorah, the Nephite forces were organized in units of 10,000 (Mormon 6:10–15, each with a commander over “their ten thousand”). Similarly, “10,000 is used to denote an army . . . in both Assyrian annals and the Old Testament,”⁶⁹ and in Mexico Bernal Díaz observed that the Tlaxcalans, enemies to the Aztecs, were organized into units of 10,000.⁷⁰

68. Hassig, *Aztec Warfare*, 56–57.

69. Donald J. Wiseman and Edwin Yamauchi, eds., *Archaeology and the Bible: An Introductory Study* (Grand Rapids, MI: Zondervan, 1979), 38.

70. Bernal Diaz del Castillo, *The Bernal Diaz Chronicles: The True Story of the Conquest of Mexico*, trans. and ed. Albert Idell (Garden City, NY: Doubleday, 1956), 102.

Intelligence Resources

The Aztecs gained enough information on enemy lands and their forces and dispositions to plan specific strategies. They relied not only on their veteran commanders with personal experience in lands other than their own, but also on data furnished to them by traveling merchants familiar with each area, as well as information from specially dispatched agents in disguise.⁷¹ Merchant guilds are reported or suspected to have existed as long ago as the Olmec period; they probably also functioned in an intelligence-gathering capacity in pre-Aztec societies.

In addition, the Mexica regularly employed spies at a tactical level. “Scouting an adversary’s defensive posture was aimed at exploiting whatever weaknesses might be found.”⁷² In one notable case Aztec scouts, consisting of veteran warriors, actually approached (at night, of course) the enemy (Tarascan) camp by digging a tunnel and listening to what was being said, before reporting back to their commanders.⁷³

The Nephite record speaks of tactical spies used by both the Nephites and Lamanites (Alma 2:21; 43:23; 56:22, 35; 58:14). But they probably also employed strategic agents. Note that the Amlicite dissenters hatched a plot with Lamanite armies to attack Zarahemla city from the south simultaneously with the Amlicite attack from a northerly direction (Alma 2:21, 24–25, 27).⁷⁴ That plan could only have been made by secret envoys from the dissident Amlicites who had traveled around/past Zarahemla city (probably as “traders”) in order to contact Lamanite leaders to the southward to organize the pincer movement. Moroni₁ may also have had secret informants, for he feared that “the people who were in the land Bountiful” (Alma 50:32) would unite with Nephite dissidents and thus block Nephite access to the land northward. How would he know their minds except through spies?

The Aztecs made maps utilizing knowledge provided by traveling

71. Hassig, *Aztec Warfare*, 51–52.

72. Hassig, *Aztec Warfare*, 173.

73. Durán, *History of the Indies*, 279.

74. John L. Sorenson, *The Geography of Book of Mormon Events: A Source Book*, rev. ed. (Provo, UT: FARMS, 1992), 230.

merchant spies.⁷⁵ The Maya also made and used maps.⁷⁶ We may suppose from the volume of commerce long carried on that not only these two peoples but earlier ones too had maps that could have served military as well as commercial ends. They would have been important for military planning.

This was probably the case with the Nephites. As early in the historical record as ca. 80 BC, the military leader Zoram asked the high priest Alma₂ for an oracle about where to find Lamanite raiders and their prisoners. The priest specified an exact location many miles away, likely using a map to communicate his answer. The probable source of their maps, as with the Aztecs, would have been traveling merchants. The Nephite record says that around the time of Christ “there were many merchants in the land” (3 Nephi 6:11), and no doubt some of them operated earlier as well. Traders to the land northward almost certainly provided data and maps that guided colonists from the land southward as they headed northward to settle (Alma 63:4–10; Helaman 3:3–5). The ability of the force under Teancum to reach an exact point, the entrance to the “narrow pass,” ahead of Morianton’s fleeing group (Alma 50:33–35), also suggests map use or a very active memory. So does the fact that the Lamanites would make an appointment for battle at the hill Cumorah, located in territory they had never occupied. The further fact that the geographical statements in the text are entirely consistent throughout also suggests that the leaders possessed maps, or at least extensive personal knowledge from which they could have made maps.

A vital element of a command apparatus is a means of battlefield communication.⁷⁷ Given the technology of that day, messengers were probably the only effective medium that military units had to coordinate battle operations. When Moctezuma, the Aztec ruler, sent messengers to meet the Spaniards who had landed on the Veracruz coast, the couriers were so anxious to bring back the dire word of what they had learned that long distance away that they traveled virtually without rest for four days and nights to reach the capital, and even then Moctezuma was distressed at how long

75. Hassig, *Aztec Warfare*, 51–52.

76. The top of the map was what we would consider east. J. Eric S. Thompson, “Maya Hieroglyphic Writing,” in Wauchope and Willey, *Handbook of Middle American Indians*, 3:640.

77. Hassig, *Aztec Warfare*, 49.

it took him to hear from them.⁷⁸ Various Mesoamerican groups employed messengers, but the fastest and most elaborate system we know about was that of the Aztecs.⁷⁹ “Messages were carried by relays of men stationed about [five miles] apart along the main roads. . . . General intelligence from all over Mesoamerica reached Tenochtitlan [the capital] via the messengers.”⁸⁰

In the Book of Mormon the wording of the statement that the distance across the narrow neck of land was “a day and a half’s distance for a Nephite” perhaps suggests travel by a messenger. Commander Moroni₁ sent messengers hundreds of miles to make an inquiry of Alma₂ (Alma 43:24), and elsewhere intimation is given of such communication on an irregular basis. Yet Moroni₁ apparently did not hear any news from his regional commander, Helaman₂, for several years during the campaigns reported in Alma 56–58. Such unreliable communication sounds about like what we might expect for Mesoamerica two millennia ago, a time when communication systems were no doubt still not regularized.

Fortifications

Sensible commanders anticipate possible warfare by fortifying vulnerable sites and regions. The Aztecs had to defend themselves against the pesky Tarascans, who even threatened invasion of the territory of the supposedly more powerful people. The latter prepared by constructing “lines of forts and garrisons . . . along the frontier.”⁸¹ Earlier, Teotihuacán also built garrison cities to contain the Chichimecs beyond a line north of the area the metropolis controlled.⁸²

Moroni₁, that indefatigable Nephite innovator, first fortified their most vulnerable zone, “the borders by the [east] seashore.” Upon driving out squatter Lamanites from that sensitive sector, he sent in colonists from the land of Zarahemla to “possess the land.” He also placed armies on the south

78. Durán, *History of the Indies*, 508; and León-Portilla, *Broken Spears*, 28.

79. Hassig, *Aztec Warfare*, 51.

80. Hassig, *Aztec Warfare*, 51.

81. Armillas, “Mesoamerican Fortifications,” 81, 86.

82. Charles C. Di Peso, “The Correlation Question in General: Archaeological Perspective for Northern Mesoamerica and Beyond,” in *Proceedings of the 37th International Congress of Americanists (Buenos Aires, 1966)* (1968): 25–26.

borders of that area, thereby “fortifying the line between the Nephites and the Lamanites” (Alma 50:9–11). A continuation of this defensive preparation consisted of the founding of new garrison cities: Moroni, Nephihah, and “many [other] cities . . . north [of the fortified line] by the borders of the seashore” (vv. 12–15).

The notion of a line of fortified cities might have come to him from reading in the brass plates—Jewish sacred records—where mention is made of the Israelites of the First Temple period building a line of protective cities on their east. (Greenhut acknowledges that the term *cities* must have been “a little grandiose” for these little fort-settlements, yet the Hebrew word *ir* [city] was appropriate usage;⁸³ the same caveat probably applied to these glorified forts of the Nephites.) The “line” that was fortified ran, in my opinion, along the course of the modern Seco (Dry) River,⁸⁴ which, until the 17th century, constituted the lower portion of the main Grijalva River.⁸⁵ East (southward in Book of Mormon terms) of that line was ethnic Maya territory, which had been so as much as 2,000 years ago. At later times other lines/rivers were also fortified (Helaman 4:7; Mormon 3:5–6).

In Mesoamerica, fortifications were varied and extensive, contrary to what had been believed by archaeologists up to a few years ago. Probably the commonest and oldest type was that described by Cortez in 1525 in the Maya lowlands:

There is only one level entrance, the whole town being surrounded by a deep [dry] moat behind which is a wooden palisade as high as a man's breast. Behind this palisade lies a wall of very heavy boards, some twelve feet tall, with embrasures through which to shoot their arrows; the lookout posts rise another eight feet above the wall, which likewise has large towers with many stones to hurl down on the enemy.⁸⁶

83. Zvi Greenhut, “The City of Salt,” *Biblical Archaeology Review* 19/4 (1993): 43.

84. Sorenson, *Ancient American Setting*, 246.

85. Robert C. West, “Surface Configuration and Associated Geology of Middle America,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Robert C. West (Austin: University of Texas Press, 1964), 1:59.

86. Webster, “Not So Peaceful Civilization,” 80.

Essentially this form of fortification is known at Loma Torremote in the Valley of Mexico, Gualupita Las Dalias in Tlaxcala, and Los Naranjos in Honduras, all prior to 300 BC.⁸⁷ Moreover, the scale of some Mesoamerican fortification works is very impressive. At the famous Maya site of Tikal, earthen ditches and accompanying barriers were initially discovered some 35 years ago, and exploration has since expanded our knowledge of their scope until it is now estimated that a total of 22 miles of such defense works were constructed on all sides of the site and its hinterland (but they were not continuous—the builders seem never to have finished).⁸⁸

Other fortifications, always fairly simple technologically, were also employed. In a 1990 article on fortifications in the Book of Mormon,⁸⁹ I summarized in two tables findings from my study of Mesoamerican fortifications (the research sprawled to dimensions too great to allow me to publish a version with full documentation to the literature on Mesoamerica). Data were gathered as of ca. 1988 from 34 regions in Mesoamerica dated within 10 chronological periods as far back as the Early Pre-Classic. Of the 375 fortified sites documented, some 200 had “definite” defensive features while 100 others were listed as “possibly” fortified. Another 75 were sited in defensible positions, intentionally or not. A total of 16 technological modes of protection were reported (earth barrier, mud-brick wall, stone wall, wooden palisade, thorny barrier, moat/ditch, etc.). In the Late Pre-Classic and Proto-Classic periods, corresponding to times in the books of Mosiah, Alma, and Helaman, at least 56 Mesoamerican archaeological sites were fortified. The

87. Angel García Cook, “The Historical Importance of Tlaxcala in the Cultural Development of the Central Highlands,” in *Supplement to the Handbook of Middle American Indians*, ed. Jeremy A. Sabloff (Austin: University of Texas Press, 1981), 1:244–76; and Claude F. Baudez and Pierre Becquelin, *Archéologie de Los Naranjos, Honduras, Etudes mésoaméricaines 2* (Mexico City: Archéologique et Ethnologique Française au Mexique, 1973).

88. David Webster et al., “Nuevos trabajos e interpretaciones de los terraplenes de Tikal: Segunda temporada de campo,” in *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2006), 695–703; and Richard Terry, e-mail to Jay Silver, 2003, hard copy in my possession.

89. John L. Sorenson, “Fortifications in the Book of Mormon Account Compared with Mesoamerican Fortifications,” in Ricks and Hamblin, *Warfare in the Book of Mormon*, 425–44.

number of known fortified sites is now much higher after a quarter century of further discovery.

In addition to the ubiquitous earth-barrier-and-ditch type, other sorts of fortifications were commonly employed. "Near the end of Late I or the beginning of II [period; 200–100 BC] an earthen wall was built around" Monte Albán.⁹⁰ At Edzná, Campeche, a wide ditch formed a moat that was permanently filled with water, apparently serving simultaneously to drain surrounding wetlands.⁹¹ A vertical wall of stone or brick surrounded the sacred core of Tenochtitlán, the Aztec capital, and Mayapan, the Late Post-Classic city in Yucatan. Wall construction of unconsolidated stone was used at sites in south-central Mexico as well as in Yucatan where adequate timber was not readily available.

The Book of Mormon is replete with historical statements about fortifications, ranging in date from ca. 550 BC to ca. AD 375. The text says that around 75 BC the Nephites in the land of Zarahemla engaged in "digging up heaps of earth round about all the cities, throughout all the land which was possessed by the Nephites" (Alma 50:1). Two passages in particular provide such striking correspondences to what Cortez saw 1,600 years later in the same general area that the scriptural descriptions deserve full quotation:⁹²

The Nephites had dug up a ridge of earth round about them, which was so high that the Lamanites could not cast their stones and their arrows at them that they might take effect . . . because of the highness of the bank which had been thrown up, and the depth of the ditch which had been dug round about. . . . Now when [the Lamanites] found that they could not obtain power over the Nephites by the pass [entrance], they began to dig down their banks

90. Richard E. Blanton and Stephen A. Kowalewski, "Monte Albán and After in the Valley of Oaxaca," in Sabloff, *Supplement to the Handbook of Middle American Indians*, 1:98.

91. Ray T. Matheny et al., *Investigations at Edzná, Campeche, Mexico*, New World Archaeological Foundation Papers 46.1.1 (Provo, UT: BYU New World Archaeological Foundation, 1983).

92. All passages in the Book of Mormon that relate to fortifications of any sort are reproduced in Sorenson, "Fortifications in the Book of Mormon," in Ricks and Hamblin, *Warfare in the Book of Mormon*, 438–43.

of earth that they might obtain a pass to their armies, . . . but . . . they were swept off by the stones and arrows which were thrown at them. (Alma 49:4, 18, 22)

And upon the top of these ridges of earth [chief captain Moroni₁] caused that there should be timbers, yea, works of timbers built up to the height of a man, round about the cities. And . . . upon those works of timbers there should be a frame of pickets built upon the timbers round about; and they were strong and high. And he caused towers to be erected that overlooked those works of pickets, and he caused places of security to be built upon those towers, that the stones and the arrows of the Lamanites could not hurt them. And they were prepared that they could cast stones from the top thereof . . . and slay him who should attempt to approach near the walls of the city. (Alma 50:2–5)

Further, we are told that they built

a breastwork of timbers upon the inner bank of the ditch; and they cast up dirt out of the ditch against the breastwork of timbers . . . until they had encircled the city . . . round about with a strong wall of timbers and earth, to an exceeding height. (Alma 53:4)

In addition to the obvious agreement of these descriptions with that provided by Cortez, comparison with David Webster's word picture of how the fortifications at Becán must have functioned (the vertical height from the bottom of the ditch to the top of the embankment—not counting the height of a probable palisade—was more than 36 feet) provides further striking evidence of agreement between the two sources:

The steep angles of the inner ditch wall and parapet slope could not have been climbed without the aid of ladders; an enemy force caught in the bottom of the ditch would have been at the mercy of the defenders, whose most effective weapons under the circumstances would have been large rocks. . . . To throw “uphill” from the outside is almost impossible. Defenders . . . could have rained

long-distance missiles on approaching enemies using spear throwers and slings.⁹³

Webster adds, "It would not have taken a long time to construct these barriers," and Palerm cites cases where the Aztecs built fortifications even after an attack was imminent.⁹⁴ This recalls the time frame for Moroni₁'s urgent preparations (Alma 50:10).

Significantly, fortifications constructed in the upstate New York area that, according to some, could have served as inspiration for Joseph Smith's creation of the portions of the Book of Mormon concerned with warfare were not built like Moroni₁'s works.⁹⁵ Those in Mesoamerica are similar down to details.

Weapons

To discuss adequately the weapons used in Mesoamerica as well as those mentioned in the Book of Mormon requires some linguistic orientation. Consider the label *sword*, for example. Hamblin and Merrill noted that "although in one sense *sword* is a common English word, in reality a vast variety of weapons . . . exist that can be categorized as swords."⁹⁶ All discourse about ancient weapons is more or less limited by such imprecise labeling. Our task here is not with defining as such but with equivalence; what we shall take as a sword will be a weapon that serves like a sword, as a sharp smiting/cutting implement. In many cases we will rely on descriptions by the Spanish conquerors. If they called a native Mexican weapon a "sword" (*espada*), we accept the similarity as mediated by their experienced eyes and refrain from quibbling about verbal definitions.

The weapons used according to the Nephite record were swords,

93. David L. Webster, *Defensive Earthworks at Becán, Campeche, Mexico*, Middle American Research Institute Publication 41 (New Orleans: Tulane University, 1976), 95–96.

94. Palerm, "Construcciones militares," 123–34.

95. John L. Sorenson, "How Could Joseph Smith Write So Accurately about Ancient American Civilization?," in *Echoes and Evidences of the Book of Mormon*, ed. Donald W. Parry et al. (Provo, UT: FARMS, 2002), 292–95; and John E. Clark, "Archaeology and Cumorah Questions," *Journal of Book of Mormon Studies* 13 (2004): 144–51.

96. William J. Hamblin and A. Brent Merrill, "Swords in the Book of Mormon," in Ricks and Hamblin, *Warfare in the Book of Mormon*, 331; emphasis in the original article.

“cimeters” (English, *scimitars*), javelins, bows and arrows, darts, axes, clubs, stones, slings, and spears (Jarom 1:8; Alma 2:12; Helaman 1:14). (Knives go unmentioned, though perhaps they are implied by uses of the verb *stab*, but Hassig comments in regard to the Aztecs that “knives are rarely mentioned as weapons of war.”)⁹⁷ Most of these named weapons have obvious parallels in Mesoamerican armament,⁹⁸ but some deserve special mention to clarify the correspondences.

The clearest parallel to Book of Mormon “swords” is the Aztec *macuahuitl*, a sort of wooden club lined with rows of razor-sharp obsidian chips along two sides. The Spanish conquistadors consistently called these weapons *espadas* (swords) and considered them in certain ways superior to their own metal swords.⁹⁹ Certain other sharp-edged weapons known from Mesoamerica could also qualify as swords. Book of Mormon “cimeters” have been compared persuasively to several curved, sharp-edged weapons in use in Mesoamerica as seen in art.¹⁰⁰

A potential linguistic tie involving a weapon in the Near East and among the Maya adds interest to this cultural parallel. The obsidian-edged sword that the Aztec called *macuahuitl* was called by the Maya *hadzab*.¹⁰¹ In Hebrew a phonetically similar word, *ḥšb*, means “to hew” (chop).¹⁰²

Two minor correspondences involving swords in the Book of Mormon are at least interesting and perhaps significant. In one case the author reports

97. Hassig, *Aztec Warfare*, 92.

98. Matthew Roper, “Swords and ‘Cimeters’ in the Book of Mormon,” *Journal of Book of Mormon Studies* 8/1 (1999): 34–43; and Hamblin and Merrill, “Swords in the Book of Mormon,” 329–51.

99. Hassig, *Aztec Warfare*, 83–85; Matthew Roper, “Eyewitness Descriptions of Mesoamerican Swords,” *Journal of Book of Mormon Studies* 5/1 (1996): 150–58; Roper, “Swords and ‘Cimeters,’” 38–39; and Hamblin and Merrill, “Swords in the Book of Mormon,” 329–51.

100. Roper, “Swords and ‘Cimeters,’” 41–43; and William J. Hamblin and A. Brent Merrill, “Notes on the Cimeter (Scimitar) in the Book of Mormon,” in Ricks and Hamblin, *Warfare in the Book of Mormon*, 360–64.

101. Ralph L. Roys, *The Indian Background of Colonial Yucatan* (Norman: University of Oklahoma Press, 1972), 66.

102. Francis Brown et al., *A Hebrew and English Lexicon of the Old Testament* (Oxford: Clarendon, 1959), 345.



Figure 18.1. A pointed macuahuitl from Loltun Cave, Yucatan

that a sword-bearer who had unintentionally cut off the scalp of an enemy (who survived) “took up the scalp from off the ground by the hair, and laid it upon the point of his sword” (Alma 44:13). The Aztec sword (the *macuahuitl*) does not normally have a “point” on the end, but instances are known where that is the case (e.g., see the pointed *macuahuitl* in the representation of a warrior from Loltun Cave, Yucatan, which is Pre-Classic in date (fig. 18.1).¹⁰³ In light of this weapon form, to “lay” a scalp on the “point” makes sense because the broad triangular point would probably not have permitted one to spear the scalp up from off the ground.

Another correspondence refers to Lamanite swords in the land of Nephi. Upon converting to the Nephite religion, people eschewed further violence, saying, “Let us stain our swords no more with the blood of our brethren”

103. Hamblin and Merrill, “Swords in the Book of Mormon,” 339.

(Alma 24:12). Wooden swords inset with rows of obsidian chips, as was the *macuahuitl* type, would have become stained by blood soaking into the wood; had their swords been made of metal, the metaphor would lose its power.¹⁰⁴

One odd-shaped weapon that has no established name in English has been called a “curved double dagger.”¹⁰⁵ No specific mention of this artifact appears in the Book of Mormon, yet it is of interest here in relation to the Near Eastern origin of the people of that account. This weapon was grasped by a handle that connected curved blades that protruded in both directions. Roper (fig. 18.2) shows this weapon being wielded by the male figure on Kaminaljuyu Stela 11.¹⁰⁶ An armament of exactly the same exotic shape was used in ancient Syria, where it was called a *haladie*.¹⁰⁷

The Book of Mormon lists the bow and arrow among the weapons employed by the Nephites and Lamanites. In fact, the text provides a historical link for derivation of the weapon in Mesoamerica from the Near East. Nephi, and his brothers carried hunting bows with them on the trek from Jerusalem into Arabia on the way to America (1 Nephi 16:14, 18–23). Soon afterward Lamanite hunters in “the promised land” (presumably in southern Mesoamerica) are credited with depending on that device (Enos 1:20).

Some scholars question the antiquity of the bow and arrow in Mesoamerica. Hassig, who takes an evolutionary view of the development of military technology in Mesoamerica, doubts that early cultures had the bow and some other weapons known from late in the sequence.¹⁰⁸ But MacNeish and others supposed that archaeological evidence from the Tehuacán Valley in Mexico—the size of excavated stone points—showed use of the bow and arrow by around the time of Christ.¹⁰⁹ According to Müller, the bow and

104. Hamblin and Merrill, “Swords in the Book of Mormon,” 342.

105. Roper, “Swords and ‘Cimeters,’” 39.

106. Roper, “Swords and ‘Cimeters,’” 40.

107. George C. Stone, *Glossary of the Construction, Decoration and Use of Arms and Armor in All Countries and in All Times* (New York: Jack Brussels, 1961), 275.

108. Hassig, *Aztec Warfare*.

109. Richard S. MacNeish et al., eds., *Non-Ceramic Artifacts* (Austin: University of Texas Press, 1967), 55; and William J. Hamblin, “The Bow and Arrow in the Book of Mormon,” in Ricks and Hamblin, *Warfare in the Book of Mormon*, 380.

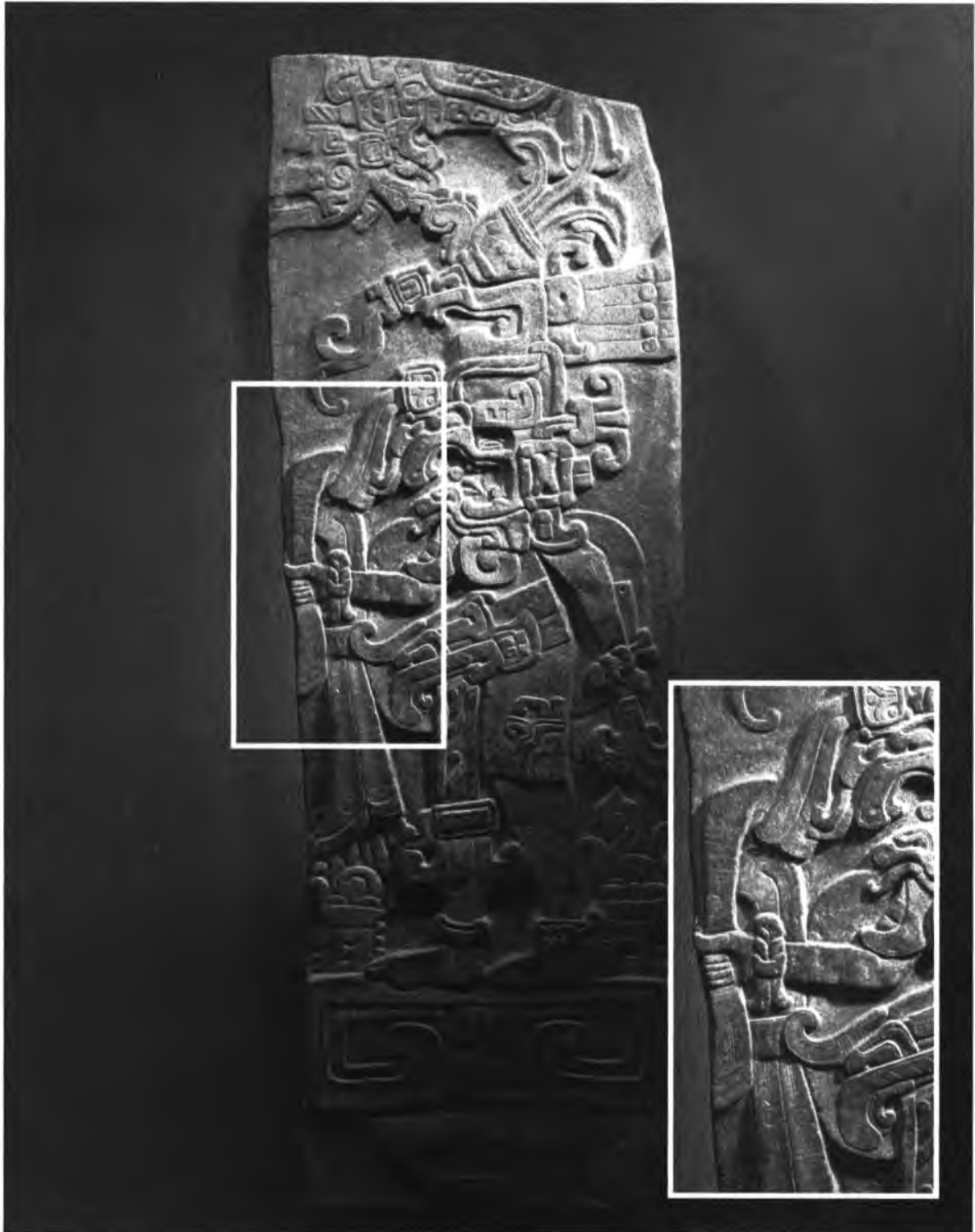


Figure 18.2. Curved double dagger on Kaminaljuyu Stela 11

arrow combination is manifested at Teotihuacán from period III (AD 300) on,¹¹⁰ but Tolstoy found a graffito on a potsherd of Teotihuacán II date (ca. AD 200) that appears to show a man holding a bow and arrow.¹¹¹

Regardless of particular artifact finds or artistic representations, there is considerable reason to believe that pretty much the same war complex known from late Mesoamerican cultures had great time depth and may be assumed to have been present in the Pre-Classic. As previously mentioned, Redmond reported from the Cuicatlan Cañada in south-central Mexico the remains of a “skull rack” like that of the Aztecs.¹¹² Dated between 300 BC and AD 200, Redmond’s find is a demonstration of the continuity and conservatism of the Mesoamerican warfare complex for at least 1,500 years. Thus “late” (Aztec) technology, including the bow and arrow as well as the skull rack, may well have been present a very long time before the Spanish conquest. In a like vein, the Aztec *macuahuitl* appears in Olmec art dated at least 2,500 years before the Spaniards arrived.¹¹³

At three places in the Book of Mormon, reference is made to arrows that were “cast” or “thrown” (Alma 49:4, 19, 22). A small arrow used with a regular bow would not fit with any such phrasing, but for a larger “arrow” (perhaps a “dart,” Jarom 1:8) such an expression makes perfectly good sense. The Aztec *atlatl* (spear-thrower) consisted of a stick with a hooked end that was held extended in the hand with a large spearlike arrow placed to abut on the hook; the length of the stick added to the extended arm greatly increased

110. Florencia Müller, “Instrumental y armas,” in *Teotihuacán, onceava mesa redonda: El Valle de Teotihuacán y su contorno* (Mexico City: Sociedad Mexicana de Antropología, 1966), 225–38.

111. Paul Tolstoy, “Utilitarian Artifacts of Central Mexico,” in Wauchope et al., *Handbook of Middle American Indians*, 10:281–83; and Hamblin, “Bow and Arrow in the Book of Mormon,” 383–85.

112. Elsa M. Redmond, *A Fuego y Sangre: Early Zapotec Imperialism in the Cuicatlan Cañada, Oaxaca*, Studies in Latin American Ethnology and Archaeology 1 (Ann Arbor: University of Michigan, 1983), 28. A skull rack consisted of a wooden platform on the façade of which rows of human skulls were displayed as a symbol of the ultimate coercive power of the state.

113. Ann Cyphers, *Escultura Olmeca de San Lorenzo Tenochtitlán* (Mexico City: Universidad Nacional Autónoma de México, 2004), 145–46, 159.

the force with which a heavier projectile could be “thrown” at the target.¹¹⁴ Spanish sources said these weapons were so powerful that the point could pierce any (Spanish) armor and still inflict a fatal wound.¹¹⁵ The devices are pictured in art as early as AD 400 but probably were much older. Thus the statements in the book of Alma about arrows being “cast” or “thrown” against a fortification are operationally sound. The statements reveal the use of a weapon that, although unnamed in Mormon’s history, art history and archaeology indicate could have been used in Mesoamerica in the Nephite era. Any spear-thrower quite certainly would have been unknown to any person of the United States in 1829.

Obsidian was absolutely essential for the preparation of arms (and for much industrial or craft work also), as discussed in chapter 16. The book of Alma indicates that the Lamanites and Nephites very probably depended on this volcanic glass to manufacture their crucial weaponry. Alma 49:2, 22 informs us that arrows and stones were the chief weapons employed by both the Lamanites and Nephites. It is difficult to imagine that most arrow points were not made of obsidian, for that was the material of choice for that purpose throughout the Americas.

The account in the book of Alma about a group of mutinous Lamanite militiamen seems to describe a situation in which a major obsidian outcrop was located at or near a nearly impregnable safe haven. The Lamanite men fled from the vicinity of the city of Lehi-Nephi to a location not far distant that was called Onidah, “the place of arms” (Alma 47:5). Nearby was Mount Antipas, on top of which they assembled after arming themselves. This “place of arms” clearly was in broken country no great distance from the capital city of Lehi-Nephi. One of the most extensive sources of obsidian in Guatemala is the hilly zone called El Chayal, approximately 20 miles northeast of Kaminaljuyu.¹¹⁶ Spots within the kilometers-wide exposure of obsidian are virtually paved with waste chips where for millennia cutting

114. Hassig, *Aztec Warfare*, 75–76, 79. John L. Sorenson, *Images of Ancient America: Visualizing Book of Mormon Life* (Provo, UT: Research Press, 1998), 131, shows an artist’s reconstruction of an atlatl in use.

115. Hassig, *Aztec Warfare*, 79.

116. Michael D. Coe and Kent V. Flannery, “The Pre-Columbian Obsidian Industry of El Chayal, Guatemala,” *American Antiquity* 30 (1964): 43–49.

implements have been shaped by chipping. Another outcrop that was relied upon to some extent in Late Pre-Classic times is located at San Martín Jilotepeque, about the same distance from Kaminaljuyu in a northwesterly direction.¹¹⁷ These two locations meet the geographical and contextual requirements of the text; thus Onidah and Mount Antipas could have been at or near either place.

One other implement of war featured in the Book of Mormon account is the sling. Of course, it was a common Near Eastern weapon known to the Nephites' ancestors. The princely sons of King Mosiah₂ on their expedition into Lamanite country carried slings as part of their normal hunting armament. One of them, Ammon, employed it against bandits (Alma 17:7, 36). He "stood forth and began to cast stones at them with his sling; yea, with mighty power he did sling stones amongst them; and thus he slew a certain number of them insomuch that they began to be astonished at his power" (v. 36). (The victims evidently lacked slings.) The weapon's effectiveness is not surprising when we learn that an experienced European slinger could cast stones more than 660 feet (200 m); slingstones used by the Roman army could pierce chain mail at 500 paces.¹¹⁸ A ceramic figurine from western Mexico represents a helmeted warrior preparing to launch a hefty stone with his sling; it dates back to within Book of Mormon times.¹¹⁹ Lowe reports pertinent archaeological finds—"a great pile" of "well-rounded stones of volcanic tuff"—that he was confident were prepared for use in slings;¹²⁰ these were found piled on the surface and also in underground caches at sites in Chiapas that date from 100 BC to AD 400, which is near Ammon's time.

117. Fred W. Nelson Jr. and John E. Clark, "Obsidian Production and Exchange in Eastern Mesoamerica," in *Rutas de intercambio en Mesoamérica: III Coloquio Pedro Bosch-Gimpera*, ed. Evelyn C. Rattray (Mexico City: Universidad Nacional Autónoma de México, 1998), 277–333.

118. Hassig, *Aztec Warfare*, 80.

119. Illustrated in Sorenson, *Images of Ancient America*, 131.

120. Gareth W. Lowe, "Southern Olmecs and Preclassic Zoques in Western Chiapas: Summary of Research and Writing, 1993," manuscript produced for the New World Archaeological Foundation in 1994, 43.

Shields and Armor

With such projectiles in play, as well as weapons of close combat such as swords, it would be no more than common sense that shields of some kind would also have been developed. The Book of Mormon mentions a number of types of shields and body armor—breastplates, arm-shields, and shields for the head (Alma 43:19, 38; Helaman 1:14). Mesoamerican art displays and documentary sources describe varieties of protective gear that were similar in nearly all features to the shields and armor spoken of in the text.

Military historian Hamblin compares a wide range of armor and shields used in the Near East and Mesoamerica with what is described in the Book of Mormon. In summary, he found that “the armor terminology of the Book of Mormon accurately reflects many of the technical differences between armor in the ancient Near East and that in Mesoamerica. The Book of Mormon uses biblical terms when the armor from the ancient Near East and Mesoamerica are similar, but it gives different terms when the armor differs and does not use biblical terms for types of Near Eastern armor that are not found in Mesoamerica.” Furthermore, “the Book of Mormon text presents an internally consistent description of armor that is also consistent with the general pattern of the use of armor in Pre-Modern times [according to the general weapons literature]. Second, the description of armor in the Book of Mormon closely matches the pattern of armor used among the Pre-Classic and Classic Mesoamericans.”¹²¹

Of interest also is the use of “thick clothing” as armor both in Mesoamerica and in Book of Mormon lands. Adoption of this innovation by the Nephites is reported in Alma 43:19–20—“they were dressed with thick clothing,” while the attacking Lamanites were “not prepared with any such thing” but were virtually naked. In an interesting case of cultural diffusion, we learn that two years later the Lamanites returned, having “prepared themselves with garments of skins, yea, very thick garments to cover their nakedness” (49:6). No further mention is made of these coverings, but presumably they were used thereafter when and where they were considered useful.

121. William J. Hamblin, “Armor in the Book of Mormon,” in Ricks and Hamblin, *Warfare in the Book of Mormon*, 418.

The Spanish conquerors of Mexico made “thick clothing” armor famous by commenting on its effectiveness in their histories and adopting it themselves at times. Not just the Aztecs but other Mesoamerican societies used this mode of protection. “Quilted cotton armor . . . was a common element of battle attire in Mesoamerica. It was constructed of unspun cotton tightly stitched between two layers of cloth.”¹²² It was so strong (being up to two fingers thick) that normally an arrow or even an atlatl dart would rarely penetrate it. There is no reason to question that the Nephite “thick clothing” was made on the same principle as that of the Mexicans and their neighbors 1,600 years later. Not all warriors had armor, however. Roys reported that “ordinary [Maya] warriors seem to have worn only a loincloth.”¹²³ The Book of Mormon has both Nephite and Lamanite soldiers at times wearing the same limited garb (Enos 1:20; Alma 3:5; 43:20; 3 Nephi 4:7).

In the Field

The logistics of maintaining a force in the field in Mesoamerica, either defensively or on the attack, was a serious challenge under ancient conditions. Even with the massive resources Aztec society could bring into play, their campaigns were typically as brief as possible. The duration required by a siege was all but ruled out. Typically a supply of food was carried by soldiers on their backs from their home communities. Within friendly territory, local villages and towns were compelled by authorities to provide more supplies. In enemy territory the looting of storehouses and residences for food was probably a routine but unreliable source. Supplies continually brought from the home base by a transport column were required or desirable. The same process of supply is described in Alma 56:27–30; provisions were brought to a Nephite force from the capital, Zarahemla, for not only the fighting force but also “for their wives and children” (v. 28).

The usual military shelter was a simple “tent” (*tienda*).¹²⁴ These were of several sorts usually made from coarse fabric or woven mats (mats also served as tent material in ancient Israel)¹²⁵ or were constructed of brush ob-

122. Hassig, *Aztec Warfare*, 88; and Durán, *History of the Indies*, 34.

123. Roys, “Lowland Maya Native Society,” 672.

124. Durán, *History of the Indies*, 147, 156, 157, 179, 180.

125. Merrill F. Unger, *The New Unger's Bible Dictionary*, ed. Roland K. Harrison, rev.

tained from localities where an army camped.¹²⁶ Nephites (and Lamanites and Jaredites [Ether 14:28] to some extent) used tents as routine shelters for soldiers on campaign, as dwellings in special circumstances (Helaman 3:9), as shelter during routine journeys, and as coverings during ceremonial assemblies (Mosiah 2:5). Chapter 16 details the several types of “tents,” or *tiendas* as the Spaniards called them, in regular use by Mesoamerican peoples.

In some (perhaps most) situations, an army was accompanied by a “camp,” consisting of women and male nonsoldiers (or possibly recovering wounded) who filled routine logistical duties (Alma 50:33; 43:28; 56:28). Mesoamerican armies used comparable supply parties.¹²⁷

The Nephites and Lamanites had similar problems with food supplies for their armies (Alma 53:7; 57:6, 8–12; 58:3–4, 7–8; 60:3, 19, 24–25, 34–35; Moroni 9:16). Special supply parties brought supplemental food to the front (Alma 43:13; 56:27–29; 57:8–12; 62:12–15). Mexican forces faced similar problems.¹²⁸

Combat

Little is said about tactical operations by the Nephite and Lamanite forces. With the limited weaponry available to them, archaic armies like these would have found that the only feasible plan for combat was for opponents first to discharge long-distance projectile weapons (slings, arrows, and atlatl darts) at each other until their supplies were exhausted, whereupon units in the lead advanced to engage hand-to-hand with swords, spears, clubs, and shields (compare the sequence in Alma 17:36–38). Of course, that is how full-scale Mesoamerican wars were conducted (mere raids would have been less structured).

The tactical maneuvering of units on the battlefield was difficult if not impossible to plan or coordinate because of communication difficulties.

ed. (Chicago: Moody, 1988), 1269.

126. John L. Sorenson, “Viva Zapato! Hurray for the Shoe!,” *Review of Books on the Book of Mormon* 6/1 (1994): 331–35.

127. Hassig, *Aztec Warfare*, 73.

128. For details of the Aztec armies’ camp and logistics, in which further parallels are apparent, see Hassig, *Aztec Warfare*, chapter 5.

Once fighting was under way, the din and confusion meant that the only messages that could be reliably employed consisted of blasts on a (shell) trumpet, whistles, or, very doubtfully, messengers dispatched to unit commanders. Essentially, the outcome of a battle was determined by the vigor and determination of the front ranks of both forces; those soldiers behind the front were merely waiting to move up when the front ranks were thinned by deaths and injuries. Sometimes the king or commander was in the lead of his forces with a guard of noble warriors surrounding him.

The Book of Mormon presents essentially the same picture. When Alma₂'s Nephites (Alma 2:27ff.) faced a combined Lamanite-Amlicite force at a river crossing near the city of Zarahemla, "Alma fought with [leader] Amlici with the sword, face to face; and they did contend mightily, one with another" (v. 29). Amlici was killed, whereupon Alma₂ "contended with the king of the Lamanites [the co-leader]; but [he] fled back from before Alma. . . . And thus he [Alma] cleared the ground, or rather the bank" where the whole Nephite force could be deployed (vv. 32, 34). With their top leaders no longer able to lead them, the "Lamanites and the Amlicites began to flee" (v. 35).

One communication device used in battle by Mesoamerican armies was the battle standard. "As was common throughout central Mexico [and beyond], each unit was designated by a standard . . . , the banner carried on marches and into battle."¹²⁹ Commanders of subordinate elements had their own distinctive standards. These were mounted on light wooden frames that were strapped to the wearer's back so as to minimally hinder his fighting ability. It was attached to him so tightly that he had to be slain or disabled in order to take the insignia from him. If a standard was seized by the enemy, the entire force whose commander had fallen would flee in confusion. Standards are shown in art at least as early as Teotihuacán (early centuries AD).¹³⁰ Moroni₁'s "title of liberty" in Alma 46:13, 19 is comparable in many respects.

As noted above, sieges were generally impractical because the aggressors typically could not supply their force long enough and surely enough to

129. Hassig, *Aztec Warfare*, 57.

130. Hassig, *Aztec Warfare*, 42, 57–58, 96–97; and Bancroft, *Native Races of the Pacific States*, 2:412.

starve out the defenders.¹³¹ In the Nephite record, aside from a couple of ambiguous examples (e.g., Alma 57:9–12), only one major siege is recorded. Early in the first century AD, the Nephites (3 Nephi 3:13–5:23) accumulated supplies in one particular location sufficient for “seven years” of subsistence (the “seven” probably was drawn from the story of scriptural Joseph in Egypt whom Lehi, claimed as an ancestor). They were threatened by an army of guerrilla robbers.¹³² In the expectable Mesoamerican outcome, the besiegers were thwarted by their lack of provisions.

Aftermath of Battle

The best-known Mesoamerican military contests are those of the Aztecs and their contemporaries; we are not sure if details of their customs applied much earlier, but they might have (recall the case of the trophy-head-rack feature that continued for at least 1,500 years, as well as the ditch-and-embankment style of fortification that lasted even longer). As already indicated, the best outcome from the aggressors' point of view was to quickly reestablish peaceful economic and social life and to ensure the flow of economic benefits upward in order to sustain the power pyramid. Upon victory the Mexicans often burned the losers' main temple as a token of their dominance and forced nominal adoption of their god in a prominent position in the local cult.

Large numbers of prisoners were sometimes taken; special efforts were made to capture and kill or sacrifice captains and nobles. At least in some areas, a major objective of war was to provide sacrificial victims. Rarely was a whole population slaughtered, as when the Aztecs defeated the southern Pacific coast towns of Oaxaca and King Ahuitzotl ordered the warriors to kill everyone because the conflict was too far from home to move the captives either to productive slavery or to be sacrificed.¹³³ Always the vanquished society suffered consequences in the form of payment of tribute, either periodic or punitive.

One special symbol of defeat sometimes applied. As Landa put it for

131. Webster, “Not So Peaceful Civilization,” 80.

132. Daniel C. Peterson, “The Gadianton Robbers as Guerrilla Warriors,” in Ricks and Hamblin, *Warfare in the Book of Mormon*, 146–73.

133. Hassig, *Aztec Warfare*, 119.

the Maya of Yucatan, in cases where conflict of tribe versus tribe had long festered, it went on “until blood [of a defeated leader] is drunk [by the winning leader].”¹³⁴ A Book of Mormon instance directly parallels that custom. Amalickiah, the Nephite dissenter who became king of the Lamanites, swore to drink the blood of Moroni₁ (Alma 51:9), the Nephite war chief.

Historical Aspects of Mesoamerican and Book of Mormon Warfare

One striking feature of the Book of Mormon narrative, insofar as it can be reconstructed from Mormon and Moroni₂'s record, is that armed conflict was a nearly constant feature of social life. According to the Jaredite chronology sketched in chapter 3, military actions termed “war” and “battle” were going on as early as about 2500 BC. They periodically were renewed until the climactic destruction of the Jaredites' kingdom in the days of King Coriantumr and the prophet Ether, about 570 BC.

The early part of the Jaredite date span is, of course, far earlier than what archaeological research has so far given us as useful points of history to compare with Ether's abbreviated account, but the later portion of Jaredite dynastic history overlaps with what archaeologists currently call the Early and early Middle Pre-Classic eras. Do findings on that period indicate that wars were being carried on in northern Mesoamerica, where, by all indications, the Jaredites dwelt? The answer is yes.

At the site of Chalcatzingo, Morelos, one monument in particular, Monument 31, incorporates major symbolic elements—jaguars, bloodletting, and warfare, from which Reilly and Garber conclude that “the theme of warfare is not lacking in [this] Olmec-style art.”¹³⁵ At the Olmec site of La Oaxaquena in the Isthmus of Tehuantepec, Cobean takes the fortification there (a “great dry moat,” 10–12 meters deep and 15 meters wide) as marking the probable limit of territories controlled by two separate Olmec capitals, Las Limas and San Lorenzo.¹³⁶ The site is taken to be evidence of belligerence and military conflict. This would show large-scale military operations

134. Tozzer, *Landa's Relación*, 237–38.

135. Reilly and Garber, “Symbolic Representation of Warfare,” 141, 147.

136. Robert H. Cobean, “La Oaxaqueña, Veracruz: Un centro olmeca menor en su contexto regional,” in *Arqueología mesoamericana: Homenaje a William T. Sanders* (Mexico City: Instituto Nacional de Antropología e Historia, 1996), 2:45.

as early as 1000 BC. It is believed that the La Venta sculptures show that war and armies were possible during Periods II–IV (ca. 900–450 BC) at that site.¹³⁷ (Recall that the Mulekites had been involved in “many wars” between 600 and 450 BC, as Omni 1:17 indicates.) Olmec-linked Tlatilco in the Valley of Mexico produced figurines (ca. 1400–1200 BC) that show soldiers (so identified “because they wear a type of armor”).¹³⁸ Furthermore, the deliberate mutilation of a majority of the stone monuments at San Lorenzo and La Venta persuaded Coe that the damage represents “awe-inspiring” violence, “a mark of . . . iconoclastic fury” that is best accounted for by war.¹³⁹ The same kind of conflict may also be seen at San Jose Mogote in Oaxaca, where “Monument 3 indicates that the pattern of raiding, temple burning, and ritual sacrifice of captives evident in the later periods was present as early as 600 BC.”¹⁴⁰ And in the Maya area in the Middle Pre-Classic, Webster sees destruction levels, mass burials, and fortifications as archaeological evidence for military conflict. In fact, he maintains that “the Maya prove to have been warlike to their deepest Preclassic roots.”¹⁴¹

Continued excavation and studies of art history will no doubt flesh out this picture of early warfare in Mesoamerica, but already it is abundantly clear that the culture history derived from archaeology broadly corresponds with that from Ether’s Jaredite record. Even 10 years ago that was not seen to be the case.

In no other aspect of Mesoamerican civilization is it more obvious how scholarly interpretation changed in the second half of the 20th century than in warfare studies. When Morley’s classic volume, *The Ancient Maya*, was

137. Ignacio Bernal, “The Olmec Region: Oaxaca,” in *Observations on the Emergence of Civilization in Mesoamerica*, ed. Robert F. Heizer and John A. Graham, Contributions 11 (Berkeley: University of California Department of Anthropology, 1971), 32, 35.

138. Ignacio Bernal, *The Olmec World* (Berkeley: University of California Press, 1969), 134, citing Román Piña Chan, *Las culturas preclásicas de la cuenca de México* (Mexico City: Fondo de Cultura Económica, 1955).

139. Michael D. Coe, “San Lorenzo Tenochtitlan,” in Sabloff, *Supplement to the Handbook of Middle American Indians*, 1:141–42.

140. M. Kathryn Brown and James F. Garber, “Evidence of Conflict during the Middle Formative in the Maya Lowlands: A View from Blackman Eddy, Belize,” in Brown and Stanton, *Ancient Mesoamerican Warfare*, 104.

141. Webster, “Not So Peaceful Civilization,” 112.

printed in 1947, the account literally did not so much as mention or hint at warfare. Today such a characterization of ancient Mesoamerican culture would be ludicrous. Those ancients were just as involved in armed conflict as any other civilization. In the process of changing scholarly interpretation from picturing a strictly pacific ancient society to the present one of recognizing many signs of wars and armies, we see increasing correspondence with the historical picture depicted in the Book of Mormon.

Chapter 19

Knowledge Systems

Knowledge systems are groupings of ideas or conceptual patterns that are culturally important in a society. Just as certain features of a people's physical environment mark and shape their interpretation of the landscape, knowledge systems are conceptual elements that order and shape a people's mental environment. Notable correspondences show up in the mental schemes found in Mesoamerican cultures on the one hand and in the Book of Mormon record on the other.

In blocking out areas of investigation that may show correspondences in knowledge systems, we are hindered to some extent by our own culture. If we begin talking about such correspondences in, say, astronomy, a category of notions and procedures that we moderns recognize and separate from other areas of knowledge, we may inadvertently put distance between ideas that other cultures would not separate. For example, in both the ancient Near East and Mesoamerica, phenomena that we categorize under the heading of astronomy are largely separate from calendrical notions. Hence, the headings in this chapter should be taken as somewhat helpful sorting devices, but not as walls that block off potential connections between segments of the total realm of knowledge.

Worldviews

In knowledge terms, a people's comprehensive, cosmic, conceptual scheme—their worldview—can be compared to a tent. Separate, distinguishable knowledge systems are actually part of a whole, like the stakes and ropes that help support the tent structure. These bodies of knowledge may

include subjects that we categorize under such headings as astronomy, calendrical systems, schemes of numeration and measurement, literary stylistics, cosmology (the creation of the earth and heavens), philosophy, architecture, engineering, and medicine. These all constitute bodies of rules, or at least preferences, that a cultural participant must know and follow in order to “do the right thing” in his or her society. Like a standing tent, the whole grand knowledge system is more than the sum of its parts.

Despite the obscurity of our data as we push further back in time, it appears that for up to 3,000 years the cultures sharing in Mesoamerican civilization held many basic ideas in common that reflected a rather similar view of the universe. Unfortunately, our current knowledge about that Mesoamerican worldview does not allow us to sketch a complete, integrated picture. Because seminal initial work on this topic remains to be synthesized,¹ the components of knowledge systems treated herein are not particularly integrated, yet this discussion contributes a partial picture of what elements of that integrated schema may look like. Among them are the following:

- The fundamental dimensions of the universe are time and space, and the two are closely interrelated.
- The landscape as well as the cultural marks upon it are, properly speaking, indicators of a unified cosmos.
- The human body constitutes a primary model to which societies

1. As discussed, for example, by Johanna Broda, “Calendarios, cosmovisión y observación de la naturaleza,” in *Temas mesoamericanos*, ed. Sonia Lombardo and Enrique Nalda (Mexico City: Instituto Nacional de Antropología e Historia, 1996), 427–69; John E. Clark, “Ciudades tempranas olmecas,” in *Reconstruyendo la ciudad maya: El urbanismo en las sociedades antiguas*, ed. Andrés Ciudad Ruiz et al. (Madrid: Sociedad Española de Estudios Mayas, 2001), 183–210; Andrzej Wiercieński, “Time and Space in the Sun Pyramid from Teotihuacan,” *Polish Contributions in New World Archaeology* 1 (1977): 87–103; Miguel León-Portilla, *The Aztec Image of Self and Society: An Introduction to Nahua Culture*, ed. J. Jorge Klor de Alva (Salt Lake City: University of Utah Press, 1992); Alfredo López Austin, “Tras un método de estudio comparativo entre las cosmovisiones mesoamericana y andina a partir de sus mitologías,” in *Pensar América: Cosmovisión mesoamericana y andina*, comp. Antonio Garrido Aranda (Córdoba, Spain: Obra Social y Cultural CajaSur, 1997), 21–43; and López Austin, “Cosmovision,” in *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*, ed. David Carrasco (Oxford: Oxford University Press, 2001), 1:268–74.

refer as they establish settlements and represent the world in art and artifacts.

- Myth relates to, and to a degree tries to explain, the important spatial and temporal dimensions of personal and social life.
- History is a record of the playing out on earth of a pattern of cosmic or supernatural events and forces.
- Ritual is a force capable of bringing human events and powers into concordance with cosmic ones.

A society's explication of basic concepts such as these extends into operational details such as how the natural world is to be seen and described, what the meaning of life is, how society is expected to meet its supposed cosmic responsibilities, and how, in the light of all the above, words, ideas, and behaviors ought and ought not to be formed and played out. Elements of the Mesoamerican worldview such as these have commonalities with other early-human conceptions of the cosmos known from Eurasia, yet the Mesoamerican synthesis also involves unique ideas.²

Nephite historians also reflected a worldview in their writings, although it too is difficult to discern and characterize clearly. No student of the Book of Mormon has addressed this topic explicitly.³ Chapter 20 spells out many detailed features of the Book of Mormon formulation. Extensive parallels of a ritual and iconographic nature are shown to have been present in the civilization of the ancient Near East in the first and second millennia BC and in the civilization of Mesoamerica in the Pre-Classic era—that is, in the Book of Mormon era.⁴ One exemplary theme that runs through the Nephite text

2. Enrique Florescano, *The Myth of Quetzalcoatl* (Baltimore: Johns Hopkins University Press, 1999). A valuable start toward synthesizing the Mesoamerican worldview is found in papers published in the compilation by Antonio Garrido Aranda, *Pensar América*, especially the paper by López Austin, "Tras un método de estudio comparativo," 19–43.

3. A very preliminary effort is made in John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1985), 58–61; and Sorenson, "The Book of Mormon as a Mesoamerican Codex," *Newsletter and Proceedings of the Society for Early Historic Archaeology* 139 (1976): 1–9.

4. John L. Sorenson, *A Complex of Ritual and Ideology Shared by Mesoamerica and the Ancient Near East*, Sino-Platonic Papers 195 (Philadelphia: Department of East Asian Languages and Civilizations, University of Pennsylvania, 2009; a pdf version is accessible at <http://sino-platonic.org>).

stands out as a feature of the sociopolitical aspect of the Mesoamerican worldview. The rivalry between Nephi₁ and his older brothers Laman and Lemuel was crystallized when the older siblings angrily said, “We will not that our younger brother shall be a ruler over us” (1 Nephi 18:10). Centuries later a Nephite dissenter who at that time ruled over the Lamanites and billed himself as “a bold Lamanite” (Alma 54:24) again voiced that old complaint: “Your fathers did wrong their brethren, insomuch that they did rob them of their right to the government when it rightly belonged unto them” (v. 17). That rivalry and animus was fundamental to the cultures of both factions for 900 years. (The theme recurs at various points in the Jewish Torah, on the “brass plates” of the Nephites—for example, in the account of Joseph and his brothers’ role in the founding of Israelite society.)

As noted in chapter 17, rivalry over rulership among lineages in Mesoamerica was so continual that “jealousy of [lineage-founding] siblings is virtually institutional in Mayan society.”⁵ One of the most important themes in Mesoamerican mythology involves a younger brother who overpowers his elder brother or brothers. It appears also in several religions in the Old World. Obviously, the Book of Mormon is entirely congruent with the Mesoamerican worldview in its emphasis on this point.⁶

The pervasive opposition in the contest over governance is probably related to the duality that is so evident in Mesoamerican thinking. Graulich observes, “The dominant concept of Mesoamerican thought, the deep duality of all things, is . . . immediately apparent. Everything has two aspects which are opposite and complementary.”⁷ Founder Lehi₁ in the Book of Mormon emphasized that “there is an opposition in all things” (2 Nephi 2:11).

With that example as an introduction, we will examine a number of

5. Munro S. Edmonson, trans., *The Book of Counsel: The Popol Vuh of the Quiche Maya of Guatemala* (New Orleans: Tulane University, 1971), 93.

6. While the text of the book of Ether makes no explicit reference to a similar rivalry among that people, a parallel may be implied in the Jaredite factions’ competition for leadership; those factions might have consisted of descendants of the founding brother, Jared, and those of the “brother of Jared” (compare Ether 11:17).

7. Michael Graulich, “Myths of Paradise Lost in Pre-Hispanic Central Mexico,” *Current Anthropology* 24/5 (1983): 583.

elements in knowledge systems that correspond between Mesoamerican civilization and the Book of Mormon.

Astronomy

Observation of objects in the heavens is in some ways an objective phenomenon, but interpreting such observations is not. The “meanings” of the heavenly orbs and their movements have always been expressed in concepts and terms peculiar to different cultures. Mesoamerican peoples had a variety of concepts unfamiliar to us about the earth, sun, moon, planets, and stars, and they applied observational data about those matters extensively and distinctively in their lives.⁸

One of the most frequent observations of the sun involves marking the position on the horizon where it rises and sets on solstice days (on or near June 21 and December 21). Sometimes the position is marked on the midpoint days between those extremes. During the Pre-Classic era in Mesoamerica, the azimuths to the points where the sun rose and set at those moments were frequently considered significant.⁹ Positions from which such observations could reliably be made were often marked by forming an alignment between a plain stone stela and some prominent feature on the horizon as a sighting line. At Naranjo in the Valley of Guatemala, one of the earliest observation spots dates back to the Las Charcas period (ca. 650–500 BC).¹⁰ One Pre-Classic stela at Monte Alto (in the Pacific lowlands

8. The masterwork on this topic is David H. Kelley and Eugene F. Milone's *Exploring Ancient Skies: A Survey of Ancient and Cultural Astronomy*, 2nd ed. (New York: Springer, 2011). One section in it discusses and documents exhaustively a large number of cultural parallels between the Old World and Mesoamerica. A useful earlier source is Anthony F. Aveni, *Skywatchers of Ancient Mexico* (Austin: University of Texas Press, 1980).

9. Ivan Šprajc, “Orientaciones astronómicas en la arquitectura prehispánica del centro de México” (Mexico City: Instituto Nacional de Antropología e Historia, 2001).

10. George Williamson, “Antiquities in Guatemala,” in *Annual Report of the Board of Regents of the Smithsonian Institution . . . [for] 1876* (Washington, DC: Smithsonian, 1877), 418–21; Stephan F. de Borhegyi, “Archaeological Synthesis of the Guatemalan Highlands,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 2:13; and Bárbara Arroyo, “The Naranjo Rescue Project: New Data from Preclassic Guatemala,” FAMSI: 2007, <http://www.famsi.org/reports/06109/06109Arroyo01.pdf>.

of Guatemala) was set to mark the winter solstice.¹¹ At Ihuatzío in north-central Mexico, located exactly on the Tropic of Cancer (the northernmost latitude reached by the sun in its seasonal progression), an observer at noon on June 21 (summer solstice) standing on any of three pyramid mounds would discover that the sun was precisely overhead (an object at that point casts no shadow on that day).¹² The Tzotzil Maya of Chiapas regarded the solstitial horizon points, rather than our cardinal directions, as the four corners of their world. They thought that the “navel of the universe” lay at the crossing of the solstitial sighting axes.¹³ Most of the Late Pre-Classic site of Ujuxte in southern coastal Guatemala was also carefully laid out according to an astronomically oriented grid pattern that was based on the orientations just described.¹⁴

The Greeks and Egyptians oriented their sacred architecture to points on the horizon where the sun rose or set on the solstices.¹⁵ The Israelite First Temple at Jerusalem was aligned so that equinoctial sunrises would shine across the courtyard of the temple like an advancing fire (a phenomenon associated with scriptural references to “the glory of the Lord”) to enter the heart of the structure.¹⁶ A somewhat similar hierophany takes place during the few moments of sunset on the day of the equinox at Chichen Itza on the Yucatan Peninsula; at the Castillo pyramid a spectacular “serpent of light,” considered to represent Kukulcan/Quetzalcoatl, appears to

11. Marion Popenoe de Hatch, “Evidencia de un observatorio astronómico en Tak'alik Ab'aj,” in *XV Simposio de investigaciones arqueológicas en Guatemala, 2001*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2002), 437–49.

12. James Cornell, *The First Stargazers: An Introduction to the Origins of Astronomy* (London: Athlone, 1981); Horst Hartung, “Monte Alban in the Valley of Oaxaca,” in *Mesoamerican Sites and World-Views*, ed. Elizabeth P. Benson (Washington, DC: Dumbarton Oaks, 1981), 60–63; and Franz Tichy, “Order and Relationship of Space and Time in Mesoamerica: Myth or Reality?,” in Benson, *Mesoamerican Sites and World-Views*, 217–45.

13. Evon Z. Vogt, “Cardinal Directions and Ceremonial Circuits in Mayan and Southwestern Cosmology,” *National Geographic Society Research Reports* 21 (1985): 487–96.

14. Julia G. Kappelman, “Reassessing the Late Preclassic Pacific Slopes: The Role of Sculpture,” *Mexicon* 25/2 (2003): 39–42.

15. A. L. Lewis, “Orientation,” in *Memoirs, International Congress of Anthropology*, ed. C. S. Wake (Chicago: Schulte, 1894), 113–14.

16. Julian Morgenstern, *The Fire upon the Altar* (Chicago: Quadrangle Books, 1963), 7; and Morgenstern, “Biblical Theophanies,” *Zeitschrift für Assyriologie* 25 (1911): 139–93.

slither down the west-facing balustrade of the north stairway, level by level, to disappear into the underworld.¹⁷ To effect such visual events, these structures obviously had to be carefully planned and constructed on the basis of developed astronomy. Even the idea of dramatizing such solar phenomena through architecture represents an interhemispheric correspondence that could have involved ideas and techniques brought across the ocean with Book of Mormon peoples.

The Book of Mormon provides insufficient detail to establish that its peoples used solar observations for orientation, but it is likely that they did so since the concept was as pervasive in ancient Near Eastern civilizations as in Mesoamerica. As we shall see below, the Nephites were very much astronomically aware.

In about 10 BC, a Lamanite prophet named Samuel prophesied to the Nephites that five years hence “there shall a new star arise, such an one as ye never have beheld. . . . And . . . there shall be many signs and wonders in heaven” (Helaman 14:5–6). That prediction was reported fulfilled when “a new star did appear” (3 Nephi 1:21). Further evidence of Nephite concern with astronomy is shown by Mormon, who, writing his commentary in the fourth century AD, said, “If he [God] say unto the earth—Move—it is moved. Yea, if he say unto the earth—Thou shalt go back, that it lengthen out the day for many hours—it is done . . . and it appeareth unto man that the sun standeth still . . . ; for surely it is the earth that moveth and not the sun” (Helaman 12:13–15). At the least these statements tell us that the Nephites paid close attention to the heavenly orbs and based a theory or theories of celestial mechanics on their observations. At another level the text indicates that the Nephites did not hold a geocentric model of the heavens.

A lunar-based calendar was apparently basic to Nephite/Mulekite calendrical calculations (Omni 1:21).¹⁸ That being the case, a systematic record of moon phenomena would have been an element in their astronomy/calendar knowledge system. Landa describes the Yucatec “moon”/“month” as

17. John B. Carlson, “A Geomantic Model for the Interpretation of Mesoamerican Sites: An Essay in Cross-cultural Comparison,” in Benson, *Mesoamerican Sites and World-Views*, 185–86.

18. Randall P. Spackman, “The Jewish/Nephite Lunar Calendar,” *Journal of Book of Mormon Studies* 7/1 (1998): 48–59.

counted “from the time at which the new moon appeared until it no longer appears.”¹⁹ Stewart has demonstrated that a lunar calendar was fundamental in the development of the mature Mesoamerican calendar. “The fact that the terms for the 20-day period mean ‘moon’ in several of the native languages of Mesoamerica is the most direct reason for suspecting the former use of lunar months,” he observed. Furthermore, “a calendar of 12–13 ‘moons’ in ancient Mesoamerica is almost presumable on general grounds. The specific evidence discussed in this paper makes that supposition a virtual certainty.”²⁰ Graulich supported Stewart’s view.²¹

Nephite astronomers also observed the planets, at least the major ones. In a theological argument, Alma₂ (Alma 30:44) spoke of “the earth, and . . . its motion, yea, and also all the planets which move in their regular form do witness that there is a Supreme Creator.” The Maya observed and recorded the movements of planets, especially Venus, as well as Mars, Jupiter, Saturn, and Mercury.²²

Astronomical, solar, and lunar phenomena were involved in many practical aspects of Mesoamerican civilization. Chapter 18 noted that Book of Mormon battles—notably the final battle at Cumorah (Mormon 6:2–3, 5)—may have been scheduled at times determined by astronomical, astrological, or calendrical phenomena. “The Maya, at least, conducted certain battles, raids or martial contests timed for significant stations in the Venus cycle such as first appearances as Morning Star and Evening Star. The so-called ‘Star War’ events were indeed Venus-regulated. . . . Venus-regulated combat and sacrifice were not confined to the Maya.”²³ In fact, “ritual warfare and its astronomical connotations were institutionalized over a wide

19. Alfred M. Tozzer, ed. and trans., *Landa’s Relación de las Cosas de Yucatan: A Translation*, Peabody Museum of American Archaeology and Ethnology Papers 18 (Cambridge, MA: Harvard University, 1941), 133.

20. Joe D. Stewart, “Structural Evidence of a Luni-solar Calendar in Ancient Mesoamerica,” *Estudios de cultura nahuatl* 17 (1984): 173, 188.

21. Michel Graulich, “The Metaphor of the Day in Ancient Mexican Myth and Ritual,” *Current Anthropology* 22/1 (1981): 54.

22. Evon Z. Vogt, “Zinacanteco Astronomy,” *Mexicon* 19/6 (1997): 110.

23. John B. Carlson, *Venus-Regulated Warfare and Ritual Sacrifice in Mesoamerica: Teotihuacan and the Cacaxtla “Star Wars” Connection* (College Park, MD: University of Maryland, Center for Archaeoastronomy, 1991), 6.

area,” judging by the art at Cacaxtla that shows links to both Teotihuacán and the Maya area.²⁴

In another astronomical relationship, the Mexica (Aztecs) identified the deity Quetzalcoatl with the planet Venus in a peculiar manner. Certain Spaniards believed that “the Morning Star ceremony, in which a sacrificial victim was spread-eagled on an X-shaped scaffold and shot in the side with an arrow, was actually a New World version of Jesus’ crucifixion. For had not Jesus said, ‘I am . . . the bright and morning star?’” (Revelation 22:16).²⁵ Some Latter-day Saints have held, on the basis of parallels between characteristics of Jesus Christ as related in the book of 3 Nephi (his birth was heralded among the Nephites by “a new star”) and traditions about the god Quetzalcoatl, that the two were the same historical person.²⁶

It is plausible that some or all of the parallels we have identified under the rubric “astronomy” represent notions brought to the New World from some Old World civilization, likely from the Near East, as the Book of Mormon would imply.

Calendar Systems

No one calendar was used throughout Mesoamerica, although calendars shared basic ideas and many specific features. Each people formulated their own unique system by combining the calendrical data and relationships they knew about. According to Kirchoff and Jiménez Moreno, at least 10 different year counts are known to have been in use simultaneously in ancient central Mexico.²⁷ Thus the possible correspondences between the Book of Mormon and local systems would have been subject to local variations.

24. Richard A. Diehl and Janet C. Berlo, introduction to *Mesoamerica after the Decline of Teotihuacan, A.D. 700–900*, ed. Richard A. Diehl and Janet C. Berlo (Washington, DC: Dumbarton Oaks, 1989), 6.

25. Robert Wauchope, introduction to *The Indian Background of Latin American History: The Maya, Aztec, Inca, and Their Predecessors*, ed. Robert Wauchope (New York: Knopf, 1970), 13.

26. Diane E. Wirth, “Quetzalcoatl, the Maya Maize God, and Jesus Christ,” *Journal of Book of Mormon Studies* 11/1 (2002): 4–15.

27. Hanns J. Prem, “The Chronological Dilemma,” in *The Native Sources and the History of the Valley of Mexico*, ed. J. de Durand-Forest, International Series 20 (Oxford: BAR, 1984), 7.

Multiple correlated calendars were characteristic of both Nephite and Mesoamerican societies. The lowland Maya, whose calendar is the best known in Mesoamerica, employed a count built around 13 numbered days. Also, a 20-day cycle of named days formed a sort of month. The two cycles ran parallel to each other. Thus a day could be labeled, say, “4” in the first system and *chuen* in the second. Because of the independent progressions of the two cycles, another day called 4 *chuen* would not come around again for 260 days (making one kind of “year”). But still more counts went on simultaneously. A 360-day solar year and, calculated for different purposes, a 365-day year were also running. Twenty-eight-day cycles of the moon were also tracked, and some groups also observed a seven-day week (one-fourth of a 28-day “moon”).²⁸ Furthermore, specialized astronomer-priests recorded cyclical appearances of Venus. Appearances of the Pleiades were also carefully observed. Clearly, calendrical phenomena were of great importance in Mesoamerican life. Mormon’s text provides sufficient data to suggest that the Nephites too paid a great deal of attention to such cycles.

The Nephites used several concurrent calendars. The moon-based calendar of the Jews of Jerusalem surely was carried forward by the Lehites and Mulekites when they emigrated from the Near East to the New World.²⁹ In the promised land, they started a new era, counting time from when Lehi₁ left Jerusalem. Then, after King Mosiah₂ terminated the Nephite monarchy in favor of rule by judges, the date of that change started a still different count. Thus 3 Nephi 1:1 notes that the 91st year of rule by the judges coincided with the end of the 600th year after Lehi departed from Jerusalem.

Astronomical signs could also have influenced the marking of Nephite time periods (see 3 Nephi 1:15–21; 2:7–8).³⁰ Keeping the calendars straight involved specialists who were holy men: “According to our record, and we know our record to be true, for behold, it was a just man [a prophet] who did keep the record . . . [and] if there was no mistake made by this man in

28. Helen Neuenswander, “Vestiges of Early Maya Time Concepts in a Contemporary Maya (Cubulco Achi) Community: Implications for Epigraphy,” *Estudios de cultura maya* 13 (1981): 132, 139–43.

29. Spackman, “Jewish/Nephite Lunar Calendar,” 48–59.

30. John L. Sorenson, *Images of Ancient America: Visualizing Book of Mormon Life* (Provo, UT: Research Press, 1998), 166.

the reckoning of our time, the thirty and third year had passed away; and the people began to look with great earnestness for the [cosmic] sign which had been given by the prophet Samuel" (3 Nephi 8:1–3).

Beyond mere timekeeping, the calendar, astronomy, and siting of certain architectural features had political and social implications in Mesoamerica. For example, Fox explains some of the complex interrelationships in play in the highland Maya systems immediately before the Spanish conquest.³¹ An elite group of Toltec invaders who had obtained power over the native population employed three calendars in their political process: the Venus calendar served to establish lineage identities and to time battles, a 260-day calendar aided personal prognostications, and the solar calendar provided dates to bind competing lineages within the state. Relations among the three calendars furnished an ideological calculus for articulating relationships among the contentious descent groups and for allotting political rights. As celestial bodies traveled through various calendrical repetitions, social actors vied for identities and privileges that they thought mirrored the cosmic orderings. Power relations were reflected in site plans where specific architectural forms and locations connected with known lineages were keyed to solar, lunar, planetary, and stellar positions and clusters. The numerology of calendars, community design, and political history were all intertwined. For example, one Quiché list of 13 rulers reveals how political history was cast within a calendrical idiom.³² Radiocarbon dating of the period covered by the list suggests that the formal list should have included nearly twice the number of rulers as those given. Yet the idealized 13 generations "unmasks the [forced] calendrical chronology" behind such lists. Sightings and the timings of the appearances of Orion, Betelgeuse, the Pleiades, and the Big Dipper were very important in providing this format for "history," political power, and ruler succession.

Among the Nephites, similarly intricate and pervasive calendrical relationships prevailed. In the first 600 years of their history in their New World promised land, the Nephites (and at times part of the Lamanites) did

31. John W. Fox, "Political Cosmology among the Quiché Maya," in *Factional Competition and Political Development in the New World*, ed. Elizabeth M. Brumfiel and John W. Fox (Cambridge: Cambridge University Press, 1994), 158–59.

32. Fox, "Political Cosmology," 169.

“observe to keep the judgments, and the statutes, and the commandments of the Lord in all things, according to the law of Moses” (2 Nephi 5:10; see Jarom 1:11; Alma 30:3; Helaman 15:5). This “law” touched many aspects of their culture, including not only cult practices but also government, jurisprudence, and social and economic relations. The Israelite “commandments,” “statutes,” “judgments,” “ordinances,” and “performances” of the law (2 Nephi 25:30; Alma 30:3; 58:40)³³ involved the calendar at many points. The people could not have carried on that tradition without considerable attention to astronomy and, probably, to the problem of intercalation (i.e., calendar adjustment made by inserting corrective “leap” days).³⁴ At the same time, their record shows that their “history” depended on supposedly direct chronological reckoning.³⁵

Bricker makes a point about the Maya calendar that may be of interest in regard to the Book of Mormon.³⁶ Particular calendrical names referred to seasonal phenomena, but she maintains there was no intercalation: from the moment of the calendar’s introduction, the seasonal meanings of the month names would have begun to fall out of synchronism with the realities of nature. She explains that while the seasonal references fit the calendar names best at certain dates, at any other times the fit would be out of agreement. According to Bricker, the structure of the calendar and the names of the days and months of the most common Mesoamerican calendar mean that the Maya calendar could have been invented only at particular times. One possibility for optimal fit was a calendar origin of about AD 950–960, except that we know the calendar was already old by that time (as shown by inscribed, dated monuments). The next-older fit of seasons with descriptive

33. Compare the analysis in John W. Welch, “Number 24,” in *Reexploring the Book of Mormon*, ed. John W. Welch (Provo, UT: FARMS, 1992), 272–74; and Welch, “Statutes, Judgments, Ordinances, and Commandments,” in Welch, *Reexploring the Book of Mormon*, 62–65.

34. Arthur Beer, “Astronomy,” in *Encyclopaedia Judaica* (1996), 3:796; and Ziony Zevit, *The Religions of Ancient Israel: A Synthesis of Parallaxic Approaches* (London: Continuum, 2001), 449–51.

35. John L. Sorenson, “The Nephite Calendar in Mosiah, Alma, and Helaman,” in Welch, *Reexploring the Book of Mormon*, 173–75.

36. Victoria R. Bricker, “The Origin of the Maya Solar Calendar,” *Current Anthropology* 23/1 (1982): 101–3.

calendar names is about 550 BC. Bricker concluded that “it would be logical” that the calendar was invented (or adapted) about then. That would have been about a quarter century after the arrival of the Lehites.³⁷

The Egyptian solar calendar consisted of 360 days plus 5 anomalous (“unlucky”) days that were tacked on to the main year in order to approximate the duration of the sun’s actual year (near 365.25 days). The Maya solar year similarly was formed of 360 “regular” days divided into months, to which were added the 5 “unlucky” or “chaotic” days that served the same function as in Egypt—to round out the count in order to approximate the sun’s true year.³⁸

Could knowledge of the ancient Egyptian solar-year scheme have arrived in Mesoamerica in the sixth century BC to inform calendar makers there of the Egyptian concept and also to provide them with a longer database of solar observations than was available in their own local culture alone? It is at that very time of the Maya calendar’s estimated creation that the Book of Mormon reports that two Egyptian-connected parties of Israelites arrived in Mesoamerica. The Lehites kept records in “the language of the Egyptians” (i.e., written in “reformed Egyptian” “characters,” 1 Nephi 1:2; Mormon 9:32), while the party that brought Mulek—son of Jewish king Zedekiah

37. Others disagree with Bricker’s ideas. See, for example, Vincent H. Malmström, “Geographical Diffusion and Calendrics in Pre-Columbian Mesoamerica,” *Geographical Review* 82/2 (1992): 113–27.

38. Because of the additional quarter of a day in the sun’s natural year, even the 365-day cycle would fall slowly behind astronomical reality, so that in about 1,460 solar years—the so-called Sothic cycle—the cumulative difference of the annual discrepancies would add up to one additional year. See Jack Finegan, *Handbook of Biblical Chronology: Principles of Time Reckoning in the Ancient World and Problems of Chronology in the Bible* (Princeton: Princeton University Press, 1964), 26–27. Astronomer Owen Gingerich, in “Summary: Archaeoastronomy in the Tropics,” in *Ethnoastronomy and Archaeoastronomy in the American Tropics*, ed. Anthony F. Aveni and Gary Urton (New York: New York Academy of Sciences, 1982), 333–36, noted that “the 365-day Mesoamerican calendar cycles throughout the seasons in 1,400 [actually 1,460] years just as the ancient Egyptian calendar did.” Compare Diane E. Wirth, *Parallels: Mesoamerican and Ancient Middle Eastern Traditions* (St. George, UT: Stonecliff, 2003), 34, 54. Furthermore, the Egyptians “used both numbers and names for months, thus the standard civil calendar began 1 Thoth” (Finegan, *Handbook of Biblical Chronology*, 5); this mode of labeling sounds Mesoamerican.

(Helaman 8:21)—to America was politically connected to Egypt, the state that had supported Mulek's father as king of Judah.³⁹

“A fundamental premise of [Mesoamerican] civilization [is that] history is prophecy.”⁴⁰ “The Maya did have a cyclical view of history. In their calendar a *katun* of the same name came up every 256 years, at which time history was expected to repeat itself” in broad terms.⁴¹ A Maya prophet (*ah bobat*) announced prophecies for various calendar periods, including the *katun* of 7,200 days (i.e., 20 360-day years).⁴² The nature of these prophecies is best known at the time of the Spanish conquest, but it is usually supposed that the prophecies may have been made at least as early as the Classic period.⁴³

Some contributors to the Book of Mormon considered their records to be prophetic histories. Their bellwether obviously was the Jewish tradition that their founders had borne from Jerusalem, where many Old Testament prophets made both time-general and time-specific prophecies.⁴⁴ Certainly

39. John L. Sorenson, “The ‘Mulekites,’” *BYU Studies* 30/3 (1990): 6–22. Possible supportive evidence comes from scientists who have demonstrated the “robust result” that a species of cotton (*Gossypium gossypoides*) growing in Oaxaca, Mexico, contains a chromosomal sequence that leads to “the unexpected phylogenetic placement of the *G. gossypoides* ITS sequence as a member of the African clade” of cottons. Jonathan F. Wendel et al., “An Unusual Ribosomal DNA Sequence from *Gossypium gossypoides* Reveals Ancient, Cryptic, Intergenomic Introgression,” *Molecular Phylogenetics and Evolution* 4/3 (1995): 308. Only prehistoric transoceanic transmission of an African (perhaps Egyptian) cotton to Mexico can account for the transfer. Mary LeCron Foster, a linguist at the University of California, Berkeley, used language comparisons to provide backing for such a voyage in her study “Old World Language in the Americas, 1,” a paper presented at the annual meeting of the Association of American Geographers (San Diego, 1992); compare chapter 10 herein.

40. Merideth Paxton, “Chilam Balam, Books of,” in Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 1:191.

41. Gordon R. Willey and Norman Hammond, introduction to *Maya Archaeology and Ethnohistory*, ed. Norman Hammond and Gordon R. Willey (Austin: University of Texas Press, 1979), xv.

42. Dennis E. Puleston, “An Epistemological Pathology and the Collapse, or Why the Maya Kept the Short Count,” in Hammond and Willey, *Maya Archaeology and Ethnohistory*, 63–71; and Munro S. Edmonson, “Some Postclassic Questions about the Classic Maya,” *Estudios de cultura maya* 12 (1979): 161.

43. Edmonson, “Some Postclassic Questions,” 162.

44. Some students of the Bible, notably Anderson, have believed that the Jews employed

Hebrew prophets and chronologists were much concerned with specific prophetic times.⁴⁵ As we might expect, certain Nephite prophets also pronounced time-specific prophecies.

One was Samuel the Lamanite, who declared shortly before the birth of Jesus Christ, “Four hundred years [will] pass not away save the sword of justice falleth upon this people” (Helaman 13:5). In this he echoed Alma₂, who six decades earlier had said that the Nephites, “in four hundred years from the time that Jesus Christ shall manifest himself unto them, shall dwindle in unbelief” (Alma 45:10). Four hundred years is approximately a Maya *baktun* (20 katuns), or 400 360-day years; a Maya prophet could logically have issued a *baktun* prophecy if he had chosen to, although we know of no examples. The end of the Nephite record assures us that both Samuel’s and Alma₂’s prophecies were fulfilled in the extinction of Nephite society around AD 380—that is, nearly “400 years” later.⁴⁶

Samuel’s case provides a possible further Mesoamerican correspondence. As told in Helaman 14:1–4, he predicted major astronomical phenomena: “five years more cometh, and behold, then cometh the Son of God to redeem all those who shall believe on his name. . . . Behold, there shall be great lights in heaven, insomuch that in the night before he cometh there shall be no darkness, insomuch that it shall appear unto man as if it was day. Therefore, there shall be one day and a night and a day, as if it were one day and there were no night.” Furthermore, “there shall a new star arise, such an one as ye never have beheld. . . . And . . . there shall be many signs and wonders in heaven” (vv. 5–6).

In Yucatan 1,500 years later, the ruler or his spokesman, the *chilam*, had responsibility to prophesy five years in advance what fate the next 20-year

a 360-day “prophetic year” at some points (as in the book of Daniel, where time is treated symbolically). See Robert Anderson, *The Coming Prince: Or the Seventy Weeks of David with an Answer to the Higher Critics*, 10th ed. (1915; repr., Grand Rapids, MI: Kregel, 1957), 67–68.

45. Gerhard Larsson, *The Secret System: A Study in the Chronology of the Old Testament* (Leiden: Brill, 1973), 41–43, 53–54.

46. For more details, see John L. Sorenson, “The Book of Mormon as a Mesoamerican Record,” in *Book of Mormon Authorship Revisited: The Evidence for Ancient Origins*, ed. Noel B. Reynolds (Provo, UT: FARMS, 1997), 408–9.

katun would bring.⁴⁷ If that pattern was followed in Samuel's time (we cannot be certain that it was), his prophecy that was made in the 86th year of the judges (Helaman 13:1–2) would have been for the 91st year. The fulfillment is actually reported to have been in the 92nd year, but, the record notes, “there were some who began to say [early in the 92nd year] that the time was past for the words to be fulfilled, which were spoken by Samuel, the Lamanite” (3 Nephi 1:5). The public response made sense if Samuel's prophecy had been seen as a five-year prediction whose fulfillment slipped inexplicably into the start of the following year.⁴⁸

Another scriptural case directs our attention to a further pair of calendrical correspondences. By the end of the last day of a certain year, a Lamanite blitzkrieg had reached “the borders of the land Bountiful” (Alma 51:32), adjacent to the narrow neck of land. The defending Nephite captain, Teancum, “stole forth” on the last/first night (depending on whether the day ended with sunset or not; see discussion below) of their year and stealthily entered “into the tent of the [Lamanite] king, and put a javelin to his heart” before slipping away (vv. 33–34). “And now, it came to pass in the twenty and sixth year . . . when the Lamanites awoke on the first morning of the first month, behold, they found Amalickiah was dead in his own tent.” Forthwith they abandoned their planned offensive and “retreated with all their army into the [nearby] city of Mulek, and sought protection in their fortifications” (52:1–2).

It is apparent that the aggressors considered the death of the Lamanite king on the last day of the year to be a bad omen for the ensuing period. Any Mayanist will immediately recognize that this event reflects a typical Mesoamerican response. Of further interest, this action occurred near (or maybe in) the year 77 or 78 BC, which is when the Maya calendar date 8 *Ahau* began a new 256-year cycle. “The pattern of Mayan history is strongly suggestive of a continuous tradition of major cultural and political changes [that were expected to take place] at the recurrences of the folding of the *may*,” that is, “every time 8 *Ahau* as a beginning date came around.”⁴⁹

47. Munro S. Edmonson, trans., *The Ancient Future of the Itza: The Book of Chilam Balam of Tizimin* (Austin: University of Texas Press, 1982), xi–xii.

48. Sorenson, “Book of Mormon as a Mesoamerican Record,” 409–10.

49. Edmonson, *Some Postclassic Questions*, 164. In historical Yucatan the “right” to “seat the cycle (*may*)” was conferred upon the power holder who was to exercise dynastic and

The report of the death of Amalickiah appears to agree with the wording of 3 Nephi 1:13 to show that the Nephite (and presumably Lamanite) day was ended with the setting of the sun, in agreement with Israelite custom. For the Maya also, a new day began at sundown.⁵⁰

Another calendar idea the Nephites may have derived from their Near Eastern ancestors was the seven-day week (Mosiah 18:23, 25; Alma 32:11). Ultimately that time division goes back to Mesopotamia, but it was in regular use among the inhabitants of the land of Judah when Lehi and his family left Jerusalem.⁵¹ Neuenswander noted the Tarascan use of the seven-day week,⁵² and she agreed with Thompson that the Maya had the concept of, and a glyph for, that period. She considered this usage to resonate among the common people since it was a logical division of the 28-day lunar month.

Measurement

In the Aztec marketplace, Cortez and his soldiers noted that goods were sold by volume.⁵³ In highland Guatemala until around World War I, when scales and weights came into use, market sales were also by volume.⁵⁴ Among the historical Quiché, "particular substances were counted by the containers in which they are typically carried."⁵⁵ Popenoe de Hatch reported that archaeological excavation at Kaminaljuyu has revealed sets of ceramic vessels "manufactured to a standard pattern and of graduated sizes that possibly represented established measures for food/grains."⁵⁶

religious primacy over the whole country for the new cycle. At the end of such a cycle in Yucatan, the primate city, its roads, and its idols were ritually destroyed and a new cycle seat was established elsewhere.

50. Edmonson, *Book of Counsel*, 97; and John M. Watanabe, "In the World of the Sun: A Cognitive Model of Mayan Cosmology," *Man* 18/4 (1983): 716.

51. Finegan, *Handbook of Biblical Chronology*, 15.

52. Neuenswander, "Vestiges of Early Maya Time Concepts," 132.

53. Francis Augustus MacNutt, trans. and ed., *Fernando Cortés: His Five Letters of Relation to the Emperor Charles V* (Glorieta, NM: Rio Grande, 1977), 1:259.

54. Felix Webster McBryde, *Cultural and Historical Geography of Southwest Guatemala*, Institute of Social Anthropology Publication 4 (Washington, DC: Smithsonian Institution, 1945), 84, 150.

55. Edmonson, *Ancient Future of the Itza*, 107.

56. Marion Popenoe de Hatch, *Kaminaljuyu/San Jorge, evidencia arqueológica de la*

The Nephites utilized a system of measurement in which volume, not weight, was counted (no scales or weights are ever mentioned). The phrasing of Alma 11:4, 7, and 15 is coordinate with this system in referring to values of “money” in terms of “a measure” of grain (“for a measure of barley, and also for a measure of every kind of grain,” v. 7).

Engineering and Public Works

In order to plan and complete massive public works, Mesoamerican builders must have possessed data, experience, and techniques that constituted a systematized body of mathematical and engineering knowledge. Neither documentary nor archaeological sources do more than hint at the content of that body of knowledge, its uses, and its sources, but the information must have been substantial.

Large pyramids at El Mirador, Teotihuacán, Cholula, and elsewhere could not have been constructed without significant engineering skill. The builders would have needed to plan systematically in order to know the work and materials they would require. As noted earlier, in many cases important structures were carefully located at points where observers could make solar or lunar sightings at calendrically significant times. Malmström demonstrated how site after site in Mesoamerica was placed at points where the sun could be observed as rising or setting over important mountains or hills located at one or more of those meaningful azimuths.⁵⁷ In some cases (in and near Teotihuacán at least), sight lines crossed intervening elevations upon which, as it were, “survey markers” were constructed. Norman showed that complex sightings determined the placement and definition of structures and stelae at the Izapa site.⁵⁸

It is usually supposed that all the knowledge necessary to plan and erect

actividad económica in el Valle de Guatemala, 300 a.C. a 300 d.C. (Guatemala: Universidad del Valle de Guatemala, 1997), 100.

57. Vincent H. Malmström, “A Reconstruction of the Chronology of Mesoamerican Calendrical Systems,” *Journal for the History of Astronomy* 9 (1978): 105–16.

58. V. Garth Norman, “Astronomical Orientations of Izapa Sculptures” (master’s thesis, Brigham Young University, 1980). It could be significant that one of the marker hills to which Malmström referred was El Vigía in the Tuxtla Mountains of Veracruz, the most likely candidate for the hill Ramah/Cumorah of the Book of Mormon. As shown on the map in Sorenson, *Images of Ancient America*, 167, at three archaeological sites the

the structures and public works evident throughout Mesoamerica slowly evolved *in situ*. But that assumption is thrown into question by a point made above that astronomical data covering long periods of time are likely to have been transferred from Old World astronomers to New World specialists; less likely is the prospect that the necessary body of data arose in the relatively short time during which supposedly indigenous Mesoamerican civilization grew up. The idea finds support at the Alta Vista site in Zacatecas, Mexico, where Kelley discovered “convincing evidence that the interior of the basal taluded platform [an architectural form the Alta Vistas borrowed from Teotihuacán] and the plan of its columns were surveyed employing the Old World architecture surveying technique of the ‘sacred cut square.’”⁵⁹ Other evidence, of course, suggests extensive cultural borrowing from the Near East.⁶⁰

Not only Mesoamerican sites and structures but a variety of other public works confirm the existence of technical knowledge of considerable sophistication. The Tehuacán Valley (Archaeological) Project reported extensive water-control systems in that area, including the Purrón Dam. In its fourth construction period, around the time of Christ (give or take a century), the dam was composed of 404,637 cubic yards (370,000 m³) of earth and stone that stretched 1,312 feet (400 m) across a canyon and held up to 2.89 million cubic yards (2.64 million m³) of water.⁶¹ A certain amount of accumulated engineering knowledge seems to have been necessary to successfully complete such a project, and such knowledge seems to me unlikely to have

winter solstice sunrise appeared over El Vigía (after Malmström, “Reconstruction of the Chronology,” 111, fig. 2).

59. J. Charles Kelley, “The Classic Epoch in the Chalchihuites Culture of the State of Zacatecas [Mexico],” in *La época Clásica: Nuevos hallazgos, nuevas ideas*, ed. Amalia Cardos de Mendez (Mexico City: Museo Nacional de Antropología, 1990), 12.

60. Sorenson, *Complex of Ritual and Ideology*; Sorenson, “The Significance of an Apparent Relationship between the Ancient Near East and Mesoamerica,” in *Man across the Sea: Problems of Pre-Columbian Contacts*, ed. Carroll L. Riley et al. (Austin: University of Texas Press, 1971), 219–41; John L. Sorenson and Martin H. Raish, *Pre-Columbian Contact with the Americas across the Oceans: An Annotated Bibliography*, 2 vols., 2nd ed. (Provo, UT: Research Press, 1996); and chapter 20 herein.

61. Richard B. Woodbury and James A. Neely, “Water Control Systems of the Tehuacan Valley,” in *Chronology and Irrigation*, ed. Frederick Johnson (Austin: University of Texas Press, 1972), 81–153.

been accumulated locally. Hundreds of other engineering projects were carried out throughout Mesoamerica.⁶²

Other large-scale enterprises included construction of the miles of canals and drains comprising the drainage system at ancient Edzná, Campeche; the construction of hundreds of kilometers of highways (*sacbes*) in the Maya area and elsewhere; the long aqueducts of Tenochtitlán, the Aztec capital; the apparent aqueduct that served Kaminaljuyu in the Pre-Classic period;⁶³ and fortifications such as the vast system around Tikal.

The Book of Mormon is uninformative on this technological point; nevertheless, the Nephite account describes the construction of “towers” (pyramids), walls and other defensive works, and highways. All of these structures are of such a nature that knowledge like what was apparently present in Mesoamerica would have been required to plan and erect them. One fortification project surrounded not only the city but also “the land” Bountiful (Alma 53:3), which suggests a major engineering feat. And since the founding lineages of rulers of the Jaredites, Nephites, and Lamanites are reported to have come from the Old World, it is plausible that they could and would have contributed useful planning and engineering concepts if not data.

Literary Forms

A characteristic stylistic pattern was used among the languages of the highland Maya and some other Mesoamerican groups. Edmonson explained that the Quiché Maya still today typically speak in a form of parallel couplets (e.g., “This is my word; . . . [this] is what I say”). They still talk much of the time in the same poetic form as was used in much of the discourse in the Popol Vuh. “Use of parallel couplets is normal. . . . The fundamental poetic form is semantic, not phonetic. In fact there is no rhyme or meter. But two successive lines commonly share key words closely linked in traditional meaning.”⁶⁴ Edmonson believed that virtually all formal Mayan discourse had been so phrased and that the practice would prove to be present in in-

62. For example, Angel Palerm, “Notas sobre las construcciones militares y la guerra en Mesoamerica,” *Anales del Instituto Nacional de Antropología e Historia* 8 (1954): 123–34.

63. Popenoe de Hatch, *Kaminaljuyú/San Jorge*.

64. Edmonson, *Book of Counsel*, xii.

scriptions dating to the Classic period.⁶⁵ Thompson had already gone part of the way toward that position: "In Maya writings of the [Spanish-conquest and colonial-period] books of Chilam Balam a phrase in the second half of a sentence often repeats what has previously been said in the first half, a close parallel to Hebrew poetry, best exemplified by [the Psalms]."⁶⁶ The same form is known from literature in central Mexico also.

The most explicit form of literary parallelism, and the most studied, is called chiasmus. The best introduction to this form and the literature on it is a volume edited by Welch⁶⁷ in which articles by seven authors display and analyze the use of chiasmus in Sumero-Akkadian, Ugaritic, Hebrew, Aramaic, Talmudic, Greek, and Latin writing, as well as in the New Testament and the Book of Mormon.

Chiasmus may be defined as "the reversal of the order of words in balancing clauses or phrases," although much more may be involved than that statement says. Especially in long chiasms, the form "systematically serves to concentrate the reader's or hearer's interest on [a] central expression" at the passage's midpoint,⁶⁸ which communicates the passage's primary message.⁶⁹ "Scholars now recognize chiasms . . . which involve passages of verse or prose ranging in length from a few sentences to hundreds of thousands of words."⁷⁰

In a series of landmark studies, Welch showed that the chiasmus form so well known in Mediterranean and Near Eastern literature is found at

65. Edmonson, "Some Postclassic Questions," 165.

66. J. Eric S. Thompson, "Maya Hieroglyphic Writing," in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 3:656.

67. John W. Welch, ed., *Chiasmus in Antiquity: Structures, Analyses, Exegesis* (Hildesheim, Germany: Gerstenberg Verlag, 1981).

68. David Noel Freedman, preface to Welch, *Chiasmus in Antiquity*, 7; and John W. Welch, "Criteria for Identifying and Evaluating the Presence of Chiasmus," *Journal of Book of Mormon Studies* 4/2 (1995): 1–14.

69. Yehuda T. Radday, "Chiasmus in Hebrew Biblical Narrative," in Welch, *Chiasmus in Antiquity*, 51.

70. Freedman, preface, 7; and Radday, "Chiasmus in Hebrew Biblical Narrative," 50–117.

many points in the Book of Mormon.⁷¹ Christenson demonstrated that the chiasmic form was common in highland Maya literature (including lengthy examples in the *Popol Vuh*)⁷² that date before major Spanish cultural influence had its effects.⁷³ But this form was not continued in later documents written under European influence. (Munro Edmonson was so impressed when Christenson's work was drawn to his attention that he wrote a congratulatory letter to him in the form of a chiasm!) This convergence is especially notable because the use of chiasmus seems to be an entirely arbitrary form. Its use is "an optional and often deliberate practice" that the writer chose to impose on his content.⁷⁴

In addition to chiasmus, a second stylistic form has been found in the Book of Mormon text that corresponds with Mesoamerican as well as Near Eastern usage. This is called variously difrasismo, kenning, or merismus. The Mesoamerican form is found among the Aztecs in instances where the Nahuatl language used a pair of nouns to signify a complex concept in abbreviated form: "skirt and blouse" meant the sexual aspect of woman; "flower and song" referred to poetry and art or, more broadly, aesthetic symbolism; "in the clouds, in the mist" is translated as "mystery"; "my hand, my foot" is read as "my body."⁷⁵ Christenson points out the same stylistic phenomenon in the *Popol Vuh*,⁷⁶ while Knowlton saw this poetic device in Maya hieroglyphic texts of the Classic period.⁷⁷ In the Hebrew scriptures,

71. John W. Welch, "Chiasmus in the Book of Mormon," *BYU Studies* 10/1 (1969): 69–84; Welch, "Chiasmus in Helaman 6:7–13" (Provo, UT: FARMS, 1987); and Welch, "Chiasmus in Alma 36" (Provo, UT: FARMS, 1989).

72. Allen J. Christenson, *Popol Vuh: The Sacred Book of the Maya* (Winchester, UK: O Books, 2003), 46–47.

73. Allen J. Christenson, "The Use of Chiasmus in Ancient Mesoamerica" (Provo, UT: FARMS, 1988); and Christenson, "The Use of Chiasmus by the Ancient Maya-Quiché," *Latin American Literatures Journal* 4/2 (1988): 125–50.

74. Freedman, preface, 7.

75. Miguel León-Portilla, *Pre-Columbian Literatures of Mexico* (Norman: University of Oklahoma Press, 1986), 77; León-Portilla, *Aztec Thought and Culture: A Study of the Ancient Nahuatl Mind* (Norman: University of Oklahoma Press, 1963); and Charlotte McGowan, "The Philosophical Dualism of the Aztecs," *Katunob* 10/4 (1977): 37–51.

76. Christenson, *Popol Vuh*, 48.

77. Timothy Knowlton, "Diphrastric Kennings in Mayan Hieroglyphic Literature," *Mexicon* 24/1 (2002): 12–13.

which the Nephites had with them, “young” and “aged” together signified “everybody” (Job 29:8), “sea” and “land” were equivalent to “the cosmos” (Psalm 95:5), and “flesh” plus “blood” in Psalm 50:13 stood for sacrificed animals.⁷⁸ As we might expect, the Nephite sacred account continued this Hebrew usage. Thus Alma 37:37 uses “night” and “morning” to convey “daily” or all the time, “bond and free” (5:49) is equivalent to “everybody,” and “in your closets, and your secret places, and in your wilderness” (34:26) signifies “everywhere.”

Dozens of stylistic forms besides chiasmus and merismus were in use in biblical and Book of Mormon poetic texts. Parry has identified more than 300 instances of Hebraic poetic parallelisms throughout the Nephite text.⁷⁹ No one has yet checked to determine whether all those forms are also found in Mesoamerican literature, but the presence of chiasmus and merismus there invites further study, starting with Christenson’s lengthy list of other parallelistic Mayan forms.⁸⁰

Health and Medicine

Knowledge of health and medicine was accumulated as an important science in Mesoamerica.⁸¹ Nearly all the remedies used were botanical or herbal in nature. Only a limited part of the traditional knowledge that ancient medical practitioners controlled has been studied and published.⁸² Some Spaniards were impressed with the Maya’s knowledge of the medical uses of local flora and fauna.

Sickness was often considered either a divine punishment for

78. Angela Crowell, “Hebrew Poetry in the Book of Mormon, Part 1,” *Zarahemla Record* 32 (1986): 2–6.

79. Donald W. Parry, *Poetic Parallelisms in the Book of Mormon: The Complete Text Reformatted* (Provo, UT: Neal A. Maxwell Institute, 2007).

80. Christenson, *Popol Vuh*, 44–45.

81. Ralph L. Roys, “Lowland Maya Native Society at Spanish Contact,” in Wauchope and Willey, *Handbook of Middle American Indians*, 3:676.

82. For example, Ralph L. Roys, *The Ethno-botany of the Maya*, Middle American Research Institution Publication 2 (New Orleans: Tulane University, 1931); and John L. Sorenson, ed., “A Bibliography for Yucatan Medicinal Plant Studies by William E. Gates,” *Tlalocan: Revista de fuentes para el conocimiento de las culturas indígenas de México* 3 (1957): 334–43.

transgressions or the result of sorcery.⁸³ The ill were treated primarily with herbs or with ritual or magical measures (much of the latter related to astrology). Mayan hieroglyphic books contained extensive curative recipes. In addition, central Mexico had deep traditions that informed medical diagnosis and treatment. (See, for example, the qualifications Sahagún listed for the Aztec physician: “The physician [is] a knower of herbs, of roots, of trees, of stones. The good physician is a restorer, a provider of health, a reviver, a relaxer. . . . She gives them potions, purges them, gives them medicine,” etc.)⁸⁴

The Book of Mormon provides very little information on the topic of health and medicine. The most revealing statement about the incidence of disease is at Alma 46:40: “And there were some who died with fevers, which at some seasons of the year were very frequent in the land [of Zarahemla]—but not so much so with fevers, because of the excellent qualities of the many plants and roots which God had prepared to remove the cause of diseases, to which men were subject by the nature of the climate.” Mosiah 17:16 and Alma 9:22 refer to “all manner of diseases,” and “pestilence” or “pestilences” are mentioned a dozen times. However, Mormon’s record makes no major point about disease, suggesting that health difficulties for the Nephite and Lamanite populations were no more than moderate in intensity.

Information in Mormon 1:13–14, 19 (see also 3 Nephi 7:19 and Alma 19:26–27) suggests that the Nephites sometimes attributed illness to sorcery. In another instance they considered a cause of illness to be “iniquity” (Alma 15:3, 5). The overall picture in the scripture is a rather accurate one if the home of those people was Mesoamerica.

The other main causes of pathology—warfare and famine (some of the latter caused by war)—further indicate that the health picture was much the same among Book of Mormon peoples and in Mesoamerica at large, where warfare and famine were the major threats to health. For example,

83. Roys, “Lowland Maya Native Society,” 676.

84. Bernardino de Sahagún, *Florentine Codex: General History of the Things of New Spain*, trans. Arthur J. O. Anderson and Charles E. Dibble (Salt Lake City: School of American Research and University of Utah Press, 1961), 11:53. On the treatment of fevers specifically by herbal medicines, see, for example, 11:147, 159ff; and Roys, *Ethno-botany of the Maya*.

Alma 57:24–28 refers without details to caring for those “who had been wounded.” The Nephite record also witnesses famines as a serious health threat. In the final Nephite wars, women and children are reported as “left . . . to wander whithersoever they can for food; and many old women do faint by the way and die” (Moroni 9:16). Other famine situations were not uncommon (e.g., due to war, Alma 3:2 and 4:2; Helaman 13:9; due to nature, Alma 10:22; Helaman 11:5; Ether 9:28–30; 11:7).

Conclusion

Obviously, knowledge systems other than the ones discussed in this chapter existed in Mesoamerica and among Book of Mormon peoples. For example, previous chapters herein have described or intimated shared conceptual structures for history and language knowledge systems. The elaborate system that Book of Mormon peoples used to frame meaning in regard to “religion” (ritual/myth/cosmology/iconography) is discussed in the next chapter.

Our survey of correspondences in the knowledge aspect of Book of Mormon civilizations has made clear that the account was produced within a consistent, integrated, civilized setting. The Book of Mormon does not present a mere potpourri of incidental notions but is a document based in the experiences of real historical peoples, their lives, and their cultures. The exotic nature of the customs, symbols, and configurations of knowledge portrayed and exemplified in the Book of Mormon reflect ancient Mesoamerican views.

Chapter 20

Ideology and Religion

The Book of Mormon indicates that the founders of its three major populations—the Lehites, the Mulekites, and the Jaredites—came from the Near East. Since the collection of their records found in the Book of Mormon are heavily oriented to ideology and religion, we would expect that the Mesoamerican cultures derived from or influenced by those immigrant groups would show rich parallels with Near Eastern religious and cult practices—ritual, belief, mythology, and iconography.

A recent publication lists and documents hundreds of such correspondences—far too many to duplicate outright here.¹ The presence of this huge body of shared beliefs and practices in America can be explained only by the arrival of Near Easterners by boat, carrying with them this esoteric lore. It is plausible that the Jaredites, Lehites, and Mulekites were transfer agents for much of that material. Although only a part of the Near Eastern–Mesoamerican parallels are mentioned outright in the Nephite account, the number, nature, and scope of the full list of correspondences bear witness that the Book of Mormon confirms at least part of the story of that transfer.

The first professionally published research that drew attention to a large body of credible parallels between the ideology and religion of the ancient

1. John L. Sorenson, *A Complex of Ritual and Ideology Shared by Mesoamerica and the Ancient Near East*, Sino-Platonic Papers 195 (Philadelphia: Department of East Asian Languages and Civilizations, University of Pennsylvania, 2009); a pdf version is accessible at <http://sino-platonic.org>; and John L. Sorenson and Carl L. Johannessen, *Scientific Evidence for Pre-Columbian Transoceanic Voyages to and from the Americas*, Sino-Platonic Papers 133 (Philadelphia: Department of East Asian Languages and Civilizations, University of Pennsylvania, 2004), CD-ROM edition.

Near East and those of Mesoamerica was my paper “The Significance of an Apparent Relationship between the Ancient Near East and Mesoamerica,” initially read at the 1969 annual meeting of the Society for American Archaeology in Santa Fe, New Mexico. When it was published in 1971 in the volume *Man across the Sea*,² it was greeted with cautious near silence. More extensive evidence for transoceanic connections was documented later,³ but the majority view on the issue remained unchanged—in the negative.

In the *Man across the Sea* article, I used studies by Kroeber and Hewes as a model for culture contact.⁴ They identified an Old World *oikoumene* (culture world or interaction sphere) that by the 15th century AD extended from Spain to Japan, including, of course, the Near East. Within that sphere, some 200 hundred cultural features cataloged by the two scholars were widely shared. My paper asked if those “oikoumenical” traits found throughout Eurasia were also to be found in Mesoamerica. Of those traits tabulated by Kroeber and Hewes, one in eight indeed proved to be found in pre-Columbian Mesoamerica, while another 10 percent were possibilities that might be confirmed upon further research.

At least 25 of the correspondences were not just marginal features but rather were basic to ancient civilizations both in Eurasia and in Mesoamerica. It seemed clear that a “substantial number of cultural features of much more than peripheral significance in Mesoamerican civilization . . . originated . . . earlier in the heart of the Old World *oikoumene*.” Without attempting to provide specific historical scenarios that might explain the correspondences, my paper held that there was enough evidence to suppose “at least a generic connection between the two areas.” The evidence made it “plausible, and perhaps necessary, to interpret the rise of civilization in

2. John L. Sorenson, “The Significance of an Apparent Relationship between the Ancient Near East and Mesoamerica,” in *Man across the Sea: Problems of Pre-Columbian Contacts*, ed. Carroll L. Riley et al. (Austin: University of Texas Press, 1971), 219–41.

3. John L. Sorenson and Martin H. Raish, *Pre-Columbian Contact with the Americas across the Oceans: An Annotated Bibliography*, 2 vols., 2nd ed. (Provo, UT: Research Press, 1996), summarizing more than 5,000 bibliographical items and comprising 1,200 pages.

4. Alfred L. Kroeber, “The Ancient *Oikoumenē* as an Historic Culture Aggregate,” in *The Nature of Culture* (Chicago: University of Chicago Press, 1952), 379–95; and Gordon W. Hewes, “The Ecumene as a Civilizational Multiplier System,” *Kroeber Anthropological Society Papers* 25 (1961): 73–109.

Mesoamerica as significantly dependent upon [direct] communication from . . . Eurasia.”⁵

That paper provided a foundation for a later one, “The Book of Mormon as a Mesoamerican Codex.”⁶ It presented a first version of the argument elaborated in this book. Some 75 correspondences were described and documented under three headings: (1) present in the ancient Near East, (2) referred to in the Book of Mormon, and (3) present in pre-Columbian Mesoamerican cultures.

In recent years further detailed similarities have been identified. Research on the distribution of biological entities (see chapter 9) has demonstrated conclusively that extensive exchanges took place anciently across the oceans between the Eastern and Western Hemispheres. Plant, animal, and disease transfers by means of voyages in numerous cases specifically tied the Near East to Mesoamerica.⁷

The totality of this biological data sharpens the salience of the previously published cultural elements shared by the Near East and Mesoamerica. Currently the biological data assures us that the Eastern and Western Hemispheres were linked by scores if not hundreds of sea voyages over the course of millennia. Those voyages could not help but bring about the transfer of many cultural features along with the biological exchanges.

Recent investigation has shown that a huge complex of religion and ideology linked the ancient Near East and Mesoamerica more than 2,000 years ago. This latest work tabulates hundreds of features.⁸ Of course, certain obvious similarities (e.g., that a pyramid or mound was thought to represent a

5. Sorenson, “Significance of an Apparent Relationship,” 223–24, 226.

6. John L. Sorenson, “The Book of Mormon as a Mesoamerican Codex,” *Newsletter, and Proceedings of the Society for Early Historic Archaeology* 139 (1976): 1–9.

7. For full references see Sorenson and Johannessen, *Scientific Evidence for Pre-Columbian Transoceanic Voyages*; Sorenson, *Complex of Ritual and Ideology*; Sorenson and Johannessen, “Biological Evidence for Pre-Columbian Transoceanic Voyages,” in *Contact and Exchange in the Ancient World*, ed. Victor H. Mair (Honolulu: University of Hawai‘i Press, 2006), 238–97; and Sorenson and Johannessen, *World Trade and Biological Exchanges before 1492* (New York: iUniverse, 2009).

8. The entire 380 correspondences so far identified can be found in Sorenson, *Complex of Ritual and Ideology*. For each of the correspondences the cited publication gives up to eight references in the technical literature.

mountain) could have been thought of more than once and so might signify nothing about transoceanic travel, but when arbitrary details accompany the general concept (e.g., that a sacred mound/mountain was thought to sit atop a hole that would allow the waters of the underground primal ocean to overflow the surface of the earth were the hole not plugged by the mound), it is impossible to believe that multiple human minds would have independently conceived of the *combination*.

For many of these features, the data are not clear as to when the parallel traits first made their appearance. In the Near East, archaeology has revealed the presence of certain of the features—for example, large pyramid mounds by about 2500 BC more or less. Texts written soon after that represent or describe more subtle ideological traits. Between texts and artifacts, most of the correspondences appear to have been in place in the Near East by about 500 BC.

For Mesoamerica, lack of ancient documents forces us to rely for a good deal of our data upon what is known of myths and motifs from cultures as late as the time of the Spanish conquest. However, much of the information on ideology and religion that was recorded soon after the conquest can be safely projected back in time. On the basis of archaeological discoveries, we know that many beliefs and practices current as of AD 1500 were already in place one, two, or even three millennia earlier, although their appearance in Mexico and Central America was invariably later than in the Near East. On the basis of the Near Eastern dates, it seems most likely that the transfers from the Near East would have taken place by the middle of the first millennium BC.

Beyond the List

When we focus on particular items as well as on the complexity of the sets of parallels, we cannot help but be impressed by these items as evidence for transoceanic transfer. For instance, note the following concepts shared by the ancient Near East and Mesoamerica:

- A feline represented the night/underworld aspect of the sun; its spotted skin represented the night sky and the stars.
- A fertility goddess (or earth mother) was conceived as having 400 breasts.

- The dead were capable of nonsexually impregnating living humans. A female character in the Popol Vuh conceived from the spittle of deceased Hun Hunahpu. In an Egyptian account, Isis became pregnant from a wooden splinter off the dead body of Osiris.
- The Egyptian mythological crocodile and the Mexican under-earth reptilian monster, besides being conceptually parallel, were called by phonetically similar names (*Sobek* and *Sipak-tli*).
- One leg of a deity was represented by a serpent.
- An omega-shaped motif represented the hair or wig of a deity who presided over motherhood or birth. This motif also bore vegetation and reanimation associations.

Such notions seem exotic on their own, but occurrences of the features in elaborate combinations are even less likely to occur by chance. Consider just two examples:

- One Mexica (Aztec) legend of earth's origin described a horrendous earth monster swimming in primeval waters. This creature was known in central Mexico as *Cipactli*, the earth dragon. An "earth toad" also floated in the waters, devouring the blood and hearts of the dead.
- The Maya believed in a saurian or ophidian monster that was the exact counterpart of the Aztec *Cipactli*. The top of its body formed the earth's surface. The monster and the waters in which it existed symbolized chaos. The monstrous creature therein had been fought, defeated, and tamed by a beneficent divinity when the earth was created. This monster was associated with a water lily icon. The great Aztec gods Tezcatlipoca and Quetzalcoatl entered the body of the earth monster, split it in half, and left one half to form the earth while elevating the other half to make the heavenly firmament.

Comparing these beliefs with Near Eastern cosmological myths yields remarkable parallels. In Babylonian cosmology the water of the great deep was regarded as the primordial element out of which the universe was generated. The "Deep" was portrayed as a dragon that was the enemy of light and

law. It was subdued by the Babylonian god Marduk.⁹ A reptilian monster was also associated with the water lily. The earth's surface was considered to be formed of the back of the floating dragon monster. Marduk descended to slay *Tiamat* and raise up half of its body to become the dome of the sky while the rest of its body formed the earth.

The extensive array of correspondences leads us to two important conclusions: first, migrants must have transferred a virtual avalanche of Near Eastern cultic knowledge and ritual practice to Mesoamerica; and second, as Mesoamericanists will recognize, the number, centrality, and pervasiveness of these traits in the ancient civilization of their area mean that the transfer of this cultural knowledge had to have taken place in the Pre-Classic era of Mesoamerican civilization, that is, in the first millennium BC if not earlier.

Note that this evidence for cultural transfers from the Near East to Mesoamerica does not exclude the possibility of contacts or influence between Mesoamerica and other areas of the globe such as East, South, and Southeast Asia. Nor does evidence for the diffusion of Old World features to the American scene signify that all of the inventory of beliefs and practices came from across the ocean; some of the symbols might have been valid inventions in Mesoamerica or elsewhere in the Western Hemisphere, but by no means most of them.

Book of Mormon Peoples' Role in Bringing Near Eastern Religion to Mesoamerica

Having established that a great mass of Near Eastern beliefs reached Mesoamerica, we must still ask, did that movement have anything to do with the Book of Mormon? Since, according to the Nephite book, three voyages from the Near East reached Mesoamerica, those voyages could have been instrumental in carrying to America some or all of the corresponding features.

The Book of Mormon claims or implies that many customs, norms, beliefs, concepts, and types of artifacts constituting or used in the cult referred to under the heading "the law of Moses" were brought by the Lehites, and probably also by the Mulekites, who came to Mesoamerica from the land

9. According to the Hebrew version, he/it was tamed and controlled by Yahweh at the time of creation.

of Israel. The earlier Jaredite migration might also have transferred early Mesopotamian cult features, but this possibility is less clear given the brevity of their history as we have it. (Of course, other parties also may have voyaged from Southwest Asia to Mesoamerica or vice versa.)

When we examine the cultural patterns shared between Mesoamerica and the ancient Near East and compare them with Mormon’s record, we find substantial overlap. The Nephite account refers to or implies 62 of the 360 elements—a substantial minority. Considering how concise the Nephite account is concerning cultural matters, the list of shared traits is impressive. It is reasonable to expect that if we had a fuller record, we could expand the list significantly. Table 20.1 spells them out.

Table 20.1
Shared Traits Documented or Implied* in the Book of Mormon

Cultural Correspondences	Book of Mormon References
Temple was “up” on an elevation	Implied; 2 Nephi 12:2–3; Mosiah 1:18; 2:1, 5, 10
Mountaintops were loci for shrines and rites	1 Nephi 16:30; 17:7; 2 Nephi 4:25; Alma 1:15; 26:29; 32:4; Ether 3:1

* “Implied” indicates that the item’s presence in the cultural world of Book of Mormon people can be conservatively inferred on the basis of the following references: 1 Nephi 19:22–24 (the brass plates, which the Lehites carried to America, contained a version of the Jewish Torah consisting of the “five books of Moses” plus the writings of Isaiah and other Israelite prophets of the First Temple era); 2 Nephi 5:16 (in the land of Nephi, the new “promised land,” the first king and culture hero, Nephi, built a temple patterned after “the temple of Solomon”); 2 Nephi 25:1–5 (Nephi’s own experiences and his knowledge of his father’s experiences among the Jews in the preexilic kingdom of Judah had prepared him to understand “the [culturally unique] manner of prophesying among the Jews”); additional statements (e.g., Jarom 1:5 and 4 Nephi 1:12) indicate that for six centuries the Nephites followed a version of the law of Moses.

In the century after the Babylonian destruction of Jerusalem, a party of Jews living in southern Egypt, at Elephantine, constructed a structure modeled after the Temple of Solomon. Details of that group and their cult and temple are included in Stephen G. Rosenberg, “The Jewish Temple at Elephantine,” *Near Eastern Archaeology* 67/1 (2004): 4–13; compare Jared W. Ludlow, “A Tale of Three Communities: Jerusalem, Elephantine, and Lehi-Nephi,” *Journal of Book of Mormon Studies* 16/2 (2007): 28–41.

Table 20.1 continued

Cultural Correspondences	Book of Mormon References
A principal deity was associated with mountains, rain, and clouds	Implied; Helaman 11:5–8; 12:16–17
Belief: a council of deities periodically assembled (often on a sacred mountain) to consider the fate of humanity and the world	1 Nephi 1:8–13; Welch, “The Calling of a Prophet,” in Nyman, <i>First Nephi, the Doctrinal Foundation</i> , 40
The temple building was partitioned according to degrees of holiness	Implied; 2 Nephi 5:16
Its innermost (holiest) room was visited only by one or a few priests	Implied; 2 Nephi 5:16
The temple entrance was framed by two nonstructural pillars	Implied; 2 Nephi 5:16; cf. 1 Kings 7:21
The temple and its platform were a contact point with heavenly powers	Jacob 1:17; Mosiah 1:18
A temple was surrounded by a bounded (often walled) sacred area	Implied; Mosiah 2:7; 10:2; 3 Nephi 11:1
Devout persons made pilgrimages to certain temples or shrines	Implied; Mosiah 1:18; 3 Nephi 19:1–3
Multiple levels of the cosmos were thought to lie above the earth	1 Nephi 1:14; Alma 1:15; 18:30
Extensive waters were thought to exist in the heavens	Implied; Alma 10:22; 3 Nephi 22:9
Levels were thought to lie below earth's surface	1 Nephi 12:16; 14:3; 2 Nephi 24:9; Moroni 8:14
A large body of water was thought to lie under the earth	1 Nephi 11:25; 12:16; 15:27; Mosiah 13:12
A constructed water feature in the temple area represented the underworld sea	Implied
A dragon monster inhabited the subterranean, primal waters	Implied; 2 Nephi 8:9–10; 9:10, 19, 26

Table 20.1 continued

Cultural Correspondences	Book of Mormon References
The monster had been defeated and tamed by a superior divinity in cosmic time	Implied; 2 Nephi 8:9–10
North was linked with the left hand, bad luck, stupidity, cursedness, death	3 Nephi 3:24
A flood ended one world age	Alma 10:22; 3 Nephi 22:9
A couple or family was preserved in the boat they built	Implied; 3 Nephi 22:9
Sacrifice constituted the central cultic act	Implied; Alma 34:10, 13; Mosiah 2:3; 3 Nephi 9:19
Slaying of an animal was the quintessential sacrifice	Implied; Alma 34:10–13
Blood was considered the essence of life—the ultimate sacrificial substance	Implied; Alma 34:10, 13
An altar was sometimes essential for sacrifice, worship	Implied; 1 Nephi 2:7; 2 Nephi 16:6; Alma 15:17
Blood of a sacrificial victim was smeared on the altar	Implied; 1 Nephi 5:9; Mosiah 2:3
Blood from the offering was scattered or poured out in the sacred area	Implied
All or part of sacrificed animals was consumed by burning on an altar	Implied; Mosiah 2:3
Offerings for the community's good were scheduled calendrically	Implied
Communion was achieved by eating an emblem or representation of deity	3 Nephi 18:7
Domestic animals were sacrificed	Implied; Mosiah 2:3
Fowls specifically were sacrificed	Implied; Mosiah 2:3

Table 20.1 continued

Cultural Correspondences	Book of Mormon References
Humans in general were sacrificed	Mormon 4:14, 15, 21
Children in general were sacrificed	Mormon 4:15, 21
Devotees self-lacerated, considering it a type of sacrifice	Implied; Alma 34:11
Sacrifice: first fruits were offered	Implied; cf. 2 Nephi 2:9; Jacob 4:11; Moroni 8:25
Afterworld: paradise attainable (for some)	Alma 40:12, 14; Moroni 10:34
Afterworld: resurrection attainable (for some)	Mosiah 15:21; Alma 11:45; 40:1
Stelae: both plain and carved were made	Implied; Omni 1:20
Purification: conducted by exorcism	3 Nephi 7:19, 22; 14:22
Purification: conducted by baptism/washing	Mosiah 18:10–16; Alma 8:10; 48:19; 3 Nephi 11:21–27
Symbolism: cult included a serpent, sense of renewal, resurrection, immortality	Helaman 8:14–15
Symbolism: cult included a serpent, sense of life, healing	2 Nephi 25:13, 20; Helaman 8:14–15; Alma 33:19
Symbolism: cult included a serpent—flying/feathered/elevated	Alma 33:19; 3 Nephi 27:14–15; Helaman 8:14–15
Symbolism: cult included feline-human and other hybrids	Alma 12:21; 42:2–3 (cherubim); 2 Nephi 16:2, 6 (seraphim)
Symbolism: a tree represented life	1 Nephi 8:24–25; 11:25; 15; Alma 42:5
Symbolism: a sacred grove was associated with worship/fertility	3 Nephi 21:18
Symbolism: a tree stood emblematically for a people	Jacob 5; 6; Alma 26:36; Ricks and Welch, <i>Allegory of the Olive Tree</i>
Political administration and cult were closely related	Words of Mormon 1:15–18; Mosiah 2; 11:5–8; Alma 35:5

Table 20.1 continued

Cultural Correspondences	Book of Mormon References
King had a key priestly role, at least ex officio	Mosiah 1:15–16, 18; 2:19; 25:14–15, 19; 27:1; 29:42
King was seated by means of a formal coronation rite	Mosiah 1:10, 15–16; Jacob 1:9; Ricks, “King, Coronation, and Covenant in Mosiah 1–6,” in Sorenson and Thorne, <i>Rediscovering the Book of Mormon</i> , 209–19
An elaborate palace was a symbol of royal power	Mosiah 11:8–9; Alma 22:2
Regalia: a throne was used	Mosiah 11:9; Alma 60:7; Ether 10:6
Deference to king: subjects bowed and cast eyes downward in king’s presence	Mosiah 20:25; Alma 22:2–3
Ideographic glyph system was present	Sorenson, “The Book of Mormon as a Mesoamerican Record,” in Reynolds, <i>Book of Mormon Authorship Revisited: The Evidence for Ancient Origins</i> , 435–44, 449–59
Literary/stylistic form: parallelistic couplets were used	Parry, <i>Poetic Parallelisms in the Book of Mormon: The Complete Text Reformatted</i> , iii–iv, x
Literary/stylistic form: chiasmus was used	Welch, “Chiasmus in the Book of Mormon,” in Welch, <i>Chiasmus in Antiquity</i> , 36–49; Parry, <i>Poetic Parallelisms</i> , xxxii–iv
Literary/stylistic form: merismus was used	1 Nephi 8:27; Alma 5:49; 34:26; 37:37
Writing: paper was used	Alma 14:14
Calendars: articulated multiple calendars were used	3 Nephi 1:1; 2:5–6
Calendar: a seven-day week was recognized	Mosiah 13:18
Sacred oaths were made	1 Nephi 4:35; Mosiah 19:25; Alma 44:8
Idols were worshipped	Alma 17:15, 31:1; Enos 1:20

Further Correspondences between the Book of Mormon Cult and Mesoamerican Patterns

Given that Mesoamerican civilization was so obviously religious in orientation (e.g., Thompson said the Maya were “deeply religious”),¹⁰ it is surprising that no scholar has produced a comprehensive, up-to-date synthesis of Mesoamerican religion or ideology. Perhaps this is because the literature is so dauntingly extensive that no one has felt competent to examine it all. Religion was infused into every aspect of Mesoamerican life. One old Mesoamerican told a Spanish Franciscan father, “It is through the gods that all [of us] live.”¹¹ Margain observed, “Religion was of first importance in Mesoamerica. . . . Other parts of America and of the world also had pyramids crowned with temples, but never in the abundance and [with the] continuity found throughout Mesoamerica.”¹² No wonder Cortez described the city of Cholula with such astonishment: “I counted from a mosque [pyramid tower] four hundred and odd towers in the city, and all belonged to mosques.”¹³

Moreover, some scholars see the ancient religious customs as having formed an integrated whole: “There was a single, unified, body of thought in . . . Mexico and Central America which we would call a Mesoamerican religion”;¹⁴ and “Precolumbian Mesoamerica was characterized by a unified ideological system with great time depth.”¹⁵ It is actually too early to

10. J. Eric S. Thompson, *Maya History and Religion* (Norman: University of Oklahoma Press, 1970), 161.

11. Henry B. Nicholson, “Religion in Pre-Hispanic Central Mexico,” in *Handbook of Middle American Indians*, ed. Robert Wauchope et al. (Austin: University of Texas Press, 1971), 10:410.

12. Carlos R. Margain, “Pre-Columbian Architecture of Central Mexico,” in Wauchope et al., *Handbook of Middle American Indians*, 10:67–68.

13. Hernando Cortez, *Fernando Cortés: His Five Letters of Relation to the Emperor Charles V*, ed. and trans. Francis A. MacNutt (Glorieta, NM: Rio Grande, 1977), 1:220–21.

14. Michael D. Coe, “Ancient Maya Writing and Calligraphy,” *Visible Language* 5/4 (1971): 300.

15. Julia G. Kappelman, “Of Macaws and Men: Late Preclassic Cosmology and Political Ideology in Izapan-style Monuments” (PhD diss., University of Texas at Austin, 1997), 225.

be completely confident of the proposed unity,¹⁶ but it may safely be said that important aspects of the civilization's religious beliefs and practices were very old, very widespread, and definitely central in Mesoamerican society, probably in all periods.

It hardly needs saying that the Book of Mormon record is, and the society it documents was, religious through and through. The title page, phrased in about AD 400 by the last writer/editor, Moroni₂, says that it was written to the descendants of the Israelite founders "by the spirit of prophecy and of revelation . . . [primarily] to show . . . what great things the Lord hath done for their fathers."

Despite the fact that religion and ideology were so crucial in ancient societies, how to address this aspect of culture is not clear to scholars. Certainly it is not clear to Mesoamericanists. Marcus aptly pointed out that among archaeologists there is "absolutely no agreed-upon theoretical or methodological framework for dealing with prehistoric religion."¹⁷ As a result, the supplementary data that follow are necessarily presented in an ad hoc way. The following section will not recapitulate the features already listed in *A Complex of Ritual and Ideology Shared by Mesoamerica and the Ancient Near East*, nor will it attempt to synthesize those concepts.¹⁸ The intent is simply to demonstrate that in addition to the correspondences between Near Eastern and Mesoamerican systems of belief and practice reviewed above, some of which are common also to the Book of Mormon, we can adduce additional parallels indicating that the cultures reported in the Book of Mormon were profoundly related to Mesoamerican civilization.

Beliefs

In Mesoamerica a fundamental concept of great importance was the dual nature of being. "Mesoamerican thought was profoundly binary." It "imagined a cosmos shaped by complementary opposites"—hot/cold, dark/

16. Compare the observation by Bernal in Elizabeth Benson, ed., *Dumbarton Oaks Conference on the Olmec, October 28th and 29th, 1967* (Washington, DC: Dumbarton Oaks, 1968), 75, in regard to possible competing cults.

17. Joyce Marcus, "Archaeology and Religion: A Comparison of the Zapotec and Maya," *World Archaeology* 10/2 (1978): 172.

18. Sorenson, *Complex of Ritual and Ideology*.

light, dry/wet, and so on.¹⁹ As already noted, a fundamental teaching of Lehi₁, a primary ancestor of the Book of Mormon peoples, was that “there is an opposition in all things” (2 Nephi 2:11); he specifically cited such pairings as life/death, righteousness/wickedness, good/bad, and happiness/misery.

Equally strong was a belief in the importance of time as a dimension of existence. In Mesoamerica time was thought to be cyclical; that is, events were believed essentially to repeat themselves at later times (thus prophecy was possible based on cyclical repetition).²⁰ The inevitability of the fulfillment of prophecy was also very important in Nephite thought (e.g., Alma 58:40; 3 Nephi 1:26).

In some Mesoamerican thought, the career of humans involved a sequence of stages, beginning with a vague premortal, heavenly existence.²¹ People were born innocent; for example, in central Mexico an infant was told, “When you were created and sent into this world you were made without stain, and your father and mother Quetzalcoatl formed you even as a precious stone and as a jewel of gold of great price.”²² Mormon taught that little children are innocent and “alive in Christ, even from the foundation of the world” (Moroni 8:12). Earth life was considered a test of how individuals would conduct their lives morally.

Especially important, or at least very time consuming, was a Mesoamerican person's obligation to carry out required rituals, especially in connection with his community's celebration of a rich calendar of sacrifices

19. Alfredo López Austin, “Cosmovision,” in *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*, ed. David Carrasco (Oxford: Oxford University Press, 2001), 1:270.

20. Dennis E. Puleston, “An Epistemological Pathology and the Collapse, or Why the Maya Kept the Short Count,” in *Maya Archaeology and Ethnohistory*, ed. Norman Hammond and Gordon R. Willey (Austin: University of Texas Press, 1979), 63.

21. V. Garth Norman, *Izapa Sculpture, Part 2: Text*, New World Archaeological Foundation Papers 30 (Provo, UT: BYU New World Archaeological Foundation, 1976), 2:111–12; and Nicholson, “Religion in Pre-Hispanic Central Mexico,” 411, citing Bernardino de Sahagún, *Historia general de las cosas de Nueva España*, ed. Angel M. Garibay Kintana (Mexico City: Editorial Porrúa, 1956), 2:187.

22. Thomas A. Joyce, *Mexican Archaeology* (1914; New York: Kraus, 1969), 160–61, after Sahagún.

and feasts. The Nephites felt a similar obligation in regard to the “[rites,] commandments and . . . statutes and . . . judgments according to the law of Moses” (Helaman 15:5; see also 2 Nephi 5:10; Moroni 2–5; 8:10). At least some Lehites thought ritual conformity proved their moral worth and conferred salvation upon them (Alma 21:6; implied by 4 Nephi 1:27, 34). Laman and Lemuel (and presumably their followers among the early Lehite party of immigrants) felt that the people of Jerusalem before the diaspora had been “a righteous people” because they kept the ritual requirements of the law of Moses (1 Nephi 17:22).

It is sometimes said that there was no personal moral dimension to Mesoamerican religious life, but that is an oversimplification. Both priests and commoners were frequently exhorted and expected to conduct themselves according to “the exemplary life.”²³ The Book of Mormon is so replete with demands that its people live according to moral ideals that no particular examples need be cited, but a typical summary of the expectation appears at Alma 41:3–4.

The prophet Alma₂ refers to a significant symbol of the condition of a man’s heart as the locus of personal morality when he compares Christ’s religious teachings to the seed of a tree, which a believer plants in his heart. “If it be a true seed, or a good seed, . . . it will begin to swell within your breasts” (Alma 32:28). In time “as the tree beginneth to grow, ye will say: Let us nourish it with great care, that it may get root, that it may grow up, and bring forth fruit” (v. 37), even the “fruit of the tree of life” (v. 40). The Maya of the Classic period may have preserved a visual correspondence to this concept, although the meaning no doubt had changed somewhat. Morley reproduces pictures of trees growing from the breasts or hearts of sacrificial victims (on stelae at Piedras Negras and in the Dresden Codex).²⁴ (See fig. 20.1.)

Those in Mesoamerica who behaved in a socially perverse manner—that is, in a way condemned by the culture’s morals—would be consigned after this life to an unpleasant sphere of existence in the underworld.²⁵ When

23. Frances F. Berdan, *The Aztecs of Central Mexico: An Imperial Society* (New York: Holt, Rinehart and Winston, 1982), 86–93, 131.

24. Sylvanus G. Morley, *The Ancient Maya*, 2nd ed. (Stanford, CA: Stanford University Press, 1947), plate 28, a, b, c.

25. Ralph L. Roys, “Lowland Maya Native Society at Spanish Contact,” in *Handbook of*



Figure 20.1. *Seed growing from the heart*

the Spanish priests learned about this underworld, they compared it to the Catholic idea of hell.²⁶ Graulich has argued strongly that many of the ideas held by Mesoamericans that have been considered by some scholars to have been imposed upon the native traditions by Catholic interpreters actually were thoroughly native. For example, “After death everybody had to descend to *Mictlan* [equivalent to Hebrew *sheol*] and . . . only those who showed merit in one way or another managed to escape and to survive [to live] . . . happily.” Mesoamericans also believed in paradise, a fall, and glorious rebirth for some made possible by the sacrifice of a deity.²⁷

Nephites conceived of “hell” as a “monster” (2 Nephi 9:10) that would “grasp” a wicked person and drag (Alma 30:60) him down “beneath” the surface of the earth (2 Nephi 24:9, 15), but a person could escape that fate by living a morally upright life (e.g., Alma 5:6). Furthermore, Nephites believed in a postmortal paradise (4 Nephi 1:14), the fall of man (e.g., Alma 12:22), and a glorious rebirth or resurrection (Mosiah 16:11) made possible by the power of the sacrificial death and resurrection of Jesus Christ (e.g., Mormon 9:13).

Middle American Indians, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 3:674.

26. Stephan F. de Borhegyi, “Miniature Mushroom Stones from Guatemala,” *American Antiquity* 26/4 (1961): 503.

27. Michel Graulich, “Afterlife in Ancient Mexican Thought,” in *Circumpacifica: Festschrift für Thomas S. Barthel, Band I; Mittel- und Südamerika*, ed. Bruno Illius and Matthias Laubscher (Frankfurt: Peter Lang, 1990), 165.

In Mesoamerica, human beings were believed to continue as distinct personalities after death. “The ancient ones said that when they die, men do not simply perish but live again, almost like waking from a dream, turning into spirits or gods.”²⁸ Pohl says that the Maya of Yucatan “believed in the immortality of the soul and life after death.” Moreover, Itzam Na, the supreme Maya deity, “had the power to resurrect the dead.”²⁹ Of course, this does not mean that all or even most of the ancient religious teachers or practitioners believed in these ideas, but it was common enough to be noteworthy. Among the Nephites the idea of personal survival after death was common (Mosiah 15:21; Alma 11:42–45; 12).

Cult beliefs and practices served for some Mesoamericans as a religion of salvation—a release from the unpleasant consequence of routine death. Many scholars ignore this dimension of Mesoamerican religious life, but there is abundant evidence that a cult of hope and salvation was indeed known and practiced, although perhaps not embraced by a majority. Graulich insists that the documentary sources abundantly witness this aspect of religious life.³⁰ Some commentators attack this view, supposing it to stem from Christianized notions that the Spanish fathers imposed on native texts, but Graulich and others have defended the position vigorously.³¹ Cohodas saw art at Palenque as using the “death and the rebirth of the sun” and the planting and death of seeds, and the growth of maize in particular, as “a very special and imaginative version of the narrative progression from

28. Sahagún, quoted in Cristina Vidal Lorenzo, “Tumbas, enterramientos, ofrendas en el Grupo Ah Canul de la ciudad Maya Yucateca de Oxkintok, Yucatán,” in *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1995), 1:273.

29. Mary Pohl, “Maya Ritual Faunas: Vertebrate Remains from Burials, Caches, Caves, and Cenotes in the Maya Lowlands,” in *Civilization in the Ancient Americas: Essays in Honor of Gordon R. Willey*, ed. Richard M. Leventhal and Alan L. Kolata (Cambridge, MA: University of New Mexico Press and Harvard University Peabody Museum, 1983), 99.

30. Michel Graulich, “The Metaphor of the Day in Ancient Mexican Myth and Ritual,” *Current Anthropology* 22/1 (1981): 45–60; and Graulich, “Myths of Paradise Lost in Pre-Hispanic Central Mexico,” *Current Anthropology* 24/5 (1983): 575–88.

31. Michel Graulich, “L’au-delà cyclique des anciens mexicains,” in *La antropología americanista en la actualidad: Homenaje a Raphael Girard* (Mexico City: Editores Mexicanos Unidos, 1980), 1:253–69; and Graulich, “Afterlife in Ancient Mexican Thought.”

death to rebirth.”³² Another Mayanist characterizes these concepts thus: “In most Maya languages, a grain of maize is also called ‘bone’ or ‘skull,’ because it is the dry and seemingly ‘dead’ remnant of the once-living maize plant. The sowing of this seed is associated with burial, and its subsequent germination and sprouting is considered a type of resurrection.”³³ The Book of Mormon refers to the resurrection of the dead some 60 times (e.g., repeatedly in Alma 40).

Over 50 years ago, Sejourné insisted that the cult of Quetzalcoatl at Teotihuacán as it was manifested near the beginning of the Christian era flourished because it offered devotees a hope of resurrection. In her 1956 book, she claimed that “the spiritual content of the Quetzalcoatl myth . . . appears to speak of the beginnings of an individual soul, which can attain to a superior, liberating consciousness through painful human experience in which sin—the dark side of corporeal life—is as necessary as the bright side” (in accordance with the duality theme).³⁴ Few Mesoamericanists followed her in that view; nevertheless, Florescano observed, “The main episodes of the Quetzalcoatl myth are related to the phases of the planting, gestation inside the earth, rebirth, and harvest of grain. . . . These episodes are the same as those recounted in the myths of Dumuzi-Tammuz, Baal, Osiris, and Persephone [in the central Old World]: the culminating moments are the descent of the seed into the underworld (planting), the resurrection of the grain from the depths of the earth, and the harvest.”³⁵ Ringle et al. have argued that a revived version of the cult of Quetzalcoatl swept across much of Mesoamerica in the Epiclassic period (AD 700–900) and that “cult may have gained popularity . . . because it offered a more personal message based upon the associations of Quetzalcoatl with rebirth and spiritual transforma-

32. Marvin Cohodas, “The Iconography of the Panels of the Sun, Cross, and Foliated Cross at Palenque: Part I,” in *Sociedad Mexicana de Antropología XIII mesa redonda, Xalapa, 1973* (Pebble Beach: Robert Louis Stevenson School, 1975), 79–80.

33. Allen Christenson, personal communication, 2007.

34. Laurette Sejourné, *Burning Water: Thought and Religion in Ancient Mexico* (1956; repr., Berkeley: Shambhala Publications, 1976), 54–55; see also Alfonso Caso, “Dioses y signos teotihuacanos,” in *Teotihuacán, onceava mesa redonda: El Valle de Teotihuacán y su contorno* (Mexico City: Sociedad Mexicana de Antropología, 1966), 265.

35. Enrique Florescano, *The Myth of Quetzalcoatl* (Baltimore: Johns Hopkins University Press, 1999), 237.

tion.”³⁶ (Further discussion of the Quetzalcoatl tradition appears below.) In addition, shortly before the Spanish conquerors arrived, the lowland Maya also had a belief in the resurrection,³⁷ and they probably acquired it long before.³⁸

We do not know for sure that all these Mesoamerican concepts were integrated into a single belief system at any point in time, although that is possible. No doubt some of the more esoteric customs and beliefs were held only by the elite, and even perhaps only by priests among the elite.³⁹

A difference in complexity of popular and priestly or elite views, as well as regional variations in those views, would probably have prevailed in Mesoamerica, just as in any other complex civilization. All the beliefs I have cited existed at some places in Mesoamerica, although not everywhere nor perhaps at any one time.

These beliefs are familiar from the Book of Mormon. Some have been referred to earlier. The Nephite record does not clearly convey the terms of belief in a premortal sphere, but we may infer them based on certain sections of the text (e.g., Ether 3:7–17; Alma 13:3; 1 Nephi 1:8–10). Nephite authors several times discuss the “fall of man” (i.e., of Adam and Eve; see 2 Nephi 2:4, 18–26; Alma 12:22–23; 22:12–13). A sizable part of the population apparently deemed ceremonial performances sufficient to “save”

36. William M. Ringle et al., “The Return of Quetzalcoatl: Evidence for the Spread of a World Religion during the Epiclassic Period,” *Ancient Mesoamerica* 9 (1998): 223.

37. Arthur G. Miller and Nancy M. Farriss, “Religious Syncretism in Colonial Yucatan: The Archaeological and Ethnohistorical Evidence from Tanchah, Quintana Roo,” in Hammond and Willey, *Maya Archaeology and Ethnohistory*, 239–40.

38. Pohl, “Maya Ritual Faunas,” 99; and Arlen F. Chase, “Elites and the Changing Organization of Classic Maya Society,” in *Mesoamerican Elites: An Archaeological Assessment*, ed. Diane Z. Chase and Arlen F. Chase (Norman: University of Oklahoma Press, 1992), 36.

39. An instructive parallel in regional or community variations is apparent in China, where the classic view of feng shui, the scheme of mystical ecology, is used to interpret features of the landscape in terms of the concentration of supernatural or mystical powers. Carlson has noted that common Chinese folk probably knew only a limited version of the ideal conceptual or theoretical scheme. There were also regional variants, and this fact makes construction of a single model of the conceptual pattern for feng shui impossible. John B. Carlson, “A Geomantic Model for the Interpretation of Mesoamerican Sites: An Essay in Cross-cultural Comparison,” in *Mesoamerican Sites and World-Views*, ed. Elizabeth P. Benson (Washington, DC: Dumbarton Oaks, 1981), 164, 168.

a person, but they failed to emphasize moral expectations (e.g., Jarom 1:5; Alma 16:17; 31:12, 23; 4 Nephi 1:27–29). Furthermore, religious beliefs about the course of life and death were represented using the symbolism of the planting and growing cycle of grain (Alma 32:28–43).

Sacred Beings

Religious belief in Mesoamerica, at least at some times and among some people, included monotheism. Most modern scholars, as well as some of the 16th- and 17th-century Spanish priests in Mexico, have supposed that a multitude of gods and idols had been worshipped in this culture area. Other researchers see the data in a different light. Ringle et al. note that after the Spanish conquest, the Itza Maya of Yucatan claimed to believe in a single god. “Behind the multiplicity of gods, men, and the things of this earth lay [a conception of divine] duality [in central Mexico represented as the gods Quetzalcoatl and Tlaloc], but behind this duality was an even more fundamental unity. Quetzalcoatl was both that ultimate aspect and the vehicle by which it was attained.”⁴⁰ Other revisionist scholars agree.

To Thompson it appeared that the Maya of the Classic period had “developed the cult of Itzam Na into something close to monotheism,” with all other divine “beings as his servants or his manifestations.”⁴¹ Proskouriakoff agreed: “The notion that the Maya civilization had a great many gods, I think, is completely wrong. We never have gods represented before the Post-Classic period, by which time there is a great proliferation of idols. In neither the Teotihuacán culture nor that of the Classic Maya, nor in any of the earlier cultures, was there really what you might call an idol or god that we could identify.”⁴² The Totonac of south-central Veracruz “had a kind of trinity of principal deities with a preeminent sun god (Chichini), a great celestial goddess, his wife, and a son who was expected to come to the earth in a kind of ‘redeemer’ role.”⁴³ Quite assuredly, multiple idols or gods were

40. Ringle et al., “Return of Quetzalcoatl,” 225.

41. Thompson, *Maya History and Religion*, 233.

42. Tatiana Proskouriakoff, comment in “Discussion,” in *Dumbarton Oaks Conference on the Olmec, October 28th and 29th, 1967*, ed. Elizabeth P. Benson (Washington, DC: Dumbarton Oaks Research Library, 1968), 176.

43. *Ancient Art of Veracruz, Feb. 23–June 13, 1971: An Exhibit Sponsored by the Ethnic*

present in ancient times; nevertheless, there are good reasons to think that monotheism was the rule of belief for some in certain times and places.

Some Book of Mormon religious teachers claimed but “one God” (Alma 11:35), yet that one consisted of “the Father, and . . . the Son, and . . . the Holy Ghost, which are one God” (Mormon 7:7; 2 Nephi 31:21; compare Alma 18:26–28, the “Great Spirit”). And no doubt the common people variously interpreted the meaning of deity’s unity (compare Mormon 4:14) in ways that could have ranged from seeing idols as aspects of the one God to belief in the actuality of numerous gods.

The Book of Mormon reported that angels or divine messengers came down from heaven and were authorized to wield divine powers in certain contexts (e.g., Mosiah 27:11, 15). Mesoamericans represented generally similar angelic beings, as seen, for example, in Lámina 55 of a volume by Batres, where a figurine found in the Tuxtla Mountains of southern Veracruz “represents a person flying.”⁴⁴ It has wings above and behind outstretched arms. Somewhat similar flying figures are seen on Stela 3 at La Venta; they hover over the images of two important men.⁴⁵ Landa said that in Yucatan it was believed that “an angel descended and received [a certain] sacrifice.”⁴⁶ Book of Mormon peoples believed in dark counterparts—supernatural agents are mentioned, “demons” or “angels of him who hath sought to destroy our souls” (Helaman 13:37). In Mexico several forms of demons were described, including the dreaded *cihuateteo* of the Aztecs.⁴⁷

Another intriguing correspondence also involves sacred beings. Among the Quiché Maya, “some of the most important rulers were said to have

Arts Council of Los Angeles at the Los Angeles County Museum of Natural History (Los Angeles: Ethnic Arts Council of Los Angeles, 1971), 14.

44. Leopoldo Batres, *Civilización prehistórica de las riberas del Papaloapam y costa de Sotavento, estado de Veracruz* (Mexico City: Buznego y Leon, 1908).

45. Michael D. Coe, “San Lorenzo and the Olmec Civilization,” in Benson, *Dumbarton Oaks Conference on the Olmec*, 58–59.

46. Alfred M. Tozzer, ed. and trans., *Landa’s Relación de las Cosas de Yucatan: A Translation*, Peabody Museum of American Archaeology and Ethnology Papers 18 (Cambridge, MA: Harvard University, 1941), 143.

47. Mary Miller and Karl Taube, *The Gods and Symbols of Ancient Mexico and the Maya: An Illustrated Dictionary of Mesoamerican Religion* (London: Thames & Hudson, 1993), 61–62.

disappeared without leaving notice whether or not they 'tasted death.'"⁴⁸ The Book of Mormon reports three cases of this type of demise: chief judge Alma₂ (Alma 45:18–19), the prophet Nephi₂ (3 Nephi 1:2–3), and the Three Nephites, who were numbered among the 12 key disciples of Christ to whom he gave authority over the church (3 Nephi 28:7–8, 25, 37–38). The first two men, Alma₂ and Nephi₂, were presumed by Nephite historians to have been translated to a transmortal (though not immortal) state. The last three as a group were specifically promised that they would “never endure the pains of death; but . . . shall be changed in the twinkling of an eye from mortality to immortality” (3 Nephi 28:8).

Cult or “Church” near the Beginning of the Christian Era

A church that offered salvation to the masses came into being among Nephites in the second century BC in southern Mesoamerica (Mosiah 18:7–17) in anticipation of the prophesied coming of Jesus Christ, the Israelite Messiah and Savior. Over the next four centuries, the institution spread throughout the isthmian area. The organization and its body of belief spread beyond the boundaries of any one ethnic group or political or cultural realm (see, for example, Mosiah 25:22; Alma 20:1; 4 Nephi 1:1). This monolithic church endured among the Nephites especially from around AD 30 to 200 before it waned throughout the next century.

Although the succinct textual report of this church cannot be equated with any external religious entity known to Mesoamericanists, the Book of Mormon account of a single church is in a number of ways Mesoamerican.

A cult of the Feathered Serpent existed in Mesoamerica in the early centuries of the Christian era (this was not the same as, but was probably a precursor of, the later cult of Quetzalcoatl of the 8th through 9th centuries as well as the 12th through 16th centuries). The chronology is muddled by the fact that we do not know when or where the traits indicative of the Feathered Serpent cult first arose. Nicholson, in the latest scholarly treatment of the topic, ignores any possible predecessor for the late Topiltzin Quetzalcoatl of

48. Robert M. Carmack, *The Quiché Mayas of Utatlán: The Evolution of a Highland Guatemala Kingdom* (Norman: University of Oklahoma Press, 1981), 149.

the Toltec tradition of the 12th century.⁴⁹ Yet López Austin and López Luján assert, “We are convinced that the symbol complex of Feathered Serpent has much earlier manifestations.” They observe that in “Miccaotli-Phase Teotihuacán (150–200 C.E.), the symbols of Feathered Serpent, the creation of the world, the extraction of time, the calendar, governmental authority, and war were all joined together in [the architecture and iconography of] one building,” the Temple of Quetzalcoatl at Teotihuacán.⁵⁰ Sejourné saw effigies of the Feathered Serpent in Oaxacan tombs of the Monte Alban II period before AD 200.⁵¹ But the picture we can construct from concrete iconographic symbols remains unclear. Sejourné appears to be correct in referring to the traditions about Quetzalcoatl that the 16th-century Spanish clerics recorded as a “vague mass of Pre-Columbian history”⁵²—too vague at this time to allow us to delineate a picture of a single early Quetzalcoatl cult.

Even a short chronological analysis identifies three separate historical configurations of belief emerging from this “vague mass.” First there was a deity or man-god whose chief emblem and/or name was Feathered Serpent; knowledge of him was manifested at Teotihuacán at least as early as AD 150–200, when the “pyramid of Quetzalcoatl” structure was erected.⁵³ Yet as early as the third or fourth century, the iconography of that religious complex had been greatly modified. According to Florescano, by that time the god Tlaloc had come to incorporate some of the traits of the Feathered Serpent, and Tlaloc then dominated worship at Teotihuacán.⁵⁴

49. Henry B. Nicholson, *Topiltzin Quetzalcoatl: The Once and Future Lord of the Toltecs* (Boulder: University Press of Colorado, 2001).

50. Alfredo López Austin and Leonardo López Luján, “The Myth and Reality of Zuyúá,” in *Mesoamerica’s Classic Heritage*, ed. David Carrasco et al. (Boulder: University Press of Colorado, 2000), 71n25.

51. Laurette Sejourné, “El simbolismo de los rituales funerarios en Monte Albán,” *Revista mexicana de estudios antropológicos* 16 (1960): 85.

52. Sejourné, *Burning Water*, 54.

53. “We know that since the beginning of the Classic period [ca. AD 150] he appears as a serpent covered with precious feathers in the murals of Teotihuacán.” Blas R. Castellón Huerta, “Cúmulo de símbolos: La serpiente emplumada,” *Arqueología mexicana* 9/53 (2002): 29.

54. Enrique Florescano, “La serpiente emplumada, Tlaloc y Quetzalcoatl,” *Cuadernos americanos* 133/2 (1964): 140, 144.

By about the seventh century, a “new cult [arose that] is marked by a distinctive constellation of traits that may mark it as a doctrinal change or schism.”⁵⁵ This formulation reached most parts of Mesoamerica at a time that was beset with widespread armed conflict.⁵⁶

The third version of the cult would have developed in the 11th or 12th century when Topiltzin Quetzalcoatl made his appearance among the Toltecs,⁵⁷ as celebrated by the later traditions down to the time of the Spanish conquest of Mexico.

These several historical manifestations have often been lumped together as part of a single cult of Quetzalcoatl because the amalgam of tradition among the Aztecs incorporated features of each of the earlier cults. Brotherston was confident, along with other researchers, that the historical (Topiltzin) Quetzalcoatl at Tula had “attached himself to an ancient and illustrious plumed serpent deity.”⁵⁸

Based on the significant degree of correspondence between what the Book of Mormon reports and the patterns of culture making up Mesoamerican life that we have already seen, we can plausibly look for correspondences between the Feathered Serpent complex and the appearance of Jesus Christ among the Nephites reported in the Book of Mormon. At least five parallels are apparent:

1. According to the Book of Mormon, the resurrected Jesus Christ—who is presented in the record as a god of salvation from death and sin—appeared in the heavens to descend among a crowd of Nephites at the city of Bountiful, located at the narrow neck of land, in about AD 30 (3 Nephi 10:18–19; 11:1).⁵⁹

The Feathered Serpent cult in Mesoamerica was extant no later than AD 150 and quite certainly somewhat earlier. By AD 150 a fully developed

55. Ringle et al., “Return of Quetzalcoatl,” 185.

56. David Webster, “The Not So Peaceful Civilization: A Review of Maya War,” *Journal of World Prehistory* 14 (2000): 65–119.

57. Nicholson, *Topiltzin Quetzalcoatl*.

58. Gordon Brotherston, “Huitzilopochtli and What Was Made of Him,” in *Mesoamerican Archaeology: New Approaches*, ed. Norman Hammond (Austin: University of Texas Press, 1974), 157.

59. S. Kent Brown et al., “When Did Jesus Appear to the Nephites in Bountiful?” (Provo, UT: FARMS, 1989).

iconography and architectural tradition were manifested at Teotihuacán, implying a significant period of prior maturation for the cult. Although some scholars denigrate Sejourné's interpretation of a god-man Quetzalcoatl, Precious or Plumed Serpent, as the founder of the cult in early Teotihuacán, others agree with her. The doyen of Mexican archaeology, Alfonso Caso, concluded, "The idea of Sejourné that at Teotihuacán a bearded personage is the god Quetzalcoatl is solidly supported."⁶⁰

Correlated data support such an early date: the observation by Sejourné that symbolic representations of Quetzalcoatl appear in tombs of the Monte Alban II period (100 BC–AD 200),⁶¹ possible reference to a name for the early Feathered Serpent god found in the Maya lowlands associated with a date in the third century AD,⁶² and Kelley's conclusion that a temple to Quetzalcoatl existed in the Maya zone by the Middle Classic period (ca. AD 500).⁶³ These dates are long before any possible influence from the Epiclassic (AD 700–900) or Toltec tradition of such a god. Taken together, these data and their distribution confirm that the Feathered Serpent cult was influential throughout Mesoamerica in the early AD centuries, as our comparison with the Book of Mormon suggests.

Mexican thought represented Quetzalcoatl as a god of salvation. As Graulich emphasizes, "The paradigmatic myth of Teotihuacán clearly implies the idea of expiation and purification to gain a glorious afterlife,"⁶⁴ a position with which Sejourné strongly agreed.⁶⁵

2. The symbolism of a savior emblemized by a serpent elevated on a pole (representing flying?) was part of Israelite iconography from the time of Moses (Numbers 21:8) at least down to King Hezekiah (late seventh

60. Caso, "Dioses y signos teotihuacanos," 265; also compare Castellón Huerta, "Cúmulo de símbolos," 29.

61. Sejourné, "El simbolismo," 77–90.

62. Stephen D. Houston, "An Example of Homophony in Maya Script," *American Antiquity* 49/4 (1984): 799–800; and Diane E. Wirth, "Quetzalcoatl, the Maya Maize God, and Jesus Christ," *Journal of Book of Mormon Studies* 11/1 (2002): 7.

63. David H. Kelley, "The Birth of the Gods at Palenque," *Estudios de cultura maya* 5 (1966): 93–134.

64. Michel Graulich, "Aztec Human Sacrifice as Expiation," *History of Religions* 39/4 (2000): 360.

65. Sejourné, *Burning Water*, 66–72.

century BC; 2 Kings 18:4) in First Temple times. The symbolism was known to Nephi₁ (2 Nephi 25:20, 24) in the New World in the middle of the sixth century BC. He had access to the Torah on the plates of brass, the obvious source for his knowledge of the *nehushtan* symbol that he brought from Jerusalem into the formative Nephite tradition. By about 30 BC Nephi₂, a descendant of the original Nephi, likened “the Son of God,” meaning the prophesied Christ, to “the brazen serpent in the wilderness” of Moses; and, Nephi₂ continued, “even so shall he [Jesus Christ] be lifted up [on the cross] who should come” in order to save those who embraced his teachings (Helaman 8:14). This history suggests that portents of Quetzalcoatl’s cult may be found even earlier than Sejourné thought (see 2 Nephi 5:28). It would not be surprising for participants influenced by the Nephite tradition to have carried on the Israelite idea and symbol of the Mosaic brazen serpent and to have produced elevated- or flying-serpent images in Mesoamerica during the late centuries before Christ. Agrinier interprets an enigmatic artifact at Chiapa de Corzo (ca. 300–400 BC) as showing such a plumed serpent;⁶⁶ the identification is possible although less than obvious.

The place in Mesoamerica where the Feathered Serpent is supposed to have appeared or dwelled is unclear; while the most explicit art is at Teotihuacán, too little excavation has been done at other, contemporaneous sites to verify where the iconic forms originated. The deity’s subsequent influence was found throughout Mesoamerica and even beyond (“traceable affinities of the Quetzalcoatl story have been found from Bolivia to Arizona, but the specific element of the plumed serpent is unique to . . . Middle America,” according to Edmonson).⁶⁷ In some ways he was particularly linked with the Isthmus of Tehuantepec (although this link may have been chiefly in reference to Topiltzin Quetzalcoatl, the later figure).⁶⁸

3. Quetzalcoatl appeared as a man but was in some sense considered a

66. Pierre Agrinier, *The Archeological Burials at Chiapa de Corzo and Their Furniture*, New World Archaeological Foundation Papers 16 (Provo, UT: BYU New World Archaeological Foundation, 1964), 19, fig. 23.

67. Munro S. Edmonson, “Narrative Folklore,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Manning Nash (Austin: University of Texas Press, 1967), 6:361.

68. Michael D. Coe and Richard A. Diehl, *In the Land of the Olmec: The Archaeology of San Lorenzo Tenochtitlan* (Austin: University of Texas Press, 1980), 1:357.

god associated with creation. López Austin considered that he personified the creator of “the things in the world,”⁶⁹ yet “sometimes he was considered a god, sometimes a [human] culture hero.”⁷⁰

4. Quetzalcoatl was seen as a beneficent deity associated with natural forces (rain and fertility).⁷¹

5. Quetzalcoatl taught a set of moral ideals toward which his followers were expected to strive.

These five features seem to apply to the cult founder who was celebrated at Teotihuacán (and other centers), either because they were directly manifest in the art and archaeology of early times or because they were later so widespread in Mesoamerica and beyond that the ideas must have been planted before the beginning of the Classic period in order to account for their distribution in time and space. The Book of Mormon text offers clear parallels to each of these five points; the book of 3 Nephi (along with Helaman 8 and the book of 4 Nephi) is the primary source.

The traditions mention or intimate three additional traits that may apply only or mainly to the god figure Quetzalcoatl as he had evolved by the Epiclassic period (AD 700–900) or that were said of the 11th-century Toltec priest Topiltzin Quetzalcoatl; whether they were thought to apply to the earlier “man/god” is not clear:

6. He was described as a white, bearded man.⁷²

7. He departed with a promise to return.⁷³

8. He was believed to have visited the region of the dead (“The Annals of Cuauhtitlan state that ‘. . . when Quetzalcoatl died he was not seen for four days, because then he went to dwell among the dead’”).⁷⁴

Some Latter-day Saints consider that features 6 through 8 have to be

69. Cited in Castellón Huerta, “Cúmulo de símbolos,” 31.

70. Miguel León-Portilla, *Pre-Columbian Literatures of Mexico* (Norman: University of Oklahoma Press, 1969), 31.

71. Florescano, *Myth of Quetzalcoatl*, 7–8.

72. Hubert H. Bancroft, *Native Races of the Pacific States* (1875; repr., San Francisco: Bancroft, 1883) 5:23–24, summarizing native sources.

73. Tozzer, *Landa's Relación*, 22.

74. Castellón Huerta, “Cúmulo de símbolos,” 31; Sejourné, *Burning Water*, 142.

associated with the Jesus Christ tradition of the Nephite text, but the traits are not directly witnessed in statements in the Book of Mormon.

Although a few similar characteristics are vaguely paralleled in religious complexes elsewhere in the world, this set as a whole is not duplicated in any other culture area or in any other sacred text. Some relationship between Quetzalcoatl and the biblical Christ was apparent enough that when the Spaniards arrived, their priests in some cases supposed a connection.

The correspondences involving the Feathered Serpent of Mesoamerica and Jesus Christ's appearance according to the Book of Mormon, while not wholly decisive, are clear enough to substantiate the argument that the content of the Book of Mormon reflects a Mesoamerican origin.

The Organizational Structure of Cult or Church

The system of institutional religion among the Nephites involved priests who had differing levels of authority. The Book of Mormon notes at least three kinds of "priests" in the Nephite church: routine priests, regional high priests, and a primate high priest (Mosiah 26:7–8; Alma 46:38; 3 Nephi 6:27). "Teachers" were religious functionaries of an order lower than priests (Alma 45:22). Thus a hierarchy of at least four levels operated among the Nephites. Another mentioned office, "elder," is not clearly articulated with other aspects of the ecclesiastical organization (4:7; 6:1; Moroni 6:7).

The functions of Nephite priests are nowhere spelled out in detail, but before their practices were modified upon the appearance of Christ (3 Nephi 9:19), "the priests, and the teachers, did labor diligently, exhorting with all long-suffering the people to diligence" while "teaching the law of Moses" (Jarom 1:11). In other words, they did what Jewish priests did: officiate in community-related rituals; set dates for ceremonies by calendrical tracking; and serve as custodians and watchdogs of the ethnic, mythic, and ideological tradition and of the ritual and moral purity of their people.

Among the Jews at the time of the Babylonian exile, "Jeremiah tells us that it [wa]s the peculiar function of the priests to handle the Torah."⁷⁵ That is, they were keepers of the sacred records, and we may suppose that by virtue of their descent in a line of prophet-priests after Jeremiah, Nephite

75. Merlin D. Rehm, "Levites and Priests," in *Anchor Bible Dictionary*, ed. David N. Freedman (New York: Doubleday, 1992), 4:308.

priests did likewise. Their input probably would have been the basis for the determination of the date for the coronation of Mosiah₂, as reported in Mosiah 1:10. The reckoning of time among the Nephites appears to have been a specific charge given to either prophets or priests: “According to our record, and we know our record to be true, for behold, it was a just man who did keep the record—for he truly did many miracles” (3 Nephi 8:1–2).⁷⁶

Multilevel priestly hierarchies existed among the peoples of Mexico and Central America. The Maya of Yucatan had such an arrangement,⁷⁷ as did the Aztecs⁷⁸ and the Zapotecs.⁷⁹ Their duties were similar to those indicated for Nephite priests. Among the Maya of Yucatan, a “high priest” was held in general respect, and a similar office was known elsewhere in Mexico.⁸⁰ According to Landa, the Maya high priest did little in the way of routine sacrificing or divining but was more of an administrator; he “provided [that is, assigned] priests for the towns when they were needed, examining them in the sciences and ceremonies . . . and provided them with books and sent them forth. And they employed themselves in the duties of the temples and in teaching their sciences as well as in writing books about them.” Alma₂'s duties as an administrator were much the same, “he being also the high priest, his father having conferred the office upon him, and having given him the charge concerning all the affairs of the church” (Mosiah 29:42). He “consecrated” men to be “teachers, and priests, and elders over the church” among the Nephites (Alma 4:7), and he was a primary record keeper.

In connection with the matter of priestly hierarchy, we might ask, what was the institutional and geographical structure of organized cult life? Without a doubt, local and regional differences in religious notions and practices would have prevailed. As Nicholson said, “An important feature

76. The general structure of the cults of the Book of Mormon peoples is treated in John L. Sorenson, “Religious Groups and Movements among the Nephites, 200–1 B.C.,” in *The Disciple as Scholar: Essays on Scripture and the Ancient World in Honor of Richard Lloyd Anderson*, ed. Stephen D. Ricks et al. (Provo, UT: FARMS, 2000), 163–208.

77. Tozzer, *Landa's Relación*, 27, 215, 164; and Roys, “Lowland Maya Native Society,” 673.

78. Berdan, *Aztecs of Central Mexico*, 130–33.

79. Marcus, “Archaeology and Religion,” 179, 181.

80. Tozzer, *Landa's Relación*, 165, 169; and Nicholson, “Religion in Pre-Hispanic Central Mexico,” 436.

of Mesoamerican religion in general was the concept of a special tutelary relationship between a certain deity . . . and a particular socio-political group. The size of these patronized entities ran the whole gamut of the socio-political spectrum, from extensive provinces (or, rarely, entire ethnic-linguistic divisions) to small intra-community sectors." He added that "the erection of a shrine for the patron deity usually constituted the first official act of settlement of a new community."⁸¹

Two opposing ecclesiastical tendencies were at work here. The first was to conform the ideology of larger scale to the local sociopolitical scene. The second was to share and coordinate cult activities among communities that stretch over a wider geographical range, as with the Quetzalcoatl cult of the Epiclassic period (AD 700–900).

Few scholars have dealt seriously with the question of Mesoamerican religious organization. One of the best-informed studies is that of Eva Hunt on the ethnohistory of the Cuicatec region of northern Oaxaca. From documentary data on conditions soon after the Spanish conquest, she found that "the pre-Hispanic religious cults of each [small city-]state were organized in an integrated manner involving the priesthood of more than one temple or state in a specialized calendar of rituals and religious festivities dedicated to different gods in their pantheon." It is impossible to say to what exact extent other aspects of pre-Hispanic "church" organization crossed state boundaries. "What is known points clearly to a system of organic integration [in ritual affairs] which . . . appears to have encompassed the whole of the Cuicatec region and perhaps even a larger area."⁸² We have no reason to doubt that in the pre-Hispanic era other areas of Mesoamerica also had relatively autonomous cult organizations that coordinated practices across political boundaries. Those may relate to Bernal's suggestion of the possibility that within the general stream of "Mesoamerican religion," there may have been "branches" similar broadly to "Catholicism, Protestantism, or other Christian religions."⁸³

81. Nicholson, "Religion in Pre-Hispanic Central Mexico," 409.

82. Eva Hunt, "Irrigation and the Socio-political Organization of Cuicatec Cacicazgos," in *Chronology and Irrigation*, ed. Frederick Johnson (Austin: University of Texas Press, 1972), 207.

83. "Discussion," in Benson, *Dumbarton Oaks Conference on the Olmec*, 75.

The Book of Mormon displays both these patterns—the local and the general, the idiosyncratic and the integrative. The local/general pattern is shown clearly at several points in the text:

1. When Nephi₁ first established his faction of the Lehite party in the local land of Nephi, he “did build a temple . . . after the manner of the temple of Solomon” (2 Nephi 5:8–16), thus putting the stamp of their tutelary deity (Yahweh) on their local cultural enterprise.

2. When Alma₂, head of the Nephite cult, or “church” (see heading to the book of Alma), made his preaching tour to regions within the greater land of Zarahemla, he stopped in Ammonihah, where local leaders told him, “We know that thou art high priest over the church which thou hast established in many parts of the land, according to your tradition; [but] we are not of thy church” (Alma 8:11).

3. The Zoramites, a dissident Nephite faction, also had their own cult with unique features; when orthodox Nephite priests observed the dissidents’ deviant practices, they were shocked by what they saw (Alma 31:12).

4. Lamoni, a subordinate king among the Lamanites, accepted the Nephite religious belief system brought to him by Nephite prince Ammon, and he then made that belief system standard among his people (Alma 19:35). Yet only certain localities in the greater kingdom followed suit (Alma 23).

5. After the resurrected Christ appeared to the Nephites at Bountiful, his authorized disciples “formed a church of Christ in all the lands round about” (4 Nephi 1:1). That expression does not necessarily mean a centralized administrative structure (*ecclesia*). Nor is there a hint of any communication mechanism or social apparatus that would have allowed a centralized administration to operate. The central government had been destroyed several years earlier (3 Nephi 7:2, 6), leaving in its wake only tribes as political units, and the text makes no mention of any supergovernmental structure ever again developing. Thus the church that was formed, while implicitly unified in core beliefs and rites, would have consisted organizationally of an aggregation of autonomous congregations at local population centers, consistent with the political structure of local or tribal units. This structure would have combined both the localizing and generalizing tendencies noted above.

Did the Nephite people claim a special tutelary relationship to a god of the type Nicholson referred to above? Apparently so, we are assured at a number of points in the text. When Alma₂ and his army battled a Lamanite force (around 80 BC), he said to the Lamanite leader, "Ye behold that the Lord is with us; and ye behold that he has delivered you into our hands. And now I would that ye should understand that this is done unto us because of our religion and our faith in Christ. . . . Now ye see that this is the true faith of God; yea, ye see that God will support, and keep, and preserve us, so long as we are faithful unto him" (Alma 44:3–4). The Lamanite chief captain replied, "We are not of your faith; we do not believe that it is [your] God that has delivered us into your hands" (v. 9). In a similar vein Nephite commander Moroni₁ wrote to Ammoron, a dissenter from the Nephites who had become king over the Lamanites, saying that by continuing his war on the Nephites, "ye will pull down the wrath of that God whom you have rejected upon you . . . and we will maintain our religion and the cause of our God" (54:9–10). In a third instance, one Giddianhi, leader of an army of robbers, wrote to the Nephite leader, "Ye do stand well, as if ye were supported by the hand of a god, in the defence of your . . . country" (3 Nephi 3:2).

These, and other cases that could be cited, demonstrate that both the Nephites and their enemies considered prosperity and success in battle to be related to the support of their special deity. In terms of this basic belief, the Nephites' relationship to their God sounds like that of the Aztecs, who were sure that Huitzilopochtli, their unique deity, gave them success over their enemies.⁸⁴ (The text of the Book of Mormon does not provide a distinctive name by which the Nephites referred to their deity. The English translation of the record cites names of deity almost 4,000 times, one-third of them translated merely as *Lord*, among 100 other names.⁸⁵ In the texts written by Nephites,⁸⁶ the name *Jehovah* occurs but a single time, in the very last sentence of the record! Clearly the original Judaic name of deity, supposedly *Yahweh* [= *Jehovah*], was not effectively transferred into Nephite religion.)

84. See Brotherston, "Huitzilopochtli," 155, 163.

85. Susan Easton Black, *Finding Christ through the Book of Mormon* (Salt Lake City: Deseret Book, 1987), 23, 27.

86. In 2 Nephi 22:2 the name *Jehovah* occurs as Nephi is quoting Isaiah.

The Nephites also recognized a negative side of having priests in powerful positions. Alma₂ had a good deal to say about the dangers of priestcraft, the practice of employing professional priests. Those in favor of that arrangement maintained that “every priest and teacher ought to become popular; and they ought not to labor with their hands, but . . . they ought to be supported by the people” (Alma 1:3). Although the Nephites were enjoined from this practice initially (2 Nephi 26:29), at various points in history the custom arose on its own. Under that condition clerics tended to exploit their positions for undue economic advantage (e.g., Alma 1:12). Occasionally the Nephite record reveals sociopolitical tension over this issue. Among the Zoramite population, poor people raised a complaint about their priests: “[We] are despised . . . because of [our] poverty, yea, and more especially by our priests; for they have cast us out of our synagogues which we have labored abundantly to build with our own hands” (32:5). Among the Zeniffites, King Noah imposed extortionate taxation to support his “priests, and their wives and their concubines” (Mosiah 11:4). Later a rabble-rouser charged that conventional Nephite priests did “usurp power and authority over” the people (Alma 30:23). Furthermore, the accuser claimed, “ye keep them down, even as it were in bondage, that ye may glut yourselves with the labors of their hands” (v. 27). Even though no evidence suggests these charges were true in the specific case, popular beliefs evidently provided sufficient basis to win the charge significant support.

Mesoamericanists are aware that large numbers of priests existed in Mesoamerican societies, and in some situations their maintenance costs may have seriously limited local economies. But in the nature of the data available on ancient societies, it is difficult to document such matters.

The Nephite record frequently noted not only priests but also prophets (e.g., Enos 1:22; Mosiah 2:34; Helaman 13:24).⁸⁷ Prophets were also found, at least at times, among the Lamanites (Helaman 13:2–3) and Jaredites (Ether 7:23; 9:28; 11:13). “False prophets” were also a social fixture (Words of Mormon 1:16; Helaman 13:26; 4 Nephi 1:34).

The text also mentions the office or function of “seer” a number of times (e.g., Mosiah 8:13–17). Of special concern for seers was use of a device

87. Compare Sorenson, “Religious Groups and Movements among the Nephites, 200–1 B.C.,” 199–200.

called “interpreters,” consisting of a pair of stones having special powers, especially giving the ability to translate languages. “Whosoever is commanded to look in them, the same is called seer” (v. 13). The Quiché Maya had *hiq' vachinel* (far seers), who were prophetic diviners who possessed a second sight that enabled them to see at a distance or scrutinize (*niq'oh*) and peer into (*cachich*) things. Peering into special stones (scrying) was widely practiced in Mesoamerica (and elsewhere in the world).⁸⁸ An *ilol* was another type of Quiché seer, one who interpreted omens.⁸⁹ Among the Aztecs one type of diviner was called *tlaachtopaitoani* (prophet), while yet another was the *quinextiani*, whose title was translated to Spanish as the equivalent of “revelator.”⁹⁰ A prophet in Yucatan was called *ah bobat*. The man holding the office of *Chilam Balam* (spokesman) was not only a prophet but *the* prophet, holding an official appointment for his state for a particular calendar period.⁹¹

While these offices or functions were known among the Nephites, a further point of interest concerns the priestly use of oracle stones. The device called “interpreters” in the Book of Mormon was initially given to the brother of Jared (Ether 3) in the third millennium BC. It was passed down through Jaredite channels to the last of that civilization’s prophets, Ether. When at last he placed the plates containing his record of Jaredite history “in a manner that the [Nephites] did find them” (15:33; see Mosiah 8:7–9) several centuries later, he must have placed the interpreters with the plates, for when the plates came into the possession of Mosiah₂, king over the Nephites, he used the device to translate them (Mosiah 28:13, 16). He later passed the artifact on to the high priest, Alma₂ (28:20).

The Quiché Maya received from their founding fathers a sacred item, the *Pizom-Gagal*, or “bundle . . . of power,” which had been left to them as

88. Munro S. Edmonson, trans., *The Book of Counsel: The Popol Vuh of the Quiche Maya of Guatemala* (New Orleans: Tulane University, 1971), 17; Tozzer, *Landa's Relación*, 112; Guy Stresser-Péan, “Ancient Sources on the Huasteca,” in Wauchope et al., *Handbook of Middle American Indians*, 10:600; and Nicholson, “Religion in Pre-Hispanic Central Mexico,” 440.

89. Edmonson, *Book of Counsel*, 17.

90. Nicholson, “Religion in Pre-Hispanic Central Mexico,” 441.

91. Munro S. Edmonson, trans., *The Ancient Future of the Itza: The Book of Chilam Balam of Tizimin* (Austin: University of Texas Press, 1982), 32n514.

a “symbol of [the ancestors’] being.”⁹² It consisted of green stones (jadeite?) set into pieces of wood with holes bored in them, the whole being wrapped in a cloth mantle; it symbolized “the hearts of [their] gods.”⁹³ Moreover, the Quiché had an (the same?) oracle stone that they consulted in the affairs of war.⁹⁴

Chapter 18 of this book mentions one particular war-related divinatory or prophetic function of oracles among the Nephites. Just as Mesoamerican priests sometimes served as guides in planning and conducting war, so did Alma₂, the Nephite high priest. In one incident we learn that when Zoram “had been appointed chief captain over the armies of the Nephites, . . . knowing that Alma . . . had the spirit of prophecy, therefore [the chief captain and his two sons] went unto him . . . to know whither the Lord would that they should go . . . in search of their brethren, who had been taken captive by the Lamanites” (Alma 16:5). Thereupon Alma₂ “inquired of the Lord.” (Van Dam established that the phrase “inquired of the Lord” in the Old Testament meant that the Urim and Thummim [a divinatory device with stones] were employed in the query.)⁹⁵ Alma₂ then gave the military leader detailed instruction about the spot to which they should proceed (v. 6) to rescue the captives.

Rites

The Book of Mormon mentions or implies standardized rituals that often recall both Israelite and Mesoamerican practices. Given the long set of cult correspondences connecting the Near East and Mesoamerica,⁹⁶ it is reasonable to imagine that additional rites, even some not apparent in

92. Adrián Recinos et al., trans., *Popol Vuh: The Sacred Book of the Ancient Quiché Maya* (Norman: University of Oklahoma Press, 1950), 205–6.

93. Robert M. Carmack, “Toltec Influence on the Postclassic Culture History of Highland Guatemala,” in *Archaeological Studies in Middle America* (New Orleans: Tulane University, 1970), 73.

94. Domingo Juarros, *A Statistical and Commercial History of the Kingdom of Guatemala* (1823; repr., New York: AMS Press, 1971), 384.

95. Cornelis Van Dam, *The Urim and Thummim: A Means of Revelation in Ancient Israel* (Winona Lake, IN: Eisenbrauns, 1997), 182–93.

96. Sorenson, *Complex of Ritual and Ideology*.

Mesoamerican archaeology or mentioned in documents, might well also have been transferred.

One of those rites might have been the ritual washing of persons. Considerable controversy surrounds the purpose and use of the Jewish *mikva'ot*—structures serving as water containers or cisterns that had a sacred use—found at Qumran and elsewhere in Israel.⁹⁷ Some form of lustration was performed as a purification measure.⁹⁸ Book of Mormon groups could have shared the idea and some form of this practice. They referred to their ritual purification by immersion in water as *baptism*. The salience of the concept is shown by the fact that this and related terms are used almost 140 times in the text (e.g., Alma 7:14). But the orthodox were not to baptize little children, a deviant practice that arose among some of their number (Moroni 8:9).

A form of baptism was common among the Maya, the Aztecs, and no doubt other peoples at the time of the Spanish conquest. Herrera reported, “Baptism has been found in Yucatan, . . . and in their tongue it means ‘to be born again.’ They held it in such great devotion and reverence that no one failed to receive it. They thought they received in it a pure disposition to be good and not to be harmed by the demons and to attain glory, which they hoped for. It was given them between the ages of three and twelve and no one was married without [having received it].”⁹⁹ In modern times a version of this ceremony survives in the highlands of Chiapas, where its purpose “is to fix the soul more firmly in the body so that it will not be easily lost.”¹⁰⁰

Some of the Spanish clerics also noted that circumcision was practiced in Mexico as it had been in ancient Israel.¹⁰¹ Since the Nephites are said

97. Bryant G. Wood, “To Dip or Sprinkle? The Qumran Cisterns in Perspective,” *Bulletin of the American Schools of Oriental Research* 256 (1984): 45–60; and Ronny Reich, “The Great Mikveh Debate,” *Biblical Archaeology Review* 19/2 (1993): 52.

98. For Israel, Roland de Vaux, *Ancient Israel: Its Life and Institutions*, trans. John McHugh (New York: McGraw-Hill, 1961), 461–62; for Egypt, Herman Te Velde, “Theology, Priests, and Worship in Ancient Egypt,” in *Civilizations of the Ancient Near East*, ed. Jack M. Sasson et al. (New York: Scribner’s Sons, 1995), 3:1733, 1742, 1743.

99. In Tozzer, *Landa’s Relación*, 218, compare 102.

100. Evon Z. Vogt, *Zinacantan: A Maya Community in the Highlands of Chiapas* (Cambridge, MA: Belknap Press of Harvard University, 1969), 577.

101. Tozzer, *Landa’s Relación*, 114. For the practice in the area of the Isthmus of Tehuantepec, see France V. Scholes and Dave Warren, “The Olmec Region at Spanish

to have kept “the law of Moses” (Jarom 1:5), it may be assumed that they circumcised, even though the text does not specifically mention it (nor, for that matter, does it refer to any other particular Mosaic rule or practice except animal sacrifice).

“Mesoamerican gods required sacrifice” from their devotees.¹⁰² Although the Aztecs were justifiably notorious for the scale of their human sacrifices, that practice began long before Aztec times. At Cuello, Belize, four types of mutilation manifested on skeletons show human sacrifice to have been present in the Late Pre-Classic.¹⁰³ Commonest in central Mexico, however, was “the dispatching of animals, especially the beheading of quail.”¹⁰⁴ Many such offerings were burned on altars. “Sacrifices of animals . . . seem to have taken place in Teotihuacán,”¹⁰⁵ and the Popol Vuh mentions burnt offerings.¹⁰⁶ Many other substances were also offered, such as food, flowers, clothing, and of course incense.

The Israelite background (the law of Moses) of Nephite sacrifice is obvious. The Book of Mormon mentions burnt offerings (1 Nephi 5:9; 7:22; Mosiah 2:3). That ritual apparently continued for 600 years after the Nephites arrived in the Americas, as indicated by the explicit prohibition announced to the Nephites upon the appearance of Jesus Christ after his death in Jerusalem (3 Nephi 9:19–20). The Old World Israelites¹⁰⁷ and other Near

Contact,” in Wauchope and Willey, *Handbook of Middle American Indians*, 3:783. In the Totonac area of northern Veracruz, see H. David Tuggle, “The Columns of El Tajín, Veracruz, Mexico,” *Ethnos* (1968): 68.

102. Miller and Taube, *Gods and Symbols*, 144.

103. Norman Hammond, “Ceremony and Society at Cuello: Preclassic Ritual Behavior and Social Differentiation,” in *The Emergence of Lowland Maya Civilization: The Transition from the Preclassic to the Early Classic*, ed. Nikolai Grube (Möckmühl, Germany: Saurwein, 1995), 56.

104. Nicholson, “Religion in Pre-Hispanic Central Mexico,” 432; compare the Jews’ common use of doves.

105. Ignacio Bernal, *The Olmec World*, trans. Doris Heyden and Fernando Horcasitas (Berkeley: University of California Press, 1969), 104; compare Elizabeth K. Easby and John F. Scott, *Before Cortes: Sculpture of Middle America* (New York: Metropolitan Museum of Art, 1970), 169.

106. Edmonson, *Book of Counsel*, 141.

107. Ziony Zevit, *The Religions of Ancient Israel: A Synthesis of Parallaxic Approaches* (London: Continuum, 2001), 550–52, 578–79.

Easterners¹⁰⁸ sometimes engaged in the sacrifice of humans, providing a possible background for the practice among the Lamanites (Mormon 4:14, 21) and perhaps among some elements of the Nephite population (possibly implied by Alma 34:10–11).

Offering one's own blood in several gruesome forms was another feature of the sacrificial complex in Mesoamerica. Alma 34:11 could reflect such an idea among Lehi's descendants. There Amulek says to the Ammonihahites, "Now there is not any man that can sacrifice his own blood which will atone for the sins of another."

Fasting was another devotional form observed in highland Guatemala¹⁰⁹ and among the Aztecs,¹¹⁰ for example. Fasting was a necessary preliminary to the celebration of other rituals, one of which was confession of sins. Confession was seen among the Maya as a means to avert or cure illness,¹¹¹ and the Aztecs held the same concept.¹¹² Considering the Nephites' Israelite forefathers, we could expect the Nephites to have engaged in fasting, and their record tells of such observances (e.g., Mosiah 27:23; Alma 6:6; 3 Nephi 27:1). Mosiah 26:35 also reports confession of sins as a general preparatory qualifier for coming into the Nephite church (see also Helaman 16:1, 5). The connection between confession and healing from illness is shown in a particularly dramatic instance. One Zeezrom, who had been a disbeliever but was converted by the teaching of Alma₂ and Amulek (Alma 14:6–7), "lay sick at Sidom, with a burning fever, which was caused by the great tribulations of his mind on account of his wickedness." His "great sin, and his many other sins, did harrow up his mind . . . ; therefore he began to be scorched with a burning heat" (Alma 15:3). But upon his repentance and expression of belief in the doctrine taught by Alma₂ (vv. 6–7), Zeezrom

108. Karel van der Toorn, "Theology, Priests, and Worship in Canaan and Ancient Israel," in *Civilizations of the Ancient Near East*, ed. Jack S. Sasson (New York: Macmillan Library Reference USA, 1995), 3:2054.

109. Sandra L. Orellana, *The Tzutujil Mayas: Continuity and Change, 1250–1630* (Norman: University of Oklahoma Press, 1984), 99.

110. Berdan, *Aztecs of Central Mexico*, 134.

111. Tozzer, *Landa's Relación*, 102, 106.

112. Bernardino de Sahagún, *Florentine Codex: General History of the Things of New Spain*, trans. Arthur J. O. Anderson and Charles E. Dibble (Santa Fe, NM: School of American Research and University of Utah, 1961), 1:23–27; 6:29–34.

“leaped upon his feet, and began to walk” (v. 11). Handy and Roys document the same concept of illness in Mesoamerica.¹¹³

Prayer was, expectably, a companion to fasting. Herrera said of the Maya, “They were great fasters and much given to prayer, with different prayers which they had for their [various] times.” Many had “oratories [prayer shrines] in their houses.”¹¹⁴ Furthermore, in Maya communities “much of the worship was conducted in or around private shrines and oratories.”¹¹⁵

The Nephites habitually linked prayer with fasting (Mosiah 27:22; Alma 5:46; 45:11; Helaman 3:35; Moroni 6:5). Moreover, they engaged not only in routine prayer (e.g., Alma 34:18–27; 62:51) but at times in “mighty prayer” (Alma 2:28; 6:6; 8:10; 3 Nephi 27:1; Moroni 2:2), and not just in public ceremonial settings (Enos 1:4).

One particular prayer among the Tzeltal Maya of highland Chiapas is noteworthy in conjunction with a Book of Mormon prophecy and curse on people probably located in the highlands of nearby Guatemala. In the Book of Mormon, Abinadi warned the Zeniffite people of King Noah of God’s impending wrath in Mosiah 12:6: “I will send forth hail among them, and it shall smite them; and they shall also be smitten with the east wind; and insects shall pester their land also, and devour their grain” (a fuller treatment of this matter is given in chapter 22 herein). The Tzeltal prayer was intended to avert such a disaster; it implored, “Father, let no hail come; let no wind come; let no locust come.”¹¹⁶

Worship and Communion

Oratories (that is, places of prayer) among the Maya contained a “large stone ‘table of sacrifice’ on stone columns with 12 seats for the priests

113. E. S. Craighill Handy, “Dreaming in Relation to Spirit Kindred and Sickness in Hawaii,” in *Essays in Anthropology Presented to A. L. Kroeber* (Berkeley: University of California Press, 1936), 119–27; and Roys, “Lowland Maya Native Society,” 676.

114. Tozzer, *Landa’s Relación*, 219.

115. Roys, “Lowland Maya Native Society,” 672. Easby and Scott (*Before Cortes*, 51, citing Coe) suppose that figurines were sacred objects in such household shrines, comparable to the small figurines kept in Roman houses.

116. Alfonso Villa Rojas, “The Tzeltal,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Evon Z. Vogt (Austin: University of Texas Press, 1969), 7:202.

around it.” These oratories could be very large and were the scene of much of the private worship in Maya communities.¹¹⁷

Worship in a congregational sense was not a particularly important practice in Mesoamerica. Group participation in communal rites rather than “meetings” was the typical religious activity that might be called worship. For the individual the main components of worship were what Nicholson called “basic ritual elements”—“fasting, vigils, autosacrifice (bloodletting), food and other offerings, [and] postceremony feasting.”¹¹⁸ Most of what we know of these practices comes from descriptions of large-group activities. In the nature of the records now available to us, we learn little about any other forms of private worship. In the Valley of Mexico at the time of the Spanish conquest, “considerable daily domestic ritual (conducted chiefly by the wife) centered on the hearth-fire, the household oratory [an in-house shrine containing figurines] . . . [and] small altars in the patios” of dwellings.¹¹⁹

An additional mode of Mesoamerican worship also corresponds with Book of Mormon practice as described in 3 Nephi 18. Sejourné observed, “It is surprising to notice how, just as with baptism and the remission of sins, investigators have usually given only passing attention to the fact that the Meso-american peoples practiced the sacrament of communion.”¹²⁰ Farriss added that in both Mesoamerican and Christian religions, one feature observers have usually failed to note “was that similar rites of sacrifice and communion constituted the central rituals of both. Slaughter of a blameless being . . . and the sharing of its flesh embodied the principal link between the natural and supernatural orders in both cases.”¹²¹ Veytia described the Aztec festival in honor of Centeotl, the corn god, in which a human figure representing him was made of corn dough. This was baked, and devotees ate pieces of it, believing they were eating the flesh of their god.¹²²

117. Roys, “Lowland Maya Native Society,” 672.

118. Nicholson, “Religion in Pre-Hispanic Central Mexico,” 436.

119. Nicholson, “Religion in Pre-Hispanic Central Mexico,” 436.

120. Sejourné, *Burning Water*, 61.

121. Nancy M. Farriss, “Sacrifice and Communion in Colonial Maya Religion,” in *Abstracts of Papers, 44th International Congress of Americanists (Manchester, 1982)* (Manchester, England: Manchester University School of Geography, 1982), 15.

122. Mariano Veytia, *Historia antigua de México* (1836; repr., Mexico City: Mexico

According to the Book of Mormon, among the Nephites Christ broke bread and gave it to his disciples, saying, "And this shall ye do in remembrance of my body" (3 Nephi 18:3, 7). Moroni₂ gives further details of this rite, which was called "administering the flesh . . . of Christ unto the church" (Moroni 4:1–3).

As would be expected in a volume written by elite historian-priests, the Book of Mormon says little about personal-level religious activities for most of the population. But Enos early on had a "wrestle . . . before God" in which he achieved direct revelatory communion (Enos 1:2). The Book of Mormon also mentions other individual cases such as the conversion of the king of the Lamanites and of a "Lamanitish" woman and her father (Alma 19:16–17). Alma₂'s poignant account of his own spiritual transformation (Alma 36), while cast in subjective terms, indicates that among the descendants of Lehi₁ individual worship was not uncommon (compare 17:4). The end of Nephite history was marked by the lonely persistence of Mormon and Moroni₂ in their personal religious commitment.¹²³ But overall the Book of Mormon's relative emphasis on communal versus individual religious behavior and feeling matches what we know of Mesoamerican religion.

One other situation in the Book of Mormon provides interesting correspondences in regard to Mesoamerican religious worship. About 25 BC Nephi₂, a prophet among the Nephites, addressed his God from "a tower, which was in the garden of Nephi, which was by the highway which led to the chief market . . . in the city of Zarahemla" (Helaman 7:10). There he lamented the prevailing evils of his day, wherein few believed in the established religion.¹²⁴

In Mesoamerica were such "towers" found in private "gardens," where a religious person could resort for a prayer of lamentation that would attract the attention of passersby? In Yucatan, at least when the Spanish arrived, "most of the religious ritual was carried on, family by family, each [family] having its own sanctuary" consisting of a structure erected on an

Editorial Leyenda, 1944), 1:132.

123. For example, Moroni 8:2–3; and John L. Sorenson, *Images of Ancient America: Visualizing Book of Mormon Life* (Provo, UT: Research Press, 1998), 152–53.

124. Compare S. Kent Brown, *From Jerusalem to Zarahemla: Literary and Historical Studies of the Book of Mormon* (Provo, UT: BYU Religious Studies Center, 1998), chap. 8.

artificial mound (a small version of what the Spaniards called “towers”).¹²⁵ In such a setting it would have been appropriate to take up a personal religious concern through prayer at the family sanctuary in a private garden just as Nephi₂ did. In the Aztec capital, private properties included “very fine flower gardens of various sorts, in houses of both high and low quality.”¹²⁶ Moreover, at Cholula, said Cortez, “noblemen had their personal temples built next to or as part of their homes,” and some were “even situated in fields on the outskirts of the city.”¹²⁷ (Nephi₂ was very likely a noble—his father had been the chief judge over the Nephites.) The same arrangement prevailed in Veracruz.¹²⁸

Cult Furniture

Among material manifestations of the Israelite cult were stelae and altars, often paired together. In the land of Israel, Levine observed, “it is difficult to imagine that altars were built to stand alone, with no visible, physical cult object, such as a *mazzebah* (stela), in situ. . . . We . . . assume that it was normal to have a *mazzebah* at Israelite cult sites.”¹²⁹ These upright stones were monuments to the dead or memorials of some event that was considered a “manifestation of a god” that had taken place at the spot.¹³⁰ It is, then, no great surprise to discover the ubiquitous stela-altar pairs¹³¹ in Pre-Classic southern Mesoamerica, such as “at Guillen-phase Izapa” (300–100 BC).¹³²

125. Tozzer, *Landa's Relación*, 18.

126. Arthur J. O. Anderson and Charles E. Dibble, trans., *The War of Conquest: How It Was Waged Here in Mexico; The Aztecs' Own Story as Given to Fr. Bernardino de Sahagun* (Salt Lake City: University of Utah Press, 1978), xviii.

127. Joseph Mountjoy and David Peterson, *Man and Land at Prehispanic Cholula*, Anthropology Publication 4 (Nashville: Vanderbilt University, 1973), 4–5.

128. Paula H. Krotser and G. Ray Krotser, “The Life Style of El Tajin,” *American Antiquity* 38 (1973): 199–205.

129. Baruch A. Levine, “*Lpny YHWH*: Phenomenology of the Open-Air Altar in Biblical Israel,” in *Biblical Archaeology Today, 1990* (Jerusalem: Israel Exploration Society, 1993), 202–3; compare Beth Alpert Nakhai, *Archaeology and the Religions of Canaan and Israel* (Boston: American Schools of Oriental Research, 2001), 48–50, 175.

130. de Vaux, *Ancient Israel*, 285.

131. Miller and Taube, *Gods and Symbols*, 157.

132. Gareth W. Lowe et al., *Izapa: An Introduction to the Ruins and Monuments*, New

These stela-altar pairs appear in the area and at the time when a very visible concentration of cult features corresponded to Near Eastern cult elements.

The Book of Mormon mentions only once a possible stela, an engraved stone left by the last Jaredite (Omni 1:20–21). Altars are alluded to in Alma₂'s account: "The people . . . began to assemble themselves together at their sanctuaries to worship God before the altar" (Alma 15:17), and "Many were brought before the altar of God, to call on his name and confess their sins before him" (17:4). The text does not clarify whether the altar mentioned was one used in Mosaic sacrifice, but presumably it was. It is a reasonable conjecture, following Levine's reconstruction of Israelite logic, that stelae were associated with such altars and that the sanctuaries mentioned in the Nephite record were worship sites not unlike the Mesoamerican oratories where private devotions were carried out.

Cannibalism

Instances of a rite of cannibalism are occasionally reported at early Mesoamerican sites, but strong evidences rarely establish the practice unequivocally. For example, Coe and Diehl say that at Olmec San Lorenzo human bones were mixed with other faunal remains in kitchen debris, from which they infer cannibalism.¹³³ Of course, cannibalism is well known for the Aztecs (and other peoples of central Mexico in the early 16th century when the Spaniards arrived).¹³⁴ For the Teotihuacán culture around AD 600, excavations have revealed quite clear evidence.¹³⁵ Sanders reported a find of the same sort from a site near Teotihuacán that dates to soon after AD 450.¹³⁶ In this light the account of the Lamanites' human sacrifice and cannibalism in the final days of the Nephites (Moroni 9:10: "They devour

World Archaeological Foundation Papers 31 (Provo, UT: BYU New World Archaeological Foundation, 1982), 133.

133. Coe and Diehl, *In the Land of the Olmec*, 386, 389, 392.

134. Nicholson, "Religion in Pre-Hispanic Central Mexico," 432–33; Berdan, *Aztecs of Central Mexico*, 116–18; also for the Maya, see Tozzer, *Landa's Relación*, 120.

135. George C. Vaillant, *The Aztecs of Mexico* (Harmondsworth, England: Penguin, 1950), 76.

136. William T. Sanders, *The Cultural Ecology of the Teotihuacan Valley: A Preliminary Report of the Results of the Teotihuacan Valley Project* (University Park: Pennsylvania State University, 1965), 179.

their [victims'] flesh like unto wild beasts . . . for a token of bravery"; this probably happened somewhere in south-central Mexico around AD 375) fits plausibly in terms of Mesoamerican culture history.

Sorcery, Magic, and Shamanism

Sorcery, magic, and shamanism are referred to formally at only two points in the Book of Mormon text but seem to be implied elsewhere. In Alma₂'s time (Alma 1:32, early first century BC), "those who did not belong to their church did indulge themselves in sorceries, and in idolatry or idleness, and in babblings," and so on. It is reasonable to connect this activity to routine shamanism carried out at a folk level.

By the early fourth century AD, when Nephite culture was in serious decline, Mormon noted that "there were sorceries, and witchcrafts, and magics" (Mormon 1:19). A few years later he recorded that "no man could keep that which was his own, for the thieves, and the robbers, and the murderers, and the magic art, and the witchcraft which was in the land" (2:10). The presence of these phenomena in Mesoamerican cultures at many periods is so obvious that no documentation needs to be cited.

Summary

I have observed several times that the Book of Mormon gives only bits and pieces of information about religion and ideology to compare with Mesoamerican practice and belief. Yet in this book we see an intricate complex of correspondences with the ancient Near East that coordinates with Mesoamerican cultures as well as with the Book of Mormon.

In beginning this chapter, it was noted that since the Book of Mormon is primarily a religious text, we could expect to identify a considerable number of correspondences with Mesoamerican beliefs and practices, and that expectation has been realized. Are differences also manifested? Of course they are. After all, Mormon's history of the extinct people makes clear (e.g., in Mosiah 12:20–37) that the Nephite cultic pattern (the law of Moses) was modified at one point in crucial ways. A new system of belief was substituted at the time of Christ, only to be overwhelmed in the fourth century AD by another cult or cults. Mesoamerican archaeology demonstrates such a revolutionary change in cultic practices (see chapter 24 herein). Furthermore,

after the extinction of Nephite society, much of the people's former religious ways would have been absent from any archaeological record.

Mormon's religious and ideological account of Nephite history can very plausibly be seen as full of Mesoamerican beliefs and practices. It seems to me that no one but an ancient Mesoamerican writer could have put so much of that area's religion and ideology into the Book of Mormon record.

Part 3

CORRESPONDENCES FROM ARCHAEOLOGY AND HISTORY

Part 3 of this book, comprising chapters 21 through 25, offers a plausible reconciliation of aspects of the Book of Mormon record with the archaeological and anthropological history of Mesoamerica. For convenience in presentation, I have divided the scriptural era into four parts:

- Chapter 21 addresses the period before 600 BC.
- Chapters 22 and 23 cover approximately 600 BC to about 1 BC.
- Chapter 24 addresses the period between about AD 1 and 200.
- Chapter 25 covers approximately AD 200 to 400.

Chapter 21

Archaeology and History before 600 BC

In this chapter correspondences will be pointed out that demonstrate that early events or patterns alluded to in the Book of Mormon text are the same as or very similar to those that Mesoamerican archaeology identifies as occurring before about 600 BC. The chapter builds on the preceding chapters that present correspondences under topical headings. In a limited way, this chapter refers to some of those same points.

Questions of chronology are of course central to discussions of archaeology and history. The way current archaeological sources date the Mesoamerican sequence is problematic in a number of ways. I choose to follow the results of my own chronological research, which has been ongoing for nearly 60 years.¹ I summarize the latest results in table 4.1.

Some Important Broad Correspondences

Mesoamerican studies have persistently asked, what were the origins of civilization in this region? Scholars usually assume that the Mesoamerican sociocultural scene evolved mechanistically between about 5000 and 1200 BC. During this process early hunters supposedly turned into, first, Archaic-period village agriculturalists, then into bearers of incipient civilization and,

1. John L. Sorenson, *A Chronological Ordering of the Mesoamerican Pre-Classic*, Middle American Research Institute Publication 18 (New Orleans: Tulane University, 1955), 43–68; and continued in Sorenson, “A Mesoamerican Chronology: April 1977,” *Katunob* 9/4 (1977): 41–55; and Sorenson, “Mesoamerican C-14 Dates Revised,” *Katunob* 9/4 (1977): 56–71. That was followed in turn by an extensive manuscript, “A Mesoamerican Chronology, 2004,” unpublished monograph, which was circulated for vetting by some two dozen Mesoamerican archaeologists.

finally, fully civilized folk.² Unfortunately, archaeologists have inadequately explained, let alone documented, the *how* of this hypothetical process.

The evolutionary explanation is based on concepts borrowed mainly from the archaeology of southwestern Asia. Cultural remains there show a sequence of increasingly extensive material that eventuates in (now-ruined) cities. Eventually Mesopotamian society developed to the point of having written records, marking the earliest manifestation of genuine civilization.

From the earliest cultivating groups to the time when cities appeared on the Mesopotamian plain in the Uruk phase, as many as 10,000 years elapsed. What Mesoamerican archaeologists consider a parallel process in Mexico is supposed to have been compressed into a maximum of 3,500 years. How or why this New World development could have happened so rapidly remains an enigma about which American archaeologists generally show little curiosity.

Could the early Mesoamerican populations have enjoyed superior powers of creativity? Early 20th-century thinkers proposed something like that idea to explain the many supposedly independent parallel inventions claimed for Native Americans.³ But nowadays no anthropological evidence supports such a notion of inherent racial superiority in creativity. Nor does any aspect of the natural environment appear credible in moving the ancient inhabitants of Mexico ahead of other Native Americans in the hypothesized ascent toward civilized life.

In short, archaeological data and thought currently provide no adequate explanation for the precocious development of Mesoamerican civilization; thus it is only *assumed* that the “evolutionary process” occurred. So far, the earliest large repertoire of pottery found in Mesoamerica (created during the

2. For example, see simple treatments of that evolution in Michael D. Coe with Rex Koontz, *Mexico*, 5th rev. ed. (London: Thames & Hudson, 2002); and Richard S. MacNeish, *The Origins of Agriculture and Settled Life* (Norman: University of Oklahoma Press, 1992).

3. For example, Herbert J. Spinden, “Origin of Civilizations in Central America and Mexico,” in *The American Aborigines: Their Origin and Antiquity*, ed. Diamond Jenness (Toronto: University of Toronto Press, 1933), 217–46; and Erland Nordenskiöld, “The Origin of the Indian Civilizations in South America,” in *Comparative Ethnographical Studies*, ed. Erland Nordenskiöld (Göteborg, Sweden: Elanders Boktryckeri Aktiebolag, 1933), 9:1–75.

Barra phase, on the south coast of Chiapas, from about 1900 BC) is technically superior to almost any ceramics created thereafter.⁴ A pioneering phase it apparently was not. And Coe's judgment today about the sophisticated Olmec style that marks the first evidence for civilization has changed little from what he said 40 years ago: "The Olmec appeared upon the scene as an already evolved culture."⁵ MacNeish has provocatively phrased the conundrum these facts raise:

All in all, the final Archaic Period and/or stage in Mesoamerica poses more questions than answers. Where is [evidence for] the evolution to the rich ceremonial complex of the Formative with its pyramids, figurines, and specialized religious organization? Where is the evidence of the invention and development of the pottery found in the Formative period? Where is the good documentation of the shift from the incipient agriculture of the Archaic to the subsistence agriculture of the Formative, as well as the transition from the band to the clan type of social organization? . . . The development of the Archaic was a complex evolution for which, as yet, we have only tantalizing fragments of the complete picture.⁶

An alternative view is that civilization appeared in Mesoamerica by reason of stimulus from the Old World. Current data from biological history, archaeology, art, and language and documentary history, as summarized in chapter 9, show the transoceanic movement of nearly 100 plant species and 20 diseases to the Americas, beginning as early as 6000 BC. The only adequate explanation for those transfers is that human voyagers carried the organisms across the ocean.⁷

4. John E. Clark, "The Development of Early Formative Rank Societies in the Soconusco, Chiapas, Mexico" (PhD diss., University of Michigan, 1994), 186.

5. Michael D. Coe, *America's First Civilization* (New York: American Heritage, 1968), 123.

6. Richard S. MacNeish, "Mesoamerican Chronology: Early Development and the Archaic Period (before 2600 BCE)," in *The Oxford Encyclopedia of Mesoamerican Cultures*, ed. David Carrasco (Oxford: Oxford University Press, 2001), 2:235.

7. John L. Sorenson and Carl L. Johannessen, "Biological Evidence for Pre-Columbian Transoceanic Voyages," in *Contact and Exchange in the Ancient World*, ed. Victor H. Mair

In light of the new evidence, Mesoamericanists can no longer rationally avoid the issue of direct seaborne contacts with Old World civilizations as they try to explain the rise of Mesoamerican civilization. Such voyages plausibly could have stimulated the comparatively rapid rise of advanced cultures in the Western Hemisphere. The widespread occurrence throughout Asia of grain amaranths native to pre-Columbian America, the finding of New World peanuts in China before 2800 BC, and the presence in India of three species of American beans not long after 2000 BC challenge the view that early men could not sail across the oceans. Thus the claim that evolution in Mesoamerica produced civilization without assistance from any Old World contacts urgently needs to be reevaluated. We now have evidence for transoceanic voyages that connected centers of culture in the two hemispheres long before the archaeologists' acknowledged date for the beginning of civilized life in Mesoamerica.

Taken together, these considerations about the origin of civilization in Mesoamerica constitute a correspondence with Book of Mormon history that is of major significance. As explained in chapter 3, Jaredite voyagers crossed the ocean from Eurasia to Mexico by 2500 BC, and they brought important cultural features with them. Furthermore, the Jaredite record indirectly and briefly implies that a native population was present when the immigrants arrived. An indigenous population had to have been present if we are to make demographic sense of Ether's record, for it speaks of a "city" (Ether 7:9) only a few generations after the small party of transoceanic voyagers landed. By any definition of city, descendants of the immigrants alone could not have

(Honolulu: University of Hawai'i Press, 2006), 238–97; Sorenson and Johannessen, *World Trade and Biological Exchanges before 1492* (Bloomington, IN: iUniverse, 2009); and Sorenson, *A Complex of Ritual and Ideology Shared by Mesoamerica and the Ancient Near East*, Sino-Platonic Papers 195 (Philadelphia: Department of East Asian Languages and Civilizations, University of Pennsylvania, 2009); a pdf version is accessible at <http://sino-platonic.org>. Archaeologists have frequently cited the supposed lack of plants shared between the Old and New Worlds as a decisive reason for rejecting claims that Old World cultures reached America. See, for instance, Nordenskiöld, "Origin of the Indian Civilizations," 3–4; William E. Safford, "The Isolation of Ancient America as Established by the Cultivated Plants and the Languages of Its Aborigines," *Proceedings of the 20th International Congress of Americanists (Rio de Janeiro, 1922)* (1924): 167–71; Spinden, "Origin of Civilizations," 217–46; and Alfred V. Kidder et al., *Excavations at Kaminaljuyu, Guatemala*, Publication 561 (Washington, DC: Carnegie Institution, 1946), 93.

multiplied quickly enough by that time to justify use of the term (see chapter 15 herein). The presence of this native population obviously explains the domestication of maize (“corn” in the Book of Mormon) and other American crops. The newcomers from overseas did not just drop suddenly into an empty land; they transplanted exotic stimuli among a preexisting population.

The earliest-known manifestation of Mesoamerican civilized life is that associated with and marked by the Olmec art style. On the basis of present data, we can conclude that society in Mexico reached that level by the second half of the second millennium BC. A few decades ago the Olmec materials were thought by Mesoamericanist scholars to represent a mother culture that spawned all later advanced traditions in Mesoamerica. But that development must now be regarded in a more complex light. For example, Santley, Arnold, and Barrett observe, “We need no longer view the Olmec as a unified culture that brought civilization to all of Mesoamerica. Rather, it is more likely that the southern Gulf lowlands supported one of many contemporaneous Formative societies that ultimately contributed to Mesoamerican civilization.”⁸ A number of Mesoamerican specialists now think that multiple regional societies of the Olmec era must have developed more or less simultaneously and fairly quickly out of a village agricultural base that lacked higher cultural elements. However stimulated, those developments pushed the most favored of such societies across the classificatory line to the status of civilization. This at least is the latest version of the evolutionary model of the origin of civilization in Mesoamerica.

The discovery of still earlier high-culture developments would merely deepen the puzzle of the origin of civilization, for that would simply *shorten* the time between the periods when Mesoamerica was inhabited by only

8. Robert S. Santley et al., “Formative Period Settlement Patterns in the Tuxtla Mountains,” in *Olmec to Aztec: Settlement Patterns in the Ancient Gulf Lowlands*, ed. Barbara L. Stark and Philip J. Arnold III (Tucson: University of Arizona Press, 1997), 199; compare David C. Grove, “Stirrup-Spout Bottles and Carved Stone Monuments: The Many Faces of Interregional Interactions in Formative Period Morelos,” in *Archaeology, Art, and Ethnogenesis in Mesoamerican Prehistory: Papers in Honor of Gareth W. Lowe*, ed. Lynne S. Lowe and Mary E. Pye, New World Archaeological Foundation Papers 68 (Provo, UT: BYU New World Archaeological Foundation, 2007), 221–22; and Thomas W. Killion and Javier Urcid, “The Olmec Legacy: Cultural Continuity and Change in Mexico’s Southern Gulf Coast Lowlands,” *Journal of Field Archaeology* 28/1–2 (2001): 3.

nonagricultural peoples and when complex culture arose. That is, the abruptness of the supposed evolutionary transition would become even more evident and more inexplicable. The arrival of the Jaredites from the Near East, possibly along with other voyagers from the Old World, helps us make rational sense of the rise of Mesoamerican civilization. That scenario constitutes a major historical correspondence between the archaeological record and the Book of Mormon.

Another correspondence between the two records of the past has to do with the sequence of civilizations. As explained in chapter 8, Mesoamerica's first set of advanced archaeological cultures includes the Olmec, their contemporaries, and their immediate successors. Those cultures are thought to have existed between approximately 1500 and 600–500 BC, with a peak between about 1200 and 900 BC. But the social structure that framed that development eventually came apart. Learned argument is currently striving to determine the meaning of that apparent collapse.⁹ Of course, component populations continued beyond the disintegration of the social structure that accompanied the first civilization. Localized successor cultures retained one or another feature or fragment of what Olmec civilization had been. Nevertheless, the backbone for that brilliant cultural peak simply disappeared (in the same manner as Roman civilization lost its integrative power in the Western world after the “fall” of the empire in the fifth century AD). As Killion and Urcid recently stated:

The decline and disappearance of “Olmec” material culture . . . has not been well articulated with the many poorly defined cultural patterns that followed in subsequent periods. The Gulf Coast Olmec, superb stone carvers, town builders, and traders in exotic materials from all over Mesoamerica, seem largely disassociated from the later cultures of the region.¹⁰

That is to say, the first high culture in Mesoamerica, including that

9. Killion and Urcid, “Olmec Legacy,” 3–25; and Gareth W. Lowe, *Mesoamérica olmeca: Diez preguntas*, ed. Victor E. Jimeno (Mexico City: Instituto Nacional de Antropología e Historia, 1998), 19.

10. Killion and Urcid, “Olmec Legacy,” 20.

which created the Olmec art style, was not clearly continuous with the civilizational tradition that arose in the Late Pre-Classic period and continued in the Classic. Disparate features continued from the earlier tradition, but no integrative key followed suit.

According to the Book of Mormon, the civilization of the Jaredite era disintegrated probably around 570 BC. The final civil war reported in the 15th chapter of the book of Ether totally destroyed or drastically disrupted the social groups who were involved in the core civilization.

The Book of Mormon mentions only one historical event that directly connected the Jaredites to later peoples. Coriantumr₁, the last of the Jaredite kings, was the sole survivor of the final battle in that civil war and was found by the people of Mulek, who had arrived from Israel a few years earlier. He lived with them (presumably at “the city of Mulek”) for nine months before expiring (Omni 1:21). He could have left behind little of his culture but no doubt many questions in the minds of his hosts.

Yet scattered groups of Jaredite survivors must have gone unrecorded. These groups would especially consist of dwellers on the outer margins of the Jaredite kingdom. It must have been primarily through them that elements of the earlier culture passed to successor populations.¹¹

The following lines of evidence demonstrate that influence:

- Jaredite personal names were used among the Nephites who succeeded them, particularly among Nephite dissidents. At least six personal names used among the Nephites are definitely Jaredite. Five of the people bearing those names (Morianton, Coriantumr, Korihor, Nehor, and Shiblon) “betray strong anti-Nephite leanings.”¹² The names likely reflected their tendency to look toward a different tradition of rulership. Moreover, Alma₂ named two and perhaps all three of his sons who were born during his “idolatrous”

11. This relationship is discussed at length in John L. Sorenson, “The ‘Mulekites,’” *BYU Studies* 30/3 (1990): 6–22; and Sorenson, “When Lehi’s Party Arrived in the Land, Did They Find Others There?,” *Journal of Book of Mormon Studies* 1/1 (1992): 1–34.

12. Hugh W. Nibley, *Lehi in the Desert; The World of the Jaredites; There Were Jaredites* (Salt Lake City: Deseret Book and FARMS, 1988), 245.

phase of life (Mosiah 27:8) with (probable) Jaredite names—Shiblon, Corianton, and perhaps Helaman.

- Furthermore, the name Moroni would mean in Hebrew “a Moronite”—that is, a person from (the former land of) Moron, which was the Jaredites’ “land of first inheritance.”¹³
- An unorthodox (in Nephite terms) cult came into existence among both the Nephites and Lamanites that was named “the order of the Nehors” (Alma 24:28; compare 14:16–18). The cult was named after a man who lived among the Nephites early in the first century BC. Both he and the cult he formulated bore the name of the original Jaredite city of two millennia earlier (Ether 7:4, 9).
- Other Nephite terminology, and presumably associated technological and economic features, also had Jaredite origins. The everyday measurement system of Nephite/Mulekite weight and volume included terms from the Jaredite language. Alma 11:4–19 describes the measures and units of “reckoning” among the Nephites, explaining that the Nephites “did not reckon after the manner of the Jews . . . ; but they altered their reckoning and their measure, according to the minds and the circumstances of the people, in every generation” (v. 4). At least two untranslated terms for such measures (*shiblon* and *shiblum*) seem to show Jaredite phonology, and other terms may have been in the same class.¹⁴
- Jaredite sources also transmitted crop plants and at least one plant name (*sheum*) to the Nephites, as I explained in chapter 16.

Despite the presence of traces of Jaredite culture among them, the Nephites knew almost nothing of the history of the extinct people (Mosiah 8:7–12) until Mosiah₁ translated Ether’s history from a set of gold plates the Nephites had found. However, they were fascinated by the ruins the Jaredites had left in the land northward; “they were desirous beyond measure to know

13. John A. Tvedtnes, ed., “Book of Mormon Onomastica: The Phonology and Etymology of Book of Mormon Names and Their Cultural and Historical Implications,” unpaginated typescript in the FARMS library (Provo, UT: 1985).

14. Nibley, *Lehi in the Desert*, 246; and Sorenson, “When Lehi’s Party Arrived in the Land,” 20–21.

concerning those people who had been destroyed” (28:12). At one point they even called the extinct Jaredites “brethren” (Alma 46:22). The people of Zarahemla, or the Mulekites, were almost certainly the channel through which the Nephites came to know and adopt Jaredite cultural elements.¹⁵

We see that the major disconnect between Jaredite-era civilization and that of the following Nephite tradition matches closely in time (the middle of the first millennium BC) and space (the immediate isthmian territory) with archaeological indications of the demise of Olmec civilization and most of its bearers. Furthermore, the trickling down of ancient motifs and customs into the late Middle and Late Formative societies that followed the Olmec era also corresponds to what the Nephite account indirectly suggests about Jaredite carryovers.

Another major parallel between the accounts is geographical. The area immediately north and west of the Isthmus of Tehuantepec, where the earliest high culture in Mesoamerica may have been first manifest, apparently is where the Jaredites settled, expanded, and perished. From there, their influence spread to later inhabitants throughout the lands occupied by the Nephites and Lamanites. For a number of additional points of Mesoamerican correspondence in Jaredite geography, see chapter 7 and the appendix.

More broad-scale correspondences in culture (either by presence or absence) are also apparent. For example, the book of Ether associates no temples or other cult structures with Jaredite history; neither is it clear if any are definitively known for the Olmec era before 600 BC. The Jaredites were acquainted with the concept of a pyramid tower, their founders having come from the “great tower” in Mesopotamia, yet their record never indicates that they constructed anything following that model. The book of Ether mentions no worship practices nor rites. Nor are any clearly manifest in art or archaeology of the Early and early Middle Pre-Classic periods, although what looks like shamanistic or magical practices could be present in Olmec art. Sacred or holy places or objects go virtually unmentioned in Ether’s record. Prophets are alluded to a few times, and only once is a (high) priest noted, all this in the course of a history spanning more than two millennia. What is perhaps most striking about these omissions is that the

15. Sorenson, “When Lehi’s Party Arrived in the Land,” 19–24.

accompanying Nephite record frequently and prominently mentions cultic features.

At the level of societal ethos or philosophy, another major correspondence is impressive if we can count on the judgment of Ortiz, one of the most experienced Mexican investigators of the Olmec. In a broad-brush characterization of Olmec cultural tradition in Veracruz, he observed that they “shaped their images in a colossal and grandiose manner that tells us of a people avid for power and grandeur, but finally, also, with a pride that ended up destroying them.”¹⁶ One would be hard put to more concisely characterize the Jaredites pictured in the book of Ether.

More Detailed Correspondences

We now turn to some events visible in the archaeological sequence in Veracruz that appear to correspond to reports from Jaredite history. However, caution about chronology needs repeating at this point. We recall that neither the internal chronology of the Jaredite history nor the external dating from Olmec archaeology is straightforward or fixed. Stark and Arnold underline an inconvenient truth when they state that “reexamination of Gulf [of Mexico coastal] lowland chronologies is long overdue, but the paucity of chronometric [carbon-14] dates at present makes such an effort a dim prospect. The subject will continue to be vexing in the foreseeable future.”¹⁷ Hence correspondences to be pointed out below may not be as chronologically precise or sure as we could wish, but they represent the best that current information allows.

Another methodological issue we must face as we look for relationships between Jaredite and Olmec history is that even the basic matter of locating ancient sites in Veracruz has not yet been carried very far. Scholars with that aim have started the task of conducting surface surveys in a limited number of areas,¹⁸ yet for the most part we really have only a limited knowledge of what sites of this age exist, not only in Veracruz but elsewhere in

16. Ponciano Ortíz Ceballos, “Semblanza arqueológica de Veracruz,” *Arqueología mexicana* 1/5 (1994): 19, my translation.

17. Barbara L. Stark and Philip J. Arnold III, “Introduction to the Archaeology of the Gulf Lowlands,” in Stark and Arnold, *Olmec to Aztec*, 9.

18. For example, Annick Daneels, “Settlement History in the Lower Cotaxtla Basin,”

Mesoamerica. We may fairly say that in the area of central Veracruz—the territory of greatest interest in this chapter (speaking of the land lower than 2,000 feet [600 m] in elevation from below Jalapa to south of Tuxtepec)—not a single surface survey using modern methods has been conducted, nor has a single site been carefully excavated. Daneels lamented that many Pre-Classic sites in central Veracruz remain buried under river silt, so they are not likely to be detected visually at all.¹⁹ Van Nagy and Sisson conducted systematic surveys of portions of the neighboring Grijalva delta area of Tabasco,²⁰ yet van Nagy reported that he located 50 percent of the sites by inspecting the sides of drainage canals, since the sites were invisible on the surface.²¹ Moreover, even sites that have been excavated are rarely more than lightly sampled.²²

For reasons like these, useful estimates of population and the discovery of major city centers fall far short of what we could wish for. Even regarding the Late Postclassic period (ca. AD 1300–1500), for which the obscuring of sites under flood deposits ought not to have been so big a problem, Aztec and other historical records “present an image of a wealthy and populated region” in central Veracruz, yet archaeological data “is relatively hard to reconcile [with that picture]. . . . On the basis of archaeological evidence to

in Stark and Arnold, *Olmec to Aztec*, 206–52; and Santley et al., “Formative Period Settlement Patterns,” 174–205.

19. Daneels, “Settlement History,” 213; also Annick Daneels, “Patrón de asentamiento prehispánico en la cuenca de Veracruz Mexico,” in *Boletín del Consejo de Arqueología 1990* (Mexico City: Instituto Nacional de Antropología e Historia, 1991), 71–74.

20. Christopher von Nagy, “The Geoarchaeology of Settlement in the Grijalva Delta,” in Stark and Arnold, *Olmec to Aztec*, 253–77; and Edward B. Sisson, “Settlement Patterns and Land Use in the Northwestern Chontalpa, Tabasco, Mexico: A Progress Report,” *Cerámica de cultura maya* 6 (1970): 41–54.

21. Von Nagy, “Geoarchaeology of Settlement,” 268–69.

22. The situation in Mesoamerica is far worse in this respect than in the Near East, which has been worked extensively. Yet of the latter, Donald J. Wiseman and Edwin Yamauchi, eds., *Archaeology and the Bible: An Introductory Study* (Grand Rapids, MI: Zondervan, 1979), 4–5, cautioned 30 years ago that “in Palestine alone, of more than six thousand sites surveyed, fewer than two hundred have been excavated, and of these only twenty-eight to any major extent. Roughly the same proportion applies to Syria, Jordan, Iraq, and Iran.” Besides, “only a fraction of the objects retrieved from some sites has been adequately published.”

date, it would be impossible to detect [even] the [late] Aztec military conquest and dominance” in the region.²³ In this light, obviously we need a good deal of luck to find correspondences between the brief statements in the Jaredite account and the sparse archaeological results known that relate to the era before 600 BC. As time goes on and archaeological results become better known, we can hope that the search for correspondences will become more productive.

We especially need to realize that the archaeological materials any small groups of immigrants (like the Jaredites) left behind are bound to be limited. Small groups of intruders that arrived at various times in Mexico and Central America were quickly “mesoamericanized” so that their very presence, let alone their exotic origin, becomes difficult to detect.

One of the earliest of such groups known to archaeologists is the one that bore the Capacha ceramic tradition discovered by Kelly in western Mexico.²⁴ A peculiar bottle form appeared at a date estimated around 1500 BC in the state of Colima in western Mexico, at Tlatilco in the Valley of Mexico, and in the Isthmus of Tehuantepec.²⁵ This pottery has been thought to show a cultural connection to the west coast of South America; it apparently arrived in Mexico by seagoing raft (see chapter 16). But not long after the Capacha complex appeared, it disappeared as a distinguishable cultural entity.²⁶

Lowe, Coe and Flannery, and Zeitlin all have suggested that ceramics

23. Daneels, “Settlement History,” 251.

24. Isabel Kelly, “Stirrup Pots from Colima: Some Implications,” in *The Archaeology of West Mexico*, ed. Betty Bell (Ajijic, Mexico: West Mexican Society for Advanced Study, 1974), 206–11.

25. Carolyn B. Reed Czitrom, *Figurillas sólidas de estilo Colima: Una tipología*, Colección científica: Arqueología 66 (Mexico City: Instituto Nacional de Antropología e Historia, 1978); and Michael D. Coe and Richard A. Diehl, *In the Land of the Olmec: The Archaeology of San Lorenzo Tenochtitlan* (Austin: University of Texas Press, 1980), 1:143, 148.

26. An instructive parallel is the case of the Philistines of Palestine. According to Bryan J. Stone, “The Philistines and Acculturation: Culture Change and Ethnic Continuity in the Iron Age,” *Bulletin of the American Schools of Oriental Research* 298 (1995): 7–32, those intruders from the Aegean Sea area, who are recorded in Israelite history as present on the Mediterranean coast, can be distinguished at first on the basis of certain pottery types, but after a few centuries their distinct presence becomes impossible to track, although historical documents continue to report them.

from the Barra and Ocós periods arrived in coastal Guatemala, the Soconusco of southernmost Chiapas, and the Isthmus of Tehuantepec from Ecuador or Peru around 1700 BC. But the ceramics' distinctiveness is soon lost in the increasing archaeological complexity that follows.²⁷ Furthermore, in Belize the Swasey-period pottery that appears abruptly at around 1000 BC bears "close resemblance" to materials from Ecuador,²⁸ yet archaeologists routinely now consider them merely "early Maya." For another example, at a much later date an Inca-period intrusion from Peru reached south-central Mexico, as shown by distinctive Andean-style buildings that can be explained in no other way than by immigration,²⁹ although few archaeologists seem even to be aware of them. No historical records report anything at all about those intrusive buildings.

Of special interest in relation to the Olmec era are indications of contacts from East Asia. Meggers and Schneider both presented provocative evidence for significant Chinese impact on Mesoamerica in Olmec times,³⁰ but their arguments were generally ignored (although never refuted). Xu has also produced equivocal evidence that Chinese civilization affected the Olmec. In a 1996 monograph he identified characters on artifacts from Chalcatzingo (Morelos), La Venta, and Tres Zapotes as Chinese.³¹ In particular, his inspection of the famous ceremonial cache of celts and figurines

27. Gareth W. Lowe, "Eastern Mesoamerica," in *Chronologies in New World Archaeology*, ed. R. E. Taylor and Clement W. Meighan (New York: Academic Press, 1978), 351–52; Michael D. Coe and Kent V. Flannery, *Early Cultures and Human Ecology in South Coastal Guatemala*, Contributions to Anthropology 3 (Washington, DC: Smithsonian, 1967); and Robert N. Zeitlin, "Long-Distance Exchange and the Growth of a Regional Center: An Example from the Southern Isthmus of Tehuantepec, Mexico," in *Prehistoric Coastal Adaptations: The Economy and Ecology of Maritime Middle America*, ed. Barbara L. Stark and Barbara Voorhies (New York: Academic Press, 1978), 187–88.

28. Norman Hammond, "The Earliest Maya," *Scientific American* 236/3 (1977): 133.

29. Robert E. L. Chadwick Jr., "Archaeological Synthesis of Michoacan and Adjacent Regions," in *Handbook of Middle American Indians*, ed. Robert Wauchope et al. (Austin: University of Texas Press, 1971), 11:677.

30. Betty J. Meggers, "The Transpacific Origin of Mesoamerican Civilization: A Preliminary Review of the Evidence and Its Theoretical Implications," *American Anthropologist* 77 (1975): 1–27; and Harold K. Schneider, "Prehistoric Transpacific Contact and the Theory of Culture Change," *American Anthropologist* 79 (1977): 9–25.

31. H. Mike Xu, *Origin of Olmec Civilization* (Edmond: University of Central

from La Venta³² revealed, he claims, previously unanalyzed inscriptions that Xu and experts in China read as characters from the 12th-century-BC Shang dynasty.³³ Later, two Shang-period specialists identified a stone artifact on display in Villahermosa, Tabasco, on which they saw an inscription in the Shang Chinese script.³⁴ Other researchers report possibly supportive data. Shao, an art historian, pointed out motifs that he thought linked Chinese to Mesoamerican (mainly Maya) sculptures.³⁵ Meanwhile González Calderón, after examining the heads of several thousand clay figurines from La Venta and San Lorenzo, found that those from the latter site were “uniformly of [the] ‘Chinese’ . . . race in the most classical sense of these words,” in contrast to those from La Venta, which appear to be almost totally of “the white race.”³⁶

Most recently we pointed out that the sponge gourd, *Luffa* sp., an Asiatic plant, was introduced on the Pacific coast of Guatemala by around 1200 BC.³⁷ The evidence takes the form of painted pottery designs that were

Oklahoma Press, 1996); see also “Did Voyagers from China Reach Ancient Mexico?,” *Journal of Book of Mormon Studies* 7/1 (1998): 76.

32. Michael D. Coe, *Mexico*, 3rd rev. ed. (London: Thames & Hudson, 1984), 74.

33. Xu, *Origin of Olmec Civilization*; H. Mike Xu, “The Culture of Shang and Zhou Dynasties of Ancient China and the Civilization of Mesoamerica,” *Quarterly Journal of the Shanghai Academy of Social Sciences* 59/3 (1999): 181–96; Xu, “The New Evidence of a Connection between Ancient Chinese Inscriptions and Mesoamerican Motifs,” *Zhongguo wen zi yan jiu* 1 (1999): 410–18. Compare Bede Fahey, “The Asiatic Neolithic, the Southern Mongoloid Dispersal, and Their Possible Significance for the Americas,” *Pre-Columbiana: A Journal of Long Distance Contacts* 2/2–3 (2001): 164–204; and Fahey, *Mayan: A Sino-Tibetan Language? A Comparative Study*, Sino-Platonic Papers 130 (Philadelphia: Department of East Asian Languages and Civilizations, University of Pennsylvania, 2004).

34. Xu, “New Evidence for Pre-Columbian Transpacific Contact between China and Mesoamerica,” *Journal of the Washington Academy of Sciences* 88/1 (2002): 1–11. Mesoamerican archaeologists do not accept Xu’s claims, but they have not consulted all his publications (several in China) on the subject.

35. Paul Shao, *Asiatic Influences in Pre-Columbian American Art* (Ames: Iowa State University Press, 1976); and Shao, *The Origin of Ancient American Cultures* (Ames: Iowa State University Press, 1983).

36. O. Luis González Calderón, *The Jade Lords* (Coatzacoalcos, Mexico: printed by author, 1991), 37.

37. Sorenson and Johannessen, “Biological Evidence for Pre-Columbian Transoceanic

applied using the unique cut end of the *Luffa* stem as a daubing instrument.³⁸ In the same Guatemalan pottery complex, archaeologists reported decoration by “rocker stamping,” which first appears in Mesoamerica at about this same time (e.g., on Tlatilco ceramics). This type of decoration was characteristic of early East Asian ceramic design, and Greengo has previously suggested the style as evidence of diffusion from East Asia to America.³⁹ Substantiating the archaeological evidence of transoceanic voyages, Mesoamerican traditions (see chapter 9) further report that migrants from across one ocean or the other made landfall a number of times in the area.

Mesoamerican specialists have failed to seriously address these studies that seem to mark the arrival of small immigrant parties. Their view seems to be that any intrusions, if they occurred, either from a distant part of the New World or from the Old World, lost their distinctive cultural signatures whenever descendants of the immigrants were inexorably acculturated to dominant Mesoamerican cultural patterns and thus can have no historical/developmental significance.

We could multiply examples that demonstrate that “site-unit intrusions” (actual colonizing groups such as the Jaredites describe themselves) are both historically possible and difficult to demonstrate from the archaeological record. Chapter 9 presents a variety of information on Mesoamerican traditions of immigration by sea. The following excerpt from the writings of Friar Sahagún, recorded in Mexico in the 16th century, is one of those traditions that might apply to the Jaredite voyagers.

Voyages,” 267.

38. Laura J. Kosakowsky et al., “Preclassic through Postclassic: Ceramics and Chronology of the Southeastern Pacific Coast of Guatemala,” *Ancient Mesoamerica* 11 (2000): 199.

39. Robert E. Greengo, “Rocker-Stamped Pottery in the Old and New World,” in *Men and Cultures; Selected Papers of the Fifth International Congress of Anthropological and Ethnological Sciences*, ed. Anthony F. C. Wallace (Philadelphia: University of Pennsylvania Press, 1960), 553–65; also James B. Griffin, “Mesoamerica and the Eastern United States in Prehistoric Times,” in *Handbook of Middle American Indians*, ed. Robert Wauchope et al. (Austin: University of Texas Press, 1966), 4:121; Muriel N. Porter, “Tlatilco and the Pre-Classic Cultures of the New World,” Publication 19 (New York: Viking Fund Publications in Anthropology, 1953), 84–85; and Gordon R. Willey, “The Prehistoric Civilizations of Nuclear America,” *American Anthropologist* 57 (1955): 582.

This is the story the old men used to tell: In a certain time which no one can now describe, which no one can now remember, those who came here to sow, our grandfathers and grandmothers, landed here, arrived here, following the way, and came at last to govern here in this land. . . . They came in ships across the sea in many companies, and arrived there on the seashore, on the northern coast, and the place where they left their ships is now called Panutla which means, "Where one crosses the water."⁴⁰

The place mentioned, Panutla (or Pánuco), lies 250 miles north of the city of Veracruz. If the voyagers came southward, as the tradition says, and if it reports a real historical event dated around 2500 BC (admittedly both of those remain "ifs"), then a strong correspondence exists with the history in the book of Ether. In chapter 2 and the appendix we posited that the probable place where the Jaredite voyagers arrived was in central Veracruz.

There are additional potential correspondences that draw our attention between historical reports in the book of Ether and Mesoamerican archaeology. The historian Mormon says that when in the first century BC the Nephites began to migrate in substantial numbers into the land northward (considered here as primarily the south and central Veracruz lowlands), they found parts of it "desolate and without timber, because of the many inhabitants who had before inherited the land. And now no part of the land was desolate, save it were for timber, . . . there being but little timber upon the face of the land" (Helaman 3:5–7). At least dense population was their interpretation of the cause of the treelessness.

Such a drought has not yet been demonstrated for any part of the central Veracruz lowlands, yet it is not implausible. Daneels found evidence from the Classic period of depopulation in the Veracruz basin that she attributed to deforestation (part of the zone is semiarid).⁴¹ If the core Jaredite lands included that semiarid region, Daneels's information shows that a shortage of timber would be possible as the Book of Mormon indicates, although no

40. Códice Matritense, folios 191r and v, quoted in Miguel León-Portilla, "Pre-Hispanic Literature," in *Handbook of Middle American Indians*, ed. Robert Wauchope et al. (Austin: University of Texas Press, 1971), 10:455.

41. Daneels, "Patrón de asentamiento prehispánico," 72.

one has yet found evidence for such a condition in the first century BC (nor has anyone yet made any investigation).

The book of Ether indicates the existence of a state level of government at certain points in time. Riplakish, a Jaredite ruler whose reign is estimated to date around 1900 BC, “did lay that upon men’s shoulders which was grievous to be borne; yea, he did tax them with heavy taxes; and with the taxes he did build many spacious buildings. And he did erect him an exceedingly beautiful throne; and he did build many prisons, and whoso would not be subject unto taxes he did cast into prison” (Ether 10:5–6). Lacking discovered archaeological remains of the correct age, we cannot document any such level of government at that time. However, the Olmec focus on kings or war leaders (whose giant sculptured heads are a prominent feature of Olmec art) suggests that powerful, autocratic rulers like Riplakish may have headed an Olmec state. Archaeologists are divided on the question of whether a state-level government existed in Olmec times, but a number of researchers agree that it did.⁴² Coe believes that “there is every reason to think that there was a state organization among these ancient Olmec,”⁴³ and Cyphers considers the government at San Lorenzo to have been at least an “incipient state” because of the massive public works carried out at the site.⁴⁴ The Jaredite history repeatedly tells of rulers whose wars apparently extended over hundreds of miles. Such a scale certainly points to a state-level polity.

Beginning in the Early Pre-Classic era (near 1000 BC), surviving monuments show determined, massive attempts to destroy the images of what are thought to be previous rulers, which efforts further suggest the presence of a state. The ability to effect such projects implies a centralized authority (and bureaucratic apparatus) sufficient to mobilize a sizable labor force to

42. See, for example, Jonathan Haas, *The Evolution of the Prehistoric State* (New York: Columbia University Press, 1982); and David C. Grove, “The Formative Period and the Evolution of Complex Culture,” in *Supplement to the Handbook of Middle American Indians*, ed. Jeremy A. Sabloff (Austin: University of Texas Press, 1981), 1:378.

43. Coe, *America’s First Civilization*, 123.

44. Ann Cyphers, “Exploraciones arqueológicas en San Lorenzo Tenochtitlan,” in *Memoria del coloquio: Arqueología del centro y sur de Veracruz*, ed. Sara Ladrón de Guevara and Sergio Vásquez Zarate (Xalapa, Mexico: Universidad Veracruzana, 1997), 136.

that task. It also implies an agricultural capacity that permitted support of a relatively dense population.

The Olmec apparently glorified their leaders (perhaps especially war leaders). In the nature of most ancient records, the Jaredite account phrases history within a framework of dynasties, individual rulers, and such leading figures. (Old Testament history and ancient Babylonian and Assyrian records are often of the same nature, of course.) Today's archaeologists take a different tack. Their bread-and-butter activity is to seek and process data about the debris, not the reputed heroes, of the past. This garbage-eye approach results in a different kind of history than earlier writers produced. Hugh Williamson, an Oxford professor of Hebrew, has noted the significance of this dichotomy in the outlooks of modern historians. He says they are not so much concerned with men and movements (the staples of an older mode of historical interpretation) as they are with impersonal forces. They look to "gradual development . . . [and] imperceptibly slow processes such as climate change upon the economic development of a given region . . . [and on] technological innovation . . . with its cataclysmic impact at different times on agriculture, industrialization, travel and communication." Archaeologists' concerns are similar, for their work with the excavation of mainly everyday artifacts allows them to discern only slow, impersonal tendencies. There is no such thing as an archaeology of heroes. Williamson adds that normal research methods make it "possible to build up a history of the region which says nothing about prominent men and movements but much about the life of that 99 percent of the population whose names are not recorded but whose story is arguably the real stuff of history."⁴⁵ It is as though historians could, for example, ignore Napoleon because the annals from his day are little informed about the French peasantry.

The same division of methods and opinions prevails in Mesoamerican studies. "Dirt archeologists," who study potsherds and settlement patterns, tend to denigrate the work of epigraphers, who read inscriptions made by or at the behest of royalty. And methodological scorn goes both ways. For example, consummate excavator William Sanders says, "I am convinced that much of Mesoamerican political 'history' [as derived from the deciphered

45. Hugh Williamson, in Hershel Shanks, "The Gap between Archaeology and the Bible," *Biblical Archaeology Review* 31/4 (2005): 6, 62.

Maya monuments] consists of outright propaganda.”⁴⁶ Much of the historical record, he claims, “was written by political leaders for political purposes and clearly was used as propaganda to enhance the prestige and power of the ruling class.”⁴⁷ The contrasting approaches are evident also in Olmec studies. Grove insists that “the ‘end’ of the Olmec is merely the disappearance of that artifact complex” and that “the Olmec simply evolved out of the traits by which they were originally defined.”⁴⁸ Yet specialists who take the opposing point of view consider that archaeologists who deal largely with mundane material objects (Grove’s “traits”) miss a major factor in reconstructing history when they fail to articulate regal historical claims, as represented on the monuments—or in the Jaredite record—with the indeterminate sequences of pottery styles.

In the case we are considering, we need to infer basic empirical information from the artifacts while at the same time reading the culture history behind royal narratives or prophetic pronouncements in the Book of Mormon. The historical account of the Jaredite bigwigs can tell us some things, but that record by nature ignores the slow environmental, social, and technological forces that shape *longue durée* history.

Ether, the last historian of the Jaredite royal line, describes Jaredite “kings” as prime movers in the lineage history. Yet we can tell that the history involved much more than the story of elite individuals and their feats or defeats. For example, Riplakish (Ether 10:4–8) ruled for 42 years, during which time he rapaciously taxed his subjects. He imprisoned those who would not or could not pay, cast many into prison or killed them, and “did afflict the people with his whoredoms and abominations” (10:7). Finally a popular revolt, apparently without a notable leader, killed Riplakish and drove his descendants “out of the land” (v. 8). But “after the space of many years,” one Morianton, a descendant of Riplakish, gathered “outcasts” into an army and “gave battle unto the people” (v. 9). After many more years of

46. William T. Sanders, “The Epiclassic as a Stage in Mesoamerican Prehistory: An Evaluation,” in *Mesoamerica after the Decline of Teotihuacan, A.D. 700–900*, ed. Richard A. Diehl and Janet C. Berlo (Washington, DC: Dumbarton Oaks, 1989), 217, 216.

47. Sanders, “Epiclassic as a Stage,” 217.

48. David C. Grove, “Olmec,” in *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*, ed. David Carrasco (Oxford: Oxford University Press, 2001), 2:408.

conflict, Morianton gained the throne. Obviously some large-scale social processes were involved in this case, beyond whatever influence the designated principals had.

Note the situation in the days of Com (Ether 10:32–33): Competing segments (perhaps lineages or “houses”) of Jaredite society fought “for the space of many years” before one faction led by Com “obtained power over the . . . kingdom.” “In the days of Com,” the record informs us, “there began [this is the first recorded instance] to be robbers in the land.” Again, more profound social developments were going on for which conflict over kingship is the only indicator the historian gives us.

In several situations nominal kings were held “in captivity” until their descendants were able to regain power. The captivity process was uniquely institutionalized by the days of King Hearthom, who had “the kingdom . . . taken away from him,” whereupon “he served many years in captivity” (Ether 10:30). Moreover, his heir “lived in captivity all his days,” as did their descendants over the next five generations. All these heirs were sired and dwelt in captivity before, finally, one “drew away the half of the kingdom” (vv. 31–32). This unusual form of captivity (perhaps a form of house arrest) is unlikely to show up either in conventional archaeological remnants or in art. Again much more was going on in their society than the heroes-as-history record allows us to glimpse.

A number of researchers have supposed that the giant stone heads sculpted in southern Veracruz represent “mighty Olmec rulers,”⁴⁹ or at least war chiefs.⁵⁰ They must indeed have been eminent and powerful persons to be so notably commemorated. The Jaredite record focuses on rulers (kings) with similar emphatic powers and great pretensions.

Some scholars think wars characterized even the Early and Middle Pre-Classic periods (1500–500 BC) in Mexico. The terrific energy utilized to delegitimize rulers at San Lorenzo and La Venta (where monuments were also “ruthlessly smashed and defaced”) evidences violent rivalries.⁵¹ Fortified

49. Coe, *Mexico*, 68.

50. Ignacio Bernal, *The Olmec World*, trans. Doris Heyden and Fernando Horcasitas (Berkeley: University of California Press, 1969), 56–57.

51. Coe, *Mexico*, 71.

sites in the states of Puebla and Tlaxcala date as early as 600 BC⁵² but probably have undiscovered antecedents considerably earlier. Bernal believed that figurines from Tlatilco (ca. 1400–1100 BC) in the Valley of Mexico depict warriors because they wear armor,⁵³ and he also considered some of the monuments from La Venta to show that war and armies were engaged as early as that site's Period II (900–700 BC).⁵⁴

This Olmec orientation to warfare and leadership conflicts agrees with the intense enmity shown in the Jaredite record. In one of their final wars, “the people began to flock together in armies. . . . And so great and lasting had been the war . . . that the whole face of the land was covered with the bodies of the dead” (Ether 14:19, 21). In the final paroxysm near the hill Ramah (later called Cumorah by the Nephites), the combatant groups “were drunken with anger, even as a man who is drunken with wine; and they slept . . . upon their swords” (15:22).

Ether's cultural pattern of kingly rivalry corresponds at least conceptually to what we seem to observe from Olmec art and archaeology, whether or not they represent the same historical events. Yet some correspondences may actually be literal and not just of the same type. The Jaredite record may actually report events that archaeology seems to support.

For example, under the Jaredite king Lib, “they built a great city by the narrow neck of land, by the place where the sea divides the land” (Ether 10:19–20). (This is the Jaredite record's only reference to a “great city,” although the later Nephite record keepers used that designator for a number of key metropolises.)⁵⁵ The date is estimated to be near 1400 BC (see chapter 3 herein). This Jaredite city could refer to the urbanization of the site now

52. Angel García Cook, “The Historical Importance of Tlaxcala in the Cultural Development of the Central Highlands,” in Sabloff, *Supplement to the Handbook of Middle American Indians*, 1:252.

53. Bernal, *Olmec World*, 134.

54. Bernal, “The Olmec Region: Oaxaca,” in *Observations on the Emergence of Civilization in Mesoamerica*, ed. Robert F. Heizer and John A. Graham, Contributions 11 (Berkeley: University of California Department of Anthropology, 1971), 35.

55. John L. Sorenson, “The Settlements of Book of Mormon Peoples,” in *Nephite Culture and Society: Selected Papers*, ed. Matthew R. Sorenson (Salt Lake City: New Sage Books, 1997), 141–43.

known as San Lorenzo Tenochtitlán. It was indeed “a great city” and was located precisely “by the narrow neck of land.” Its metropolitan status came about at approximately 1400 to 1300 BC.

Another specific correspondence relates the Early Pre-Classic climax phase of the Olmec people (ca. 1300–1000 BC) to the Jaredite peak, or Late Developed phase (estimated 1360–1025 BC; see table 3.1). The site of San Lorenzo Tenochtitlán is commonly viewed as the key to Olmec culture history, although artifacts in Olmec style are also widely distributed in central Veracruz⁵⁶ and an Olmec sculpture occurs as far north on the coast as El Viejón, beyond the city of Veracruz.⁵⁷ Thus we are unsure of the actual bounds of Olmec culture. The scale and nature of the peak development is known largely from excavations at and near San Lorenzo. There the Chicharras and San Lorenzo phases temporally overlap the Jaredite-period climax.

This picture agrees not only with the prosperity and extensive population reported or implied by the Jaredite account but also obviously with the chronology. At their peak the Jaredites were “exceedingly industrious, and they did buy and sell and traffic one with another. . . . And they did have silks, and fine-twined linen; and they did work all manner of cloth. . . . And they did make all manner of tools to till the earth. . . . And they did make all manner of weapons of war. And they did work all manner of work of exceedingly curious workmanship” (Ether 10:22–27). At least in much later times, central Veracruz was a chief supplier of cotton goods, especially to the highlands.⁵⁸ Olmec trade was extensive, as shown especially by obsidian imported to San Lorenzo as early as 1500 BC, from sources more than 400 miles away on both the north and the south.⁵⁹

56. Daneels, “Settlement History,” 213, 219.

57. Suzanne W. Miles, “Sculpture of the Guatemala-Chiapas Highlands and Pacific Slopes, and Associated Hieroglyphs,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 2:248; Thomas S. Barthel and Hasso Von Winning, “La Mojarra Stela 1 Revisited,” *Tribus* 40 (1991): 45; compare Coe, *America's First Civilization*, 119 (map).

58. Barbara A. Hall, “Spindle Whorls and Cotton Production at Middle Classic Matacapán and in the Gulf Lowlands,” in Stark and Arnold, *Olmec to Aztec*, 115–35.

59. Michael D. Coe, “San Lorenzo Tenochtitlán,” in Sabloff, *Supplement to the Handbook of Middle American Indians*, 1:145.



Figure 21.1. "Controlled Serpent," Monument 47, San Lorenzo, Veracruz

The Jaredite text indicates that at an earlier time (ca. 2100 BC?) the people were heavily impacted by a plague of "poisonous serpents" (Ether 9:31, 33) as a result of a severe drought. The historian's perception seems to have been that the serpents pursued the people's animals southward toward the narrow pass. The people followed after their flocks, but the pesky reptiles then blocked the people from continuing their pursuit. About 700 years later the poisonous serpents in the isthmus were supposed to have been destroyed sufficiently to permit people to migrate into the land southward (10:19–21). It is apparent that a good deal of myth is wrapped up in this account (serpents certainly would not have left favorable ecologies in order to pursue fleeing animals for scores of kilometers). Monument 47 at San Lorenzo, probably dating between 1200 and 1000 BC, depicts a caped man (with head missing; see fig. 21.1) seated cross-legged while firmly holding the head of a great fer-de-lance, one of Mexico's most feared poisonous reptiles. The image perhaps signifies control of the serpent or serpents.

It is true that some characteristics of the reported Jaredite history strike archaeologists as anomalous in relation to the cultures in early Mesoamerica. However, as poorly documented as those early cultures and their natural environments are in terms of archaeology, it would be premature to conclude that the supposed anomalies disqualify a Jaredite-Olmec overlap in territory or time. For example, in reference to the story of the serpents, it may be noted that the name Coatzacoalcos, which later became the name for the river at the mouth of the narrow pass, meant “sanctuary of the serpent.”⁶⁰ In the 19th century venomous snakes remained most numerous in the center of the Isthmus of Tehuantepec, where neither fire nor overflow of water could kill them.⁶¹

Similarly anomalous may seem the Book of Mormon report that the Jaredites engaged in metallurgy. I have already discussed this conundrum in chapter 16, but the matter deserves brief recapitulation in the Jaredite context. Virtually all scholars of the region assume that Mesoamericans used no metals until after about AD 900. That assumption is contradicted both by numerous discovered metal specimens that apparently predate AD 900 and by linguistic data. Most decisive is the fact that words for “metal” appear in five reconstructed protolanguages for major language families in Mesoamerica.⁶² The estimated dates for those protolanguages and their words for “metal” are in the range of 2000 to 1000 BC. In light of this linguistic evidence, the fact that archaeologists fail to accept artifacts confirming the use of metal before AD 900 merely shows that their field has unresolved problems in dealing with the topic. It remains to be seen what further investigation may reveal regarding this point.

Another supposed anomaly might be the Book of Mormon assertion that Jaredites were literate, their ancestors having originated in Mesopotamia. For years it was supposed that no Mesoamerican writing existed much before the time of Christ and later that there was only one writing system,

60. Miguel Covarrubias, *Mexico South, The Isthmus of Tehuantepec* (New York: Knopf, 1947), 38.

61. John J. Williams, *The Isthmus of Tehuantepec, Being the Results of a Survey for a Railroad to Connect the Atlantic and Pacific Oceans* (New York: Appleton, 1852), 212.

62. John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1985), 279–80; and Sorenson, “Viva Zapato! Hurray for the Shoe!,” *Review of Books on the Book of Mormon* 6/1 (1994): 319–21.

ancestral Mayan. In the last few years the assessment has changed notably. A distinct system that had been partially known for many years came into much fuller light in the 1980s in south-central Veracruz. That script, dubbed “Tuxtlatec,”⁶³ or “Isthmian,” was apparent on La Mojarra Stela 1 as well as on various supplementary fragments from elsewhere in Mesoamerica. Méluzin attributed the script’s origin to the La Venta area, perhaps at about 500 BC, while Prem believed it originated in the Central Depression of Chiapas.⁶⁴ In any case, this form of writing apparently dropped out of use at about the time the Nephite record ended.

Fragmentary evidence now suggests that at least one different writing system was functioning much earlier, in the Olmec era, before 600 BC⁶⁵—that is, before the end of Jaredite history. Marcus and Flannery claim that a still-different system, ancestral to Zapotec script in the Valley of Oaxaca, is represented on a monument at San José Mogote, Oaxaca, which they date to between 600 and 500 BC.⁶⁶ In 2006 another discovery was announced: the Cascajal stone block and inscribed script from near San Lorenzo Tenochtitlán in the Isthmus of Tehuantepec. The text on this 14-inch stone (36 cm long) consists of “about 28 distinct elements, each an autonomous, codified glyphic entity.”⁶⁷ While this has been judged to be a true writing system, its characters and some of its other features are unlike any other script known so far.

Chapter 11 described and discussed a unique ceramic artifact, the

63. Sylvia Méluzin, *Further Investigations of the Tuxtla Script: An Inscribed Mask and La Mojarra Stela 1*, New World Archaeological Foundation Papers 65 (Provo, UT: BYU New World Archaeological Foundation, 1995).

64. Barthel and Winning, “La Mojarra Stela 1 Revisited,” 52.

65. Eric Stokstad, “Oldest New World Writing Suggests Olmec Innovation,” *Science* 298 (2002): 1872–74; and Mary E. D. Pohl, Kevin O. Pope, and Christopher von Nagy, “Olmec Origins of Mesoamerican Writing,” *Science* 298 (2002): 1984–87.

66. Joyce Marcus, “The Origins of Mesoamerican Writing,” *Annual Review of Anthropology* 5 (1976): 35–67; Kent V. Flannery and Joyce Marcus, “Borrón, y Cuenta Nueva: Setting Oaxaca’s Archaeological Record Straight,” in *Debating Oaxaca Archaeology*, ed. Joyce Marcus, Anthropological Papers 84 (Ann Arbor: University of Michigan Museum of Anthropology, 1990), 50.

67. Maria del Carmen Rodríguez Martínez et al., “Oldest Writing in the New World,” *Science* 313 (2006): 1612.

“Tlatilco cylinder seal.”⁶⁸ Some scholars consider the engravings on the seal to represent a distinct writing system.⁶⁹ As documented in chapter 10, this artifact too belongs to the Olmec era. A University of Oxford laboratory used thermoluminescence to date the object between 1200 and 1 BC. Since its discovery site (Tlatilco) seems to lack materials dated after around 600 BC, this script also falls in the same time period as the Olmec-era writing just discussed.

The archaeological literature centers most discussion of these writing systems on the question of which was first. However that may turn out, the more important point is that Mesoamericans used at least three, and more likely five, different writing systems no later than 600 BC, the effective end of the Jaredite era. Logically that pushes the age of literacy back to at least 1500 BC. As Rodríguez Martínez et al. observe, the Cascajal find shows that “a robust, widely spread script could exist without leaving many examples that last to the present.”⁷⁰ The prospect is good that more and earlier specimens of the several scripts just mentioned will be found.

The Jaredite record says the people were literate even before—long before—600 BC (Ether 8:9). As late as 20 years ago, archaeologists could easily doubt such a claim, but with the new discoveries a correspondence between the Jaredite claim to writing and early Mesoamerican literacy is now clear.

The Later Jaredite Era

The classic Jaredite era, the Developed phase of their history, came at approximately the same time as the Olmec peak development. It was followed by what I call the Ebb phase, which extended from about 1000 to near 570 BC. The Jaredite account turns more somber at the beginning of the phase. It reports no further normal cultural matters but increasingly indicates disruption, disaster, and conflict. After generations of descendants

68. See initially David H. Kelley, “A Cylinder Seal from Tlatilco,” *American Antiquity* 31 (1966): 744–45.

69. John A. Graham, “Commentary: On Calendrics and Writing,” in Heizer and Graham, *Emergence of Civilization in Mesoamerica*, 133–40; and Kelley, “Cylinder Seal from Tlatilco,” 744–46.

70. Rodríguez Martínez et al., “Oldest Writing in the New World,” 1613.

of Jared, who were the heirs of the kingship, had “dwelt in captivity” (i.e., while another lineage ruled), and without indication of overt conflict, there arose one Com as the proper heir of the throne in the eyes of the historian. Com “drew away the half of the kingdom. And he reigned over the half of the kingdom forty and two years” (Ether 10:31–32). During that time he fought Amgid, the seated king, for control of the remaining part of the country and finally gained control of the whole. In his days “there began to be robbers in the land,” whom Com was unable to subdue (vv. 33–34). Moreover, many prophets warned of coming destruction, but the people sought to kill them (11:1–2).

In the reign of Com’s successor, greater calamity came to pass. “There began to be wars and contentions in all the land, and also many famines and pestilences, insomuch that there was a great destruction” (Ether 11:6–7). Following generations saw more wars, rebellions, quarrels over who should rule, and destructions; the book of Ether records no positive development during this time.

The Jaredite societal decay from Com’s day forward is estimated to have begun around the 11th or 10th century BC, about when the classic Olmec San Lorenzo A phase came to an abrupt halt. Coe interprets the sequence by saying that “the nature of the controls and compulsion required to build” great sites and transport the huge monuments “eventually led to a mighty [sociopolitical] cataclysm.”⁷¹ “The grandiose monuments glorifying . . . rulers . . . were ruthlessly smashed and defaced.”⁷² The Olmec area subsequently saw “a proliferation of complex chiefdoms or petty kingdoms organized after the Olmec pattern,” although the master pattern seems to have been lost.⁷³

At San Lorenzo (the key site in establishing the Olmec sequence), the glory of the elite level of the society in the San Lorenzo A phase was no longer visible a century later in the B phase, although continuity in the

71. Coe, *Mexico*, 71; today’s estimate for that event, ca. 1000 BC, is more surely based than Coe’s 1984 estimate of 900 BC.

72. Coe, *Mexico*, 71.

73. John E. Clark and Mary E. Pye, “The Pacific Coast and the Olmec Question,” in *Olmec Art and Archaeology in Mesoamerica*, ed. John E. Clark and Mary E. Pye (Washington, DC: National Gallery of Art, 2000), 242.

household patterns of living indicates that the same base population continued to occupy the site under decadent circumstances. Around 900 BC a different people became dominant at the city, judging by the ceramics used, although again the site continued to be occupied by a good many of the former inhabitants.⁷⁴

After 900 BC revolutionary cultural development appears to have swept across the entire isthmian area.⁷⁵ At San Lorenzo this phase is called Nacaste. Much about the culture and people (at least the leaders) points to a tradition that may have come from Chiapas, or possibly from north-central Veracruz. From about 900 to 700 BC, cultures related to the Nacaste phase were found throughout the isthmian area. This seems to indicate that in certain areas, heirs of this cultural tradition continued a derivative but greatly changed culture. However, like a person who has lost footing on a slippery roof, the only course for what was left of Olmec civilization was downward.

One of the forces contributing to change may have been environmental degradation. Lowe and others have pointed to the possibility of a volcanic event around 600 BC in the isthmus.⁷⁶ It also seems reasonable that the relatively heavy population in that immediate area would have strained the environment. We have yet to see whether research on climate cycles (virtually no work has been done on this topic for Veracruz) will demonstrate some causality for an Olmec collapse from natural factors.

By about 600 BC, in area after area of Mesoamerica, this last remnant of the old Olmec tradition came to an end (except at La Venta, which I will discuss later), often with a whimper. In any case, successor peoples who occupied the area showed a marked change. Among the venues for these changes was the south coast of Chiapas, which saw the demise of the Olmec-derived Conchas-period development.⁷⁷ The Valley of Oaxaca at the close

74. Lowe, *Mesoamérica olmeca*, 94.

75. Gareth W. Lowe, "Los olmecas, mayas y mixe-zoques," in *Antropología e historia de los mixe-zoques y mayas: Homenaje a Frans Blom*, ed. Lorenzo Ochoa and Thomas A. Lee Jr. (Mexico City: Universidad Nacional Autónoma de México and Brigham Young University, 1983), 125–29.

76. Lowe, *Mesoamérica olmeca*.

77. Michael W. Love, "Ceramic Chronology and Chronometric Dating: Stratigraphy and Seriation at La Blanca, Guatemala," *Ancient Mesoamerica* 4 (1993): 20–21.

of the Rosario phase was thoroughly transformed.⁷⁸ The Valley of Mexico, which had had an Olmec-related presence at Tlatilco before 800 BC, lost almost all trace of the Olmec tradition by 600 BC. In the state of Guerrero the culture documented at the Olmec site of Teopantecuanitlán came to an end also at this time.⁷⁹ San Lorenzo itself was probably abandoned by around 700 BC and was left empty for as much as a century, although sometime after 600 BC it was reoccupied by a tiny population related to the group then inhabiting La Venta.⁸⁰ In the Central Depression of Chiapas, the Escalera (Chiapas III) phase saw a sudden, short surge in the construction of modest-sized centers, but stylistically they were not closely tied to Olmec sites.⁸¹ By about 600 BC really nothing was left of the Olmec tradition per se except at La Venta and in occasional motifs and fragments included in contexts elsewhere that can no longer be considered intrinsically Olmec.⁸²

According to Jaredite history, the final civil war that destroyed the center of identifiable Jaredite society, probably near 570 BC, took place in the vicinity of the Tuxtla Mountains. According to the Nephite record, the last Jaredite king, Coriantumr₁, alone survived the final battle and found brief refuge among the newly arrived Mulekite group (see chapters 3 and 22 herein). The society and culture of Ether's record disappeared at essentially the same time that the archaeological record witnesses the end of the widespread cultural remnants of Olmec civilization (except for La Venta). This constitutes a correspondence of considerable power.

All told, we have seen a number of correspondences between the historical record of the Jaredites and the culture and historical record derived from art and archaeology, primarily of the Olmec civilization. Taken all together, the parallels appear to be reporting the same set of events from two different perspectives, from internal history and from archaeological history.

78. Flannery and Marcus, "Borrón, y Cuenta Nueva," 51.

79. Guadalupe Martínez Donjuán, "Los olmecas en el estado de Guerrero," in *Los olmecas en Mesoamerica*, ed. John E. Clark (Mexico City: Citibank/México, 1994), 142–63.

80. Coe and Diehl, *In the Land of the Olmec*, 200.

81. Gareth W. Lowe and J. Alden Mason, "Archaeological Survey of the Chiapas Coast, Highlands, and Upper Grijalva Basin," in Wauchope and Willey, *Handbook of Middle American Indians*, 2:212.

82. Bernal's "Olmec III" era; see Bernal, *Olmec World*, 114.

Chapter 22

Archaeology and History between 600 and 1 BC, Part 1

Mesoamerican archaeologists have been able so far to describe and document the latter part of the Middle Pre-Classic period (600–400 BC) hardly better than they have the earlier part, discussed in the previous chapter. Typically the characterization depends on a few clear data points drawn from a tiny sample of excavated sites. This reality forces anyone trying to grasp the history of the period to navigate across a sea of assumptions and conjectures.

Many researchers call much of the final culture at La Venta “modified Olmec” because it differed significantly from the earlier classic Olmec culture.¹ One characteristic of late La Venta culture is the beginning of the use of stelae (massive upright stones) on which were carved ritual or historical scenes.

Of the three such stelae known, art historian Tatiana Proskouriakoff has said that they “represent a radical innovation in the mode of sculpture.”² Stela 3 dates to this juncture when La Venta presented new cultural features. Figure 22.1a shows Stela 3 as it appeared when it was excavated. Figure 22.1b is a skilled artist’s reconstruction of how the damaged relief probably looked when it was first carved on the huge slab, which had been hauled many miles from an unknown source to this swampy destination.

1. For example, Michael D. Coe and Richard A. Diehl, *In the Land of the Olmec: The Archaeology of San Lorenzo Tenochtitlan* (Austin: University of Texas Press, 1980), 1:23, 28, 200, 202.

2. Tatiana Proskouriakoff, “Olmec and Maya Art: Problems of Their Stylistic Relation,” in *Dumbarton Oaks Conference on the Olmec, October 28th and 29th, 1967*, ed. Elizabeth P. Benson (Washington, DC: Dumbarton Oaks Research Library, 1968), 121.



Figure 22.1a. La Venta Stela 3 as excavated

The scene on Stela 3 shows two elaborately costumed men posed in a formal manner as though meeting each other. Hovering in the air above them are supernatural attendants, perhaps representing ancestors. Proskouriakoff has interpreted the scene as a representation of the leaders of two “racially distinct” groups.³ The figure on the left shows facial characteristics and short stature similar to figures on earlier Olmec sculptures. But the man on the right is taller and has a full beard (this may be the earliest full-beard representation in Mesoamerican art) and a conspicuously aquiline, or

3. Miguel Covarrubias, *Indian Art of Mexico and Central America* (New York: Knopf, 1957), 77, agrees, along with archaeologist Ignacio Bernal, *The Olmec World*, trans. Doris Heyden and Fernando Horcasitas (Berkeley: University of California Press, 1969), 59–60.

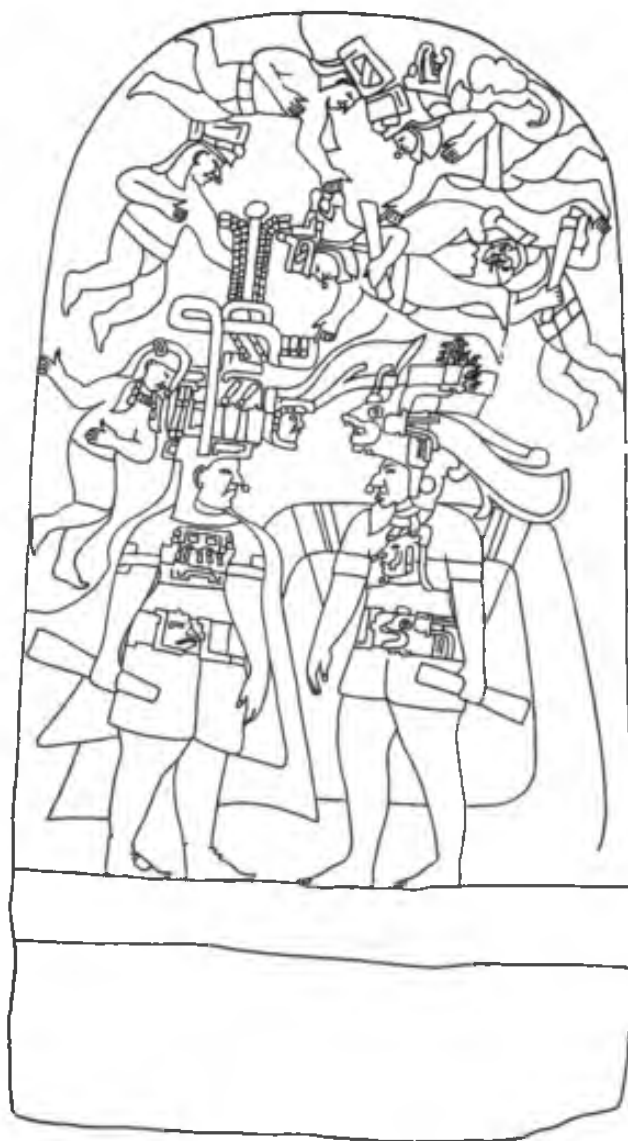


Figure 22.1b. Artist's reconstruction of Stela 3

beaklike, nose. Proskouriakoff agreed with Covarrubias that the face of the Olmec-looking figure was deliberately mutilated anciently, signaling perhaps that the group he represented was later dominated by the people represented by the bearded man.⁴

Several other monuments of slightly later age, notably Tres Zapotes Stela D and the Alvarado stela (fig. 22.2), show a similar bearded person facing a kneeling subordinate figure who bears an "Olmecoid" face. Such scenes

4. Proskouriakoff, "Olmec and Maya Art," 122.



Figure 22.2. The Alvarado Stela

suggest that a foreign-derived dominant population had arrived in the Gulf coast area.⁵

The Possible Arrival of Semitic Foreigners

Proskouriakoff and Covarrubias are supported by other experts who consider the bearded, beak-nosed person as “Semitic” (or like “Uncle Sam”).⁶ Also, González Calderón was impressed with the ethnic distinction shown in art and its political implication: “Small clay heads from La Venta represent individuals with aquiline noses, with beards carefully arranged [and] with a very decorated headdress, sometimes very high, [and] sumptuous; [the representation] coincides with the . . . racial characteristics . . . [of] the . . . personages on the monument [Stela 3], also from La Venta, on which . . . is clearly observed a lineage or a race completely different [from] . . . Olmec classic iconography, and possibly new or of a later arrival.”⁷ He further infers that the “stelae of La Venta are the first historic accounts of political happenings, carved thus for posterity, with great realism and sobriety.” He thought they might represent “a new strange human group” that arrived in the Olmec world bearing “very different cultural and religious ideas and also very probably with more advanced technical resources.”⁸ Benson confirms this interpretation: “A number of late monuments—La Venta Stela 3, Tres Zapotes Stele D, and the Alvarado stela—show a dominant, bearded figure at the right, facing a kneeling figure that usually has an ‘Olmecoid’ face. . . . Such scenes suggest that . . . bearded conquerors may have come into the Olmec area quite late.”⁹

It seems to me likely that Stela 3 depicts a leader of the Jewish Mulekites

5. Elizabeth P. Benson, “Some Olmec Objects in the Robert Bliss Collection at Dumbarton Oaks,” in *The Olmec and Their Neighbors: Essays in Memory of Matthew W. Stirling*, ed. Elizabeth P. Benson (Washington, DC: Dumbarton Oaks, 1981), 97.

6. See footnote 3 above. Also Philip Drucker, “On the Nature of the Olmec Polity,” in Benson, *Olmec and Their Neighbors*, 44; and John F. Scott, “Post-Olmec Mesoamerica as Revealed in Its Art,” *Proceedings of the 41st International Congress of Americanists (Mexico, 1974)* (1976): 385.

7. O. Luis González Calderón, *The Jade Lords* (Coatzacoalcos, Mexico: printed by author, 1991), 39.

8. González Calderón, *Jade Lords*, 90–91.

9. Benson, “Some Olmec Objects,” 97.

(perhaps Mulek himself) meeting a chief from a group of Jaredite/Olmec-age survivors. Whatever historical event is represented on Stela 3, from about that point in time the art and archaeology of southern Mesoamerica begin to display features of what I consider a distinctly new cultural tradition.

The Rise of La Venta Culture

The most often-cited archaeological material on La Venta is from work done by an assortment of archaeologists who have labored at the site over an 80-year period. Specialists have worked out only an outline of the sequence of cultural development. A distressing amount of the site's history remains obscure because there has been an insufficiently comprehensive effort to excavate and interpret the place.¹⁰ (Poor soil-preservation conditions are also partly responsible for this obscurity.)

We know in general that “the last part of the Middle Formative [ca. 600–400 BC] . . . witnessed a proliferation of pyramid centers . . . and the wide distribution” of certain pottery types and figurines.¹¹ But amid those developments, experts “do not see any iconography that is clearly Olmec.” The Olmec civilization bearers had apparently disappeared, or at least the Olmec cultural system had been modified drastically, though localized chiefs of the period after about 600 BC may have fancied themselves to be kings according to the ancient Olmec pattern, and some of them “may have been literal [but distant] descendants of Olmec kings.” “Olmec paraphernalia, such as incised axes or scepters, would have been [used as] material proof of a king's connections to royal [i.e., old Olmec] blood,”¹² but the claims, the material tokens accompanying the claims, and the historical or genetic descent involved could have been surrounded by as much fiction as fact.

10. Rebecca B. González Lauck has attempted to clarify the history in various publications, including “La zona del golfo en el Preclásico: La etapa olmeca,” in *Historia antigua de México*, ed. Linda Manzanilla and Leonardo López Luján, 1st ed. (Mexico City: Angel Porrúa, for INAH and UNAM, 1994), 1:279–321.

11. John E. Clark and Mary E. Pye, “The Pacific Coast and the Olmec Question,” in *Olmec Art and Archaeology in Mesoamerica*, ed. John E. Clark and Mary E. Pye (Washington, DC: National Gallery of Art, 2000), 243.

12. Clark and Pye, “Pacific Coast,” 243.

La Venta was the most significant political entity in the isthmus area after the end of the San Lorenzo–based Olmec state and the culture that had sustained it. The La Venta area in the extreme western lowland of Tabasco state had been settled perhaps from 1200 BC by a few simple farmers.¹³ Emblems of political power on this small island in the swamp first became visible between 1000 and 900 BC over a small area, as manifested in the Phase I construction of La Venta's Complex A. (The island itself allows room for only a few farms; most people under its sway would have lived between 5 and 20 miles [8–32 km] away.) Phase I came at the end of the glory days at San Lorenzo; the first builders at La Venta could have been refugees from the metropolis. Phase II (ca. 900–700 BC) saw La Venta built up further and may have been marked by construction of the (still-unexcavated) pyramid at the site,¹⁴ which is considered one of the earliest in Mesoamerica. Phase II coincided in part with the Nacaste period at San Lorenzo. By that time a new population and a weakened and modified tradition of rulership occupied the site of the former “great city” in the isthmus.

In La Venta Phase III (ca. 700–600 BC), Lowe sees “a marked change” in the ceramic styles, and he even calls the development a “revolution” that “seems graphic and impressive.” This dramatic degree of change was accompanied by clearly innovative architectural modes.¹⁵ Immediately following, Phase IV (ca. 600–450 BC) continued the tradition but with still greater modifications; for the first time we now see the construction of tombs, which suggests the burial of rulers who put on a show of power.¹⁶

13. William F. Rust III and Robert J. Sharer, “Olmec Settlement Data from La Venta, Tabasco,” *Science* 242 (1988): 102–4; William F. Rust III and Barbara W. Leyden, “Evidence of Maize Use at Early and Middle Preclassic La Venta Olmec Sites,” in *Corn and Culture in the Prehistoric New World*, ed. Sissel Johannessen and Christine A. Hastorf (Boulder, CO: Westview, 1992), 181–95; and González Lauck, “La zona del golfo,” 288.

14. Gareth W. Lowe, *Mesoamérica olmeca: Diez preguntas*, ed. Víctor E. Jimeno (Mexico City: Instituto Nacional de Antropología e Historia, 1998), 87–89; and Philip Drucker et al., *Excavations at La Venta, Tabasco, 1955*, Bulletin 170 (Washington, DC: Smithsonian Institution, 1959).

15. Gareth W. Lowe, “The Heartland Olmec: Evolution of Material Culture,” in *Regional Perspectives on the Olmec*, ed. Robert J. Sharer and David C. Grove (Cambridge: Cambridge University Press, 1981), 54.

16. However, Philip Drucker and Robert F. Heizer, “Commentary on W. R. Coe and Robert Stuckenrath's Review of Excavations at La Venta, Tabasco, 1955,” *Kroeber*

Although some archaeologists consider Phases I through IV as a continuous historical stream marked only by minor changes in rulers and culture, Proskouriakoff echoes Lowe's opinion that important changes (and outside influences) typified the transition to Phase IV. The three stelae created during this phase represented a "radical innovation in the mode of sculpture and in the character of its themes." Proskouriakoff believed the stelae show "realistic portraits and descriptions of historic scenes." In Phase IV, "new features seem to arise in the La Venta [art] style with the introduction of stelae."¹⁷ Researchers agree that the changes at La Venta after 600 BC were due to "a foreign contribution to the Olmec culture of the Gulf Coast."¹⁸

It is unclear whether the rulers who occupied La Venta in Phase IV were legitimate heirs of the former "Olmec kings" or merely minor, post-Olmec claimants to that former glory. The latter is the more logical conclusion, considering that around 600 BC many places in Mesoamerica witnessed substantial social and cultural discontinuity. La Venta seems to be only a partial exception. The site was not in a naturally strategic position, located as it was on an isolated island in a swamp rather than in a key geopolitical position like San Lorenzo. The place was more a secluded refuge that became a cult site than a powerful political spot that dominated a large area. La Venta shows few signs of the extension of political power beyond its immediate region, and that process was limited mainly to ruined San Lorenzo in its Palangana phase.¹⁹

Anthropological Society Papers 33 (1965): 37–69, the primary excavators of La Venta in 1955, confessed that they found no material indicating actual burials in what they called tombs. The acidic soil may have destroyed all bones.

17. Proskouriakoff, "Olmec and Maya Art," 121–22.

18. Damien Bazy, "Hallazgos con motivos olmecoides descubiertos en las tierras bajas mayas: Un análisis preliminar de la distribución espacial y temporal," in *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2006), 567. In late La Venta the cult might have adopted the practice of child sacrifice. At least certain representations on La Venta "altars" can be interpreted as showing the offering of small children, a practice known at that time in the kingdom of Judah and among neighboring Phoenicians.

19. Coe and Diehl, *In the Land of the Olmec*, 28, 200.

The Fall of La Venta Culture

The population of La Venta itself actually declined by the end of Phase IV,²⁰ despite attempts that were being made to renovate the ceremonial center. At some point the center ceased to be used.²¹ Following mutilation of most of the monuments, the place was no longer occupied. Wind-blown sand from beach dunes on the coast a few miles to the north covered the empty site up to 5 feet (1.5 m) deep.²²

Why this disaster at what had been a vigorous cult center for several centuries? One possible answer is that environmental conditions changed. The site was located on part of the delta of the Grijalva River, where naturally arising deviations in the drainage channels may have progressively isolated the island from older routes of access.²³ That could have triggered its demise, although monument mutilation hints at sociopolitical conflict as the cause.

No evidence indicates that the culture at La Venta was transferred to some other location; it just died, with barely a whimper. A few later visitors left modest offering caches among the ruins—four radiocarbon dates on their contents average 431 BC (calibrated). At least three centuries passed before the place was again occupied, this time by a modest-sized group with an entirely different culture.

The most plausible cause for the cultural change of La Venta is that the collapse of the cultures at other Olmec-associated centers in Mesoamerica,

20. González Lauck, "La zona del golfo," 288; and L. Mark Raab et al., "Investigaciones arqueológicas en 'Isla' Alor: Un sitio en el área de sostenimiento de La Venta, Tabasco," *Arqueología* 26 (2001): 3–14.

21. Rust and Leyden describe the center in terms of "virtual abandonment," perhaps by 500 BC, in "Evidence of Maize Use," 186; compare the statement by Thomas W. Killion and Javier Urcid, who said that "sometime after 500 B.C." the surrounding settlements "were largely abandoned," in "The Olmec Legacy: Cultural Continuity and Change in Mexico's Southern Gulf Coast Lowlands," *Journal of Field Archaeology* 28/1–2 (2001): 20.

22. Drucker et al, *Excavations at La Venta*, 4.

23. Christopher von Nagy, "The Geoarchaeology of Settlement in the Grijalva Delta," in *Olmec to Aztec: Settlement Patterns in the Ancient Gulf Lowlands*, ed. Barbara L. Stark and Philip J. Arnold III (Tucson: University of Arizona Press, 1997), 253–77; and Oscar H. Jiménez Salas, "Geomorfología de la región de La Venta, Tabasco: Un sistema fluvio-lagunar costero del cuaternario," *Arqueología* 3/2 (1990): 3–16.

generally around 600 BC, left the isolated center of La Venta safe from external threats but weak economically and demographically. As mentioned above, one cause for La Venta's declining power could have been environmental, either from changes in nearby stream flows or from the disruptive effects of volcanism in the nearby Tuxtla Mountains, as Lowe suggested.²⁴ In any case, the site's decreased economic leverage owing to reduced commerce and a drop in pilgrimage visitors may have resulted in population decline. La Venta's population may have been unable to sustain the demands for labor and other resources that leaders imposed in trying to maintain the center.

During the decline evident at La Venta after 600 BC, apparently an exotic elite arrived at the site from across the Atlantic, as explained above. As reluctant as archaeologists are ever to admit the arrival of an intrusive culture from overseas, in this case there is no other credible explanation for what appears in Phase IV art. The political-takeover event depicted on the stela was obviously profoundly important. Stela 3 is the largest sculpture produced at La Venta.

No archaeological data available on the period after 500 BC, either at La Venta or elsewhere in the region, adequately clarify what happened to the last center of modified Olmec society. The people left some ambitious but unfinished architectural features at the site,²⁵ perhaps indicating the local rulers' weak position to prevent what must have been a small group of transoceanic intruders from achieving dominance.²⁶

24. Lowe, *Mesoamérica olmeca*, 99.

25. Drucker et al., *Excavations at La Venta*, 8.

26. An admittedly long-shot interpretation of an aspect of Book of Mormon history may at least be noted at this point. Munro S. Edmonson, "Some Postclassic Questions about the Classic Maya," *Estudios de cultura maya* 12 (1979): 164, observed that the pattern of Maya history strongly suggests a tradition of major cultural and political changes that occur at recurrences of the "folding of the *may*" (i.e., the occasions when the day 8 Ahau began the katun [20-year calendar period]; this occurs at intervals of 256 years). Dennis E. Puleston, "An Epistemological Pathology and the Collapse, or Why the Maya Kept the Short Count," in *Maya Archaeology and Ethnohistory*, ed. Norman Hammond and Gordon R. Willey (Austin: University of Texas Press, 1979), 63, quotes Ralph L. Roys, *The Book of Chilam Balam of Chumayel*, Publication 438 (Washington, DC: Carnegie Institution, 1933; repr., Norman: University of Oklahoma Press, 1967), 184: "A surprising proportion of the important upheavals in Maya history appears to have occurred in some katun [time period]

As noted earlier, environmental problems may have contributed to produce an atmosphere of political uncertainty.²⁷ Or perhaps the old system of divinities, values, and myths had seemed to fail to account for untoward events, leading to a readiness for change, of which newcomers took advantage. Some have suggested that it was competing powers in the area that overthrew La Venta, but archaeology reveals no such rivals anywhere nearby as early as the sixth or fifth century BC. What we see, rather, is a cultural decline and collapse of perhaps the same sort that San Lorenzo suffered centuries before.

La Venta Correlations to Mulekite History

As we have seen, some places in Mesoamerica later developed cultures that to one degree or another incorporated fragments of what had been cultural patterns at La Venta. These included Chiapa de Corzo, San Isidro, El Mirador, Izapa, and others from about 450 to 200 BC. But these were pale imitations of what had once been the Olmec or modified Olmec state or states.

In its narrative, the Nephite record describes “the city of Mulek” as a settlement in “the east borders by the seashore,” near the “beach,” and virtually within “the narrow neck of land” (Alma 51:25–26, 28, 30, 32; 52:2). Mulek was a preexisting city in the day of the Nephite wars (ca. 70–60 BC); it was not among the cities the Nephites settled as new garrison settlements in that zone (50:13–15). Since the Nephite custom was to name settlements “after the name of him who first possessed them” (8:7), we can suppose that forefather Mulek was credited with once having “possessed” the city of Mulek, as far as the Nephite historians were concerned.

When we consider all of the text’s statements about that city and named [after its first calendar day] either 4 Ahau or 8 Ahau.” Puleston went on to relate the Maya idea of cyclical repetition of history to these dates for crucial events in their calendar. Extending the chart in Puleston, “Epistemological Pathology,” 65, fig. 5-1, back in time, we find that 590 BC would have been one of those critical 8 Ahau years. Had the La Venta calendar keepers been following this scheme, they might have felt in 590 BC it was destined that their ruling lords would soon change. Hence the people of La Venta might have felt the hand of fate in the appearance of a party from across the Atlantic, who showed up only a few years later. The Mulek party would have arrived soon after 585 BC.

27. Lowe, *Mesoamérica olmeca*, 95–103.

compare the information with Mesoamerican geography (see chapter 7), the position of the city of Mulek seems logically to coincide with that of La Venta. The ship (or ships) on which Mulek's party crossed the ocean from the Mediterranean could have reached the mouth of the Tonalá River, 10 miles north of La Venta. The site of La Venta sits atop a geologic salt-dome formation deeply covered with clay. It occupies 2.1 square miles (5.4 km²) and projects as much as 40 feet (12 m) above the surrounding swamp.²⁸ Land access to the city may have been restricted to a three-mile-long trail leading from the Tonalá River. Across the river to the west lay an extensive plain.²⁹

Even details of this proposed correlation agree with Book of Mormon descriptions. Around 65 BC an invading Lamanite army occupied the city of Mulek. There they felt safe from all the Nephite force's attempts to get at them (Alma 52:2, 5, 16–17, 20–21). Additionally, they were unwilling to come out of their stronghold to engage in battle on the nearby “plains.” The idea conveyed by Alma 52:2 is that the occupiers retreated “into” the city, that the Nephites tried to get them to “come out” (v. 19), and that the Nephite force was able to “take possession of it” (vv. 24–25) only after employing a stratagem to lure the Lamanite force out. This story reinforces the picture that the city was unusually positioned and could be defended easily. The unique island-in-swamp location of La Venta agrees with this picture.

The scene depicted on Stela 3 plausibly shows the arrival of Mulek or at least some leader of Near Eastern ancestry who bore the Armenoid, beaklike nose and beard characteristic of a Semitic male from the eastern margin of the Mediterranean. He is meeting a person (a leader, presumably) who looks like someone on an earlier Olmec monument. As Covarrubias and Proskouriakoff observed, the sculpted scene suggests that the newcomers gained dominance over the natives, but over time the two groups would surely have hybridized biologically and linguistically. The brief statement about the Mulekites found in the book of Omni says of the group, “They

28. Drucker et al., *Excavations at La Venta*, 8.

29. Robert F. Heizer, “Inferences on the Nature of Olmec Society Based upon Data from the La Venta Site,” *Kroeber Anthropological Society Papers* 25 (1961): 43–57; Philip Drucker, “The La Venta Olmec Support Area,” *Kroeber Anthropological Society Papers* 25 (1961): 59–72.

had [by the time of Mosiah₁, ca. 200 BC] become exceeding numerous” although they had “many wars” (Omni 1:17). The population could not have grown quickly enough to account for those wars had the group consisted only of descendants of a shipload of immigrants (no statement in the text hints that women accompanied those voyagers).

This scenario is confirmed in part by collector González Calderón’s observation that the hundreds of figurines he had seen from “La Venta are [i.e., represent] mainly slim and well proportioned bodies,”³⁰ resembling the “foreigner” on Stela 3. He also asserted “the almost total predominance of the white race” in these figurines, “many of them bearded and with a fine arrangement in their beards, the majority with a headdress or hat which [is] very elaborated, with a very uniform racial style, straight long nose, fine, sometime aquiline.”³¹ (Other examples of Semitic faces in Mesoamerican art can be seen in von Wuthenau.³²) Further confirmation of the plausibility of a La Venta–Mulek connection comes from the elaborate set of Mesoamerican cult correspondences to the Near Eastern Bronze and Iron Ages discussed in chapter 20.³³

The short account of the Mulekite party in Omni 1:14–21 indicates they “came out from Jerusalem at the time that Zedekiah, king of Judah, was carried away captive into Babylon,” which was in 586 BC. After they “journeyed in the wilderness” en route, they came “across the great waters.” In the absence of further details, we may assume that probably a single (perhaps Phoenician) vessel provided their means of oceanic travel. Since only the Jewish refugees and the ship’s crew likely would have been aboard, it is doubtful that they were organized as a colonizing party. Therefore, upon landing, the crew at least would have taken wives from among the indigenous people. In the eyes of their hosts, the exotic, civilized character of the

30. González Calderón, *Jade Lords*, 37.

31. See González Calderón, *Jade Lords*, 37; note especially plates 24–25, 28–29, 32, 35, 39–40, 44, 50–51.

32. Alexander von Wuthenau, *Unexpected Faces in Ancient America, 1500 B.C.–A.D. 1500: The Historical Testimony of Pre-Columbian Artists* (New York: Crown, 1975).

33. See John L. Sorenson, *A Complex of Ritual and Ideology Shared by Mesoamerica and the Ancient Near East*, Sino-Platonic Papers 195 (Philadelphia: Department of East Asian Languages and Civilizations, University of Pennsylvania, 2009); a pdf version is accessible at <http://sino-platonic.org>.

strangers (and perhaps the mystery of metal weapons they carried, plus the writing system that they initially knew) would have qualified them in the minds of their Mesoamerican subjects to serve as rulers.

The particular group of their descendants called “the people of Zarahemla,” whom the Nephites under Mosiah, first encountered at the city of that name, lacked sophisticated culture—they had neither records nor writing, their language was no longer Hebrew, their religious cult had been much modified, and politically they were only at a level of a weak chiefdom (their leader did not even claim the title *king*).

As already suggested, the immigrants whose leader seems to appear on Stela 3 may be presumed to have gained ascendancy over the Olmec-descended population early in the sixth century BC, at the time La Venta Phase IV culture prevailed. The newcomers could have led the local hybrid society in a revival for another century. At that time, the tradition of making stelae already had a millennium-long history in the Near East. The stelae at La Venta in Phase IV are the first of their kind in Mesoamerica, although the stone-carving technique and style of representation followed customs of Mesoamerican artists who had long been doing sculpture in the round.

This Phase IV society wielded some sociopolitical strength. That is shown by the fact that the stone on which Stela 3 was carved, measuring 14 feet (4.3 m) high and weighing 50 tons (45 metric tons),³⁴ would have required substantial social mobilization to be brought from the nearest stone source at least 50 miles (80 km) away (perhaps part of the way by raft). There is no local stone in the river delta area near La Venta. But eventually, it may be surmised, quarrels arose over who would rule this belated Olmecoid remnant. Internal conflicts (“serious contentions,” according to Omni 1:17) could ultimately have led to disorder and the defacement of many of the site’s monuments by some faction, or even by the mass of folk rising up against demanding leaders. Eventually, it appears, the power of the hybrid tradition failed to bind together and shore up a divided population.

Some may think this scenario unduly embellishes or strains the sparse data; nonetheless, there are obvious agreements between what the Nephite

34. Michael D. Coe, *America’s First Civilization* (New York: American Heritage, 1968), 58–59.

text says or implies and the archaeology of the terminal La Venta Olmec—in my opinion too many agreements to be credibly explained as coincidence. And after all, all scenarios in the archaeological literature for the disappearance of La Venta and the continuation of fragments of that tradition in later societies are conjectural.

A New Tradition

We turn now to a different stage in the culture history of southern Mesoamerica. The origin of the dominant civilization in that area seems to have been in most ways independent of Olmec influence. Very well-crafted, distinctive pottery was being made from as early as 1900 BC along the Pacific coast of southern Chiapas (during the Barra phase) and perhaps along the Guatemalan coast. After several centuries of local development, direct connections were established between those craftsmen and the isthmian Olmec to the north.³⁵ Yet by 600 BC (the end of the Conchas D period on the coast) the vigor of that local cultural development had largely faded.³⁶ All that remained on that coastal strip after 600 BC were small settlements occupied by disparate rural folk.³⁷

The sixth-century-BC arrival of Lehi's party at some point along the coast would thus have occurred at a time when the area was mostly depopulated and politically inconsequential. The native folks would have had no reason or means to be concerned when the small seaborne party of strangers arrived in southern Guatemala, even if they might have encountered each other. By 400 BC the coastal population had again become somewhat significant.³⁸

35. David Cheetham and John E. Clark, "Investigaciones recientes en Cantón Corralito: Un posible enclave olmeca en la costa del Pacífico de Chiapas, México," in Laporte et al., *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 3–8.

36. Clark and Pye, "Pacific Coast," 217–56.

37. Michael Blake et al., "Radiocarbon Chronology for the Late Archaic and Formative Periods on the Pacific Coast of Southern Mesoamerica," *Ancient Mesoamerica* 6 (1995): 161–83.

38. Laura J. Kosakowsky et al., "Late Preclassic Ceramic Industries of Pacific Guatemala and El Salvador: The Pacific Coast as Core, Not Periphery," *Journal of Field Archaeology* 26 (1999): 377–90; and Francisco Estrada-Belli, "Putting Santa Rosa on the Map: New Insights on the Cultural Development of the Pacific Coast of Southeastern Guatemala," in

Interestingly, as noted above, six centuries ago or even earlier at least one party from East Asia had landed thereabouts, apparently unhindered by the local inhabitants. They used the cut stem end of a plant they had brought with them as a tool with which to daub distinctive painted designs on pots they made.³⁹ That plant could only have been present had it been carried by voyagers from East Asia.⁴⁰ This case tells us that it was possible for a small group of early voyagers to settle successfully and to introduce exotic cultural features to the Pacific coast of Mesoamerica, just as indicated in the Book of Mormon concerning Lehi's party around 580 BC.

The outer coastal strip, however, was not a very desirable environment for settlers. The extreme heat, humidity, and myriad pests in the coastal zone must have made life there discouraging. In his account of life on the same coast in AD 1524, Alvarado complained of four kinds of mosquitoes, venomous flies, stinging bees, scorpions, centipedes, poisonous hairy worms, large serpents, and dangerous vipers.⁴¹ Hunting was the usual economic activity of the inhabitants of these coastal flatlands, and it continued to be so long after the Europeans arrived.⁴²

Most of the native population of Pacific lowland Guatemala preferred to live in the more pleasant piedmont (foothill) area, which lies above 330 feet (100 meters) in elevation.⁴³ Early Spaniards considered this region to be

Incidents of Archaeology in Central America and Yucatán: Essays in Honor of Edwin M. Shook, ed. Michael Love et al. (Lanham, MD: University Press of America, 2002), 110.

39. Laura J. Kosakowsky et al., "Preclassic through Postclassic: Ceramics and Chronology of the Southeastern Pacific Coast of Guatemala," *Ancient Mesoamerica* 11 (2000): 199.

40. John L. Sorenson and Carl L. Johannessen, "Biological Evidence for Pre-Columbian Transoceanic Voyages," in *Contact and Exchange in the Ancient World*, ed. Victor H. Mair (Honolulu: University of Hawai'i Press, 2006), 267.

41. Lawrence H. Feldman, *Papers of Escuintla and Guazacapan: A Contribution to the History and Ethnography of South-Eastern Guatemala*, Occasional Publications in Mesoamerican Anthropology 7 (Greeley: University of Northern Colorado, 1974), 18–19.

42. Sandra L. Orellana, *The Tzutujil Mayas: Continuity and Change, 1250–1630* (Norman: University of Oklahoma Press, 1984), 11–12.

43. Lynette Heller and Barbara L. Stark, "Economic Organization and Social Context of a Preclassic Center on the Pacific Coast of Guatemala: El Balsamo, Escuintla," in *New Frontiers in the Archaeology of the Pacific Coast of Southern Mesoamerica*, ed. Frederick J. Bove and Lynette Heller, Anthropological Research Papers 39 (Tempe: Arizona State

“like Castile” in climate.⁴⁴ In the piedmont, inhabitants had not only a more congenial climate but also easy access to the resources of both the coast and the uplands.

According to the Book of Mormon, “the more idle part of the Lamanites lived in the wilderness” along the littoral plain (Alma 22:28), “dwelling in tents, and wandering about in the wilderness” (Enos 1:20). The highland Nephites denigrated the Lamanites in part because of “the darkness of their skins” (Jacob 3:9). Early Spaniards noted a distinct contrast between the relatively dark-skinned natives living along the coast and people in the nearby highlands, whose skin pigmentation “appeared but little different from the Spaniards.”⁴⁵

The terms the Nephites used to characterize their alienated Lamanite kin were, not surprisingly, highly stereotyped. The Nephite text follows a pattern common to ethnic relations in the ancient Near East, where Sumerian city dwellers of the third millennium BC viewed the Amorites, nomadic desert-dwelling folk, as dark-hued savages.⁴⁶

To seek higher, cooler ground for their residence, the Nephite faction of the original Lehite colonizing party moved inland. After only a season or so on the coast where they had landed, they traveled “up” to the land or valley of Nephi (2 Nephi 5:5–7; compare Omni 1:27–28 regarding the relative elevation of their destination).⁴⁷

University, 1989), 43; and Frederick J. Bove, “Settlement Classification Procedures in Formative Escuintla, Guatemala,” in Bove and Heller, *New Frontiers*, 73–74.

44. Feldman, *Papers of Escuintla and Guazacapan*, 30.

45. Felix Webster McBryde, *Cultural and Historical Geography of Southwest Guatemala*, Institute of Social Anthropology Publication 4 (Washington, DC: Smithsonian Institution, 1945), 9.

46. William F. Albright, *From the Stone Age to Christianity*, 2nd ed. (Garden City, NY: Doubleday/Anchor Books, 1957), 166; and Giorgio Buccellati, *The Amorites of the Ur III Period* (Naples, Italy: Istituto Orientale di Napoli, 1966), 330–32.

47. See also John L. Sorenson, *Mormon's Map* (Provo, UT: FARMS, 2000), 33; and Lawrence H. Feldman, “Moving Merchandise in Protohistoric Central Quauhtemallan,” in *Mesoamerican Communication Routes and Cultural Contacts*, ed. Thomas A. Lee Jr. and Carlos Navarrete, New World Archaeological Foundation Papers 40 (Provo, UT: BYU New World Archaeological Foundation, 1978), 16. While in the coastal setting, the Lehite colony planted seeds they had brought from southwestern Asia, and according to 1 Nephi 18:24 they “flourished.” The experience of pioneers in other places suggests, however, that

Before long the core part of the lowland population, who became known as “Lamanites,” also relocated. They too moved to a higher elevation, in the piedmont where their warriors were in a position to continue attacking the Nephites in the upland area around the city of Nephi.⁴⁸ In their new home they harassed the adjacent Nephites for centuries.

The Rapid Rise of Civilization in the Valley of Guatemala

In the Valley of Guatemala and nearby, the Las Charcas period spanned the seventh through fifth centuries BC; nowhere else in the highlands was there significant settlement at this time, as far as we know. The nature and duration of that period’s remains have not been entirely settled. Popenoe de Hatch, the leading Guatemalan archaeologist on the topic, assumes that Las Charcas fell between 900 and 700 BC.⁴⁹ But no stratigraphic or radiocarbon evidence substantiates such a judgment. Three carbon-14 specimens of Las Charcas material from the Valley of Guatemala average 386 BC (calibrated).⁵⁰ Three more from the neighboring Valley of Antigua average 500 BC.⁵¹ A handful of other relevant samples date to 450, 404,⁵²

initial success for an imported crop does not necessarily mean long-term vigor for it. Some flourishing plants in a new ecological setting may not even turn out to yield viable seed. A case in point is Bishop Diego de Landa’s report in 16th-century Yucatan that “we have set them [the Indians] to raising [European] millet and it grows marvelously well and is a good kind of sustenance.” Alfred M. Tozzer, ed. and trans., *Landa’s Relación de las Cosas de Yucatán: A Translation*, Peabody Museum of American Archaeology and Ethnology Papers 18 (Cambridge, MA: Harvard University, 1941), 196. Yet 350 years later, botanists with the Carnegie Institution who inventoried the plants of Yucatan failed to find any trace of the millet about which Landa had been so enthusiastic. Tozzer, *Landa’s Relación*, 196n1052.

48. John L. Sorenson, *The Geography of Book of Mormon Events: A Source Book*, rev. ed. (Provo, UT: FARMS, 1992), 220.

49. Marion Popenoe de Hatch, “New Perspectives on Kaminaljuyú, Guatemala: Regional Interaction during the Preclassic and Classic Periods,” in Love et al., *Incidents of Archaeology in Central America and Yucatán*, 279.

50. John L. Sorenson, “A Mesoamerican Chronology, 2004,” unpublished monograph.

51. Eugenia J. Robinson et al., “En el final del Preclásico: Kaminaljuyu y su perifería oeste,” in Laporte et al., *XIX Simposio de investigaciones arqueológicas*, 148.

52. Eugenia J. Robinson et al., “El Preclásico en Urías: Una adaptación ambiental y cultural en el Valle de Antigua,” in *XIII Simposio de investigaciones arqueológicas en*

and 380 BC⁵³ (all dates calibrated). These absolute dates in the fifth and early fourth centuries discredit speculations about a much earlier chronology for Las Charcas and agree generally with the age assigned on the basis of ceramic comparisons with other regions. Coe observed, "As for Las Charcas, . . . I can't see it as dating much back beyond 500 BC,"⁵⁴ and Rands agreed.⁵⁵

Recent excavation at the site of Naranjo, a few miles north of Kaminaljuyu,⁵⁶ has revealed more information on that early ceremonial and astronomical location. Some modest public structures show hints of symbolism that possibly go back into late Olmec times. But the 10 resulting radiocarbon dates are ambiguous since nothing is reported about the samples tested or their sources. Virtually all of them fall in the vague range of 700–400 BC.

These technological and methodological considerations all support a date for Las Charcas probably no earlier than 650 BC and no later than 450 BC. In fact, dates on materials for the subsequent (Providencia) phase push the end of Las Charcas back to approximately 500 BC.

Shook and Popenoe de Hatch assume there were public buildings in the Las Charcas period,⁵⁷ but hard data supporting that view are rare. In 1973, from the extensive work of Pennsylvania State University, Kirsch reported

Guatemala, 1999, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2000), 842.

53. See also Stephan F. de Borhegyi, "Depósitos subterráneos en forma de botella y sonajas de barro del Preclásico de Guatemala," *Estudios de cultura maya* 8 (1972): 25–32.

54. Michael D. Coe, "Comment," in Benson, *Dumbarton Oaks Conference on the Olmec*, 131.

55. Robert L. Rands, "Appendix: Outline of Guatemalan Highland Preclassic Figurine Traits by Phase," from Alfred V. Kidder, "Preclassic Pottery Figurines of the Guatemalan Highlands," in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 2:154; and Robert L. Rands and Robert E. Smith, "Pottery of the Guatemalan Highlands," in Wauchope and Willey, *Handbook of Middle American Indians*, 2:125.

56. Bárbara Arroyo, "The Naranjo Rescue Project: New Data from Preclassic Guatemala" (FAMSI, 2007); see <http://www.famsi.org/reports/06109/06109Arroyo01.pdf>.

57. Edwin M. Shook and Marion Popenoe de Hatch, "Las tierras altas centrales: Períodos Preclásico y Clásico," in *Historia general de Guatemala*, ed. Marion Popenoe de Hatch (Guatemala: Asociación de Amigos del País y Fundación para la Cultura y el Desarrollo, 1999), 1:291.

that “no architectural structures have been associated with the Las Charcas phase,”⁵⁸ and Michels, a key excavator and ceramics expert from the same project, noted that “the existence at Kaminaljuyu of a scattered, light [domestic] settlement . . . represents the earliest occupation” of the site and of the Las Charcas period beginning around 650 BC.⁵⁹ Today the only results of building construction positively assigned to Las Charcas are “three low clay platforms,”⁶⁰ although further research may reveal some modest public structures for the era. Overall, the best evidence available places the duration of the Las Charcas period between about 650 and 500 BC.

Prelude to the Rise of Civilization in the Valley of Guatemala

During the Las Charcas period, the inhabitants of the Valley of Guatemala lived in scattered hamlets throughout the area that would become the metropolis of Kaminaljuyu (as well as in parts of two neighboring valleys).⁶¹ Most of what we know about those inhabitants comes from examining the contents of bottle-shaped pits that were filled with household debris rather than from actual house ruins (pits of the identical shape and nature have been excavated in Iron Age Palestine, by the way).⁶²

Quite obviously the handful of Nephites who arrived in the “land of Nephi” were incapable of transferring much Old World material culture to their new scene.⁶³ They had, after all, been significantly deculturized by

58. Richard W. Kirsch, “Mound A-VI-6: A Terminal Formative Burial Site and Early Postclassic House Platform,” in *The Pennsylvania State University Kaminaljuyu Project: 1969, 1970 Seasons, Part I: Mound Excavations*, ed. Joseph W. Michels and William T. Sanders (University Park: Pennsylvania State University, 1973), 328.

59. Joseph W. Michels quoted in David Webster, “The B-V-11 Mound Group: A Middle Classic Elite Residence Compound,” in Michels and Sanders, *Pennsylvania State University Kaminaljuyu Project*, 280.

60. Francisco De León and Juan Antonio Valdés, “Excavaciones en Piedra Parada: Más información sobre el Preclásico medio del altiplano central de Guatemala,” in Love et al., *Incidents of Archaeology in Central America and Yucatán*, 380.

61. Stephan F. de Borhegyi, “Archaeological Synthesis of the Guatemalan Highlands,” in Wauchope and Willey, *Handbook of Middle American Indians*, 2:9.

62. See Beth A. Nakhai, *Archaeology and the Religions of Canaan and Israel* (Boston: American Schools of Oriental Research, 2001), 181.

63. As I demonstrated in John L. Sorenson, “The Composition of Lehi’s Family,” in

their extended travel in Arabia, by a year or two of dwelling on the isolated coast of the Indian Ocean where they built a ship, and by another year or more of sailing across the Indian and Pacific Oceans. Their further sojourn of one or two years on the Pacific coast of the new land would have removed them even further from their technological background in the land of Judah. They must have been ripe for the syncretism of cultures that living among a native Mesoamerican population, of whatever size, would have presented to them.

Mental syncretism, however, would have been a different matter. As deeply involved as they had been in Israelite ideology and religion (as illustrated in the contents of the books of 1 and 2 Nephi in the Book of Mormon), they would have carried many ideas with them and must have attempted to re-create as much of their old homeland's mental world as they could (see chapter 20 herein). Historian Nephi₁ reported that they "did observe to keep the judgments, and the statutes, and the commandments of the Lord in all things according to the law of Moses" (2 Nephi 5:10).⁶⁴

One feature of Guatemalan archaeology that signals the presence of a complex, syncretistic ideology is the rather elaborate incense burners that

By Study and Also by Faith: Essays in Honor of Hugh W. Nibley, ed. John M. Lundquist and Stephen D. Ricks (Salt Lake City: Deseret Book and FARMS, 1990), 2:174–96, the immigrants accompanying Nephi₁ up to the land they called Nephi probably would not have exceeded 8 to 10 adults.

64. Similar situations where syncretism can be seen are reported by J. Eric S. Thompson, *Maya History and Religion* (Norman: University of Oklahoma Press, 1970), who discusses at several points the coexistence of folk Maya culture in Yucatan with what the earliest Spaniards imposed. More striking is the case of the chapel excavated at the Maya/Spanish site of Tanchah and reported in Arthur G. Miller and Nancy M. Farriss, "Religious Syncretism in Colonial Yucatan: The Archaeological and Ethnohistorical Evidence from Tanchah, Quintana Roo," in Hammond and Willey, *Maya Archaeology and Ethnohistory*, 224–39. Excavators found remains of a structure in "Christian form constructed by means of thoroughly Maya building techniques." Here "were it not for the non-Maya configuration of nave, galilee, and high walls on the east end . . . , the complex could easily be taken for one of the many Late Postclassic platforms" that are seen elsewhere on the site (p. 229). This and additional evidence convince the authors that the religious syncretism there was both early and largely voluntary, resulting in a combined cult that "may represent a perfectly coherent system" to the worshippers. They even suggest that "Christ could have been identified in the indigenous mind with Quetzalcoatl or the Maya equivalent, Kukulcan" (p. 239).

appear beginning in the Las Charcas period.⁶⁵ Close correspondences exist between them and certain Near Eastern incense fixtures.⁶⁶

Two Groups of Contrasting Ethnic Appearance at Early Kaminaljuyu

At Kaminaljuyu, the political center in the Valley of Guatemala, figurines characteristic of Las Charcas and the succeeding Providencia period are quite naturalistic, showing some men but mostly seated women, often pregnant or holding an infant. It is interesting that the representation of skin color on these figurines falls into two categories.⁶⁷ One skin color was a reddish brown, and the second color was created from a light-colored clay (or else the body was covered with a white slip, a wash of a clay solution over the object).⁶⁸ To an observer's eye, the figurines represent the skin of the living models as either a whitish or reddish-brown shade. It is not implausible that the reddish-brown and whitish skin colors of the figures represent "two racially distinct groups of people," as Proskouriakoff phrased it when she contrasted physical types on La Venta Stela 3. The Las Charcas figurines seem to suggest that two distinct ethnic groups coexisted in the sixth-century-BC Valley of Guatemala.

Equally striking is a "big break" in the figurine sequence⁶⁹ that distinguishes the Las Charcas–Providencia (before 200 BC) types from those that follow in the Verbena–Arenal periods. Figurines from the latter periods are uniformly reddish brown. In other words, *no* post-Providencia (200 BC) figurines are represented with whitish skin. The complete absence of light-hued figures of this later time period suggests that the presence of two shades

65. See Stephan F. de Borhegyi, "A Study of Three-Pronged Incense Burners from Guatemala and Adjacent Areas," *Notes on Middle American Archaeology and Ethnology*, no. 101 (Washington, DC: Carnegie Institution of Washington, 1951), 100–24; de Borhegyi, "Further Notes on Three-Pronged Incense Burners and Rim-Head Vessels in Guatemala," *Notes on Middle American Archaeology and Ethnology*, no. 105 (Washington, DC: Carnegie Institution of Washington, 1951), 162–76; and de Borhegyi, "Figuras de incensarios de tres picos de la colección 'Raul Moreno,' Guatemala," *Antropología e historia de Guatemala* 10/2 (1958): 13–15.

66. See chapter 20 herein and Sorenson, *Complex of Ritual and Ideology*.

67. These categories are also discussed in chapter 12 herein.

68. Kidder, "Preclassic Pottery Figurines," 151.

69. Rands, "Guatemalan Highland Preclassic Figurine Traits," 154, 155.

in the earlier centuries was not a matter of technological happenstance but rather that the two skin tones were actually mirrors of the population being represented. We can conjecture plausibly that the light-skinned persons disappeared from the population in the Valley of Guatemala at the end of the Providencia period, around 200 BC.

The Book of Mormon indicates that upon arrival at the Pacific coast, the Israelite party was “white, and exceedingly fair” (2 Nephi 5:21). The Nephites believed that in order to distinguish the Lamanites from their group, their God induced a difference in skin color between them and their kin whom they left behind on the coast. The text implies that the Nephites continued to be “fair” of complexion, while their rivals (at least as seen by Nephite eyes) thereafter exhibited a skin of “darkness” or even “blackness” (2 Nephi 5:21; Jacob 3:8–9; Alma 3:6). The text says nothing about any physical mechanism that might have produced this contrast.

It is plausible that the Israelite newcomers (i.e., the lineage of Nephi₁, as well as that of Laman₁ and his brother Lemuel) gained political ascendancy over a scattered native population. Laman₁ and Lemuel especially were avid for political power, so they would quickly have sought rulership over the “indigenous” population in their area as would the Nephites over time in theirs. When the Nephites later met their Lamanite neighbors in conflict situations, those they glimpsed (obviously without comparing genealogies with the antagonists!) confirmed in Nephite eyes the application of “the [racial] curse.” (The text gives no hint that any Nephite ever so much as glimpsed any of the actual overseas immigrants of the Laman/Lemuel faction once the original party had split up).⁷⁰

As far as the Nephites were concerned, the population of the “Land of Nephi” between 580 and about 200 BC, according to the Book of Mormon text and its implications, would have consisted of “fair” Nephites of Israelite descent, native Las Charcas inhabitants (presumably of slightly darker color) who had been incorporated into the polity ruled by the Nephite elite, and

70. The naive power of belief in racial labels was shown among the Latter-day Saint pioneers in their early dealings with Native Americans in the mid-19th-century West. With very rare exceptions, they considered all Amerindians “Lamanites.” Jared Farmer, *On Zion's Mount: Mormons, Indians, and the American Landscape* (Cambridge, MA: Harvard University Press, 2008), 55–59.

nearby “Lamanites” of “dark” visage who lived in the hotter coastal and foothill (piedmont) zones. The skin shades of surviving native peoples in Mesoamerica, in fact, range from dark brown to virtual white.⁷¹ These shades cover nearly the same range as were found anciently around the Mediterranean Sea and in the Near East.

When the Nephites under Mosiah₁ fled from the land of Nephi down to Zarahemla (Omni 1:12–13), fair-skinned models were presumably no longer present in the highlands for the artists who made clay images. Thus figurines became exclusively “dark.” The timing of Mosiah₁’s departure (in the range estimated between 250 and 200 BC), when he led away the last remnant of the relatively fair population, coincides broadly with the archaeological shift from the Providencia to the Verbena period—that is, it coincides with the change in figurine surface colors.

In the land of Israel, white-slipped female figurines were common at the time when Lehi’s party left Jerusalem. Zevit observes, “Most figurines [at Tell en-Nasbeh, dated to the seventh to fifth centuries BC] . . . were covered with a white wash.”⁷² In the catalog of figurines from digs at the City of David in Jerusalem between 1978 and 1985, Gilbert-Peretz describes hundreds of figurines.⁷³ Roughly 9 out of 10 of these bore either a white slip or “remains of white slip.” This artistic practice “definitely flourished from the 8th to the 6th centuries BCE.”⁷⁴ The practice is of course contemporary with the departure of the Lehites and Mulekites for Mesoamerica and with the Las Charcas period of Guatemala, when, we suppose, the Nephites arrived there. Apparently Israelite ceramicists of that period deemed white-skinned figures important for cult purposes.

71. See, for example, photographs in John L. Sorenson, *Images of Ancient America: Visualizing Book of Mormon Life* (Provo, UT: Research Press, 1998), 22–23.

72. Ziony Zevit, *The Religions of Ancient Israel: A Synthesis of Parallaxic Approaches* (London: Continuum, 2001), 271.

73. Diana Gilbert-Peretz, “Ceramic Figurines,” in *Excavations at the City of David, 1978–1985, Directed by Yigal Shiloh*, ed. Donald T. Ariel and Alon de Groot, vol. 4 (Jerusalem: Hebrew University of Jerusalem, Institute of Archaeology, 1996), appendix A.

74. Gilbert-Peretz, “Ceramic Figurines,” 39.

The Size of Populations in the Valley of Guatemala

The onset of the Verbena period (ca. 200 BC) saw some population decline in the valley,⁷⁵ as one might expect with the departure of Mosiah₁'s group out of the land of Nephi. It may also have been a time of armed, or at least of social, conflict. A certain pyramid complex at Kaminaljuyu "was burned at this time, and sacrificial victims were incorporated into the subsequent building enlargement that covered up evidence of the burning. It is possible that some of the elegant carved stone monuments, such as thrones and low relief stelae, were also defaced and/or broken at this time." It also appears "that there may have been some inter-polity warfare involved."⁷⁶ The threat of warfare probably was part of the reason for the departure of Mosiah₁'s group. The Nephite record mentions wars and conflicts that culminated in that departure (Jarom 1:12–13; Omni 1:2–3, 5–7, 12).

Returning to events in the crucial Providencia period (after 500 BC), we see through the archaeological remains that around 500 BC Kaminaljuyu rather quickly began to acquire urban dimensions. Between then and about 200 BC, a striking population and culture expansion at and around Kaminaljuyu turned the place into a center of civilization, the earliest in southern Mesoamerica. At this time "many of the major structures were built,"⁷⁷ and "the start of the architectonic growth"⁷⁸ turned the place into a major city.

That degree of development is confirmed by a series of construction

75. Carson N. Murdy, "Prehispanic Settlement and Society in the Valley of Guatemala, 1500 B.C.–A.D. 1524," in *Arqueología mesoamericana: Homenaje a William T. Sanders*, ed. Alba G. Mastache et al. (Mexico City: Instituto Nacional de Antropología e Historia, 1996), 2:79–107.

76. John E. Clark et al., "La zona maya en el Preclásico," in *Historia antigua de México*, ed. Linda Manzanilla and Leonardo López Luján, 2nd ed. (Mexico City: Instituto de Investigaciones Antropológicas, 2000), 1:476, 480.

77. Juan Antonio Valdés, "Kaminaljuyú, Guatemala: Descubrimientos recientes sobre poder y manejo hidráulico," in *Memorias del Tercer Congreso Internacional de Mayistas, 9 al 15 de Julio de 1995* (Mexico City: Universidad Nacional Autónoma de México, 1998), 762.

78. Tomás J. Barrientos, "Evolución tecnológica del sistema de canales hidráulicos en Kaminaljuyú y sus implicaciones sociopolíticas," in *X Simposio de investigaciones arqueológicas en Guatemala, 1996*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1997), 62.

activities that demanded a considerable level of technical expertise and administrative skill. These building projects had to have been planned and backed by leadership that had power to organize and direct a large labor force over years of preparation, construction, and maintenance. Unfortunately, our knowledge of these developments from archaeology remains fragmentary. A comparative handful of archaeologists with only limited resources has struggled to discover what took place, all while facing the progressive destruction of the ancient ruins as suburban Guatemala City has sprawled over the site of the ancient city.

Excavations have revealed that from a small beginning base in the Las Charcas period, the population expanded from fewer than 10 hamlets to the substantial Providencia-period city.⁷⁹ We can judge its urban status by estimating the size of the labor force that would have been required to accomplish the projects undertaken.

The city built by Nephi₁ began with a major visionary project in about 575 BC and progressed from that point for at least some centuries. Culture hero Nephi₁ initially taught his people “to erect buildings,” work in industrial crafts, and build a temple modeled on the Old World temple of Solomon (no trace of such a structure has yet been found). The population of immigrants would have been tiny in the first generation; as noted earlier, only about eight adult Israelites were in the original party that entered the land of Nephi. Two centuries later the population (obviously including native “others”)⁸⁰ had “multiplied exceedingly” and had become “exceedingly rich” in buildings and machinery. They had also fortified their cities (Jarom 1:7–8). The picture presented is one of continued urban growth through the period corresponding in time to the late Las Charcas and Providencia periods.

79. The population center eventually occupied an area of five or six square miles, according to de Borhegyi, “Archaeological Synthesis,” 13; Jonathan Kaplan, “From under the Volcanoes: Some Aspects of the Ideology of Rulership at Late Preclassic Kaminaljuyu,” in Love et al., *Incidents of Archaeology in Central America and Yucatán*, 312; and Antonia E. Foias, “Kaminaljuyu,” in *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*, ed. David Carrasco (Oxford: Oxford University Press, 2001), 2:80.

80. John L. Sorenson, “When Lehi’s Party Arrived in the Land, Did They Find Others There?,” *Journal of Book of Mormon Studies* 1/1 (1992): 1–34.

Further Major Construction

One of the most impressive features at Kaminaljuyu, although little known even to archaeologists, is the “Great Wall.” In the 1990s Japanese archaeologists uncovered a 50-meter (164-foot) length of it (no more could be excavated because modern buildings had been built on adjacent land).⁸¹ What they discovered was the remains of a steep earthen rampart 25 feet (7.6 meters) high. This was a remnant of a wall that surrounded the early city. (There would have been no point in erecting it if it had remained incomplete.) The excavators assigned the wall to their “Kaminaljuyu I” period, before 500 BC⁸²—that is, equivalent to the Las Charcas period, although the evidence is not entirely clear on that point.

The Lehites were, of course, fully acquainted with the massive wall around their home city of late Iron Age Jerusalem (1 Nephi 4:5). Presumably the wall originally built around the city of Nephi would have been functionally similar, although it was no doubt constructed of different materials (compare 2 Nephi 5:16 about materials for their temple). That wall was still in place at Nephi before Mosiah₁'s departure for Zarahemla. The Great Wall that the Japanese archaeologists discovered could very well be part of the original Nephites' wall; at least it coincides with it both conceptually and chronologically. The Nephites' wall apparently needed consistent repair in order to retain its protective power. When the Zeniffites returned to the city of Nephi and reoccupied it, only a few years after Mosiah₁'s people of Nephi had abandoned the site, they immediately began to “repair the walls of the city” (Mosiah 9:8) to restore functionality. The wall found by the Japanese archaeologists was simply of piled-up earth, probably coated with a layer of clay. It would have been subject to erosion by rains and thus would have required systematic maintenance.

Another striking but still enigmatic feature of Kaminaljuyu is the

81. Kuniaki Ohi et al., “Los resultados de las investigaciones arqueológicas en Kaminaljuyu,” in Laporte and Escobedo, *X Simposio de investigaciones arqueológicas en Guatemala, 1996*, 93–100.

82. Kuniaki Ohi, ed., *Kaminaljuyu (1991–'94)*, 2 vols. (Tokyo: Museo de Tabaco y Sal, 1994), fig. 11-8.

Montículo de la Culebra (the Mound of the Serpent).⁸³ Until a few years ago this construction was thought to be the remains of an aqueduct constructed to supply water to Guatemala City in the Colonial era. A number of excavations have since revealed, however, that the mound was initiated almost two millennia earlier, in the Las Charcas period. But it was constructed mainly in the Providencia period and the century that followed (the Verbena period).⁸⁴ The continuous earthen elevation was constructed in sections running along the continental divide (watershed) that passes through the site of Kaminaljuyu. Why the ancients built the mound is unclear—it may have served them as an aqueduct, a defensive system, or a number of other things. Whatever the intent, the result was a massive public work, more than 3 miles (5 km) in length and at points attaining a height of 40 feet (12 m). It has even been called “the largest mound in Mesoamerica.”⁸⁵

Another of the impressive early public works projects at Kaminaljuyu was the Miraflores Canal, once the largest irrigation system in Mesoamerica⁸⁶ and perhaps the earliest.⁸⁷ This 0.6 mile (1 km)-long channel, up to 13 feet (4 m) wide and 19 feet (6 m) deep, conveyed water from a lake near the center of the metropolitan area to fields on rich soil south of the city. There the people carried out large-scale production of crops in *tablones*—water-enclosed planted areas that could be cultivated year-round.⁸⁸ A system

83. The location is shown on the map in Blanca Ohi and Kimiki Tsuruga, “Capítulo I: Los mayas y la naturaleza,” in Ohi, *Kaminaljuyu (1991–’94)*, 38.

84. Edgar René Ortega et al., “El Montículo de la Culebra, Kaminaljuyu: Proyectos de rescate arqueológico,” in *IX Simposio de investigaciones arqueológicas en Guatemala, 1995*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1996), 461; Foias, “Kaminaljuyu,” 80; and Sergio Ericastilla and Shione Shibata, “Historia de las investigaciones arqueológicas en Kaminaljuyú y el Montículo de la Culebra,” in *Primer informe de exploraciones arqueológicas*, ed. Kuniaki Ohi (Tokyo: Museo de Tabaco y Sal, 1991), 33–52.

85. Ericastilla and Shibata, “Historia de las investigaciones arqueológicas,” 41.

86. Foias, “Kaminaljuyu,” 80.

87. Valdés, “Kaminaljuyú, Guatemala,” 751–58.

88. For a hypothetical visualization, see Marion Popenoe de Hatch, *Kaminaljuyu/San Jorge, evidencia arqueológica de la actividad económica in el Valle de Guatemala, 300 a.C. a 300 d.C.* (Guatemala: Universidad del Valle de Guatemala, 1997), 95.

of timber gates controlled the flow in the canal.⁸⁹ The system was conceived and constructed during the Providencia period, although limited excavation does not allow the earliest form to be discerned now.⁹⁰ The inhabitants of Kaminaljuyu built many of its major structures at that time, demonstrating the growth in population that this ecological arrangement both permitted and required.⁹¹

Environmental Correlations in the Valley of Guatemala and the Land of Nephi

Specific environmental factors in the land of Nephi have highland Guatemalan correspondences. The crop we know by the terms *corn* and *maize* (*Zea mays*) has been known in Mesoamerica for at least 5,000 years, as explained in chapter 16. For more than 2,000 years it was the premier crop that sustained much of the Mesoamerican population. Its cultivation has been dependent on human care for so long that the ancestral plant from which it originated millennia ago is not entirely clear. So when corn is mentioned in the book of Mosiah (7:22; 9:9, 14) as being a favorite crop among the Zeniffites and their Lamanite neighbors, some explanation is required as to where and how they obtained it. Lehi₁'s immigrant party did not, of course, bring it with them, for it was unknown in their part of the world at the time they departed (it did arrive in Asia later on, long before Columbus).⁹² The only plausible explanation for Book of Mormon maize is that the crop was being grown by native inhabitants of the "promised land" when the Israelite colonists arrived. Nephite farmers could only have inherited the seed and knowledge of its care from Jaredite-era folks, probably through Mulekite intermediaries.

89. Popenoe de Hatch, *Kaminaljuyu/San Jorge*; Shook and Hatch, "Las Tierras Altas Centrales," 289–318; and Valdés, "Kaminaljuyú, Guatemala," 751–70.

90. Barrientos, "Evolución tecnológica," 39–40, 62–63; and Ortega et al., "El Montículo de la Culebra, Kaminaljuyu," 461.

91. Valdés, "Kaminaljuyú, Guatemala," 756.

92. See Sorenson and Johannessen, "Biological Evidence," 251–54; and Carl L. Johannessen, "Maize Diffused to India before Columbus Came to America," in *Across before Columbus? Evidence for Transoceanic Contact with the Americas prior to 1492*, ed. Donald Y. Gilmore and Linda S. McElroy (Edgecomb, ME: New England Antiquities Research Association, 1998), 111–24.

Two other environmental situations present in the land of Nephi also have specific parallels in highland Guatemala. In the land of Nephi, the prophet Abinadi warned Zeniffite king Noah and his people of a divine decree against them: “I will send forth hail among them, and it shall smite them; and they shall also be smitten with the east wind; and insects shall pester their land also, and devour their grain. And they shall be smitten with a great pestilence” (Mosiah 12:6–7). While the scripture fails to record a fulfillment of this threat, it turns out that it constituted a valid concern if the land of Nephi was indeed in and around the Valley of Guatemala.

Geographer F. W. McBryde explained that certain meteorological situations in the valley can produce an extremely drying wind from the northern or northeastern quadrant. (Recall that in the *Popol Vuh*, the sacred history of the Quiché people, “the east” is actually the sector toward Tabasco or Campeche, which in our modern terminology would be the north. Quiché Maya representatives went to the east, to that sector, to obtain credentials from a place called Tulan in order to validate their right to rule.⁹³ Hence a wind from today’s north direction would have been an “east” wind to them.) When these unusual *norte* (north) winds prevail, they hold back the moist air from the Pacific side that typically flows into the highland valleys daily. As a result, the usual life-giving showers cease. Fire danger heightens as drying gusts of this “east” wind reach up to 35 miles an hour (56 kph). From March through May great hailstorms occasionally accompany such winds as the strong surge of dry air at ground level converges along the coast with moist Pacific air. This phenomenon produces huge thunderheads that drift inland above the northerly (east) surface wind.⁹⁴ Damaging hail then strikes the southern mountain valleys, including what we consider the land of Nephi.

The prophesied insects, which were surely locusts, are also a known feature of nature in the same area. These migratory pests periodically caused

93. Adrián Recinos et al., trans., *Popol Vuh: The Sacred Book of the Ancient Quiché Maya* (Norman: University of Oklahoma Press, 1950), 68–69.

94. Felix Webster McBryde, “Studies in Guatemalan Meteorology (I): The Climate of Southwest Guatemala,” *Bulletin of the American Meteorological Society* 23 (1942): 254–56; and McBryde, “Studies in Guatemalan Meteorology (II): Two Weather Types in Southwest Guatemala,” *Bulletin of the American Meteorological Society* 23 (1942): 400–406.

great destruction to cornfields in both highland Guatemala and the Yucatan Peninsula.⁹⁵ The climate of the dry interior Motagua River valley especially, only 20 or so miles (32 km) “east” from our presumed land of Nephi, could favor development of these insects. Dry *norte* winds could well have driven the swarms the few miles to the Zeniffites’ fields. The *Annals of the Cakchiquels*, one of the traditional histories from highland Guatemala, mentions two locust infestations that occurred shortly before the Spanish conquest, and there must have been many in ancient times.⁹⁶ Food shortages that resulted from destructive weather and locust infestations are known historically to have brought malnutrition and pestilence in their wake.⁹⁷ The prophecy of Abinadi about such natural phenomena seems at first glance to be phrased in arbitrary prophetic poesy, but in the Guatemalan setting we propose as the land of the Zeniffites, such natural events turn out in fact to be logically and integrally linked.

Continued Growth in Kaminaljuyu

More expansion in the centuries of the Providencia period (and on into the Verbena period after 200 BC) converted Kaminaljuyu into a truly great city.⁹⁸ During the time of growth, an area of large structures was built adjacent to the Miraflores Canal. Those buildings are interpreted as having housed the on-site administration for the irrigation project. Valdés has conjectured that the elite of the city likely lived in the center of the metropolis, to the north, perhaps around giant Mound E-III-3.⁹⁹

Of course, such a society would be socially stratified. Specialized social elements would be set apart both residentially and in terms of privileges and

95. George C. Shattuck, *The Peninsula of Yucatan: Medical, Biological, Meteorological and Sociological Studies*, Publication 431 (Washington, DC: Carnegie Institution, 1933), 22.

96. Daniel G. Brinton, *The Annals of the Cakchiquels* (1885; repr., New York: AMS Press, 1969), 167, 192.

97. Shattuck, *Peninsula of Yucatan*, 22.

98. De León and Valdés, “Excavaciones en Piedra Parada,” 385; and Valdés, “Kaminaljuyú, Guatemala,” 762.

99. Valdés, “Kaminaljuyú, Guatemala,” 768; and Juan Antonio Valdés, “El proyecto Miraflores II dentro del marco Preclásico de Kaminaljuyu,” in Laporte and Escobedo, *X Simposio de investigaciones arqueológicas en Guatemala, 1996*, 83.

markers of rank difference. For example, archaeologists refer with some confidence to certain sumptuous structures (ruins) at Kaminaljuyu as “palaces,” and that seems a reasonable inference, considering the complex government that such a kingdom would require.

A thoroughgoing civilization definitely flourished at this site and time. The scope of the major civic projects undertaken during the Providencia period demonstrates a centralized power of government¹⁰⁰ that points clearly to a state level of sociopolitical organization. A complex iconography (body of symbols), especially visible on incense burners, and a corresponding mythology were also present. Together these features leave no doubt about the complexity of the society. Valdés says of the Verbena period, “Writing and iconography were amply represented on the sculpted monuments.”¹⁰¹ These could not have sprung up overnight, as it were, in the Verbena period. Multiple forms of art and writing show up in the Valley of Guatemala and vicinity,¹⁰² likely reflecting several differing political units. A form of hieroglyphic writing is acknowledged to have been in use by perhaps 400 BC at Kaminaljuyu.¹⁰³ Kaplan “suggest[s] that Kaminaljuyú’s Preclassic writing system may be considered evidence that . . . Kaminaljuyú constituted a highly complex sociopolitical entity, because . . . other evidence in addition to the presence of writing supports revaluing higher Preclassic Kaminaljuyú’s accomplishments.”¹⁰⁴

Other accoutrements of advanced culture were also present. Astronomical observations were systematically carried out as early as the Las Charcas period, judging by the existence of stelae alignments thought to

100. Valdés, “Kaminaljuyú, Guatemala,” 762, 768.

101. Valdés, “Kaminaljuyú, Guatemala,” 768.

102. For example, Tatiana Proskouriakoff, “Early Architecture and Sculpture in Mesoamerica,” in *Observations on the Emergence of Civilization in Mesoamerica*, ed. Robert F. Heizer and John A. Graham, Contributions 11 (Berkeley: University of California Department of Archaeology, 1971), 150; and David A. Freidel, “Civilization as a State of Mind: The Cultural Evolution of the Lowland Maya,” in *The Transition to Statehood in the New World*, ed. Grant D. Jones and Robert R. Kautz (Cambridge: Cambridge University Press, 1981), 191, 200.

103. David F. Mora-Marín, “Kaminaljuyu Stela 10: Script Classification and Linguistic Affiliation,” *Ancient Mesoamerica* 16/1 (2005): 64.

104. Kaplan, “From under the Volcanoes,” 354.

have been used in sightings on heavenly bodies. These facilities are at the sites of Naranjo and Padre Piedra and perhaps elsewhere in the Valley of Guatemala.¹⁰⁵ Shook observed that up to 13 stelae, in the form of either unworked basalt columns or massive, flattish stones weighing many tons, were set upright in rows at Naranjo, near Kaminaljuyu.¹⁰⁶ These were probably involved in astronomical/solar sightings associated with the calendar that must have been used to schedule rituals and perhaps agricultural practices.¹⁰⁷

More than 300 sculpted monuments in several artistic styles were created during the Late Pre-Classic era in the Valley of Guatemala,¹⁰⁸ starting as early as the beginning of the Providencia period (500 BC). The meaning of the figures, icons, and written characters represented on the monuments has not been deciphered (in some cases the characters were purposely mutilated in ancient times, suggesting political or ethnic rivalries),¹⁰⁹ but it is plausible that they were part of mature ideological systems that took shape at that time. In fact, without a unifying, orthodox scheme of thought—ideas, images, icons, and myths expressing a particular worldview—the society probably could not have carried out the ambitious tasks that left the impressive material manifestations at cosmopolitan Kaminaljuyu from 500 BC to 100 BC.

Some of the archaeological manifestations of ideology include the incense burners (in several varieties) already mentioned. They were obviously associated with the ceremonial use of incense; some scholars have supposed that the images or icons on those burners were related to worship aimed at producing or guaranteeing timely rains. Pyramids, or truncated conical mounds, also revealed aspects of the people's ideology. They apparently signified mountains, by analogy with what we know of later

105. Álvaro Jacobo, "Resultados preliminares de las excavaciones de rescate arqueológico en el área sur de la laguna El Naranjo, Kaminaljuyu," in *V Simposio de investigaciones arqueológicas en Guatemala, 1991*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1992), 33; de Borhegyi, "Archaeological Synthesis," 13; and Arroyo, "Naranjo Rescue Project."

106. Edwin M. Shook, "Lugares arqueológicos del altiplano meridional central de Guatemala," *Antropología e historia de Guatemala* 4/2 (1952): 22.

107. Valdés, "El proyecto Miraflores II," 83.

108. Foias, "Kaminaljuyu," 82.

109. Valdés, "Kaminaljuyu, Guatemala," 756.

mounds. Archaeologists also use the term *temples* to describe some of the structures they have found (although the definition of a “temple” remains rather vague). Burial mounds are also thought to have been present as early as Providencia times.¹¹⁰ If so, they would have honored the leaders of highest prestige in the society. A well-developed ideological system, like the ambitious public works, attests to the growing power and influence of Kaminaljuyu.

The Complex Culture History of the Land of Nephi/Valley of Guatemala

The Book of Mormon equivalent of the Valley of Guatemala was called the land of Nephi (see chapter 7). In the period from 200 BC to around 50 BC, that area was home to several cultures, according to the Nephite record. Ideological concepts and associated practices repeatedly changed. First, the original Nephites nominally followed the law of Moses in whatever way their tradition construed that set of ideas and practices. It probably was hybridized into a Nephite-native syncretic scheme of thought and practice.

Upon the Nephites’ departure for Zarahemla (ca. 200 BC), an extension of the Lamanite kingdom occupied the land of Nephi. The center of that kingdom was in the foothill zone toward the west sea (Pacific) coast.¹¹¹ Soon the Zeniffites, a spin-off of Nephite/Mulekite society, appeared in the land of Nephi. That group lasted three generations while trying to coexist with the Lamanites. Still later, further varieties of belief systems and accompanying societies or factions interacted in the land of Nephi—Amulonites, Amalekites, various other Nephite dissenter elements, and the Anti-Nephi-Lehies, at the least. The scriptural record reveals a complex social and cultural picture just as art history and archaeology now acknowledge to be present in highland Guatemala at the same time period.

110. Carl A. Bebrich, “Mound B-III-1 Excavation,” in *The Pennsylvania State University Kaminaljuyu Project: 1968 Season, Part I—The Excavations*, ed. Joseph W. Michels and William T. Sanders, Department of Anthropology Occasional Papers 2 (University Park: Pennsylvania State University, 1969), 45–98.

111. Sorenson, *Geography of Book of Mormon Events*, 334, para. 1.22.

A Shared Tradition of Early Culture

Archaeologists have demonstrated that the Pre-Classic period in the Valley of Guatemala shared a considerable number of cultural features with the area to the immediate south and east. “A single unified archaeological pattern extended across this part of the southeastern highlands” (and Pacific lowlands).¹¹² This cultural sphere extended to include the site of Chalchuapa in inland western El Salvador, as well as much of the piedmont and Pacific coastal plain in that direction, but it did not go westward much beyond Kaminaljuyu. This cultural sphere was first defined in terms of shared ceramics; however, figurine, sculptural, and architectural styles have confirmed the picture. To Demarest and Sharer the data suggested that “the degree of commonality in the material culture of these sites is sufficient to imply that a single ethnic or even linguistic group occupied the entire region in the Late Pre-Classic period.”¹¹³

The existence of such a culture area is evident through the successive Providencia, Verbena, and Arenal periods in the Kaminaljuyu sequence—that is, from around 500 BC to AD 50. Mesoamericanists are yet uncertain about whether the common features of technology, art, and ideology that define the sphere indicate that the several subregions fell under a single structure of rulership or that the people of the component regions were united incidentally by trade, language, and culture.

The early Lamanites, before Mosiah₁'s departure from the land of Nephi for Zarahemla, dwelled in the land of their “first inheritance” (Alma 22:28) near the coast where they first landed and also in the foothill area nearer the city or land of Nephi.¹¹⁴ After a large body of Nephites left the land of Nephi, the Lamanite kingdom and its associated culture area extended its control to the city of Nephi (renamed Lehi-Nephi), correlated here with Kaminaljuyu. The Lamanite area encompassed a territory that correlates closely with the Providencia/Miraflores cultural sphere just described. The

112. Arthur A. Demarest and Robert J. Sharer, “Late Preclassic Ceramic Spheres, Culture Areas, and Cultural Evolution in the Southeastern Highlands of Mesoamerica,” in *The Southeast Maya Periphery*, ed. Patricia A. Urban and Edward M. Schortman (Austin: University of Texas Press, 1986), 214.

113. Demarest and Sharer, “Late Preclassic Ceramic Spheres,” 220.

114. Sorenson, *Geography of Book of Mormon Events*, 250–51, 334.

cultural sharing throughout that area could be explained in part by the fact that the population (at least the leadership) shared a partial (hybridized) Israelite/Lamanite ancestry, in part because the area was a common economic and ecological zone, and in part because Lamanite kings ruled over the zone (see Mosiah 7 and 19), resulting in social, political, and ritual commonalities.

As we have seen, the Providencia period saw rapid cultural development. Valdés found it “surprising how rapidly the occupants of Kaminaljuyu achieved a complex social organization”¹¹⁵ as the seat of southern Mesoamerica’s first true civilization. They reached that level by 400 BC if not earlier.

Syncretism in the Formation of the “Nephites” and “Lamanites”

We have already seen a number of ways in which the archaeological history of the piedmont and Valley of Guatemala matches what the Nephite historical record reports. Let us recapitulate those and add further correspondences.

According to Nephite history, the party of Lehi arrived in “the promised land” in the vicinity of 585–580 BC. Within a very few years, Nephi₁ led his faction from the coast up to “the land of Nephi,” very probably the Valley of Guatemala. To successfully meet their subsistence needs in the new land, the pioneers would have depended on cultural borrowing from native inhabitants already living there—that is, from the scattered native people present in the early part of the Las Charcas period. (Recall that the Pilgrims who arrived at Massachusetts Bay in the early 1600s survived only because they learned certain basic subsistence techniques from friendly and helpful Amerindian people.) The tiny but culturally more advanced Nephite lineage would have dominated the locals they as they encountered, following a Mesoamerican pattern in which intruding lineages of foreigners become lords over local people.¹¹⁶

115. Valdés, “El proyecto Miraflores II,” 81.

116. Compare Andrea Stone, “Disconnection, Foreign Insignia, and Political Expansion: Teotihuacan and the Warrior Stelae of Piedras Negras,” in *Mesoamerica after the Decline of Teotihuacan, A.D. 700–900*, ed. Richard A. Diehl and Janet C. Berlo (Washington, DC: Dumbarton Oaks, 1989), 166–67.

To the resulting hybrid society, the native population would have contributed knowledge of the cultivation and use of various crops (especially vital maize), knowledge of how to find and utilize a range of other natural resources (especially for constructing shelters), and practical knowledge of the local geography and climate. Otherwise, how would Nephi₁ and his inexperienced colleagues have known what material they could use to build a temple (2 Nephi 5:16)? And, incidentally, where would the necessary workmen have come from, since Nephi₁'s group included no more than five able-bodied Israelite men (Nephi₁, Sam, Zoram, and possibly Jacob and Joseph)?

The newcomers would have brought knowledge of certain advanced traits—for example, writing and books, ideas of governance, and an array of ideological notions and ritual practices (as suggested in chapter 20). Since the colonists would probably not have been highly skilled in most areas of technology they needed to employ, the hybridization process would have involved mostly stimulus diffusion rather than a more direct transfer. Stimulus diffusion occurs when conditions for the adoption of a transferred cultural feature are not fully met,¹¹⁷ yet the idea behind the feature is sufficiently attractive that, in a sense, the original concept is adapted or reinvented¹¹⁸ in terms of local materials, skills, and needs.

Critics often denigrate assertions of this process of diffusionary synthesis as racism. They charge that proponents of the idea of cultural borrowing (“diffusionists”) hold that the natives were not intelligent enough to have invented ideas in parallel to those in Old World civilizations. But identifying the origin of the cultural innovations is not a matter of imputed or inferred intelligence. It is a simple matter of answering the question, what really happened?¹¹⁹

Nephi₁'s building a temple “after the manner of the temple of Solomon”

117. Alfred L. Kroeber, “Stimulus Diffusion,” *American Anthropologist* 42 (1940): 1–20.

118. As in the “dependent invention” of Earl H. Lubensky, “Valdivia Figurines,” in *The New World Figurine Project*, ed. Terry Stocker (Provo, UT: Research Press, 1991), 33.

119. The best refutation of the charge of racism is by David H. Kelley, “An Essay on Pre-Columbian Contacts between the Americas and Other Areas, with Special Reference to the Work of Ivan Van Sertima,” in *Race, Discourse, and the Origin of the Americans: A New World View*, ed. Vera L. Hyatt and Rex Nettleford (Washington, DC: Smithsonian Institution, 1995), 103–22.

(2 Nephi 5:16) was of course a case of stimulus diffusion. Surely he, a young nonpriest when he lived at Jerusalem, knew little about architectural, conceptual, or constructional details of the Iron Age/First Temple period at Jerusalem, even though he had no doubt seen it often. What he brought with him was the *idea* of the (or at least of *a*) temple and how it should look and function. Thus “after the manner of the temple of Solomon” leaves us to infer details loosely. It is quite plausible that many of the cultic traits listed in chapter 20, not to mention technological traits that Mesoamerica had in common with the Near East, owe their New World presence and form to some version of this process of reinvention or adaptation mediated by the Nephites.

Concerning the beginning of his people’s government, Nephi, reported that they “would that I should be their king” (2 Nephi 5:18). He was reluctant to subject them to what he saw as such a burden; nevertheless he wrote, “I did for them according to that which was in my power” (v. 18), meaning, yes, he became their king. Decades later, upon his death, his successor was given the title *Second Nephi*, “according to the reigns of the kings” (Jacob 1:11). In short, the title *Nephi* became equivalent to *Caesar* among the Romans, which name evolved into, for example, the title *Czar* in Russia. The cultural content and context of the phrase “according to the reigns of the kings” must mean “according to the norms surrounding the office of the kings of Judah,” for Judaic kingship was the only royal office with which Nephi was acquainted (his copy of Judaic scriptural history—the plates of brass—would have told him much about how those kings operated). Again, the detailed form of the transferred cultural patterns would have been subject to substantial interpretation and modulation because of the Nephites’ limited knowledge of details of that aspect of Israelite/Judaic culture.

A Mesoamerican instance of the practice of using a personal name as a royal title was presented in chapter 17.

Nephite language as well as traditions or history would likely also have been syncretized. In a comparable case, the Nahua speakers (“Toltecs”), who entered the Guatemalan highlands in about the 13th century AD, consisted of only a small number of persons. There was no mass migration. The small body of intruders “must have come in contact with a well-established

indigenous population,” said Carmack. The tongue of the foreigners was eventually absorbed within the linguistic milieu of the “more numerous indigenous [highland Mayan] populations”¹²⁰ so as to be virtually undetectable today except for a few terms. And in the highland Guatemalan case, traditional history too was recast formulaically; the local people reshaped their own traditions or history more or less to conform to the legend of a supposed Toltec origin.¹²¹

No expert has carried out a systematic investigation following proven methods of historical linguistics to detect whether hybridization of imported (Semitic) and native languages occurred in Pre-Classic highland Guatemala. We have only hints of possibilities from neighboring areas of Mesoamerica. As detailed in chapter 10, Brian Stubbs has amassed extensive evidence suggesting that a Semitic/Uto-Aztecan creole (hybrid) language developed in ancient central or northern Mexico. As much as 30–35 percent of all Uto-Aztecan cognate sets relate to Semitic roots.¹²² Likewise, for Sawi-Zaa (the language family that includes Zapotec and Mixtec of south-central Mexico) a sizable list of lexical correspondences has been compiled, under the supervision of a major linguistics scholar.¹²³ This list seems to demonstrate a similar phenomenon involving Hebrew and Proto-Zapotec.¹²⁴ In addition, Berkeley linguist Mary L. Foster adduced evidence that Egyptian was deeply involved in the makeup of some Mesoamerican languages.¹²⁵

120. Robert M. Carmack, “Toltec Influence on the Postclassic Culture History of Highland Guatemala,” in *Archaeological Studies in Middle America* (New Orleans: Tulane University, 1970), 71.

121. Carmack, “Toltec Influence,” 75.

122. See chapter 10 herein; and Brian Stubbs, *A Few Hundred Hints of Egyptian and Two Dialects of Hebrew (or Northwest Semitic) in Uto-Aztecan*, photocopy, 2006.

123. See chapter 10 herein.

124. Pierre Agrinier, “Linguistic Evidence for the Presence of Israelites in Mexico,” *Society for Early Historic Archaeology Newsletter* 112 (1969): 4–5; and Robert F. Smith, “Sawi-Zaa Word Comparisons,” typescript, 1977.

125. Mary L. Foster, “Old World Language in the Americas, 1,” paper presented at the annual meeting of the Association of American Geographers, San Diego, 1992; and Foster, “Old World Language in the Americas, 2,” paper presented at the annual meeting of the Language Origins Society, Cambridge, England, 1992.

Population and Geographical Correlations

According to the Book of Mormon, the varied inhabitants of the early land of Nephi (and later of Zarahemla) were all called “Nephites,” “the people of Nephi,” or “the people of the Nephites.” That is, all the ruler’s (Nephi’s) subjects, of whatever ethnic origin, became “Nephites.”¹²⁶

The Book of Mormon is very short of information on the culture and society of those composite Nephites over the four centuries after their establishment in the land of Nephi. In the case of the Lamanites, we have somewhat greater detail about the multiple origins of some of the component elements.¹²⁷

In the latter half of the sixth century BC, we are told of Sherem, a dissident among the Nephites who “was learned, that he had a perfect knowledge of the language of the people [whatever that was]; wherefore he could use much flattery, and much power of speech” (Jacob 7:4). The characterization of his social status signals notable internal differentiation in the society, although Nephi₁’s group of Israelite immigrants had arrived only decades earlier. Furthermore, Sherem must have lived at a distance from the principal center, for only after a significant interval was he able to meet Jacob₂, the chief priest over the small tribe of Nephites. Jacob₂ would routinely have been situated at the temple in the city of Nephi. Sherem’s difficulty in arranging a meeting with Jacob reflects a sizable, growing population and settlements spread over more than the immediate vicinity of the city.

From the point of view of scholarship, we can only lament that the translated record we possess is very skeletal. As the Nephite historian put it, even “a hundredth part of the proceedings of this people, which now began to be numerous, cannot be written upon these [small] plates [i.e., the

126. This amalgamation of diverse populations under a name of the ruling body is not an uncommon phenomenon. Peter B. Golden, “Some Thoughts on the Origins of the Turks and the Shaping of the Turkic Peoples,” in Mair, *Contact and Exchange in the Ancient World*, 144, observed that in central Asia “all of the peoples under Türk rule took the name ‘Türk’ as a political designation.” Throughout Asia “ethnonyms [names borne by peoples] spread as political designations,” as was the case of the variety of peoples who came to call themselves “Mongols” and, earlier, “Tatars.” The same phenomenon played out among the Tarascans of western Mexico.

127. John L. Sorenson, “Book of Mormon Peoples,” in *Encyclopedia of Mormonism*, ed. Daniel H. Ludlow (New York: Macmillan, 1992), 1:191–95.

early record kept by the priestly lineage descended from Jacob₂]; but many of their proceedings are written upon the larger plates [kept at the king's court but not available for modern translation], and their wars, and their contentions, and the reigns of their kings" (Jacob 3:13). Later in the sixth century BC, it was said of the Nephites that their literacy allowed them to "search the [Hebrew] prophets" (4:6) whose words were on the plates of brass brought from Jerusalem. Ethnic wars occurred involving Nephites and Lamanites (Enos 1:24), but as to routine activities, little is said except that "the people of Nephi did till the land, and raise all manner of grain, and of fruit," and so on. (v. 21).

By the start of the fourth century BC, the Nephites had "multiplied exceedingly, and spread upon the face of the land, and bec[o]me exceedingly rich" (Jarom 1:8). In other words, the Nephite population had undergone geographic dispersion and considerable population growth. The record (v. 5) continues to say that they "waxed strong" in the land, and it emphasizes the fact that "they observed to keep the law of Moses." "And the laws of the land were exceedingly strict," which implies fairly strong governmental power and a heavy priestly hand in the system of social control (compare vv. 11–12).

Among activities of potential archaeological interest was the fortifying of two of their cities, Lehi-Nephi and Shilom (Jarom 1:7; Mosiah 9:8). That process would have included building a wall around each of the two settlements. We have already discussed the discovery of what likely is a remnant of the wall around the city of Nephi.

Sometime toward the end of the third century BC, conflict with encroaching Lamanites reduced the population in the land of Nephi (Jarom 1:3, 10; compare 3:3–4). At that time Mosiah₁ led his party out of the land of Nephi down to the land of Zarahemla, in the Sidon River basin. Mosiah₁ must have been of royal descent if not the actual ruler (the "Nephi") because he carried with him the sacred artifacts his ancestors had brought from Jerusalem. Upon reaching Zarahemla, the Nephite group met a population of Mulekite descent (at least their chief was a descendant of Mulek). The two groups amalgamated politically, with Mosiah₁ as king even though the incoming Nephites were a minority.

The record fails to indicate what happened to the Nephites who did not come out of the land with Mosiah₁. One or two generations later, a

party of Nephites from Zarahemla (the Zeniffites) returned to resettle the Nephi area (Mosiah 7:9, 21–22) and found the zone only lightly and recently inhabited by Lamanites who had come up from their base territory at a lower elevation (10:7; 24:1–2), probably in the land of Shemlon. The Lamanite ruler granted the returnees permission to rehabilitate and occupy the city of Nephi and the immediate area around it as political and economic dependents (who were soon severely exploited). Decades later, after the Zeniffites departed, the city and the immediate land of Nephi became a vibrant Lamanite capital over a wide territory (Alma 20:8–9; 22:27–34).

The record of the Zeniffites covers about 60 years, beginning somewhere a little after 200 BC. Their record, as we have already seen, provides a number of interesting correspondences with Mesoamerican life. The detailed geography is characterized in the course of descriptions of the wars between the Zeniffite enclave (consisting of several thousand people) and their Lamanite dominators. From his capital city of Nephi, Noah, the second Zeniffite king, was able to stand atop a pyramid tower that he had constructed to look out over surrounding areas, including the land (and walled city) of Shilom, which was part of his domain. He could also scan the more distant (coastward) land of Shemlon, which was occupied by the Lamanites (Mosiah 11:12). From Shemlon a Lamanite army “came up upon the north of [i.e., around] the land of Shilom” (10:8), while a later attack came up directly through Shilom (19:6). (See map 5.)

Local details of the Book of Mormon geographical and historical setting fit nicely in the geography of the Valley of Guatemala. First is the fact that the land of Nephi was divided into two parts: the immediate land of Nephi (including the close environs of the city of Nephi) and the land of Shilom (centered on the city of the same name).¹²⁸ The land of Shilom can be equated with the flattish area south of Kaminaljuyu, which is 500–600 feet (150–180 m) lower in elevation and centered on the ruin at San Antonio Frutal (near the modern city of Villa Nueva). San Antonio Frutal was inhabited on a small scale through the Pre-Classic period.¹²⁹ The same distinc-

128. Sorenson, *Mormon's Map*, 71–72; and Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1985), 167–71.

129. Kenneth L. Brown, “The Valley of Guatemala: A Highland Port of Trade,” in *Teotihuacan and Kaminaljuyu: A Study in Prehistoric Culture Contact*, ed. William T. Sanders

tion of two areas, each with its dominant city, is described in the Book of Mormon account (Mosiah 22:8, 11; 7:5, 7).¹³⁰ The land of Shemlon fits in the area on the south and west shore of Lake Amatitlan, at a still-lower level.

More Detailed Correspondences

Archaeologists De León and Valdés suggest that one or more of the pyramid towers at Kaminaljuyu of Providencia age (500–200 BC) may have served a watchtower function to detect “what was going on at a distance.”¹³¹ In the following century, Zeniffite king Noah “built a tower near the temple [in Nephi]; yea, a very high tower, even so high that he could stand upon the top thereof and . . . look over all the land round about” (Mosiah 11:12). That structure functioned particularly as a military watchtower (19:5–9).

Orellana reports that when war was imminent among the Spanish conquest-period Tzutujils adjacent to the Valley of Guatemala, male warriors (militia) gathered to the ruler’s palace where he issued to them bows, arrows, spears, shields, and standards of featherwork that had been stored there.¹³² According to the record of King Zeniff, on one occasion a Lamanite force attacked some of his people, whereupon “they fled, all that were not overtaken, even into the city of Nephi, where the king dwelt. And . . . I did arm them with bows, and with arrows, with swords, . . . and with all manner of weapons . . . and I and my people did go forth against the Lamanites to battle” (Mosiah 9:14–16). Coincidentally, the most plausible geographical reconstruction of where that scene was played out turns out to be no more than 20 to 30 miles from where the Tzutujil Indians did exactly the same thing some 1500 years later!

Also of interest in connection with the Zeniffite era is a “great tower” that King Noah caused to be built on a “hill north of the land Shilom” (Mosiah 11:13). The hill served as a point of reference for Nephite groups traveling between the land of Nephi and Zarahemla (v. 13; 7:5–6, 17), so

and Joseph W. Michels (University Park: Pennsylvania State University Press, 1977), 247. Brown’s maps 7 and 10 show the natural distinction between the two areas, based on the distribution of archaeological materials.

130. Compare Sorenson, *Ancient American Setting*, 168–71.

131. De León and Valdés, “Excavaciones en Piedra Parada,” 386.

132. Orellana, *Tzutujil Mayas*, 59.

it had to be quite a prominent landmark. On the northwest edge of the Valley of Guatemala, archaeologist Shook reported more than 60 years ago that a pyramid sat atop a hill known as Alux.¹³³ This place lies between the modern capital city and the town of San Lucas Sacatepequez. Today a major highway between western Guatemala and Mexico, which follows an ancient route, half encircles its base. This hill corresponds in all respects to the described location of Noah's hill upon which his tower was constructed in the second century BC.

Archaeologist John Clark cursorily inspected this hilltop in 2005. He found no remains of the pyramid that Shook, a meticulous archaeologist, reported, but the top of that sizable elevation is now occupied by modern communication installations as well as a forest preserve, and they precluded a serious search for traces of any ruin.¹³⁴ If remains of the pyramid mound Shook reported should yet be found there and dated to about the second century BC, those facts would make the archaeological correspondence particularly striking.

In Alma 47:5 we also learn of a "place of arms," a natural feature of an unspecified type to which rebellious Lamanite soldiers fled to defend themselves when they chose to avoid forced military service. The text implies that this place was not far from the capital city, which at that time was called Lehi-Nephi. In ancient Mesoamerica the term "place of arms" surely would have meant a place where obsidian was available. Some 15 or 20 miles (24 or 32 km) northeast of Guatemala City is an extensive obsidian outcrop that served as the primary source of that essential mineral for most of southern and eastern Mesoamerica for millennia.¹³⁵ The position of this source in relation to Kaminaljuyu agrees in general with how the "place of arms" related to the Lamanite capital, Lehi-Nephi.¹³⁶

The "place" called Mormon, near the land of Nephi and to which Alma₁

133. Shook, "Lugares arqueológicos," 5.

134. John E. Clark, personal communication, 2005.

135. Robinson et al., "En el final del Preclásico," 150; and Fred W. Nelson Jr. and John E. Clark, "Obsidian Production and Exchange in Eastern Mesoamerica," in *Rutas de intercambio en Mesoamérica: III Coloquio Pedro Bosch-Gimpera*, ed. Evelyn C. Rattray (Mexico City: Universidad Nacional Autónoma de México, 1998), 277–333.

136. See chapter 18 and map 5 herein.

and his followers resorted, was said to be adjacent to a “fountain of pure water” (Mosiah 18:5; Alma₁ baptized his followers there). The location to which the group next fled was “a very beautiful and pleasant land, a land of pure water” (23:4). As detailed in chapter 19, the Maya people had a cultural notion of the desirability and sacredness of pure water. Water was considered “pure” or “virgin” if derived from caves or other uncontaminated underground sources. Such water was sought for use in rituals of purification.¹³⁷ In the western highlands of Guatemala, a spring that is the original source of the San Juan River “gushes out of an opening in the base of the Cuchumatanes Mountains”¹³⁸ and so would qualify as “pure.” (Because of the Nephites’ Hebrew background, a possibly related concept may also be noted: “Jewish religious law required that a ritual purification bath . . . had to be supplied with ‘living water,’ that is, undrawn, flowing water.”)¹³⁹

Other cultural parallels also correspond when we compare highland Guatemala with the land of Nephi. In Alma 19:1 and 5 we read of a “sepulchre” (tomb) that the Lamanites within the extended land of Nephi (hypothetically in the Chimaltenango area west of Guatemala City) constructed “for the purpose of burying their dead,” in this case the body of Lamoni, a regional king. One is reminded of the two rich tombs known from Kaminaljuyu in Mound E-III-3.¹⁴⁰ They date to the same period as the Book of Mormon episode¹⁴¹ and were located about 20–25 miles (32–40 km) from where the Lamanite sepulchre of Alma 19 is likely to have been situated. Moreover, the Lamanite kingdom involved was characterized by barbarous violence (e.g., Alma 17:28–29; 24:9), and the Mound E-III-3 burials were accompanied by sacrificed retainers or servants.

137. Mary Miller and Karl Taube, *The Gods and Symbols of Ancient Mexico and the Maya: An Illustrated Dictionary of Mesoamerican Religion* (London: Thames & Hudson, 1993), 184.

138. A. Ledyard Smith, *Archaeological Reconnaissance in Central Guatemala*, Publication 608 (Washington, DC: Carnegie Institution, 1955), 11.

139. Ronny Reich, “The Great Mikveh Debate,” *Biblical Archaeology Review* 19/2 (1993): 52.

140. Edwin M. Shook and Alfred V. Kidder, *Mound E-III-3, Kaminaljuyu, Guatemala*, American Anthropology and History Contribution 53 (Washington, DC: Carnegie Institution, 1952).

141. Kirsch, “Mound A-VI-6,” 320.

The west highlands of southern Guatemala (i.e., west [in Nephite terms “northward”] of Kaminaljuyu) were either empty of settlers or were only sparsely occupied during most of the Late Pre-Classic period,¹⁴² as noted in chapter 15. The Book of Mormon also portrays sparse settlement (e.g., Mosiah 23; 24) around the areas “northward” of the city of Nephi. Groups that moved through the extended land of Nephi in that direction failed to encounter existing settlements or peoples, at least down to the first century BC (e.g., 22:11–13; 23:30–31, 35–36; Alma 17:8–13).

From the city of Nephi at least one party of Zeniffites went off into the “east wilderness,” where they usurped power over local folks (Alma 25:5). There they set up polities that closely resembled prevailing government forms in the home kingdom in the highlands. Similarly, in the first and second centuries BC, potent seeds of the pattern of rulership and culture that existed in or around Kaminaljuyu were transferred to the Maya lowlands, where their growth “took off” to inspire, if not to clone, related cultures and societies.¹⁴³

Much that was shared among these distant culture centers as well as among local neighboring kingdoms in the highlands was probably due to continuing contacts through trade, conducted chiefly on behalf of elites of the societies. Most trade was in luxury goods rather than in basics because moving bulk goods over difficult terrain and long distances was not feasible or profitable.¹⁴⁴

Among Book of Mormon groups, the same sort of interaction went on

142. Miguel Rivera Dorado, “La primera temporada de excavaciones en Salcajá (Guatemala),” *Revista española de antropología americana* 8 (1978): 124; and Robert Wauchope, *Zacualpa, El Quiché, Guatemala: An Ancient Provincial Center of the Highland Maya*, Middle American Research Institute Publication 39 (New Orleans: Tulane University, 1975), 48–50.

143. Arthur A. Demarest and Robert J. Sharer, “The Origins and Evolution of Usulután Ceramics,” *American Antiquity* 47 (1982): 819–20; Freidel, “Civilization as a State of Mind,” 223; and William L. Fash and David S. Stuart, “Dynastic History and Cultural Evolution at Copan, Honduras,” in *Classic Maya Political History: Hieroglyphic and Archaeological Evidence*, ed. T. Patrick Culbert (Cambridge: Cambridge University Press, 1991), 150.

144. Feldman, “Moving Merchandise,” 7–17; and Oswaldo Chinchilla Mazariegos, “Settlement Patterns and Monumental Art at a Major Pre-Columbian Polity: Cotzumalguapa, Guatemala” (PhD diss., Vanderbilt University, 1996).

among the wealthy and powerful (e.g., Mosiah 24:1–7). Frequently it was elite dissenters from one area who took off, as it were, to seek their fortune elsewhere, hoping to end up at the head of the dominance structure in the new setting. The Nephite record is full of such ambitious characters—for example, Morianton (Alma 50:29), Amalickiah (Alma 46:3–6), and Jacob₃ (3 Nephi 7:9–12).

Trade is usually credited with being the engine powering the spread of influence from the cultural center to outlying regions. Kaplan holds that trade “permitted Kaminaljuyú to develop and disseminate its own cultural and social ideas.”¹⁴⁵ No one, however, has specified exactly what mechanisms carried forward that influence, although there is general agreement that the sheer size of Kaminaljuyu in the Late Preclassic made it the dominant cultural force in southern Mesoamerica at that time. “The planned precincts of Kaminaljuyú . . . may have come to occupy fully 8–10 km²” (3–4 square miles) of the Valley of Guatemala. The “profoundly complex” civilization centered in Kaminaljuyu was “directed by a powerful and charismatic central authority” whose “political and economic reach extended well beyond their highlands base.” The Kaminaljuyu metropolis was “older by several hundred years than the first Classic Maya Long Count dates” and was “seminally linked to Classic Maya developments.”¹⁴⁶ In fact, the stimulus probably included actual migrations, at least of ambitious leaders.¹⁴⁷

The governance structure among the Lamanites at one point in time agrees with Mesoamerican customs. In the early part of the first century BC, the king ruling over the Lamanites from the city of Lehi-Nephi is described in the book of Alma (chapters 20, 22, 23) as reigning over subordinate rulers in regional kingdoms, some of whom were his sons (20:9). Those lesser rulers drew their authority from dispensations issued by the supreme

145. Kaplan, “From under the Volcanoes,” 313.

146. Kaplan, “From under the Volcanoes,” 312–13.

147. Hector Neff et al., “A Ceramic Compositional Perspective on the Formative to Classic Transition in Southern Mesoamerica,” *Latin American Antiquity* 5 (1994): 333–36, determined by chemical analysis that the pottery called White Paste Ware from the earliest great Lowland Maya site, El Mirador, was actually brought from Kaminaljuyu during its Verbena period (second century BC); that fact indicates a much more direct relationship than mere “influence.” See also Michael D. Coe, *The Maya*, 7th rev. ed. (New York: Thames & Hudson, 2005), 66, 70.

monarch (vv. 23, 26). At the time we are considering, the Lamanite king's domain was said to extend from the "west sea" (Pacific coast) to the "east sea" (Gulf of Mexico). Throughout that extensive region his power had considerable effect (22:27; 23:1–4), probably owing mainly to his charisma.

This sociocultural structure has much in common with how Kaplan sees the "Miraflores sphere" operating out of Kaminaljuyu. "A richly ideated, . . . syncretistic, sacred rulership emerged by ca. 200 B.C. which governed not only a very large city but probably as well a very large political and economic sphere, and which had influence to lesser or greater degree over many thousands of square kilometers." He continues, "Several hundred years before the first Classic Maya Long Count dates . . . Kaminaljuyú was manifesting many of the important elements in Classic Maya civilization such as immense thrones with hieroglyphic texts, ruler stelae, and ballgame monuments."¹⁴⁸

This arrangement is also reminiscent of the power embedded in locations called "Tollans" or "Tulans" in Mesoamerican tradition. "In [at least later] native thought, Tollan was the source of all legitimate political power."¹⁴⁹ Nahua-speaking intruders to highland Guatemala, of whom the Popol Vuh speaks, made a major point of going to Tulan to receive tokens of authorized rulership. Carmack concluded that where they went was probably some yet-unidentified center as far away as the Gulf Coast of Tabasco ("the border of the sea").¹⁵⁰ (The area that Nephite historians called "the borders by the seashore" [e.g., Alma 22:26–29] coincided with the same Tabasco/Campeche zone.)¹⁵¹

Several historical cities were later called Tulan, among them Teotihuacán and Chichen Itza, each preeminent in its era.¹⁵² Kaminaljuyu certainly had attained a superior cultural status of this order during the Late Pre-Classic period. Kaplan considers it "the most imposing southern [Mesoamerican] area polity," "a highly complex sociopolitical entity," and a "precociously

148. Kaplan, "From under the Volcanoes," 342.

149. Lawrence H. Feldman, "Tollan in Central Mexico: The Geography of Economic Specialization," *Katunob* 8/3 (1973): 1.

150. Carmack, "Toltec Influence," 65–70, with "the border of the sea" on p. 65.

151. See Sorenson, *Mormon's Map*; and Sorenson, *Ancient American Setting*, 33.

152. Carmack, "Toltec Influence," 66–68.

enormous, imposing and innovative entity,"¹⁵³ which governed a very large sphere. Barrientos infers that a Kaminaljuyu ruler probably was at the head of multiple hierarchical levels of power in the late BC centuries.¹⁵⁴ It is entirely plausible that its monarch was then seen as the proximate authority from whom all right-to-rule privileges must spring.¹⁵⁵

Inasmuch as Tulan means literally "place of reeds,"¹⁵⁶ Kaminaljuyu might initially have been named Tulan because of the reeds growing in Lake Miraflores. The city grew up alongside the lake in Providencia times. It seems possible that the king of the Lamanites described in the book of Alma could have been a ruler of the primordial city Kaminaljuyu. The historical equation is not fully documented, but at least the cultural parallel involving such an overarching ruler is thoroughly plausible.

The importance of the city of Lehi-Nephi is underlined by the text's

153. Kaplan, "From under the Volcanoes," 354–55, 342.

154. Barrientos, "Evolución tecnológica," 63.

155. Joseph W. Ball and Jennifer T. Taschek, "Reconsidering the Belize Valley Preclassic: A Case for Multiethnic Interactions in the Development of a Regional Culture Tradition," *Ancient Mesoamerica* 14 (2003): 210, muster an interesting conceptual scheme that helps us visualize the possible political structure of these times. At Cahal Pech, a lowland Maya site, they describe "the only sculptured stela recovered" there. It is of Late Pre-Classic age with closest stylistic similarities to Izapa (and other sites displaying the Izapan art style), including Tiltepec (near Tonala, Chiapas), Monte Alto (Pacific lowland Guatemala), Kaminaljuyu, and Tres Zapote, all of which fall under their "Greater Isthmian" rubric. They continue, "The [Cahal Pech] Stela 9 monument—and presumably the lineage it represented—remained [politically] 'active' until sometime in the late seventh century A.D. when [the monument] was formally and ceremoniously interred with much accompanying ritual in its vaulted Plaza tomb [at Cahal Pech]." The archaeologists believe they see evidence for the struggle for political ascendancy of two groups (one of them represented by the monument) in this Maya territory. Clark et al., "La zona maya en el Preclasico," 436–510, suppose (and Ball and Taschek agree) that there were Middle and Late Pre-Classic interethnic hostilities and site destructions along the central Chiapas Zoque/Maya interface. They compare this situation with the struggle of two ethnic groups for ascendancy in modern Kosovo.

Ball and Taschek also think that one grand lineage or ruling faction could have been identified across regional boundaries to form the basis for a vast confederation or bloc, possibly comparable to the notion of various tribes under Nahuatl-speaking rulers being linked together under a "Tulan." At least it is plausible to them that extensive groupings of tribes or similar sociopolitical entities could be united in some broad sense, as in the reference to rule by the Lamanite king in Alma 22:27.

156. Carmack, "Toltec Influence," 51–86.

reference to the Lamanite king in the second decade of the second century BC who ruled from a “palace” (Alma 22:2). That term (which occurs only twice in the Book of Mormon) implies that the ruler had substantially more power and prominence than rulers who operated at a chiefdom level. The king’s palace of Alma 22 may have been the same royal structure in the same city that had been erected by Zeniffite king Noah 100 years before (note the continuity of another structure—a prison—in this city; Helaman 5:21 reports that the prison used around 30 BC was the same one that had been used 100 years before). We recall that Zeniffite king Noah had “built him a spacious palace, and a throne in the midst thereof” (Mosiah 11:9). The concept of a “palace” among Lehi₁’s descendants could have been stimulated by texts from the Hebrew Torah, with which Noah’s people were acquainted (compare 12:20–28); or it may have stemmed from either indirect Jaredite/Olmec influence (see Ether 9:6; 10:6) or their own conceptual invention.

Kaplan has hypothesized how “immense thrones” of sculptured stone were employed in the Late Pre-Classic era at Kaminaljuyu and related sites¹⁵⁷ (perhaps the earliest thrones known to Mesoamerican archaeology, excluding the Olmec one shown in the Oxtotitlan cave painting).¹⁵⁸ Kaplan thinks these early Guatemalan thrones marked the power of great (probably “divine”) kings. If the thrones of Noah and the Lamanite king were at Kaminaljuyu/Nephi, they could constitute part of the cultural complex discussed by Kaplan.

These powerful kings were no doubt war leaders also. One of the great thrones (Stela 10) from Kaminaljuyu shows a ceremonially decked-out figure bearing a fancy weapon. A second richly accoutred warrior is

157. Jonathan Kaplan, “El trono incienso y otros tronos de Kaminaljuyu, Guatemala,” in *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes; 1995), 401–23; Kaplan, “The Incienso Throne and Other Thrones from Kaminaljuyu, Guatemala: Late Preclassic Examples of a Mesoamerican Throne Tradition,” *Ancient Mesoamerica* 6 (1995): 185–96; Kaplan, “El Monumento 65 de Kaminaljuyu y su ilustración de ritos dinásticos de gobierno del Preclásico Tardío,” in Laporte and Escobedo, *IX Simposio de investigaciones arqueológicas en Guatemala, 1995*, 451–57; and Kaplan, “From under the Volcanoes,” 311–57.

158. See Sorenson, *Images of Ancient America*, 214.

seen on Stela 11, and bound prisoners are shown on several monuments.¹⁵⁹ The Book of Mormon depicts Lamanite kings at the great city of Lehi-Nephi who continually fomented wars and led their armies to battle (e.g., Amalickiah, Alma 48:1–4; Ammoron, Alma 54:16–20; Tubaloth, Helaman 1:16–17; 4:2–5), which resulted in taking captive Nephite “chief captains” along with commoners (Alma 56:12). Moreover, it is likely that the Book of Mormon text presents only a partial picture of the warfare in the land of Nephi, for at one point in the first century BC, Nephite missionaries who ventured into Lamanite territory near the capital city were “taken [prisoner] by an army of the Lamanites” (Helaman 5:21). This occurred at a time when no war was reported with the Nephites, so some unreported intra-Lamanite conflict must have engaged this army.

159. Federico Fahsen, “Who Are the Prisoners in Kaminaljuyú Monuments?,” in Love et al., *Incidents of Archaeology in Central America and Yucatán*, 371–72.

Chapter 23

Archaeology and History between 600 and 1 BC, Part 2

The first part of the previous chapter sketched an archaeological history of the La Venta zone for the period from about 600 BC to 500 or 450 BC, when that center was abandoned. The site's history more or less reflects that of the area around it. With the abandonment of La Venta, southernmost Veracruz, Tabasco, and adjacent areas of the state of Chiapas were left without any major cultural bellwether for a few centuries. Isolated minor chiefdoms centered in ecologically favorable zones were the only political structures detectable at this time.

The ethnic/linguistic composition of the population in the isthmian area in the period from 500/450 BC to about 150 BC remains obscure, but most likely the inhabitants were biological and linguistic descendants of the late Olmecs, while their language very likely was an ancestor of what became the Mixe-Zoque family of tongues later on. One of the leading localized centers of importance for this intermediate period was the archaeological site of Chiapa de Corzo, located where the Grijalva River exits the Central Depression of Chiapas. During this site's *Francesca* period (500–250 BC), a few large mounds were constructed, the ruins of which reflect a society “still essentially interacting within its local situation.”¹ On the basis of the later distribution of Mixe-Zoquean languages, it is generally assumed that in the late BC centuries speakers of that family of languages occupied the whole

1. Bruce W. Warren, “The Central Depression of Chiapas: Its Role within the Evolution of Mesoamerican Civilization” (master's thesis, University of Arizona, 1969), 18; and Warren, “Sociocultural Development of the Central Depression of Chiapas, Mexico: Preliminary Considerations” (PhD diss., University of Arizona, 1978), 52.

Tabasco/Chiapas area.² Mayan tongues were limited to the area south and east of the Grijalva basin.

Population at this time period was relatively sparse but growing. The mixed and fluid status of cultural affiliations is shown by the presence of certain pottery at Chiapa de Corzo common in the Maya lowlands of northern Guatemala. Pottery from the same site also showed features found in Oaxaca.³ In the upper Grijalva basin at the sites of Santa Rosa and La Libertad, no important external connections were visible.⁴ Apparently only parochial, sparsely populated, and weak cultures existed in southern Mesoamerica from ca. 450–150 BC.⁵

At that time the central Chiapas zone was little connected with developments elsewhere in Mesoamerica owing to its relatively landlocked position. The narrow strip of rugged mountains in western Guatemala and the vast rainforest on the east combined with the topographic irregularities of the Chiapas uplands on the north and east and the barrier of the Sierra Madre de Chiapas on the western perimeter of the Grijalva basin to isolate the

2. Gareth W. Lowe, "The Mixe-Zoque as Competing Neighbors of the Lowland Maya," in *The Origins of Maya Civilization*, ed. Richard E. W. Adams (Albuquerque: University of New Mexico Press, 1977), 197–248; Thomas A. Lee Jr., "Investigaciones arqueológicas recientes del Clásico, Postclásico y Colonial Maya en Chiapas: Resumen e implicaciones," in *Investigaciones recientes en el área Maya, XVII mesa redonda* (San Cristobal, Mexico: Sociedad Mexicana de Antropología, 1984), 1:113–30; Norman D. Thomas, *The Linguistic, Geographic, and Demographic Position of the Zoque of Southern Mexico*, New World Archaeological Foundation Papers 36 (Provo, UT: BYU New World Archaeological Foundation, 1974); and Terrence Kaufman, "Archaeological and Linguistic Correlations in Mayaland and Associated Areas of Meso-America," *World Archaeology* 8/1 (1976): 101–18.

3. Warren, "Sociocultural Development of the Central Depression of Chiapas," 52.

4. John E. Clark, *The Lithic Artifacts of La Libertad, Chiapas, Mexico: An Economic Perspective*, New World Archaeological Foundation Papers 52 (Provo, UT: BYU New World Archaeological Foundation, 1988), 201–2; and Gareth W. Lowe and J. Alden Mason, "Archaeological Survey of the Chiapas Coast, Highlands, and Upper Grijalva Basin," in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 2:215.

5. William F. Rust III and Robert J. Sharer, "Olmec Settlement Data from La Venta, Tabasco," *Science* 242 (1988): 102–4; and Michael D. Coe and Richard A. Diehl, *In the Land of the Olmec: The Archaeology of San Lorenzo Tenochtitlan* (Austin: University of Texas Press, 1980), vol. 1.

enclosed area, discouraging its integration with mainstream Mesoamerican civilization.

Together with the physical setting, a marginal ethnic and linguistic position set apart Chiapas and Tabasco. The eastern and southern boundaries of the territory fell along what Lowe called the “Mixe-Zoque/Maya Interaction Zone.”⁶ He believed that “early Mesoamerica [south]east of the Isthmus of Tehuantepec was divided rather neatly between the two language families, the Mayan to the east and north and the Mixe-Zoque to the west and south of a diagonal line running . . . through central Chiapas and the border of southwestern Guatemala.”⁷ The boundary between the areas occupied by “the Mixe-Zoque [speakers] and Maya [linguistic groups] appear[s] to have seesawed back and forth somewhat across much of this area.”⁸ (See map 4 herein.) Historically and culturally this border area was never ethnically stable.⁹

The Central Depression of Chiapas as the Land of Zarahemla

As explained in chapter 7, the Book of Mormon area called the (greater) land of Zarahemla (e.g., 3 Nephi 3:23) consisted of the drainage basin of the Sidon River with extension into some surrounding areas, particularly the “borders by the east sea.” The latter constituted the lowlands where the Sidon reached the sea. In all essential ways and at many minor points, this area coincided with the south isthmian area in southern Mesoamerica that centered on the Grijalva River. Nephite historians saw the land of Zarahemla as bounded southward by a “narrow strip” of wilderness very like Lowe’s Mixe-Zoque/Maya interaction zone, beyond (southward of) which the population was predominantly “Lamanite” (although nothing is said

6. Gareth W. Lowe et al., *Izapa: An Introduction to the Ruins and Monuments*, New World Archaeological Foundation Papers 31 (Provo, UT: BYU New World Archaeological Foundation, 1982), 306, figs. 16.1 and 9–15; and Lowe, “Mixe-Zoque as Competing Neighbors.”

7. Lowe et al., *Izapa: An Introduction*, 10.

8. Lowe et al., *Izapa: An Introduction*, 11.

9. Incidentally, the Lehitites’ original homeland, the southern Levant or Palestine, was in a comparable position of geopolitical tension because of conflicts among the major Near Eastern powers.

about language affiliation in the Nephite account). On the Nephite side of the strip the majority of inhabitants were of, or were connected with, the “people of Zarahemla” (Mosiah 25:2), whom the text indicates in a number of indirect ways were related to the earlier population of Jaredites.¹⁰

Mosiah₁ led his party from the land of Nephi down into the basin of the Sidon River (Omni 1:13) through the “narrow strip of wilderness.” There they encountered the people of Zarahemla, or Mulekites, about 200 BC. Although the minority Nephite intruders took over rule of the amalgamated peoples, many aspects of the hybridized culture that resulted would have been predominantly Mulekite. Inevitably, their majority language would have been the everyday tongue of the general populace. That language was plausibly Proto-Zoquean in Mesoamerican terms. (It could not have been Hebrew, as the Nephites expected [see Omni 1:15–17], for linguistic scholars have good reason to believe that after less than 400 years of separation from their homeland in Jerusalem, the two groups would still pretty much have understood each other when they met.)

Chapter 7 showed that the most likely site for the city of Zarahemla is at Santa Rosa on the Grijalva River some 40 miles (64 km) downstream from the Guatemalan border. Agustín Delgado of the New World Archaeological Foundation excavated limited parts of the site in 1958. Reports by Delgado¹¹ and archaeologist Donald Brockington have provided most of what we are ever likely to know about ancient Santa Rosa, since it is now submerged beneath the lake backed up behind Angostura Dam, 35 miles (56 km) downstream. That the dig was very incomplete was emphasized by Brockington when he noted that “we cannot assume that we have more than roughly sketched outlines of the culture history of the Central Depression’s eastern end.”¹²

10. John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1985), 119; and Sorenson, “The ‘Mulekites,’” *BYU Studies* 30/3 (1990): 6–22.

11. Agustín Delgado, *Excavations at Santa Rosa, Chiapas, Mexico*, New World Archaeological Foundation Papers 17 (Provo, UT: BYU New World Archaeological Foundation, 1965).

12. Donald L. Brockington, *The Ceramic History of Santa Rosa, Chiapas, Mexico*, New World Archaeological Foundation Papers 23 (Provo, UT: BYU New World Archaeological Foundation, 1967), 70.

The Nephite capital city, Zarahemla, was in the “heart of their lands” (Helaman 1:18), in a position where the inhabitants felt “surrounded by security” (Alma 60:19). This heartland placement of the capital city agrees with a statement from Helaman 1:24–27 about the area along the river near the city of Zarahemla being “the center of the [greater] land [of Zarahemla].” So Nephite defenders around the middle of the first century BC had reason to be shocked when a Lamanite army marched with “great speed” down from the highlands of Nephi “to attack that great city Zarahemla” (Helaman 1:19, 18). The abruptness of the foray shows that the city was no great distance from the narrow strip of wilderness, the boundary of their territory.¹³ Yet the Nephites had good reason generally to consider the landlocked area around Santa Rosa, the largest site in the upper river valley,¹⁴ to be a position “surrounded by security” in “the center” of a sizable, sheltered river basin.

The battles related in Alma 2 bring out other correspondences that agree with Santa Rosa’s being the site of Zarahemla. The Nephite capital’s defensive army was first lured away from the city by an insurgent force called Amlicites that engaged them on “the hill Amnihu, which was east of [and just across] the river Sidon” (Alma 2:15). From there they lured the Nephite force up to the mountain valley of Gideon, away from the river on the order of 15 or 20 miles (24–32 km). Simultaneously a large Lamanite army had by arrangement launched a coordinated attack from the south that aimed to reach the capital city before the misled defenders could discover and intercept them.¹⁵ Alerted by scouts, the Nephites camped in the land of Gideon (the Comitán Valley) made a last-minute dash down to the river and arrived at a ford across the river just as the vanguard of the Lamanite army also

13. John L. Sorenson, *The Geography of Book of Mormon Events: A Source Book*, rev. ed. (Provo, UT: FARMS, 1992), 281, 287–88.

14. Gareth W. Lowe, *Archaeological Exploration of the Upper Grijalva River, Chiapas, Mexico*, New World Archaeological Foundation Papers 2 (Orinda, CA: New World Archaeological Foundation, 1959); and Delgado, *Excavations at Santa Rosa*, 3.

15. The scouts sent out by commander Alma₂ in nighttime pursuit of the rebels did not need to travel all the way down where the Amlicites met the Lamanite army to be able to observe what happened. The land overlooking the river valley on the east was so high that the elevated perspective would allow the scouts to observe the campfires of the combined enemy force down below along the river and thus to hurry back to give their timely alarm.

arrived there; the defenders had to fight their way ashore on the west bank in order to battle and eventually disperse the intruders. This ford had to be located only a few miles above the city of Zarahemla itself.

A neat correlation is seen between the physical situation of the river near Santa Rosa and that required by the Book of Mormon story of this battle. Of key importance in correlating the ancient setting with modern geography is the presence of a customary crossing of the river just above Santa Rosa, where Nephite soldiers could actually have waded or swum from the east bank to the west bank, as in Alma₂'s account. (See map 6.) This ford is near the site of Laguna Dolores, 11 miles (18 km) upriver from Santa Rosa.¹⁶ Anciently wars were carried on in the dry season,¹⁷ when the river at the ford would have been at its lowest flow. The geography and story of Alma₂'s river battle are thus thoroughly plausible on the scene around Santa Rosa.

In the aftermath the correspondence is further confirmed. On the east and north of the upper Grijalva River, we are told, "the . . . plain frequently [is] pinched to nothing as the closely encroaching hill lands push against the river."¹⁸ In this "rich and frequently beautiful region," the "more moist level lands" lie near the river, "primarily on the west side."¹⁹ The west bank zone is characterized by a high water table and frequent occurrence of river mist that favored cultivation. On that side "the river plain has a general width of five or six kilometers [3 or 4 miles] and ascends gently [southwestward] away from the river in a series of broad level terraces";²⁰ but on the east side the rise in elevation of the land is abrupt away from the river. That means that the most productive agricultural land lay in the zone on the west a few miles above Santa Rosa. (This situation was also discussed in part in chapters 7 and 16.)

16. Delgado, *Excavations at Santa Rosa*, 4, 2, fig. 1; and Lowe, *Archaeological Exploration*, 3.

17. John L. Sorenson, "Seasonality of Warfare in the Book of Mormon and in Mesoamerica," in *Warfare in the Book of Mormon*, ed. Stephen D. Ricks and William J. Hamblin (Salt Lake City: Deseret Book and FARMS, 1990), 445–77.

18. Lowe, *Archaeological Exploration*, 45.

19. Lowe, *Archaeological Exploration*, 43.

20. Lowe, *Archaeological Exploration*, 44.

Now, the Book of Mormon says the Sidon River “ran *by* the [local] land of Zarahemla” (Alma 2:15), which must mean that the main cultivated lands were on one side of the river, the west. We suppose the east side was hilly (it was there where the “hill Amnihu” was located, Alma 2:15), so the main settled zone was on the west (compare vv. 17, 34, 37). So when the forces engaged each other at the ford (vv. 27–34), it was the west or flatter river plain where the battle took place. The extent of the resulting damage to crops and casualties among settlers on the west bank is reported in Alma 3:1–2, 2:23–35, and 4:2; the capital city and its local area in the following season suffered greatly from famine because of the fields that had been trodden underfoot by the warriors. This confirms that Zarahemla’s most crucial agricultural fields lay on the west floodplain of the river a few miles upstream from the city.

The geographic correspondences between the scriptural and actual scenes are uncannily exact if we suppose that Zarahemla was located at Santa Rosa.

That relationship is further confirmed by certain archaeological correspondences.

Santa Rosa as the City of Zarahemla

Chapter 15 summarized and interpreted Brockington’s description of the internal arrangement of the Santa Rosa site and its construction history. The high points of the archaeological sequence can be summarized as follows:

- Santa Rosa in the third century BC was one of the small chiefdoms that occupied the land following the abandonment of La Venta.²¹ The material remains in Phase 3a (ca. 500–250 BC) represent the same ceramic and artistic tradition found downriver in the Francesa period at Chiapa de Corzo. A few cultural features of the settlement at Chiapa de Corzo during the same period (but less so at Santa Rosa) show derivation from La Venta. This situation fits what we would suppose if those Mulekites under chief Zarahemla were ultimately derived from around the city of Mulek/La Venta. We consider the modest settlement of this period at Santa Rosa to represent the inhabitation there by the people of Zarahemla before the arrival of Mosiah₁.

21. Brockington, *Ceramic History of Santa Rosa*, 67. See chapters 15 and 22 herein.

- No indications of public structures at Santa Rosa appear until Phase 3b. Beginning at some point during the period 250/200–75 BC, two of the largest mound structures (truncated “pyramids”) at the site were erected.²² These could represent major “proclamations” in architectural form of the new, growing kingdom under kings Mosiah, or Benjamin.

- Santa Rosa Phase 4 (75 BC–AD 50) saw “a tremendous amount of building activity” at the same time as the Horcones period at Chiapa de Corzo.²³ Warren reported that “practically all of the mapped mound structures from Santa Rosa” were erected in this period,²⁴ when Santa Rosa reached its highest level of sociopolitical development. Zarahemla’s maximum power, during the reign of the judges, was at this time.

- Like the Central Depression as a whole, Santa Rosa was abandoned from about AD 350,²⁵ very near to when the Nephites at last fled from the land of Zarahemla.

But correspondences between the people of Zarahemla as their history is related in the Book of Mormon and the archaeology of Santa Rosa actually go back to the earliest Mulekite time. As told early in chapter 22, Stela 3 at La Venta seems to show the arrival at the site of a party from across the Atlantic who look like Jews. They appear to have taken power over this remnant of the Olmecs/Jaredites after the climax of the Jaredite civil war that resulted in the extinction of that major society. Later developments at La Venta (known as the city of Mulek to later Nephites) seem to have been a hybridization of the two streams of influence.

Naive Latter-day Saint interpretation of Book of Mormon history formerly supposed a total extinction of the Jaredite population prior to the Lehite and Mulekite occupation of the land. On the face of it, that notion was always highly unlikely. Relatively timid groups have always found ways to hide out rather than to submit to impending annihilation. Nibley demonstrated that significant Jaredite cultural, and presumably population,

22. Brockington, *Ceramic History of Santa Rosa*, 68.

23. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 137; and Delgado, *Excavations at Santa Rosa*, 36, 79.

24. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 64.

25. Lowe and Mason, “Archaeological Survey,” 226; and Lowe, *Archaeological Exploration*, 45.

elements persisted into Mulekite and Nephite times, and that argument has since been extended.²⁶ At least six lines of evidence assure us of the transmission of cultural patterns from the earlier to later peoples:

- The last Jaredite monarch, Coriantumr₁, was a wounded survivor of his people's final battle. He spent nine "moons" among the Mulekites (Omni 1:20–22), presumably soon after the Mulekites' arrival at "the city of Mulek."
- Nephite king Mosiah₁ was presented with a "large stone" that had been engraved by Coriantumr before his death; by supernatural means Mosiah₁ translated its inscription. His people were intensely curious about the extinct Jaredites.
- The institution known as a "secret society" or "secret combination" among the Jaredites took a derivative form among the later Lehites (compare 3 Nephi 3:9; 7:6).
- A number of personal names in Nephite use were either definitely or possibly of Jaredite origin.
- A cult—"the order of the Nehors"—that spread widely among the Nephites was named after the earliest Jaredite city (see Ether 7:9).
- As explained in chapter 21 at least two Nephite crops, as well as elements of a system of "measure[ment]s," originated in Jaredite-era culture.

Given the brevity of the Nephite record, it is evident that more could have been said on each of these points had the historians written at greater length. Unquestionably the Jaredites had an influential role in the development of Mulekite, Nephite, and Lamanite cultural forms. The majority "people of Zarahemla" would have been unwitting bearers of such once-Jaredite elements into the combined culture they forged with the Nephites.

The agreement between the Book of Mormon indications of a "Jareditization" effect in the early history of the narrow-neck region and the passing on of Olmec influence to later cultures as detected by scientists in

26. Hugh W. Nibley, *Lehi in the Desert; The World of the Jaredites; There Were Jaredites* (Salt Lake City: Deseret Book and FARMS, 1988), 243–46; and John L. Sorenson, "When Lehi's Party Arrived in the Land, Did They Find Others There?," *Journal of Book of Mormon Studies* 1/1 (1992): 19–22.

Mesoamerica is of sufficient scope and salience that it seems unlikely that such a similarity would arise were the two records of culture history independent of each other.

We have only hints of the Mulekites' history from around 580 BC, when they landed in America, to the time of Mosiah₁'s incursion among them and his replacement of their chief with the title and office of "king." Omni 1:17 informs us that the Mulekites "had become exceedingly numerous," although they had "had many wars and serious contentions, and had fallen by the sword from time to time." Becoming "exceedingly numerous" would have been very unlikely had this people descended exclusively from the tiny party that arrived by ship from the Old World (no hint is given that there was more than a single ship, or even that the group included any females). Moreover, "their language had become corrupted" (v. 17) so that Mosiah₁'s Nephites could not understand them. The Mulekites' distinct tongue could only have come about by adoption of a new language or by hybridization (i.e., creolization) of their native Hebrew with another tongue, as discussed previously.²⁷

The people of Zarahemla evidently represented the farthest Mulekite penetration up the Sidon River, but the core area of that ethnic group must have remained downstream toward the "city of Mulek."

The distribution of the Mixe-Zoquean language family, which Campbell and Kaufman associated with the bearers of Olmec culture, corresponds in this geography with the territory of the Mulekites.²⁸ Although the people of Zarahemla correlate with speakers of Mixe-Zoquean tongues, Mosiah₁ and his party would have spoken a different language. This phenomenon was common enough in Mesoamerica, where rulers were not infrequently of foreign extraction.

27. Morris Swadesh, "Lexico-Statistic Dating of Prehistoric Ethnic Contacts: With Special Reference to North American Indians and Eskimos," *Proceedings of the American Philosophical Society* 96/4 (1952): 452–63; and Terrence Kaufman and John S. Justeson, "The Epi-Olmec Language and Its Neighbors," in *Classic Period Cultural Currents in Southern and Central Veracruz*, ed. Philip J. Arnold III and Christopher A. Pool (Washington, DC: Dumbarton Oaks, 2008), 60: "It is always the case that speakers of languages separated by just five hundred years readily understand one another."

28. Lyle Campbell and Terrence Kaufman, "A Linguistic Look at the Olmecs," *American Antiquity* 41 (1976): 80–89.

In the light of these facts, it is very likely that the original party of Mulekites, in the four centuries since their nominal founder had arrived by boat, had become involved biologically, politically, militarily, and linguistically with remnants of the Jaredite people.

Mosiah₁ and the Nephites with him first reached the city of Zarahemla around 200 BC or a little earlier (no specific date is indicated in the record). Judging by the extent of the political unit as it existed two generations later (Mosiah 1:10), the domain he ruled extended no more than about 20 miles (32 km) along the river.²⁹

This was precisely the sort of localized society that characterized Santa Rosa in Phase 3a. Brockington thought it remarkable that no trace of the ceramic tradition of the upper Grijalva area extended beyond its own limited cultural sphere.³⁰ And as noted, no significant public architecture was constructed in Phase 3a. In every respect, early Zarahemla/Santa Rosa had the characteristics of a minor chiefdom.

Both Brockington and Warren emphasized that what the former called the “isolated, provincial” cultural and physical position of the area, in “a cul-de-sac blocked by impressive mountain ranges to the north, east and south,” was “internally marginal.”³¹ This upper Grijalva zone continued for a long time to more or less reflect “continued general cultural isolation.”³² The culture was only “an impoverished version of what is known elsewhere” in Mesoamerica at that time.³³

The Zarahemla-centered Nephite kingdom found itself repeatedly isolated from, and its advances opposed by, the more prosperous downstream portion of the Sidon basin. Beginning in the reign of King Mosiah₂, the hitherto small kingdom of Zarahemla began a rapid expansion of its influence over neighboring areas.³⁴ As part of that process, around 90 BC Alma₂, the high priest over the Nephite religious movement that had been established

29. Sorenson, *Geography of Book of Mormon Events*, 221.

30. Brockington, *Ceramic History of Santa Rosa*, 69–70.

31. Donald L. Brockington, “Investigaciones arqueológicas en la costa de Oaxaca,” *Boletín Instituto Nacional de Antropología e Historia* 38 (1969): 33–40.

32. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 141.

33. Brockington, *Ceramic History of Santa Rosa*, 69.

34. See Sorenson, *Ancient American Setting*, 190–207.

by his father at Zarahemla, undertook a journey to visit settlements around the periphery of the Sidon basin.³⁵ When he reached Ammonihah, near the northern extremity of the nominal land of Zarahemla (probably located at the archaeological site of Mirador in the Cintalapa valley, at the northwestern end of the Central Depression), the people “withstood all his words, and reviled him, and spit upon him, and caused that he should be cast out of their city” (Alma 8:13). This anti-Zarahemla attitude was echoed at a later time in the same general sector³⁶ with the rise of separatist and monarchist movements variously termed Amlicites (2:1–14), king-men (51:1–37), and Amalickiahites (46:28–29).

The geographical isolation of Zarahemla is also confirmed by the incident in which Zeniffite king Limhi, located in the city of Nephi (around 125 BC), dispatched an exploring party to find the city of Zarahemla, with which the Zeniffites had lost contact (Mosiah 8:7–8). But those explorers bypassed their target, a fact understandable given the secluded position of Zarahemla in the narrow river valley.

The Nephites in Zarahemla nearly always felt on the defensive, if not beleaguered, by Lamanites pressing on their territory from the south across the narrow strip of wilderness. Military strategist Moroni₁ was defense-minded but somewhat pessimistic about his people's probable fate: “Let us remember to keep the commandments of God, or our garments shall be rent by our brethren, and we be cast into prison, or be sold [into slavery], or be slain” (Alma 46:23). This viewpoint echoed a longstanding Nephite prophetic tradition of isolation and pessimism (see Jacob 7:26; Enos 1:23; Jarom 1:10–12). Furthermore, Moroni₁ believed that the only proper objective of war for them was “to preserve their lands, and their liberty, and their church” (Alma 43:30). He and other leaders had no ambitions to gain further territory, power, wealth, or glory, but only to survive politically and culturally intact with their own version of “liberty.”

Those limited hopes seem to fit the apparent modest intentions and prospects of the leaders who governed Santa Rosa in the second century BC.

35. See Sorenson, *Ancient American Setting*, 198–207; Sorenson, *Geography of Book of Mormon Events*, 234–36; and Sorenson, *Mormon's Map* (Provo, UT: FARMS, 2000), 62–65.

36. Sorenson, *Geography of Book of Mormon Events*, 230, 266.

They were political and social minor leaguers, and they seemed to realize it. No tombs were found at Santa Rosa,³⁷ presumably because such leaders as were there had few pretensions of social differentiation above their fellows (compare King Benjamin's assertion of his unpretentious status while he ruled at Zarahemla, Mosiah 2:12–14).

With Santa Rosa's shift from archaeological period 3a to 3b, the ceramic repertoire adds a "maroon or red-painted decoration on a white-slip ware that seems somewhat similar to [a ware in] the central portions of the highlands of Guatemala" during the Providencia/Sacatepequez period (ca. 500–200 BC).³⁸ Warren continued, "This same phenomenon . . . may have its parallel in the historical linguistic analysis of Kaufman³⁹ who describes a linguistic influence from the highlands of Guatemala, or as he says, 'refugees from Kaminaljuyu into the Chiapas area.' . . . At any rate this linguistic and archeological influence on the eastern Central Depression of Chiapas points to external interaction with the central highlands of Guatemala."

The corresponding phenomenon in the Book of Mormon sees Mosiah₁'s refugees leaving the land of Nephi (Valley of Guatemala) near 200 BC to settle at Zarahemla (Santa Rosa). Departure of the Nephites would mark the end of the Providencia period at Kaminaljuyu and would also account for the slight decrease in population in the Valley of Guatemala at the onset of the succeeding Verbena period detected by Murdy.⁴⁰ Such a movement would correspond in time to the appearance at Santa Rosa of the unique ceramic "ware . . . similar to . . . [that of] the highlands of Guatemala"

37. Delgado, *Excavations at Santa Rosa*, 41.

38. Warren, "Sociocultural Development of the Central Depression of Chiapas," 138; Donald L. Brockington, "A Prolongation of the Preclassic Period Indicated by the Ceramics of Santa Rosa, Chiapas," in *Los maya del sur y sus relaciones con los Náhuas meridionales: VIII mesa redonda* (Mexico City: Sociedad Mexicana de Antropología, 1961), 87; and Brockington, *Ceramic History of Santa Rosa*, 64.

39. Kaufman, "Archaeological and Linguistic Correlations," 108.

40. Carson N. Murdy, "Prehispanic Settlement and Society in the Valley of Guatemala, 1500 B.C.–A.D. 1524," in *Arqueología mesoamericana: Homenaje a William T. Sanders*, ed. Alba G. Mastache et al. (Mexico City: Instituto Nacional de Antropología e Historia, 1996), 2:82, 101.

reported by Brockington and Warren,⁴¹ as well as making sense of the “linguistic refugees” from Guatemala seen by Kaufman.

Santa Rosa's chief rival was evidently Chiapa de Corzo, 60 miles (97 km) downriver, where local leaders had extensive, and perhaps expansive, foreign relations as well as internal ambitions. In the late Guanacaste period there (ca. 100 BC), excavation revealed a major display of opulence and power; a collection of 140 ceramic vessels in a single elite tomb included 35 exotic trade pieces that had been brought from as far away as Oaxaca, southern Veracruz, lowland Guatemala, and El Salvador.⁴² By the same period, there is evidence at the site of the use of writing, a sign of a high level of socio-economic development. Faded painted glyphs were found on a ceramic vessel at Chiapa de Corzo, although there is insufficient indication to determine what script was in use.⁴³ This apparent prosperity and influence to and from afar increased in the following Horcones period (after 75 BC). However, all did not proceed smoothly at Chiapa de Corzo, it appears, for in the transition to Horcones there is some evidence of violence.⁴⁴

That violence happened about the time when Moroni₁, faced by a rebellion by the “king-men,” was forced to “march forth against them; and . . . they were hewn down and leveled to the earth” (Alma 51:18). It is not perfectly clear exactly where these rebels were located, but most likely, as proposed earlier, their headquarters was in the “most capital parts of the land” (Helaman 1:27), downstream from Zarahemla.⁴⁵ Chiapa de Corzo qualifies as the chief center in that area. The violence reported by Agrinier may be evidence of Moroni₁'s punitive action against the rebels.

Meanwhile, Santa Rosa was on the way to greater prestige or political

41. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 138; Brockington, “Prolongation of the Preclassic Period,” 87; and Brockington, *Ceramic History of Santa Rosa*, 64.

42. Warren, “Central Depression of Chiapas,” 20. However, Clark (personal communication, March 2013) reports that his examination of these materials at the Chiapas NWAFF facility showed only “maybe 45” vessels.

43. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 61.

44. Pierre Agrinier, *Mounds 9 and 10 at Mirador, Chiapas, Mexico*, New World Archaeological Foundation Papers 39 (Provo, UT: BYU New World Archaeological Foundation, 1975), 51.

45. Sorenson, *Geography of Book of Mormon Events*, 266.

influence, for a large pyramid (its first and tallest, at 46 feet [14 m]) was built at the site by the end of Phase 3b, probably between 100 and 75 BC.⁴⁶ Construction of such an imposing mound as the very first pyramid in the site's history appears to have coincided with the time when Zarahemla's last king (Mosiah₂) reigned and presided over the city's rise to the status of a regional capital over the extended land of Zarahemla. A sociopolitical gesture such as construction of a pyramid seems to have been an appropriate way to mark the city's debut on the wider regional stage.

At a more concrete level, a remarkable correspondence shows up at Santa Rosa in a public building of the same Phase 3b. (This was described in chapter 15.) The huge Mound S platform—243 by 262 feet (74 by 80 meters) and 20 feet (6 meters) high, considered by the excavator to have been a temple platform—was located at the site's center. Excavation revealed that in a top stratum a gravel layer had been laid down that was subsequently covered by a plastered floor.⁴⁷ The gravel on each of the two sides of the east-west medial line was of completely different types. The materials had obviously been brought from two different sources. After recapitulating Delgado's report of the dig, Brockington continued, "I supervised that excavation and, upon noting the difference [in materials], carefully searched the gravel, finding no mixture whatever. Not only does the difference suggest two sources of materials, but it may be taken to imply [that the work was done by] two separate groups, each working on its section."⁴⁸

In addition, and corresponding in concept to the split in the ceremonial placement of the gravel, Brockington reported that the residential zone, as determined by potsherds picked up on the surface, formed two oval sectors (each extending about 1,640 by 820 feet [500 by 250 m]) divided by an extension of the central line of Mound S that separated the two kinds of gravel. Brockington saw this residential separation as reflecting two "moieties" (dual social groups found in some societies that have complementary ritual responsibilities). Dual housing areas continued into Phase 4, down

46. Brockington, "Prolongation of the Preclassic Period," 86–88; Delgado, *Excavations at Santa Rosa*, 28.

47. Delgado, *Excavations at Santa Rosa*, 29.

48. Brockington, *Ceramic History of Santa Rosa*, 60–61.

just past the time of Christ, when the division was replaced by a unified residential area.

Mosiah 25:4 reports that when (around 125 BC) Mosiah₂ summoned the entire population of his little kingdom to a ceremonial gathering, “all the people of Nephi were assembled together, and also all the people of Zarahemla, and they were gathered together *in two bodies*.” While the text reports nothing about the arrangement of the inhabitants’ areas of residence, it is difficult to imagine that their ceremonial split did not reflect distinct housing (and probably speech) areas of the nature that Delgado and Brockington discovered.

If this archaeological evidence for an apparent twofold social or ethnic division of the population is seen as reflecting the Mulekite and Nephite separation, it becomes even more striking that in the Santa Rosa 5 period, probably starting in the first century AD, the division into two residential areas came to an end, at a time when “the population apparently [had] declined considerably.”⁴⁹ According to the Nephite history in the first century AD, the city of Zarahemla “did take fire” from lightning as part of the area-wide disaster (3 Nephi 8:8; see chapter 24 herein) but was soon rebuilt by survivors (4 Nephi 1:8). The reconstruction took place shortly after the former ethnic divisions, and presumably the former segregated residence zones, were eliminated by religious fiat (4 Nephi 1:7–8, 17).⁵⁰

49. Brockington, *Ceramic History of Santa Rosa*, 61.

50. The dig at Santa Rosa was under the auspices of the New World Archaeological Foundation (NAAF), which was funded by the LDS Church, but neither Delgado nor Brockington were Mormons, nor did they or anyone else associated with the NAAF attempt to make any Book of Mormon identification of the site or the region (or with *any* site or region, for that matter), even a generation later, after I had suggested in print that Santa Rosa could be the ruin of Zarahemla (Sorenson, *Ancient American Setting*, 152–57).

Regarding the independence of the NAAF from any LDS Church direction in scientific matters, see the unambiguous statement in 1959 by J. Alden Mason, emeritus professor of anthropology at the University of Pennsylvania, then serving as an archaeologist and editor for the NAAF. He averred that there were never *any* attempts by church authorities to influence the Foundation’s operations, findings, or publications. J. Alden Mason, foreword to *Research in Chiapas, Mexico*, New World Archaeological Foundation Papers 1–4 (Orinda, CA: New World Archaeological Foundation, 1959), iii–iv. That same policy continued throughout the life of the Foundation.

Mirador as Ammonihah

Using information in the book of Alma, we can establish the geographical limits and part of the cultural history of what is proposed as the extended land of Zarahemla in the first century BC. At about 85 BC the city of Ammonihah was a significant settlement near the north and west border of the land (the Central Depression), some 100 miles (160 km) from the capital. The city's elite acknowledged nominal fealty to the Nephite government (which then had a chief judge serving as governor at Zarahemla). But Ammonihah's leaders chose to hew their own way culturally and had ambitions to separate themselves from Zarahemla's rule (Alma 8:11–17). They already considered theirs to be a “great city” (9:4). In the geographical correlation we established earlier, the city of Ammonihah very probably can be placed at the archaeological site of Mirador in the Cintalapa Valley of western Chiapas.⁵¹ As was the case with Ammonihah, Mirador appears to have been a regional center of importance⁵² at the time of Alma₂'s visit. Furthermore, Mirador, again like Ammonihah, was the first city encountered as travelers came from the Pacific “west sea” coast via the pass above Arriaga “into the borders of the land.” (A Lamanite army invading from the coast twice encountered this city immediately after crossing over the west wilderness [mountainous area] that was the effective boundary, 16:2; 49:1). Archaeologists put Mirador's cultural and political power on a par with that of other key centers in Chiapas at that time.⁵³

The city of Ammonihah was given special mention in Alma 49:2 (around 75 BC) as having been fortified. While the full results of excavations at Mirador, Chiapas, have never been published, we do have a preliminary statement from Lowe to the effect that Mound 32, the only natural hill within the site, was fortified between 250 and 75 BC.⁵⁴

51. See Sorenson, *Ancient American Setting*, 198–203.

52. Fredrick A. Peterson, *Some Ceramics from Mirador, Chiapas, Mexico*, New World Archaeological Foundation Papers 15 (Provo, UT: BYU New World Archaeological Foundation, 1963); and Agrinier, *Mounds 9 and 10 at Mirador*.

53. Agrinier, *Mounds 9 and 10 at Mirador*, Warren, “Sociocultural Development of the Central Depression of Chiapas,” 60.

54. Gareth W. Lowe, “Southern Olmecs and Preclassic Zoques in Western Chiapas:

Ocozocoautla as the City of Noah

A ruin near Ocozocoautla, 20 miles (32 km) away from Mirador, is placed appropriately to be the Book of Mormon city of Noah. When the Lamanite army was disappointed upon finding Ammonihah fortified, they “took their camp and marched towards the land of Noah, supposing that to be the next best place for them to come against the Nephites” (Alma 49:12). But that city had also been fortified “even to exceed the strength of the city Ammonihah” (v. 14). The New World Archaeological Foundation’s excavation at the Ocozocoautla site also remains unpublished.

San Isidro as the City of Aaron

A geographic and archaeological parallel of interest in relation to the general land of Zarahemla also involves the city of Aaron. Upon first being rebuffed at the city of Ammonihah, Alma₂ “took his [missionary] journey towards the city which was called Aaron” (Alma 8:13). It apparently lay toward the northern extremity of the Sidon River basin.⁵⁵ But he never reached the place, having been stopped en route by a heavenly messenger who instructed him to return to Ammonihah. The city of Aaron is later mentioned (50:14) in connection with garrisoning the east sea area; the border of the land over which Aaron was the administrative center “joined the borders” of the land of Nephihah. Aaron was likely to have been on or near the Sidon River downstream from the land of Sidom and near the northern rim of the river basin. This positioning helps define the extent of the basin in relation to the eastern lowlands where Nephihah was located.⁵⁶ But, rather surprisingly, Aaron was never mentioned again in the text. One presumes that it may have been abandoned soon after Alma₂’s time, perhaps as a result of threats to its position during the long war that began seven years later.

San Isidro fits neatly with all aspects of what the text says or implies

Summary of Research and Writing, 1993,” manuscript produced for the New World Archaeological Foundation in 1994, 91.

55. Sorenson, *Ancient American Setting*, 203–4; Sorenson, *Geography of Book of Mormon Events*, 235–37.

56. Sorenson, *Mormon’s Map*, 68–69 and the map inside the front cover.

about the position of Aaron. Its commercial and political realm of influence was the middle section of the Grijalva River, for which it served as “the chief terminal on the [riverine] route to Tabasco.”⁵⁷ Excavations have shown that San Isidro and Mirador, the site identified as probably Ammonihah, were closely linked culturally up until about 75 BC. This would fit with Alma₁’s decision to leave the one city to try his fortune at the other. San Isidro was in fact abandoned⁵⁸ at just about the time the city of Aaron disappeared from Nephite history.

Chiapa de Corzo as Sidom

Upon fleeing Ammonihah, Alma₂ and his refugee followers gathered in the land of Sidom, apparently at its central city (Alma 15:1, 13–14). Emphasis on the fact that converts to Alma₂’s church “did flock in from all the region round about Sidom” to be baptized (v. 14) suggests an unusually populous river location (not even the “great city” of Ammonihah is implied to have had much of a hinterland population, for Alma 16:2 reports invaders coming directly “even into the city”). Sidom’s geographical situation as described would be consistent with the fact that the zone along the Sidon River downstream from Zarahemla was later termed part of “the most capital parts of the land” (Helaman 1:27), an area that included “many cities.”

The possible relationship of the name *Sidom* to *Sidon*, the Nephite name of the river, further suggests that Sidom functioned as a port for commercial transportation. The historical source of the name could have been the Phoenician port of Sidon, given that it was likely a Phoenician ship that conveyed the Mulek party to Mesoamerica, and Sidon was Phoenicia’s prime port.

I previously suggested that “the impressive archaeological site of Chiapa de Corzo seems to be Sidom”⁵⁹ because, in the geographical correlation

57. Thomas A. Lee Jr., “The Historical Routes of Tabasco and Northern Chiapas and Their Relationship to Early Cultural Developments in Central Chiapas,” in *Mesoamerican Communication Routes and Cultural Contacts*, ed. Thomas A. Lee Jr. and Carlos Navarrete, New World Archaeological Foundation Papers 40 (Provo, UT: BYU New World Archaeological Foundation, 1978), 65.

58. Thomas A. Lee Jr., “The Middle Grijalva Regional Chronology and Ceramic Relations: A Preliminary Report,” in *Mesoamerican Archaeology: New Approaches*, ed. Norman Hammond (Austin: University of Texas Press, 1974), 12.

59. Sorenson, *Ancient American Setting*, 205.

for which so much support has already been shown, that identification fits well. Interestingly, at the time of the Spanish conquest the name applied to Chiapa de Corzo by the nearby Tzeltal Indians was *Zactan*, which means “white lime,”⁶⁰ while the Hebrew *sid* (lime, whitewash) might have been construed by the Nephites or Mulekites as an etymology for the Phoenician name *Sidon*.⁶¹

The plausibility that the land of Sidom was conceptually associated with the Phoenician port of Sidon increases when in light of the importance of ancient boat communication on the Grijalva River. Lee and Navarrete emphasize “the [pre-Columbian] importance of Chiapa de Corzo as a river port,” citing a statement by Pineda from 1594⁶² that a fleet of small boats brought passengers and goods from upriver to Chiapa de Corzo and that was one of the city’s sources of wealth. “Canoe traffic here is common with the good sailors that the Indians from these parts are,” also reported Fray Torres in the 16th century. He continued, “There is a good wharf and Chiapa is the final point for those who come downriver, since from Chiapa on down the river goes dashing between very close hills [actually, precipitous cliffs].”⁶³

Sites in the Central Depression of Chiapas and the Greater Land of Zarahemla

Around 85 BC, when Alma₂ visited Ammonihah and Sidom, those places fell near the northern extremity of Nephite-governed territory (except for the even more marginal city of Aaron). As soon as Alma₂ completed his religious ministering at Sidom, he had completed most of a circuit of the land of Zarahemla. At that point he “came over to the [local] land of Zarahemla” (Alma 15:18), where his home was located. The consistent meaning of *over*

60. Lawrence H. Feldman, “Languages of the Chiapas Coast and Interior in the Colonial Period, 1525–1820,” in *Studies in Ancient Mesoamerica*, ed. John Graham, Contributions 18 (Berkeley: University of California Archaeological Research Facility, 1973), 81.

61. Sorenson, *Ancient American Setting*, 205; and Robert F. Smith, personal communication, 2007.

62. Lee, “Historical Routes,” 49–66; and Carlos Navarrete, “The Pre-Hispanic System of Communications between Chiapas and Tabasco (Preliminary Report),” in Lee and Navarrete, *Mesoamerican Communication Routes*, 85.

63. Navarrete, “Pre-Hispanic System of Communications,” 85–86.

in the text is “to cross an elevation or watershed.” Had Alma₂ merely gone upstream alongside the river, his route would have had no “over” in it. The way by which he went back to Zarahemla must have required passing over the uplands that encroach on the northeast side of the Sidon River.⁶⁴

Our geographical correlation sees his route climbing from Chiapa de Corzo to pass through the San Cristobal area before dropping down via the Teopisca and Soyatitan zones to the river and Santa Rosa. An important reason for going that way likely was because at the higher elevation the climate would have been cooler and the route a good deal smoother than passing through the ups and downs where tributary streams ran into the river in the bottom of the Central Depression. For this reason this highland route had a long pre-Spanish history, and in fact the Interamerican Highway (Mexico Route 190) follows the same course today, not along the river.

Alma₂'s choice of route might also have been because, nearer the river, he would have encountered pockets of unfriendly people in the homeland of the Amlicite rebels against whom he had fought deadly battles just two years earlier.⁶⁵

The Land of Zarahemla in Perspective

The account of Alma₂'s circuit of the land is also striking in geopolitical terms. The land of Zarahemla seems regularly to be divided between two opposing centers. One, of course, was the city of Zarahemla, while the other was the downriver “most capital parts” (Helaman 1:27). That the anti-Zarahemla faction had a definite geographical base is made clear by Alma 51:17–20. The rebels were outvoted when “the voice of the people” (v. 16)

64. See above in this chapter and chapter 7 herein; Sorenson, *Mormon's Map*, 35–36; also see the discussion and map 6 about the topography involved in the war with the Amlicites.

65. Sorenson, *Geography of Book of Mormon Events*, 230. The Amlicite army that had come against Alma₂'s army on the hill Amnihu may have been the fiercest anti-Zarahemlaites in this cockpit area. Their casualties (“great slaughter”) in that vicious battle against Alma₂ (Alma 2:17–18, 28–38) may have eliminated the Nephites' greatest local opposition faction as far, at least, as the Sidom area was concerned, making it possible to “establish the church” there according to the Zarahemla pattern (15:17). Twenty years later, however, the “king-men” launched a new (or renewed) rebellion (Alma 51), so strong anti-Zarahemla (and anti-Alma₂) sentiments probably were latent in the river cities.

rejected monarchy and chose continued rule by elected judges. Moroni₁, the military commander of the Nephites, was authorized to “go against those king-men, to pull down their pride and their nobility and level them with the earth” if they continued to refuse to support “the cause of liberty” (v. 17) by contributing forces to defend the nation against impending attack by the Lamanites. The latter were led by Amalickiah and other Nephite dissenters who had previously tried, and failed, to pull off a royal coup in the king-men’s pattern.

Amalickiah probably came originally from the downriver rebel zone (Alma 46:28–32). When Moroni₁’s loyalist army “did march forth” to the king-men’s home area, the insurgents “were hewn down and leveled to the earth” (51:18), while those who chose to surrender “were compelled to hoist the title of liberty upon their towers, and *in their cities*” (v. 20). Evidently the Nephites found ideological unity and central governance hard to maintain without forcibly “subjecting [some of the people] to peace and civilization” (v. 22).

In the Central Depression of Chiapas in the Pre-Classic, there were two dominant centers: Chiapa de Corzo and Santa Rosa. Lowe believed that “the cleavage of the valley [Central Depression] into [upper basin] and [lower basin] cultural divisions is apparent on both an early and late level.”⁶⁶ “Cleavage” was correct, for Brockington observed that there was “no close resemblance with and little typical of Chiapa de Corzo at Late Preclassic Santa Rosa.”⁶⁷ The downriver site was more cosmopolitan, with trade or other links over a wide area in Mesoamerica. In the Horcones period at Chiapa de Corzo, Mound 5 contained no fewer than 830 pottery vessels of immense variety that had been brought from most areas of Mesoamerica; this was the most spectacular display of cosmopolitan taste and wealth known at any time in Mesoamerica. The tomb unquestionably bespeaks huge wealth and rank differences within the city. Santa Rosa, on the other hand, shows “an impoverished version of what is known elsewhere,” a “regional development . . . similar [to] . . . but very distinctive” from those in

66. Lowe, *Archaeological Exploration*, 78.

67. Brockington, *Ceramic History of Santa Rosa*, 69.

other areas.⁶⁸ Moreover, the digging at Santa Rosa did not reveal a single tomb, as already observed, suggesting a less differentiated society.

While the upriver area was less sophisticated in terms of contact with distant areas, still it enjoyed significant wealth (see Alma 60:7, 19, 22), especially in agricultural terms (56:29). The Book of Mormon account indicates that Nephite military leadership expected the civil authorities at Zarahemla, a breadbasket area, to supply their armies (vv. 9, 19, 24–25). Correspondingly, Lowe noted “the low, fertile river plains of the upper Grijalva,”⁶⁹ while Collins and Doyle saw the richness of modern agriculture near the river.⁷⁰

Linguistic evidence agrees with that from archaeology to suggest that the Book of Mormon account of ethnic/linguistic distribution in the land of Zarahemla is plausible: the speech and culture of the Nephite intruders at Zarahemla (Omni 1:14, 18) came from the land of Nephi/highland Guatemala: Mosiah₁'s party brought the speech and culture of the land of Nephi (highland Guatemala), and thereafter a number of population interchanges took place between the two areas. The resulting culture was in some ways like and in some ways distinct from that of the Mulekites who occupied the zone downriver from Zarahemla.

It is also of interest that at Chiapa de Corzo, in the solidly Zoque portion of the Central Depression, the primary ceramic style during the Guanacaste period from about 200 to 75 BC was oriented toward the Maya lowlands,⁷¹ but in the Horcones period that followed, when Moroni₁'s strong hand had taken effect, that influence had disappeared. The land of Zarahemla area as a whole became more integrated, despite divisive tendencies. The change seems to be symptomatic of an increasing sense of identification among peoples of the river basin territory as a self-conscious socio-political entity emerged—in Book of Mormon terms, a growing sense of “our country” (Alma 60:16–36). This process corresponded to the spread

68. Brockington, *Ceramic History of Santa Rosa*, 69.

69. Lowe, *Archaeological Exploration*, 78.

70. Guy N. Collins and Conrad B. Doyle, “Notes on Southern Mexico,” *National Geographic Magazine* 22 (1911): 301–20.

71. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 74.

of the political power of Zarahemla over the entire basin. This activity fits broadly with what I have termed “the expansion of Zarahemla.”⁷²

Alma₂ launched his preaching tour at the city of Zarahemla. By the time he had completed his ministry at Sidom, he felt that he had met his objective of traveling “throughout all the land.” He could have gone elsewhere, such as to Aaron, had time permitted—no doubt during the dry season while travel was feasible—but he had indeed covered most of the perimeter of the Central Depression. (See map 8.)

Two Key Centers of Civilization in Southern Mesoamerica and in the Book of Mormon

The archaeological materials for most of the first century BC and the first part of the next century in the Central Depression fall within the Horcones period at Chiapa de Corzo. Establishing the precise chronology of such an archaeologically defined period is always somewhat problematic. Since the dates that may be assigned depend primarily on the radiocarbon technique, and since, as explained in chapter 4, we cannot hope to pin down precise dates using that technique, we are forced to make do with best estimates. When thousands of dated carbon-14 specimens from all over Mesoamerica were evaluated for quality and compared,⁷³ it was determined that the relatively brief Horcones period fits between 75 BC and AD 50, give or take a decade or more on either end.

This period saw remarkable developments in central Chiapas. Such development remains one of the least appreciated cultural phenomena that should be known to Mesoamerican archaeologists, in part because it has not been summarized or popularized in print in straightforward terms. In fact, what happened there was one of the major cultural advances of the Pre-Classic era. Delgado spoke of the “climactic development [at Santa Rosa] in the Early Protoclassic” (first century BC), adding that “an artistic climax” and “an efflorescence” were attained.⁷⁴ Indeed, Warren reports that this period saw most of the construction at Santa Rosa completed.⁷⁵ Simultaneously

72. Sorenson, *Ancient American Setting*, 190–97.

73. Sorenson, “Mesoamerican Chronology: 2004.”

74. Delgado, *Excavations at Santa Rosa*, 3, 46, 79.

75. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 64.

nearly all the structures at the “rapidly evolving”⁷⁶ Chiapa de Corzo were completed.⁷⁷ Adams is one of the few Mayanists to appreciate the importance of the Horcones-period phenomenon in crystallizing first-century-BC civilization in southern Mesoamerica:

One of the most elaborate and astounding florescences was at Chiapa de Corzo as represented by the Horcones material. Nothing at Altar [de Sacrificios, the lowland Maya site he was reporting,] represents nearly the complexity in ceramics or architecture achieved on this time level on the Grijalva River in Chiapas, and yet the Altar ceramics show striking affinities to the Horcones pottery. It may be that the [contemporaneous] Late Plancha [period] experimentation [at Altar de Sacrificios] represents influence from the Chiapa de Corzo region itself.⁷⁸

Simultaneously at Kaminaljuyu in the Guatemalan highlands, the thoroughly literate, politically influential, and artistically sophisticated culture of the Verbena and Arenal periods reached a culmination.

The brilliant cultural developments in the Central Depression of Chiapas and the Valley of Guatemala may have constituted the two most influential manifestations of southern Mesoamerican civilization in the first century BC, probably setting the pace and providing stimuli for the more famous, though derivative, centers such as Tikal and El Mirador in the Maya lowlands.

It can hardly escape attention that according to the Book of Mormon, the two key centers of civilization at that time were the lands of Nephi and Zarahemla, whose interaction was crucial to its narrative. Those two lands

76. Gareth W. Lowe, “Burial Customs at Chiapa de Corzo,” in Pierre Agrinier, *The Archaeological Burials at Chiapa de Corzo, Mexico, and Their Furniture*, New World Archaeological Foundation Papers 16 (Provo, UT: BYU New World Archaeological Foundation, 1964), 73.

77. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 64; and Delgado, *Excavations at Santa Rosa*, 36.

78. Richard E. W. Adams, *The Ceramics of Altar de Sacrificios*, Peabody Museum of Archaeology and Ethnology Papers 63.1 (Cambridge, MA: Harvard University Press, 1971), 157.

have been shown to coincide with, respectively, the Valley of Guatemala and the Grijalva River basin. Upwards of 50 percent of Mormon's record, the period of the judges, is devoted to events and personnel of around 80 BC to AD 30, and the venues for that history are almost exclusively those two cultural climax areas.

Aside from this general culture-historical correspondence, we find further correspondences that demonstrate that the Nephite historical account is congruent with the Mesoamerican archaeological record.

The Great War and More

Around 80 BC, Mormon's text tells us, a series of wars began that revolutionized life in the land of Zarahemla. A crucial factor of the change was the flight of a party of dissident elite males who left the general land of Zarahemla to make their way to the land of Nephi (or Lehi-Nephi as it was then called), the area around the Lamanite capital. By trickery and murder, the ambitious leader of the party, Amalickiah, succeeded in gaining the Lamanite throne. For 14 years he and his ex-Nephite successors kept on "stirring up" Lamanite subordinate leaders to assemble armies and attack the Nephites in order to subject them to their governance.

In the material that follows, data from Mormon's text are compared with archaeological or other scholarly findings on further points, some of which may seem minor, although detailed minor correspondences can be as telling as broad ones. The correspondences all refer to situations or events beginning in 75 BC and ranging into the first part of the following century. In most instances the facts refer to a particular locality or region. If a correspondence is to be documented, geographical particulars must be established to which the historical text refers. So the discussions usually succinctly recap earlier discussions about geography. After all, geography, history, and culture are inextricably linked. We cannot intelligently comprehend, say, the Napoleonic war with Russia without understanding where Moscow is located, nor would a discussion of Nephite strongholds be clear without reliable clues about their settings.

It is clear from a host of statements by the historians that the Lamanites enjoyed heavy demographic superiority over the Nephites (e.g., Jarom 1:6;

Mosiah 25:2–3).⁷⁹ Evidently the land of Nephi offered more favorable environmental conditions than did the Zarahemla area. (No doubt that is one reason why Zeniff’s party [Omni 1:27–28] was anxious to return to the highlands from the less pleasant valley where Mosiah₁’s exodus had taken them.) The Lamanite forces seemed always capable of recovering from heavy combat casualties. The Nephites seem not as resilient in replacing manpower. No detailed reconstructive studies of the ancient population of the isthmian or highland Maya areas have yet been undertaken, but it is apparent simply by perusing the ethnographic and historical literature on the two areas that the Chiapas/Tabasco area typically had a smaller population than the highlands of southern Guatemala. The population potential of these two Mexican states was limited by the fact that the area has little arable land. Chiapas is mostly mountainous, and much of it suffers from lack of agriculturally helpful rainfall patterns. Tabasco and adjacent southern Veracruz are also generally plagued by poor drainage, severe flooding, and resulting wetlands. The heavily populated valleys of the Guatemalan uplands have a much more equable climate.⁸⁰

As a result of the long conflict initiated by Amalickiah, Nephite society underwent major adaptations in their society soon after 75 BC, especially in settlement patterns and in military and governmental structures but also in other ways (e.g., Alma 62:39–41). Numerous correspondences can be detected between the Book of Mormon and Mesoamerican archaeological history for this period.

As discussed in chapter 18, only in recent years have Mesoamerican archaeologists reluctantly modified their older view that warfare was almost absent in Book of Mormon times.⁸¹ Much of the now-abundant archaeological evidence that warfare was common has come from the lowland Maya area. Deciphered inscriptions often mention warfare, and ruined fortifications

79. Sorenson, *Ancient American Setting*, 145–48, 191–95.

80. Lowe, *Archaeological Exploration*, 2.

81. David Webster, “The Not So Peaceful Civilization: A Review of Maya War,” *Journal of World Prehistory* 14/1 (2000): 65–119; John L. Sorenson, “Last-Ditch Warfare in Ancient Mesoamerica Recalls the Book of Mormon,” *Journal of Book of Mormon Studies* 9/2 (2000): 44–53; and Sorenson, “Fortifications in the Book of Mormon Account Compared with Mesoamerican Fortifications,” in Ricks and Hamblin, *Warfare in the Book of Mormon*, 425–44.

have been found. But other areas are revealing similar material. For instance, between AD 250 and 400, at the site of Balberta on the coastal lowland of Guatemala, we see a ditch-and-wall fortification around a city, while directly across the river facing it, a very different style of pottery suggests confrontation with an expanding enemy.⁸²

Given how recently the topic of warfare emerged from the state of denial where it languished for years, it is too soon to expect scholars to provide a comprehensive military history of Mesoamerica, although Hassig has begun such.⁸³ It is remarkable, nevertheless, how completely and abruptly archaeologists have made the switch to accepting war as a regular concern of ancient Mesoamerican societies. This has happened, as it were, overnight, as far as the historians' timeline is concerned. It is now fairly common to read that wars "functioned to maintain or expand political systems, eliminate enemies, establish political dominance or strategic advantage, acquire and redistribute basic resources and populations, and facilitate the upward mobility of individuals and factions."⁸⁴ Of course, those concepts are thoroughly visible in the Book of Mormon record.⁸⁵ Nor was war merely a late development, as has been claimed for years, for "the Maya prove to have been warlike to their deepest Preclassic roots."⁸⁶ And there is no reason to

82. Marion Popenoe de Hatch, "Observaciones sobre el desarrollo cultural en la Costa Sur de Guatemala," in *Investigaciones arqueológicas en la Costa Sur de Guatemala*, ed. David S. Whitley and Marilyn P. Beaudry (Los Angeles: UCLA Institute of Archaeology, 1989), 29.

83. Ross Hassig, *War and Society in Ancient Mesoamerica* (Berkeley: University of California Press, 1992).

84. Webster, "Not So Peaceful Civilization," 111; compare Arthur A. Demarest et al., "Classic Maya Defensive Systems and Warfare in the Petexbatun Region: Archaeological Evidence and Interpretations," *Ancient Mesoamerica* 8 (1997): 229–53; Arthur A. Demarest and Juan Antonio Valdés, "Guerra, regresión política y el colapso de la civilización maya clásica en la región Petexbatun," in *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1995), 777–81.

85. William J. Hamblin, "The Importance of Warfare in Book of Mormon Studies," in Ricks and Hamblin, *Warfare in the Book of Mormon*, 481–99; and David A. Palmer, "Warfare and the Development of Nephite Culture in America" (Provo, UT: FARMS, 1985).

86. Webster, "Not So Peaceful Civilization," 112; compare Robert L. Rands, "Some Evidences of Warfare in Classic Maya Art" (PhD diss., Columbia University, 1952).

think that groups in other portions of Mesoamerica any less often resorted to armed conflict.⁸⁷

When this abrupt change in the scholar's perspective is viewed in the light of the Book of Mormon, it is evident that a notable convergence has occurred between the two; the archaeologists' interpretation of the role of warfare in Mesoamerica has moved quickly and decisively from a pacifistic interpretation to much nearer agreement with what we learn from Nephite history.⁸⁸

The rise of warfare could have been a significant element in shaping cultures in the first century BC. According to the Nephite record, the threat of Lamanite attacks from the land of Nephi led the Nephites to fortify "every city in all the land [of Zarahemla] round about" (Alma 49:13). That meant that outlying populations would have gathered to larger, fortified centers. Typically the Nephite commander Moroni₁ "caused that all the people in that quarter of the land should gather themselves together to battle against the Lamanites" (43:26). This could account for an archaeologist's observation that the number of settlements in the Central Depression of Chiapas was reduced with the onset of the Horcones period. A corresponding rise in the urban population would have the same explanation.⁸⁹

Support for this scenario comes from the fact that in Chiapas the obsidian supply becomes short at this same period.⁹⁰ This vital mineral for the people in Chiapas had previously come mostly from El Chayal, the big

87. See, for example, the even longer history of fortifications in the states of Tlaxcala and Puebla documented in Angel García Cook, "The Historical Importance of Tlaxcala in the Cultural Development of the Central Highlands," in *Supplement to the Handbook of Middle American Indians*, ed. Jeremy A. Sabloff (Austin: University of Texas Press, 1981), 1:253, 255, 263–68, 274.

88. As Clark has recently pointed out in John E. Clark, "Archaeology, Relics, and Book of Mormon Belief," *Journal of Book of Mormon Studies* 14/2 (2005): 44; compare John L. Sorenson, "Digging into the Book of Mormon: Our Changing Understanding of Ancient America and Its Scripture, Part 1," *Ensign*, September 1984, 33–34.

89. Warren, "Sociocultural Development of the Central Depression of Chiapas," 68–70.

90. John E. Clark and Thomas A. Lee Jr., "Formative Obsidian Exchange and the Emergence of Public Economies in Chiapas, Mexico," in *Trade and Exchange in Early Mesoamerica*, ed. Kenneth G. Hirth (Albuquerque: University of New Mexico Press, 1984), 274.

volcanic outcrop near Guatemala City.⁹¹ The shortage suggests that the obsidian supply became blocked because of war between the two areas. It was pointed out in chapter 18 that El Chayal qualifies as the “place of arms” of the Lamanites, as mentioned in Alma 47:5.

The Nephites’ military strategist Moroni₁ (Alma 43:16–17) feared being hemmed in between the Lamanite bloc on the south and the narrow neck of land, especially if the enemy should succeed in getting control of the strategic isthmus. In Alma 50:31–32 he worried that “the people who were in the land Bountiful”—namely, the potentially rebellious, predominantly Mulekite inhabitants south of the narrow neck—might unite with a dissident force that was trying “to flee into the land northward.” If that were to happen, he went on, it “would lay a foundation for serious consequences [for] the people of Nephi.” In terms of our geographical correlation, that move would have reconstituted much of the former “Olmec area” sitting astride the Isthmus of Tehuantepec. If the Nephites should lose control of the isthmus, they would not “have a [north] country whither they might flee” from a decisive Lamanite attack from the south (22:34).

Moroni₁’s strategic nightmare soon rose almost to reality. The Nephite dissenter Amalickiah, now king over the Lamanites, launched a blitzkrieg aimed at seizing the isthmus, as Moroni₁ feared. As map 9 shows, the Lamanites’ shortest route to the isthmus lay along the “borders by the east sea.” Moroni₁ had prepared for that event by expelling Lamanite squatters who were scattered throughout the eastern lowland zone (Alma 50:9) and populating the area with new garrison cities (Alma 50:10–15). As a first line of defense, he fortified “the [existing] line between the Nephites and the Lamanites” (v. 11), which the enemy had to breach before it could reach the new garrisons. This area was probably part of the delta of the Sidon River. The line spoken of was likely the lower reaches of the Sidon itself or one of its principal distributaries.⁹²

91. Fred W. Nelson Jr. and John E. Clark, “Obsidian Production and Exchange in Eastern Mesoamerica,” in *Rutas de intercambio en Mesoamérica: III Coloquio Pedro Bosch-Gimpera*, ed. Evelyn C. Rattray (Mexico City: Universidad Nacional Autónoma de México, 1998), 277–333; and Michael D. Coe and Kent V. Flannery, “The Pre-Columbian Obsidian Industry of El Chayal, Guatemala,” *American Antiquity* 30 (1964): 43–49.

92. Compare René R. Gadacz, *Pre-Spanish Commerce in the Gulf Coast Lowlands of*

Amalickiah's campaign was launched at the new city of Moroni, the undermanned, seaward hinge point of the Nephites' defense line (Alma 51:23; 62:34, 38). The Lamanite leader had gathered his forces on the Lamanite side of the frontier near there (51:9–12, 22), where communication routes with his highland home territory converged. The attack proceeded parallel to the coast (vv. 26–28) and quickly took Moroni and then city after city. Its maximum penetration was a point “on the beach” perhaps only 20 to 30 miles (32 to 48 km) from the crucial “narrow pass,” Amalickiah's objective (51:28–52:2).

On this scene—“the borders by the east sea”—several further correspondences can be observed between the Book of Mormon account and the Pre-Classic archaeology and culture of the isthmian area.

The western boundary of Maya ethnic groups had lain at or near the Copilco River in Tabasco probably for many generations, maybe for millennia.⁹³ Sisson found that the westward limit of pottery with a “waxy feel” that is considered characteristic of the lowland Maya area in the centuries just before the time of Christ was at Laguna Mecocacán, only a few kilometers east of Rio Copilco.⁹⁴ That lagoon is where the former principal course—now called the Río Seco (Dry River)—of the Grijalva reached the sea until the 17th century.⁹⁵ This means that the zone of confrontation pointed out by Lowe (see above) between the Mayan language/ethnic groups and the Mixe-Zoqueans ran along the lower course of the principal river debouching in the western Tabasco coastal area.

The same spot best fits the geographical information in the Book of Mormon concerning the location of the city of Moroni and the adjacent

Mexico (Calgary, Canada: Western, 1979), 50: “Many of the rivers in Tabasco served as provincial boundaries.”

93. France V. Scholes and Ralph L. Roys, *The Maya Chontal Indians of Acalan Tixchel*, Publication 560 (Washington, DC: Carnegie Institution, 1948), 3, 17–18; and Lee, “Middle Grijalva Regional Chronology,” 9.

94. Edward B. Sisson, “Settlement Patterns and Land Use in the Northwestern Chontalpa, Tabasco, Mexico: A Progress Report,” *Cerámica de cultura maya* 6 (1970): 46.

95. Robert C. West, “Surface Configuration and Associated Geology of Middle America,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Robert C. West (Austin: University of Texas Press, 1964), 1:59.

“line” that separated Nephite and Lamanite territories (Alma 50:11).⁹⁶ It would be possible to efficiently gather an armed force at the coast near that point by coming down the Usumacinta River from highland Guatemala.

The Nephite expression “borders by the east seashore” (with variations, as at Alma 52:13; 62:25), which referred to the east sea/Gulf Coast lowlands of Tabasco, had a Mayan language equivalent. In the Popol Vuh, the traditional account of the Quiché Maya of highland Guatemala, the Gulf Coast is referred to as “the border of the sea,”⁹⁷ and the same area was considered “the East” in relation to the Quiché homeland.

Little excavation has been done in western Tabasco, the area we consider to have been this Nephite territory, but an archaeological surface survey has shown the presence of Late Pre-Classic sites in several areas.⁹⁸ Of these, Sisson's sites 5 and 6 are at about the right spot (and show potsherds of the right date) for one or the other to qualify as the Nephiah of Mormon's record. (The nearby “plains of Nephiah” [Alma 62:18–19] to which the Nephites hoped to lure the Lamanites out to battle would have consisted of the dry *sabana* grasslands of interior Tabasco.) Site number 3 is at San Miguel, 16 miles (26 km) southeast of La Venta, and it qualifies in geographical terms as Jerusha, where chief captain Moroni₁ established an important base camp (no city of Jerusha is mentioned; see Alma 43:4, 25; 50:27–31).⁹⁹ At least seven sites of approximately the right date in this general area were discovered by Sisson, although the haphazard nature of his one-man reconnaissance no doubt failed to turn up others.

96. Sorenson, *Ancient American Setting*, 247; and Sorenson, *Geography of Book of Mormon Events*, 263. Alma 50:8 reports that “the land of Nephi did run in a straight course from the east sea to the west.” *Webster's Ninth New Collegiate Dictionary*, s.v. “straight,” provides this definition: “2. Direct, Uninterrupted,” which does not exclude a line that is consistently curved.

97. Robert M. Carmack, “Toltec Influence on the Postclassic Culture History of Highland Guatemala,” in *Archaeological Studies in Middle America* (New Orleans: Tulane University, 1970), 65.

98. Sisson, “Settlement Patterns”; and Román Piña Chan and Carlos Navarrete, *Archaeological Research in the Lower Grijalva River Region, Tabasco and Chiapas*, New World Archaeological Foundation Papers 22 (Provo, UT: BYU New World Archaeological Foundation, 1967).

99. Sorenson, *Geography of Book of Mormon Events*, 344.

On the north shore of Laguna Mecoacán, four sites are clustered, including ones whose date agrees broadly with the period under discussion. This is the likely locality where the city of Moroni was built (Alma 50:13). The actual city was later said to have “sunk in[to] the depths of the sea” (3 Nephi 9:4), perhaps into the waters of the lagoon. In any case, a city of Moroni in that location would be exactly positioned in terms of the defense strategy and cultural geography described in the text.

Other sites on the Tabasco plain “by the borders of the seashore” are good candidates—right location, right time period—to account for each of the other Nephite garrison cities mentioned in the text. No archaeologist has examined them, however, to look for walls, but fortifications very much like those described in the Book of Mormon were encountered by Cortez in 1525 as he crossed this area on his way to Honduras.¹⁰⁰

A few archaeological examples of this form of fort have been known for some time, but the wide extent of this defensive feature was not recognized by archaeologists until Webster excavated the major walled site of Becán in the Yucatan Peninsula.¹⁰¹ Some of his description and interpretation of the function of the fortification sounds strikingly like what the Book of Mormon historian records about the Nephite defenses, as explained in chapter 18.¹⁰²

But of what period were the Mesoamerican fortifications? Do the ones known date back to the Book of Mormon era? Webster “would assign a late Pakluum [period at Becán] date”¹⁰³ (i.e., the second or third century AD) to embankment deposits associated with construction of the wall around Becán. There is no longer any question that Mesoamerican peoples of the

100. Pedro Armillas, “Fortalezas mexicanas,” *Cuadernos americanos* 41/5 (1948): 151–52.

101. David Webster, *Defensive Earthworks at Becán, Campeche, Mexico: Implications for Maya Warfare*, Middle American Research Institute Publication 41 (New Orleans: Tulane University, 1976).

102. Had the Book of Mormon been written by a person familiar only with Native Americans of New England, it would have told of fortifications of a very different type, a straightforward log palisade, as pictured, for example, by David H. Thomas, “Part One: The World As It Was,” in *The Native Americans: An Illustrated History* (Atlanta, GA: Turner, 1993), 90; or Matthew W. Stirling, ed., *Indians of the Americas, a Color-Illustrated Record* (Washington, DC: National Geographic Society, 1961), 35.

103. Webster, *Defensive Earthworks*, 85.

Book of Mormon period were building fortifications and carrying on wars. More evidence can be expected to appear; LeBlanc thinks that the reason we have not found more evidence of war as early as Olmec times is simply failure to look carefully.¹⁰⁴

Nephite history also says that a large number of fortifications were constructed in a short period of time (Alma 48:8; 50:1). Is that report realistic? How long would it take, and how many people would be required, to carry out such a public works project? Of course, the architecture of an earthen wall is not very complicated; the task involved was mainly a matter of simple hand labor—digging and hauling. According to Webster's calculations, the Becán fortification could have been completed by a force of 10,000 men in merely 40 days of effort. Actually he believed that the Becán "fortifications were erected by far fewer than 10,000 people . . . over a period of several seasons" or else by putting in more days in a single season.¹⁰⁵ (The walls around Moroni₁'s small, new garrison cities would not have required nearly as many laborers as would the major Becán project.) Given Moroni₁'s sense of urgency, there seems no reason to doubt the plausibility of the textual account of the borders-by-the-east-sea projects in terms of labor supply.

In a couple of cases, Nephite fortifying activity encompassed more than just the minimum circumference of a city. In an attempt to occupy the energy of a large number of Lamanite prisoners of war held at Bountiful, Moroni₁ engaged them "in digging a ditch round about the land, or the city, Bountiful. And he caused that they should build a breastwork of timbers upon the inner bank of the ditch; and they cast up dirt out of the ditch against the breastwork of timbers" (Alma 53:3–4). In time they "encircled the city [or land] of Bountiful round about with a strong wall of timbers and earth, to an exceeding height" (v. 4). (Obviously this refers to the immediate "land of Bountiful," the city and its close hinterland, not to the wider-ranging land of Bountiful of Alma 63:5.) The implication is that in addition to providing a safe prison camp, the wall enclosed empty acreage,

104. Steven A. LeBlanc, "Warfare in the American Southwest and Mesoamerica: Parallels and Contrasts," in *Ancient Mesoamerican Warfare*, ed. M. Kathryn Brown and Travis W. Stanton (Walnut Creek, CA: Altamira, 2003), 278.

105. Webster, *Defensive Earthworks*, 97.

presumably farmland.¹⁰⁶ Interestingly, the wall that was built most of the way around the giant city of Tikal, probably in the Pre-Classic era, actually served to protect lands for agriculture (against a possible siege), as shown by chemical analysis of the soil inside versus that outside the wall.¹⁰⁷ The same pattern of protecting essential cropland is seen at Los Naranjos, a site in Honduras that dates between AD 250 to 500.¹⁰⁸

It might be objected that not that many fortifications have actually been discovered by archaeologists. If the Book of Mormon record is historically accurate, shouldn't we have come across numerous enclosed cities? The number is actually greater than is commonly recognized even by archaeologists. As stated in chapter 18, by 1990 I had tabulated 75 "fortified and defensive" named sites found by archaeologists that dated before AD 400; I never published the full documentation because the task kept expanding so rapidly and widely.¹⁰⁹

Webster explained why recognition of fortifications in Mesoamerica has been delayed, and more reasons have since been pointed out.¹¹⁰ It took generations of archaeological work at Tikal before investigators realized that a certain embankment they were used to seeing was actually the remnant of a wall and not just a hillock.¹¹¹ It has required more than 30 years to trace the many miles of Tikal's vast enclosure, and the whole of it may still not be fully revealed.

106. Sorenson, "Fortifications in the Book of Mormon," 435.

107. David Webster et al., "Nuevos trabajos e interpretaciones de los terraplenes de Tikal: Segunda temporada de campo," in *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, Museo nacional de arqueología y etnología, ed. Juan P. Laporte, Bárbara Arroyo, and Héctor E. Mejía (Guatemala: Ministerio de Cultura y Deportes, 2006), 2:695–703.

108. Claude F. Baudez and Pierre Becquelin, *Archéologie de Los Naranjos, Honduras*, *Etudes mésoaméricaines* 2 (Mexico City: Mission Archéologique et Ethnologique Française au Mexique, 1973), 3–6.

109. See in part Sorenson, "Fortifications in the Book of Mormon," tables 1 and 2.

110. Webster, *Defensive Earthworks*, 6–7; Sorenson, "Fortifications in the Book of Mormon," 428; and Sorenson, "Viva Zapato! Hurray for the Shoe!," *Review of Books on the Book of Mormon* 6/1 (1994): 350–52.

111. See Webster, *Defensive Earthworks*, figure 3, to note how difficult it could be to "discover" such a one-time wall.

Dramatic cases of “lost” walls are documented historically. As related in chapter 18, Spaniards living in the Valley of Mexico used more than two million native people for four months to erect a huge stone wall intended to confine the Spaniards’ herds of cattle,¹¹² yet no trace of that massive structure has been identified by archaeologists. In another case, Cortez in 1519 came across a vast wall that the Tlaxcalans built to defend their lands against advances by their Aztec neighbors, but no trace of it remains. We can be grateful for what we have learned about the elusive fortifications of Mesoamerica but should be humble about the limitations of archaeology in documenting known history.

The city of Mulek was identified earlier in this chapter with the site of La Venta. Based on the styles of the recovered potsherds, it was later reoccupied by inhabitants of Late Pre-Classic date who lived among the ruins of the abandoned city.¹¹³ In the first century BC the city (“of Mulek”) was occupied by Nephite armed defenders (Alma 51:26), briefly by Lamanite invaders (52:2), and again by a Nephite army (vv. 16–26). When the Nephite captains desired that the Lamanite forces that were bottled up should “come out” to battle “upon the plains between” Mulek and Bountiful (v. 20), we find another correspondence with La Venta geography as well as military tactics; there are in fact extensive plains just west of the Tonalá River, less than 5 miles (8 km) from La Venta¹¹⁴ and between the locations here proposed for Mulek and Bountiful. In 1519, not many miles east of La Venta, the Spaniards landed to find a native army defying them from behind “stockades made of thick logs.” Both forces moved to the nearby “savanna” (grassy plain) to engage in battle, “the Indians being so numerous they covered the whole plain.”¹¹⁵ The native army was defeated by the Europeans by use of their horses on the plain. The Lamanites of Alma 52:2 may have been

112. Henry F. Dobyns, “Estimating Aboriginal American Population: An Appraisal of Techniques with a New Hemispheric Estimate,” *Current Anthropology* 7/4 (1966): 406.

113. Bruce Warren, personal communications.

114. Philip Drucker, “The La Venta Olmec Support Area,” *Kroeber Anthropological Society Papers* 25 (1961): 59–72.

115. Bernal Diaz del Castillo, *The Bernal Diaz Chronicles: The True Story of the Conquest of Mexico*, trans. and ed. Albert Idell (Garden City, NY: Doubleday, 1956), 45–47.

wise in refusing to “come out” from fortified Mulek where they had “sought protection in their fortifications.”

That Lamanite army inside the city probably could not be seriously threatened by a siege, as Teancum and Moroni₁ knew (Alma 52:20–21). A besieging army only with great difficulty could be supplied on a scale that would allow it to sustain a prolonged encirclement.¹¹⁶

Amalickiah’s thwarted “design in marching into the land northward” (Alma 52:2) via Bountiful points to further correspondences. The first has to do with the weather. The farthest point the Lamanites reached was “on the beach by the seashore” in the very isthmus. There they camped for the night, exhausted because of “the labors and heat of the day” (51:32–33). Usually Mesoamerican armies campaigned only in the early dry season (November through January),¹¹⁷ the hottest time of the year. “The heat of the day” fits the geographical context for the setting in isthmian Mesoamerica.

The most logical candidate for the city of Bountiful, based on its position, lies at the mouth of the Tonalá River, about 6 miles (10 km) downriver from La Venta. There the modern community of Tonalá is actually built atop a large archaeological site that overlooks the mouth of the river; the area includes remains of a large pyramid in whose archaeological debris the town cemetery is located.¹¹⁸ As far as is known, no trained archaeologist has ever visited there. If archaeologists examine the site in the future and find that it was inhabited during the Late Pre-Classic, that would suggest a significant correspondence, but to count it at this stage is premature.

The land-use patterns of this area match with one particular segment of

116. Webster, *Defensive Earthworks*, 94.

117. See Sorenson, “Seasonality of Warfare,” 456; and Hassig, *War and Society*. Had the author of the Book of Mormon been a 19th-century New Englander, his statement about the excessive “heat of the day” just before “the first day of the new year” would have been a major gaffe.

118. David A. Palmer, “Trip Report—Bountiful Expedition,” unpublished manuscript and photo album submitted to FARMS, 1990. The area is unlikely to be studied in the near future since it is reputed to be a haven for “drug lords.” Palmer, the only English-speaking person known to me to have visited Tonalá, argued (he is now deceased) a good geographical case for locating the city Bountiful there. A short summary of his visit appeared in the newsletter of the Foundation for Ancient Research and Mormon Studies *Insights* 10/2 (1990): 1, accessed at <http://maxwellinstitute.byu.edu/publications/insights>.

the Nephite account. Among the garrison cities established by Moroni, in the east sea region that he cleared of Lamanite squatters, two were uncomfortably near to each other. Apparently the arable land allotted to each “city” was insufficient to allow the colonists to subsist comfortably. Those who dwelt in Morianton “did claim a part of the land of Lehi; therefore there began to be a warm contention between them” (Alma 50:26). Using data from Sisson’s survey in the zone where those two settlements appear to belong, Gadacz calculated that the average distance between the larger sites (“cities”) typically worked out to 16 miles (26 km).¹¹⁹ But the distance in some cases was a good deal less, which seems to have been how things were with the two Nephite settlements, resulting in overlapping land claims. This point, however, is too general to constitute a very noteworthy correspondence.

The “borders by the east sea” area, as pictured earlier, seems to have been in part the delta of the Sidon River. At least some of the Gulf Coast area in the Isthmus of Tehuantepec is a delta, and the Nephite text reports nothing to contradict that fact.¹²⁰ The resulting swampy terrain would have limited travel options to just a few routes. The predictability of those routes is clearly indicated in Alma 50.¹²¹ The historian tells how Teancum, a Nephite military commander, set out to intercept Morianton, leader of one of the two quarreling cities. He was leading his party of dissidents to a destination in the land northward. Upon learning of the planned flight of the rebels, Teancum and a small army were dispatched, by an alternative route, to block their escape. The pursuers knew precisely where to go and positioned themselves to block the rebels’ escape just in time—they came “to the borders of the land Desolation; and there they did head them, by the narrow pass which led by the sea into the land northward” (Alma 50:34). Obviously the Moriantonites had proceeded along a different way than Teancum took to arrive at the pass. In other episodes during the wars

119. Gadacz, *Pre-Spanish Commerce*, 30.

120. Sorenson, *Mormon’s Map*, 45; Christopher von Nagy, “The Geoarchaeology of Settlement in the Grijalva Delta,” in *Olmec to Aztec: Settlement Patterns in the Ancient Gulf Lowlands*, ed. Barbara L. Stark and Philip J. Arnold III (Tucson: University of Arizona Press, 1997), 253–77; and Oscar H. Jiménez Salas, “Geomorfología de la región de La Venta, Tabasco: Un sistema fluvio-lagunar costero del cuaternario,” *Arqueología* 3/2 (1990): 5–16.

121. The feasible routes are mapped and discussed in Sorenson, *Mormon’s Map*, 39–42.

of that period, again alternate routes were followed. In each case the options were limited. Travelers are represented as not simply taking off willy-nilly across empty country.

Similarly, when Amalickiah and his Lamanite army blitzed their way northward from city to city “down by the seashore,” they bypassed the city of Nephihah (Alma 51:25; the capture of that city reported in v. 26 is a scribal error; compare Alma 59:5).¹²² The attacking forces “were met by Teancum” and his army (51:29), who, again, knew exactly where the invaders were going and “headed” them by taking a parallel route. Such a routing arrangement is plainly seen in Tabasco (see map 9). Some of the limitations to travel in that area are reported and mapped in the archaeological and geographical literature.¹²³ Teancum apparently got the jump on Morianton by following the “Tabasco inland route,” as Lee calls it.¹²⁴ Morianton must have taken another route closer to the sea.

The “narrow pass” or “narrow passage” of the Book of Mormon record constituted a unique physical situation, as discussed in chapter 7. The “line” referred to at that point (Alma 22:32) logically was a river. The width of the river evidently created a strong defensive position for any force defending against a crossing.

This situation finds a parallel in the geographical and archaeological setting of Gulf Coast Mesoamerica. The huge Coatzacoalcos River is a decisive barrier to east-west (“southward” – “northward”) surface travel, being 1,500 feet (457 m) wide and at least 13 feet (4 m) deep near its mouth (and 40 feet [12 m] deep farther upstream).¹²⁵ Near the city of Minatitlan, Veracruz, west (“northward”) of the river, a minor elevation extends from many miles away right up to the riverbank. That is “the only point [on the riverbank]

122. Sorenson, *Ancient American Setting*, 245. The exigency of wartime recording may explain this as well as the error discussed in Sorenson, “The Significance of the Chronological Discrepancy between Alma 53:22 and Alma 56:9” (Provo, UT: FARMS, 1990).

123. Philip Drucker and Eduardo Contreras, “Site Patterns in the Eastern Part of Olmec Territory,” *Journal of the Washington Academy of Sciences* 43/12 (1953): 389–96; Sisson, “Settlement Patterns”; Piña Chan and Navarrete, *Archeological Research*; and Rust and Sharer, “Olmec Settlement Data.”

124. Lee, “Historical Routes,” 57.

125. John J. Williams, *The Isthmus of Tehuantepec, Being the Results of a Survey for a Railroad to Connect the Atlantic and Pacific Oceans* (New York: Appleton, 1852), 21.

between the mouth of the river and Minatitlan” that is not flooded in the wet season,¹²⁶ and it was the sole reliable, all-season crossing both in the days of the Aztecs (and no doubt before) and in colonial times. Even now this is where the main bridge crosses the river carrying the modern highway into Tabasco. Anciently only many crossings by a fleet of canoes (manned by skilled boatmen) would have permitted the passage there of a sizable group. (At smaller streams in Mesoamerica, soldiers, as in various other areas of the world, sometimes used pieces of wood or hollowed squashes to buoy them up as they swam across a stream.¹²⁷ But the great width of the river here would make a mass crossing by any means other than boats very unlikely.)

On the western (“northward”) side, a unique geological feature provided a viable route past bordering wetlands during the drier part of the year (in the wet/flood season travel was rarely attempted). Williams described this elevation as an “irregular sandstone and gravel formation” that runs east–west, often forming a distinct ridge and constituting a small watershed upon which a road extended from the river crossing (Paso Nuevo) past modern Minatitlan and on westward, linking several communities that lie atop the ridge—Cosoleacaque, Chinameca, Jaltipan, and Acayucan. This route was the sole way for foot traffic to reach more northerly areas of Veracruz before modern times.¹²⁸ The entire surrounding area in the heart of the isthmus was covered with what Williams in 1852 called an “immense [jungle] wilderness which intervenes between the settled portions of the country.”¹²⁹ (See map 9.)

This feature qualifies in every respect as the narrow pass of the Book of Mormon. When commander Mormon considered this ridge a “narrow passage,” he certainly got it right in saying that if his Nephite army could hold it, the Lamanites from across the river could “not get possession of any of our [northward] lands” (Mormon 3:5). (See map 10.) Such a unique

126. Williams, *Isthmus of Tehuantepec*, 53.

127. Roberto J. Weitlaner and Howard F. Cline, “The Chinantec,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Evon Z. Vogt (Austin: University of Texas Press, 1969), 7:523–52; and James Hornell, *Water Transport: Origins and Early Evolution* (Newton Abbot, England: David & Charles, 1970), 2–3.

128. Williams, *Isthmus of Tehuantepec*, 33–35.

129. Williams, *Isthmus of Tehuantepec*, 206.

geological and communication situation seems most unlikely to have been written about by any historian who had not actually been on the scene and observed the consequences the landscape held for military operations.

Military venues and operations elsewhere in the land of Zarahemla than the borders by the east sea also correlate with a Mesoamerican setting. The Pacific side of the Sidon River basin matches the west edge of the Central Depression. The Continental Divide runs along the rim of the basin.¹³⁰ Access from the general land of Zarahemla to the west sea coast, or vice versa, was only possible at a couple of points, that is, at major passes over the mountain range (see chapter 7). One pass was seaward from Ammonihah. By it the Lamanites twice made sneak attacks on Ammonihah from the west coast (Alma 16:2; 49:1), the first city they encountered. In the final Nephite wars, the same pass played a reverse role. The retreating army and people of Nephi were pushed by the invading Lamanites down the Sidon valley and out of the basin or central land of Zarahemla northwestward into “the land of Joshua,” “in the borders west by the seashore” (Mormon 2:6). At that point for 14 years the Nephites were able to hold the Lamanites from advancing farther northward, rather obviously by controlling the fortified pass that led down to the west coast.

The pass used by the Lamanite armies of Alma 16 and 49 to travel to Ammonihah would be the one above Arriaga, Chiapas. It has provided crucial access to the Central Depression to and from the Isthmus of Tehuantepec for armies, traders, or migrants throughout Teotihuacán, Chiapanec, and Aztec times, as well as today. There is no other satisfactory route across the Sierra Madre de Chiapas from that point southward until near the Guatemalan border.¹³¹

The lack of any pass at an intermediate point according to the Nephite account is underlined by the situation of the people of Ammon. They originally inhabited highland valleys in the land of Nephi. Converted to the Nephite cult, they fled to the land of Zarahemla (Alma 27:14). At first they were sent by the Nephite authorities to occupy a land in the borders by the east sea as part of the preemptive garrisoning of that area. Probably in part owing to complaints of these native highlanders at having to live near sea

130. Sorenson, *Mormon's Map*, 45.

131. Lee, “Historical Routes,” 49–66. See also chapter 7 herein.

level (compare Alma 51:33; highlanders often suffered illnesses upon moving to low-lying hot country),¹³² this people were later transferred to the land of Melek (35:13), at an intermediate elevation in the Sidon basin. This location was also deemed to provide them protection from attacks by their vengeful former land-of-Nephi neighbors.

This Melek was “on the west of the river Sidon, on the west by the border of the wilderness” (Alma 8:3). Lamanite military expeditions traveled northward along the west coast (22:28) to reach the pass that led inland to Ammonihah; en route they could have attacked the Ammonites, whom they hated, but the Lamanites apparently could find no satisfactory way across the mountain barrier on the west side of the Sidon basin to reach them.

Melek would have been located in the area of Chiapas called the Frailesca, which is literally “on the west by the borders of the wilderness” around Villa Flores. A rather large archaeological site there, Vera Cruz II, is dated by potsherds on the surface (no digging has been done) to the Late Pre-Classic,¹³³ the appropriate time for Melek.

The only other pass across the west rim of the Sidon basin was at least 100 miles (160 km) southward from the one that led to Ammonihah. This southern pass was at the limit of Nephite-controlled territory adjacent to the strip of wilderness that marked its southern boundary. At the time of the great first-century-BC war, this pass played a crucial role in the defeat of the Lamanites. Details of the military operations in that area are related in Alma 56. The physical setting of this second pass, according to the Book of Mormon, matches quite precisely the one in extreme southwestern Mexico that runs past Motozintla, Chiapas, on the way to the Pacific Coast near Tapachula.

As part of a military operation described in detail in Alma 56:30–54, a small contingent of Nephites outran a force of Lamanites, whom they were luring away from the garrison city located at the high point of the southern

132. Felix Webster McBryde, *Cultural and Historical Geography of Southwest Guatemala*, Institute of Social Anthropology Publication 4 (Washington, DC: Smithsonian Institution, 1945), 11.

133. Carlos Navarrete, *Archaeological Explorations in the Region of the Frailesca, Chiapas, Mexico*, New World Archaeological Foundation Papers 7 (Orinda, CA: New World Archaeological Foundation, 1960), 15, 37.

pass, northward” (v. 36), following “a straight course” (v. 37). That would mean that they followed the west crest of the Sidon basin. Would it be realistic for military parties to move along on the very top of the Sierra Madre de Chiapas? Yes indeed, according to Waibel, who describes travel there thus: “They . . . travel in a straight line in the Sierra, that is to say, they do not follow the valleys nor do they climb the steep slopes . . . but they try to continue in a straight direction. . . . By preference they go along the narrow hill crests” through open pine and oak forest.¹³⁴

The archaeological site that corresponds best to the city of Manti is located just at the foot of the mountainous “narrow strip of wilderness,” on the Mexico-Guatemala border. Called Guajilar, it lies on one of the main north-south routes through the mountains near the Guatemalan border. It was partially excavated but never more than lightly reported.¹³⁵ Warren reported that it was “one of the biggest and most impressive” centers in the area, beginning in the Late Pre-Classic.¹³⁶

The land of Gideon was the only named settlement area in the highlands east of the river Sidon.¹³⁷ Commander Moroni, never seemed worried about a Lamanite attack from the “east wilderness” side, from beyond Gideon. That would have been because the Nephites knew that passage of an army through this wilderness sector was impossible (as discussed in chapters 7 and 18). In our geographical correlation, the notorious wilderness of the Lacandon Indians west of the Usumacinta River was part of what the Nephites considered “the east wilderness.” Fray Torres, an early Spanish padre, called it “hot country that has very bad water and flies, [with] the worst roads that run between swamps and dense forest where no one wants to

134. Leo Waibel, *La Sierra Madre de Chiapas* (Mexico City: Ediciones de la Sociedad Mexicana de Geografía y Estadística, 1946), 221.

135. See Thomas A. Lee Jr., “A Preliminary Report of the First Phase of Excavations at Guajilar, Chiapas” (1976), paper in the files of the New World Archaeological Foundation.

136. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 101.

137. In our model the location for Gideon is the Comitán Valley, just east of the Central Depression. *American Antiquity* reported a “Late Preclassic occupation widely dispersed over the Comitán Plain.” Gareth W. Lowe, “Current Research: Eastern Mesoamerica,” *American Antiquity* 34 (1969): 357. That would date to the time when the valley of Gideon was reportedly settled (Alma 2:20; 6:8).

pass.”¹³⁸ In 1695 a Spanish expedition struggled to go through this trackless area, taking 30 days to travel only about 150 miles (240 km), or 5 miles (8 km) per day.¹³⁹ The Lamanite army’s course “round about in the wilderness” (Alma 43:22) avoided that messy territory; their course would have taken them on the order of 300 miles (480 km) farther than straight-line travel, but it would have saved them a nightmare trip through the wilderness that seems quite short when viewed casually on a map.

Other minor correlations of a related nature connected with warfare are noted in chapter 6 of *An Ancient American Setting*, but it should be apparent already that a combined geographical and archaeological/cultural situation is presented in the Nephite record that correlates well in general and strikingly in certain details with what scholarship has learned about the ancient Mesoamerican isthmian setting.

One thing that could complicate correlating the archaeological record with the Nephite history is that Lamanite parties of various sizes settled in the southernmost portion of the Sidon basin at various times. Their artifacts might give archaeologists a false impression that that area had been under Lamanite political domination over a long period, when actually they represented only the presence of a cultural minority among the Nephites. The presence in the nearby land of Melek of the people of Ammon, originally Lamanites from the land of Nephi, has already been pointed out. Also, Lamanites conquered and occupied the land of Zarahemla for some years around 30 BC (Helaman 4 and 5). At other times parties of interethnic converts or captives moved back and forth between Nephi and Zarahemla (Alma 47:29; 58:30; 62:17, 29). Meanwhile, a constant stream of dissidents from the land of Zarahemla made their way to the highlands of Nephi to join with the Lamanites (e.g., 47:35–36). So we see that the boundary between the two major groups might appear to archaeologists to have been permeable or shifting.

Not surprisingly, the actual archaeological record does not show exclusive separation between highland Guatemala and the Central Depression. Warren reported that some ceramics typical of Guatemala have been found in the upper tributaries area (the southeasternmost portion of the Central

138. Navarrete, “Pre-Hispanic System of Communications,” 97.

139. Navarrete, “Pre-Hispanic System of Communications,” 98.

Depression) and date to the Horcones period.¹⁴⁰ According to both Nephite history and archaeology, we see that details and nuances of minor population shifts and cultural exchanges may be glossed over by a general narrative. What is remarkable is that, given the brevity of Mormon's account and the limited amount of archaeological digging that has been done, we see numerous correspondences.

The end of the period of extended warfare—when “once more peace [was] established” (Alma 62:42)—is, of course, a condition that would not be particularly visible in the archaeological record, unless it is indicated by Warren's observation that the (now-pacified?) extreme southeastern end of the Central Depression saw a flood of new settlements at some point during the Horcones period (75 BC–AD 50, inhabiting a total of 77 sites, up sharply from the previous period).¹⁴¹ A more precise date when this surge took place is unlikely to come from archaeology.

Peace and Prosperity

One major point is clear, that occupants of the Central Depression developed a sophisticated culture that flourished during the last half century BC. Lowe saw burials at Chiapa de Corzo in this period as demonstrating “pomp and ceremony.” Burial offerings and the positioning of skeletons from this time period led him also to conclude that there was belief in an afterlife and the exhibit in burials of affection among family members.¹⁴² Again, during the middle of the first century BC, public buildings of cut stone were erected for the first time at Chiapa de Corzo (which were painted vividly according to Warren and constituted “a climax in architecture”).¹⁴³ During the same period at Santa Rosa (Phase 4), there was likewise “intensive architectural activity.”¹⁴⁴ This time could be reflected in the Nephite record in the description of Helaman 6:7–14 (around 33 BC), where it is

140. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 66.

141. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 69.

142. Lowe, “Burial Customs at Chiapa de Corzo,” 75, 74.

143. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 65–66; and Warren, “Central Depression of Chiapas,” 21.

144. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 69.

recorded that “there was peace in all the land” (v. 7), “they became exceedingly rich” (v. 9), and “they did flourish exceedingly” (v. 12).

For the Zarahemla city area, a highly differentiated economic and social structure had come to prevail at this time. Moroni₁ (not long before the long war ended, ca. 65 BC) complained from the battlefield to leaders at the capital that “ye sit upon your thrones in a state of thoughtless stupor”; “yea, . . . ye sit in idleness while ye are surrounded with thousands of those, yea, and tens of thousands, who do also sit in idleness” (Alma 60:7, 22). Later (but still during the Horcones phase) “there were many cities built” (3 Nephi 6:7) and “many merchants in the land, and also many lawyers, and many officers” (v. 11). The Nephites so pictured were obviously at a state level of sociopolitical integration.

Widespread trade is clearly manifested at Chiapa de Corzo at this time along with displays of great wealth: “From the floor of the Mound 5 palace structure over 830 restorable vessels [plus others too shattered to mend] were recovered”; they had been brought in over long distances.¹⁴⁵ By around 30 BC both Nephite and Lamanite merchants traveled and traded widely, “hav[ing] free intercourse one with another, to buy and to sell” (Helaman 6:8). There were “many cities built anew . . . and many old cities repaired.” Furthermore, “there were many highways cast up, and many roads made, which led from city to city, and from . . . place to place” (3 Nephi 6:7–8). Moreover, “the people began to be distinguished by ranks, according to their riches and their chances for learning; yea, some were ignorant because of their poverty, and others did receive great learning because of their riches. . . . And thus there became a great inequality in all the land” (vv. 12, 14). At the same time, détente between the Lamanite and Nephite polities led to “continual peace” (v. 9).

There is no doubt that society in the Central Depression of Chiapas in the Horcones (Chiapas VI) period was at a level similar to that described in the Book of Mormon. In fact, it was the climax period of the area’s entire history. Trade at Chiapa de Corzo was conducted with “many . . . major contemporary centers in Mesoamerica,”¹⁴⁶ and culture in the Grijalva River basin at the time “had its closest affiliations with the [contemporaneous]

145. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 65.

146. Lowe and Mason, “Archaeological Survey,” 218.

phase of sites such as Kaminaljuyu in the highlands of Guatemala,¹⁴⁷ that is, Nephi, as the record implies.

The Chiapas Central Depression was a major exporter of cultural influence at this time. As previously noted, Adams acknowledged “striking affinities”¹⁴⁸ at Altar de Sacrificios in the Maya lowlands, while at Komchen in northern Yucatan balustrades that flank the stairway of Structure 450 are “very similar” to “Protoclassic Horcones balustrades at Chiapa de Corzo” specifically.¹⁴⁹ At both places the date is the first century BC.

We also saw in the previous chapter that influences from highland Guatemala, and particularly from Kaminaljuyu, had stimulated the development of civilization in lowland Maya country. That metropolis was “seminally linked to Classic Maya developments” in the Maya lowlands.¹⁵⁰ The “east wilderness” to which some Amulonites fled (ultimately from the land of Nephi) and where they “usurped the power and authority over the Lamanites” (Alma 25:5) may have been in the Maya lowlands.

Influence from Chiapas is also visible to the north. Fahmel Beyer reported that specific architectural features dated at Monte Albán, Oaxaca, to period II (100 BC–AD 200) had appeared at Chiapa de Corzo before 75 BC. They included a “commemorative astronomical complex.”¹⁵¹ At Dainzú, in southern Oaxaca, a temple structure dating to the first century BC displays characteristics of the Izapan style of art, imported from the south.¹⁵² Bernal believed “that the most probable homeland of the [immigrating] bearers of the Monte Alban II culture was Chiapas or the Guatemalan highlands, or the bearers may have come from the latter by way of the former”; they were

147. Lowe and Mason, “Archaeological Survey,” 218.

148. Adams, *Ceramics of Altar de Sacrificios*, 157.

149. E. Wyllys Andrews, “Dzibilchaltun,” in Sabloff, *Supplement to the Handbook of Middle American Indians*, 1:322.

150. Jonathan Kaplan, “From under the Volcanoes: Some Aspects of the Ideology of Rulership at Late Preclassic Kaminaljuyú,” in Love et al., *Incidents of Archaeology in Central America and Yucatán*, 312.

151. Bernd Fahmel Beyer, “La época Clásica en Monte Albán vista a través de su arquitectura,” in *La Época Clásica: Nuevas hallazgos, nuevas ideas*, ed. Amalia Cardos de Mendez (Mexico City: Museo Nacional de Antropología, 1990), 62.

152. Elizabeth K. Easby and John F. Scott, *Before Cortes: Sculpture of Middle America* (New York: Metropolitan Museum of Art, 1970), 77.

an “aristocracy of rulers or priests who imposed their own ideas but did not constitute the majority.”¹⁵³ At Cerro de las Mesas, Veracruz, Lower Tres Zapotes–period ruins have strong affinities with Chiapa de Corzo. “The art style is Izapan. A majority of the carved monuments [at Cerro de las Mesas] are in this style, including Stela C with its date of 31 BC.” Furthermore, “the . . . period is markedly southern in affiliation. . . . It is very well represented at Chiapa de Corzo in the Horcones phase.”¹⁵⁴ Warren says a burial in Trench 30 at Cerro de las Mesas in Veracruz is specifically like Horcones-period burials at Chiapa de Corzo.¹⁵⁵ The same complex is also represented in the Lower Remojadas period of central Veracruz, of the same date, as well as at Tres Zapotes.¹⁵⁶ The Izapan art style is seen by Kaplan as an indicator of the spread of the ideas and symbols developed in the “Miraflores sphere” centered at Kaminaljuyu in the second and first centuries BC,¹⁵⁷ but it is just as likely to have been forwarded northward by Horcones-period migrants from the Central Depression.

This distributional data shows that (1) the Valley of Guatemala and the Central Depression of Chiapas were (perhaps *the*) cultural powerhouses in southern Mesoamerica in the first century BC and (2) both areas were primary sources for the export of complexes of ideas, symbols, and probably population, both to the Maya lowlands and to portions of Mesoamerica beyond the Isthmus of Tehuantepec.

In the Land Northward

In the middle of the first century BC, according to our text, after the conclusion of the long war, cultural influence from the core Nephite and Lamanite lands made a particular thrust into the land northward. The first notice of this by the Nephite historian says that some 5,400 men, plus “their

153. Ignacio Bernal, “Archaeological Synthesis of Oaxaca,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 3:800–801.

154. Michael D. Coe, “Archaeological Synthesis of Southern Veracruz and Tabasco,” in Wauchope and Willey, *Handbook of Middle American Indians*, 3:695–96.

155. Warren, personal communication.

156. Coe, “Archaeological Synthesis,” 694–95.

157. Kaplan, “From under the Volcanoes,” 319.

wives and their children” (Alma 63:4), left the land of Zarahemla in about 58 BC for destinations northward. (It is most plausible that they had at hand considerable intelligence-type information about their objective through reports obtained from itinerant merchants who had visited there.) Such a large body of people would have required vigorous, persuasive leadership and planning to determine where they would go and what problems they might encounter. The numbers further suggest that they went prepared to overcome any opposition that might be put up by local inhabitants (who are never directly referred to). A few years later, as a result of “much contention and many dissensions,” an “exceedingly great many [more] . . . departed out of the land of Zarahemla, and went forth unto the land northward to inherit the land” (Helaman 3:3). That land could refer to the area toward which dissenter Morianton had tried to lead his followers decades before (Alma 50:29); his intent had been to take a group “to the land which was northward, which was covered with large bodies of water, and take possession” of it.

The phrases “take possession” of the land and “inherit the land” in the books of Alma and Helaman make this emigration process look like that of the Moriantonites—that is, caused by quarrels over land claims between neighbors (Alma 50:26). These later “contentions” and “dissensions” among the Nephites may also have been triggered by conflicts over a shortage of land in the land of Zarahemla. The text makes that more likely by mentioning “famine” among the woes of the Nephites immediately before the first notice of emigration (62:39).

No ships are reported as being used in these large-scale migrations, so we may suppose that travel was by land (notice the verb *spread* in Helaman 3:5, 8; 11:20) through the narrow pass to areas where lands were available (perhaps after seizure) for settlement.

At first reading, Helaman 3:4 sounds like colonizers traveled to an extreme distance, but later events contradict such an idea. Decades later *all* the Nephites (3 Nephi 3:21, 24), from their old settled lands as well as from the new colonies to the northward, assembled in a refuge area “in the center of our lands,” just south of the land Bountiful (3 Nephi 3:21)¹⁵⁸ for protection against the depredations of widespread robbers. The colonists clearly

158. Sorenson, *Geography of Book of Mormon Events*, 293–94.

had not settled at any great distance beyond the neck if they were able to return later to the central refuge area. Furthermore, in the final battles that Mormon records (4:18–6:4),¹⁵⁹ the designation “north countries” refers to an area not far northward of the land and hill of Cumorah,¹⁶⁰ or the Lamanites would not have allowed the Nephites to make an appointment for the last battle at that hill.

Part of the stimulus for Nephite interest in settling in the land northward might have been their strong curiosity—“great anxiety,” “desirous beyond measure”—to know more about the Jaredite people and the mysterious ruins they had left behind (Mosiah 8:8–12; 28:12). For Mesoamerica, Scott noted the “revival” of Olmec motifs in art of the first century BC, perhaps reflecting a similar concern.¹⁶¹

In terms of the modern map, the Nephite “north countries” were plausibly limited to south-central Veracruz between the Coatzacoalcos and Papaloapan Rivers, which happens, incidentally, to be the area that had earlier been the most heavily inhabited by the Jaredites. (That does not mean that smaller, unrecorded Nephite groups with particular agendas of conquest, dominance, or escape may not have traveled somewhat farther northward.)

Two points in the text may indicate exceptions to that rule. Helaman 3:4 says that certain Nephites traveled “to an exceedingly great distance, insomuch that they came to large bodies of water and many rivers.” This could be reference to the Papaloapan River basin in central Veracruz, which might have been considered in Nephite terms an “exceeding great distance” away, although we cannot know for sure; the Huasteca, farther north, or the large lake that occupied the Valley of Mexico at that time might, alternatively, have been where those travelers went.

One Jacob₄ was made king over a “rebel” Nephite group (members of a “secret combination”) about AD 30, when the Nephites’ central government was on the verge of collapse (3 Nephi 7:12–13). This bunch fled “into the northernmost part of the land” where they anticipated that other dissenters

159. Sorenson, *Mormon's Map*, 115–17.

160. Sorenson, *Mormon's Map*, map 17 and map inside front cover.

161. John F. Scott, “Post-Olmec Mesoamerica as Revealed in Its Art,” *Proceedings of the 41st International Congress of Americanists (Mexico, 1974)* (1976): 383.

would join them until they were strong enough to come back and seize control over the fragmented Nephites (v. 12). But almost immediately afterward, “that great city Jacobugath, which was inhabited by the people of Jacob,” was “burned with fire” when the great catastrophe of 3 Nephi struck the land (9:9; see chapter 24 herein). The fact that the Jacobites’ destination was soon after considered a “great city” has to mean that the place was already a large population center over which Jacob’s band of adventurers usurped control (or tried to) in a typically Mesoamerican manner.

A likely place for Jacobugath in terms of archaeology is Cuicuilco. Cordova et al. combined information on cultural and volcanic activity at and near this site and concluded that the final stage of Cuicuilco’s inhabitation, Period V, ran from about 25 BC to about AD 50.¹⁶² Cummings’s archaeological work at Cuicuilco had revealed “fire-god censers” associated with Period V,¹⁶³ and many observers have supposed that these were associated with contemporaneous volcanism. Given that the immediate area includes five volcanoes,¹⁶⁴ activity from one of them could have caused abandonment of the site at around AD 50 (compare with the data in chapter 24). That would correspond to the evidence at Teotihuacán, less than 40 miles (64 km) distant, of ash from a volcano that erupted about AD 50.¹⁶⁵ It is at least possible that the burning of Jacobugath, if it was in the Valley of Mexico area, could have been a direct or indirect result of such a volcanic event. Unfortunately, since at least 95 percent of the Cuicuilco site remains covered by lava, we cannot be sure of *any* explanation nor of the real chronology of its destruction.

The shift of a portion of the Nephite population northward meant that “the center of [Nephite] lands” (3 Nephi 3:21) no longer was near Zarahemla but was closer to the isthmus itself, probably near Bountiful where all the leaders of the new version of their religion were living

162. Carlos Cordova et al., “Palaeolandforms and Volcanic Impact on the Environment of Prehistoric Cuicuilco, Southern Mexico City,” *Journal of Archaeological Science* 21/5 (1994): 585, 594; and Sorenson, “Mesoamerican Chronology: 2004.”

163. Cordova et al., “Palaeolandforms and Volcanic Impact,” 594–95.

164. Cordova et al., “Palaeolandforms and Volcanic Impact,” 586, 594.

165. René Millon and James Bennyhoff, “A Long Architectural Sequence at Teotihuacan,” *American Antiquity* 26 (1961): 516–23.

immediately afterward (11:18–22; 19:4). By that following period, the shift from Zarahemla to Bountiful had become definitive (compare 3 Nephi 11:1; 4 Nephi 1:1; and Mormon 1:6).¹⁶⁶

Note that the population falling under the name of “Nephites” in the early first century AD included both people of the original Nephite group (including of course the Mulekites) and also “those Lamanites who had united with the Nephites” (3 Nephi 2:14). That category included, among others, the former people of Ammon. Some Lamanites also migrated to the land northward (Helaman 3:12), and of course the local inhabitants of “the north countries” constituted a further portion of a heterogeneous population with multiple geographical sources for the cultural features that characterized their society.

This agrees with the archaeological picture of groups who spread the Izapan art style north from both Chiapas and Guatemala in the first century BC as already discussed. Coe observed that at Tres Zapotes in southern Veracruz, “the majority of the carved monuments . . . are in the Izapan style,” whose original area was Chiapas and southern Guatemala. Moreover, he noted, “the apparently southern affiliation of the period, above all in ceramics, has long been noticed: this is the famous Q-complex of Vaillant and Lothrop. . . . This complex is very well represented in the more luxurious tombs of the period in Mesoamerica,” notably those of the Horcones phase at Chiapa de Corzo.¹⁶⁷

Another correspondence is evident in relation to the story in Alma 63 of the sea migrations into the land northward (see also on this point chapter 16 herein). One Hagoth, “an exceedingly curious man” (v. 5), “built him an exceedingly large ship” “on the borders of the land Bountiful, by the land Desolation.” There he “launched it forth into the west sea, by the narrow neck which led into the land northward.” “Many” Nephites were carried by it northward (v. 6). That ship returned and carried more passengers northward, but it failed to return a second time. At that point communication with the northerly colonies was apparently lost (v. 10). A second ship embarked, but those at the launch point did not know its fate (vv. 6–8).

A single location in Mesoamerica is known that had a history of coastal

166. Sorenson, *Mormon's Map*, 116–17.

167. Coe, “Archaeological Synthesis,” 696.

shipping that seems to account for the timing and functions of this innovation. Unique rafts made of large balsa-wood logs are known to have visited the west coast of Mexico in the 16th century and for a long time before.¹⁶⁸ Those vessels may have served as models for the curious Nephite shipbuilder. The only place they could have come from was Ecuador, where alone suitable large balsa logs are found.¹⁶⁹ Doran and Edwards have fully spelled out the technical aspects of these crafts and their abilities (the rafts were essentially identical to ones known in China and Southeast Asia, incidentally).¹⁷⁰ Norton gave historical and archaeological data showing that the raft voyages that reached Mesoamerica must have begun off Ecuador as early as the third millennium BC. Edwards emphasized that those vessels must be considered veritable ships that could be steered, not “mere rafts.”¹⁷¹ It is probable that the huge lagoons on the Pacific side of the Isthmus of Tehuantepec were key stopover points for those voyages.

In our Book of Mormon geography correlation, the area where Hagoth constructed ships falls precisely on the south side of the narrow neck of land,

168. Robert C. West, “Aboriginal Sea Navigation between Middle and South America,” *American Anthropologist* 63 (1961): 133–35.

169. Presley Norton, “El señorío de Salangone y la liga de mercaderes: El cartel spondylus-balsa,” *Miscelanea antropológica ecuatoriana* 6 (1986): 131–43; and West, “Aboriginal Sea Navigation.”

170. Edwin Doran Jr., “Seaworthiness of Sailing Rafts,” *Anthropological Journal of Canada* 16/3 (1978): 17–22; and Clinton R. Edwards, *Aboriginal Watercraft on the Pacific Coast of South America* (Berkeley: University of California Press, 1965).

171. Edwards, *Aboriginal Watercraft*, 105, 119–20. Additional evidence for cultural contact from the west coast of Mexico to and from Ecuador and Peru is found in Clement W. Meighan, “Cultural Similarities between Western Mexico and Andean Regions,” in *Pre-Columbian Contact within Nuclear America*, ed. J. Charles Kelley and Carroll L. Riley, Mesoamerican Studies 4 (Carbondale: Southern Illinois University Museum, 1969), 11–25; Dorothy Hosler, “Ancient West Mexican Metallurgy: South and Central American Origins and West Mexican Transformations,” *American Anthropologist* 90 (1988): 832–55; Clinton R. Edwards, “Possibilities of Pre-Columbian Contacts among New World Civilizations,” in *Pre-Columbian Contact*, 3–10; Dudley T. Easby Jr., “Two ‘South American’ Metal Techniques Found Recently in Western Mexico,” *American Antiquity* 28 (1962): 19–24; Michael D. Coe, “Directions of Cultural Diffusion,” *Science* 155 (1967): 185–86; and Clifford Evans and Betty J. Meggers, “Mesoamerica and Ecuador,” in *Handbook of Middle American Indians*, ed. Robert Wauchope et al. (Austin: University of Texas Press, 1966), 4:253–64.

“on the borders of the land Bountiful, by the land Desolation” (Alma 63:5). The land route northward along the west sea coast is never mentioned; it probably was arduous, which might suggest to a “curious man” like Hagoth that sea travel would be a good thing to try. If the Nephite colonies to which the ships traveled were on the arid coast of Oaxaca or Guerrero, environmental conditions would explain why timber was shipped northward on Nephite vessels to serve the colonists’ construction needs (Helaman 3:10). Late Pre-Classic sites appear on that portion of the coast,¹⁷² although their cultural affiliation has not been published.

According to Helaman 3:7–11, some Nephites who migrated into the land northward “became exceedingly expert in the working of cement” in order to “build many cities.” Any visitor to Teotihuacán, for example, can see how extensively the builders in that area of “the land northward” used this material.¹⁷³ Cement of a quality comparable to modern concrete first came into use in central Mexico in the centuries just before the time of Christ. At El Tajin, in north-central Veracruz, some roofs consisting of continuous slabs of concrete up to 246 square feet (23 sq m) in extent were constructed.¹⁷⁴

What happened with the emigrant Nephites no doubt repeated the sociopolitical process that was repeated scores of times in Mesoamerica. A group of ambitious elite migrants would move into an area and in effect hijack the local government, installing themselves as a ruling “house” or lineage over the local power structure (see the discussion in chapter 17). For example, the “Olmeca-Xicalanca” arrived at Cacaxtla, Puebla, where they came to bear sway between AD 500 and 1100.¹⁷⁵ The Tarascan elite’s

172. Brockington, “Investigaciones arqueológicas,” 33–40.

173. For other examples of technological sophistication in use of this material, see David S. Hyman, *Precolumbian Cements: A Study of Calcareous Cements in Prehispanic Mesoamerican Building Construction* (Baltimore: Johns Hopkins University Press, 1970); and Hyman, “Cements at Teotihuacan: A Criticism of Margain’s Appraisal,” *American Anthropologist* 75 (1973): 313–14; discussed at greater length in chapter 16 herein.

174. *El Tajin: Official Guide* (Mexico City: Instituto Nacional de Antropología e Historia, 1976).

175. Diana López de Molina, “Excavaciones en Cacaxtla: Tercera temporada,” *Comunicaciones proyecto puebla-tlaxcala* (Puebla, Mexico) 16 (1979): 146; and Geoffre G.

intrusion has also been studied,¹⁷⁶ and of course the Popol Vuh's account of a Mexican group's invasion of highland Guatemala is known to all Mesoamericanists.¹⁷⁷

Hunt's concise description of the process and consequences of foreigners taking rulership over the Cuicatec in south-central Mexico summarizes the essentials of the process nicely:

Historical documentation . . . strongly suggests the migration of, or conquest by, foreign, immigrant rulers, but this does not imply that the sources of power and legitimization of authority of this elite, once in existence, were purely external to the system. On the contrary, the basis for political legitimization of the Cuicatec ruling groups was internal to the society . . . , and the rulers were . . . a truly Cuicatec aristocracy. . . . Whatever the ethnic origin of the Cuicatec ruling dynasties may have been in the past . . . they [became] definitely a native ruling class which derived its power from successful functional adaptation to general social and cultural demands.¹⁷⁸

With little question the Nephite intruders into the land northward followed the same path, or at least tried to, as that of their elite ancestors in southern Mesoamerica (e.g., Nephi₁, Mosiah₁), whose history the Book of Mormon directly records.

McCafferty, "Ethnic Conflict in Postclassic Cholula, Mexico," in Brown and Stanton, *Ancient Mesoamerican Warfare*, 223.

176. Marie Kimball Freddolino, "An Investigation into the 'Pre-Tarascan' Cultures of Zacapu, Michoacan, Mexico" (PhD diss., Yale University, 1973).

177. Robert M. Carmack, *Quichean Civilization: The Ethnohistoric, Ethnographic, and Archaeological Sources* (Berkeley: University of California Press, 1973).

178. Eva Hunt, "Irrigation and the Socio-political Organization of Cuicatec Cacicazgos," in *Chronology and Irrigation*, ed. Frederick Johnson (Austin: University of Texas Press, 1972), 239.

Chapter 24

Archaeology and History between AD 1 and 200

In terms of Mesoamerican archaeology, the time period between AD 1 and 200 is called variously the end of the Late Pre-Classic, the Terminal Pre-Classic, the Proto-Classic, or the Late Proto-Classic. According to the conventional culture history of Mesoamerica, these centuries constituted a vague, little-discussed transition from the presumed lower level of development of Late Pre-Classic civilization to the beginning of the Early Classic, a supposed golden age of civilization.¹

As we move along the historical/archaeological timeline, an accurate chronology becomes increasingly important in the search for understanding and correspondences. Unfortunately, archaeologists still have not firmed up a detailed chronology (at least not a consensual one) covering the initial centuries of our era.² We depend here, at best, upon reasoned estimates, lacking enough hard data to be certain in some cases even about the particular century, let alone the exact decade, to which a set of excavated material belongs. (Individual archaeologists who may have expertise on a local sequence vary substantially in their control of dating information beyond their immediate region.)³

1. For example, see the cryptic reference to this transitional period in the influential popular book by Michael D. Coe, *The Maya*, 7th rev. ed. (New York: Thames & Hudson, 2005), 68.

2. See the discussion in Debra S. Walker et al., “Después de la caída: Una redefinición del Clásico temprano maya,” in *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2006), 2:659–61.

3. Issues of personal prestige not infrequently intervene among archaeologists in this

The last couple of decades of research has especially upset the picture of a smooth transition into the Early Classic. First, it has been widely recognized that cultures of the Late Pre-Classic were in many ways fully as “classic” in their level of civilization as those of the fourth century AD and beyond that are conventionally labeled “Classic.” For example:

- New information about early developments at Kaminaljuyu (discussed in chapter 22) now creates a picture of a civilized society present no later than the fourth century BC.⁴ The discovery of more than 325 Pre-Classic sculptures at that site “suggests a city [already] equal to many of the most important Classic Maya centers.”⁵
- Speaking of the Pacific lowlands of southern Guatemala, Kappelman emphasizes that “the Late Pre-Classic period was anything but ‘pre’classic or ‘formative.’” Rather than a developmental period that gradually fueled a cultural florescence in the Classic, “the Late Pre-Classic period along the Pacific slope [of southern Guatemala] represents the mature expression of complex civilizations.”⁶

matter. Some succumb to the tendency to push back the age for their favorite sites, in a kind of parody of childhood boasting—“my site is older than your site”—implying that the favored site thus is more significant.

As explained in chapter 4, this book relies on a complete comparison and reevaluation of Mesoamerican radiocarbon dates. Dates assigned to an archaeological complex on the basis of just a few radiocarbon specimens might seem definitive at first glance, but we must often discount or adjust those dates to make appropriate room in the sequence for earlier or later complexes and their sometimes discordant carbon-14 readings.

4. See Jonathan Kaplan, “From under the Volcanoes: Some Aspects of the Ideology of Rulership at Late Preclassic Kaminaljuyú,” in *Incidents of Archaeology in Central America and Yucatán: Essays in Honor of Edwin M. Shook*, ed. Michael Love et al. (Lanham, MD: University Press of America, 2002), 311–57; Kaplan, “The Incienso Throne and Other Thrones from Kaminaljuyu, Guatemala: Late Preclassic Examples of a Mesoamerican Throne Tradition,” *Ancient Mesoamerica* 6 (1995): 185–96; and Kaplan, “El Monumento 65 de Kaminaljuyu y su ilustración de ritos dinásticos de gobierno del Preclásico Tardío,” in *IX Simposio de investigaciones arqueológicas en Guatemala, 1995*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1996), 451–57.

5. Kaplan, “Incienso Throne,” 185.

6. Julia G. Kappelman, “Reassessing the Late Preclassic Pacific Slope: The Role of Sculpture,” *Mexicon* 25/2 (2003): 42.

- The Mirador basin on the border between Yucatan and Guatemala contained especially massive urban settlements (El Mirador, Nakbe, Tintal) by the end of the second century BC.⁷ Those cities were as large as or larger than almost any later site.
- At Tikal “by about 100 BC the Great Plaza–North Terrace area was about as large as it was in AD 700. The architectural pattern of much of the focal point of the site could well have been conceived and executed at this relatively early date.”⁸
- Pre-Classic San Bartolo, east of Tikal, shows major hallmarks of what has been considered the Classic Maya culture of later centuries.⁹

Second, the first two centuries AD are increasingly interpreted as revolutionary for Mesoamerican civilization. Bove spoke of the poorly known transition from Terminal/Late Pre-Classic to Early Classic as “marked by . . . dislocation and restructuring [of society].” He saw “large-scale population dislocations and systematic rearrangement” of societies at that time. Indeed, the period witnessed “perhaps the most critical transformation [ever] in Mesoamerican cultural development.”¹⁰ Dahlin et al. spoke of the “collapse of Terminal Preclassic civilization” (ca. AD 200–300), an event characterized by “severe population reductions, site abandonments, an increasing balkanization in material culture, and disruption of interregional

7. Ray T. Matheny and Deanne G. Matheny, “El Mirador,” in *The Oxford Encyclopedia of Mesoamerican Cultures*, ed. David Carrasco (New York: Oxford University Press, 2001), 1:373–77; Richard D. Hansen et al., “Investigaciones arqueológicas en el sitio Tintal, Petén,” in Laporte et al., *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 683–94.

8. William R. Coe, “A Summary of Excavation and Research at Tikal, Guatemala: 1956–61,” *American Antiquity* 27 (1962): 504.

9. William A. Saturno et al., “Nuevos hallazgos arquitectónicos y pictóricos en la Pirámide de las Pinturas, San Bartolo, Petén,” in Laporte et al., *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 635.

10. Frederick J. Bove, “Dedicated to the Costeños: Introduction and New Insights,” in *New Frontiers in the Archaeology of the Pacific Coast of Southern Mesoamerica*, ed. Frederick Bove and Lynette Heller, Anthropological Research Papers 39 (Tempe: Arizona State University, 1989), 9.

communications networks.”¹¹ The total impact was catastrophic: “The effects of this collapse were almost as calamitous as those resulting from the collapse of Late Classic Maya civilization.”¹² Bauer refers to approximately the same period in the Maya area when he reports “profound historical, ideological, demographic and socio-political changes that occurred at the start of the Early Classic.”¹³ To Braswell the area around Guatemala City at the time of the transition from the Late Pre-Classic to the Early Classic exhibited “great disruption: population levels dropped, construction decreased, literacy and [the] carved-stone sculptural tradition disappeared,”¹⁴ and so on.

This dramatic shift in the interpretation of the archaeological sequence represents a complete turnabout of the idea that the transition to the Early Classic was smooth and continuous. That idea was universally accepted until recently. As a result of the newer perspective, Garrison poses the dilemma for his fellow archaeologists in this way: “We ought to ask whether in reality there was a [steady] transition from the Preclassic to the Classic, or if th[os]e periods designated by the archaeologists have [just] not been studied sufficiently.”¹⁵ Fernandez applied similar reasoning to his materials in the Mixteca Alta and Valley of Oaxaca, where he found fully developed cities well before the onset of the Classic.¹⁶ Thus the nature of the historical and cultural bridge across these centuries remains problematic.

11. Bruce H. Dahlin et al., “Linguistic Divergence and the Collapse of Preclassic Civilization in Southern Mesoamerica,” *American Antiquity* 52 (1987): 367.

12. Dahlin et al., “Linguistic Divergence,” 379.

13. Jeremy R. Bauer et al., “El pasado Preclásico y monumental de la región de Holmul: Resultados de las temporadas de campo 2003 y 2004 en Cival, Petén,” in *XVIII Simposio de investigaciones arqueológicas en Guatemala, 2004*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2005), 203.

14. Geoffrey E. Braswell, “Dating Early Classic Interaction between Kaminaljuyu and Central Mexico,” in *The Maya and Teotihuacan: Reinterpreting Early Classic Interaction*, ed. Geoffrey E. Braswell (Austin: University of Texas Press, 2003), 100.

15. Thomas G. Garrison, “La transición del Preclásico Tardío al Clásico temprano en la zona intersitio de Xultun y San Bartolo en Petén,” in Laporte et al., *XVIII Simposio de investigaciones arqueológicas en Guatemala, 2004*, 261.

16. Rodolfo Fernandez, “La estructura A de Yucuita,” in *Investigaciones recientes en el área maya* (Mexico City: Sociedad Mexicana de Antropología, 1984), 4:30–31.

In other words, the picture archaeologists have drawn of Mesoamerican developments throughout the last part of the 20th century¹⁷ no longer accounts for the archaeological materials adequately. The pattern of dramatic change that dates to the early AD centuries is further clarified when we look at particular regions.

Further Evidence for Sharp Changes before the Early Classic

The great Pre-Classic civilization manifested at Kaminaljuyu (the Miraflores tradition) ended abruptly with the Santa Clara period, at the close of the Arenal period. Population in the Valley of Guatemala dropped precipitously, construction came to a virtual halt, use of the massive irrigation system ceased, all evidence of stone sculpturing and the use of writing disappeared, and the quality of ceramics severely deteriorated.¹⁸ Hints of the degree of change had been noted before, but the situation's gravity went unappreciated.¹⁹ Many or all of the stone sculptures at or around Kaminaljuyu were defaced at this time. All evidence of the functioning of the Miraflores ceramic sphere that once linked the metropolis by cultural sharing or trade to areas to the south and east (as far away as El Salvador) now had evaporated, and the pattern of communication that had produced or marked it was severely curtailed. The changes were so severe that Popenoe de Hatch considers the Santa Clara period to represent a "collapse" of the whole system that had structured or dominated life in southern highland Guatemala for 500 years.²⁰

17. Michael D. Coe, with Rex Koontz, *Mexico*, 5th rev. ed. (New York: Thames & Hudson, 2002); and Richard E. W. Adams, *Prehistoric Mesoamerica* (Boston: Little, Brown, 1977).

18. Marion Popenoe de Hatch, *Kaminaljuyú/San Jorge, evidencia arqueológica de la actividad económica in el Valle de Guatemala, 300 a.C. a 300 d.C.* (Guatemala: Universidad del Valle de Guatemala, 1997), 19, 69, 92, 99; Popenoe de Hatch, "Los K'iche's-Kaqchikeles en el altiplano central de Guatemala: Evidencia arqueológica del período Clásico," *Mesoamérica* 35 (1998): 105, 107; and Popenoe de Hatch, "New Perspectives on Kaminaljuyú, Guatemala: Regional Interaction during the Preclassic and Classic Periods," in Love et al., *Incidents of Archaeology in Central America and Yucatán*, 287, 290.

19. For example, Stephan F. de Borhegyi, "Archaeological Synthesis of the Guatemalan Highlands," in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 2:15, 25–28.

20. Popenoe de Hatch, "New Perspectives on Kaminaljuyú," 282.

After a relatively short interval, the weak Santa Clara-period folk culture also ceased and was followed in the Aurora period by a new tradition that has been called "Classic." But at first this new period was actually of limited vigor or scope.²¹ It continued what Borhegyi called the "sharp and sudden change in the religious structure" that began in the first century AD with the Santa Clara period.²²

The major shift in religion at the onset of Santa Clara was signaled by the disappearance of all figurines from the archaeological inventory. I first pointed out this abandonment more than 50 years ago, observing that most of southern Mesoamerica underwent the same process—giving up figurines and other cult features that had been central to worship among the common people for half a millennium.²³ "Abandoned [also] . . . were such traditional ritual items as three-pronged incense burners, rimhead vessels, mushroom stones, and plain columnar basalt stelae, presumably along with the particular religious, curing, and calendric ceremonies and gods with which they were associated."²⁴ Bove saw evidence of a cultic revolution on the nearby coast as well: "The widespread distribution of potbelly sculptures during the Late Formative and the sudden cessation of the cult are further evidence for a structural change of great magnitude occurring in Southern Mesoamerica, especially the coastal area and adjacent highlands, at the end of the Formative."²⁵ We shall see below that this change occurred at about the same time as other major lapses throughout Mesoamerica, suggesting a widespread common cause.

What could have brought about this dramatic termination of a powerful tradition in the Valley of Guatemala and elsewhere? Robinson et al. believe that for the Antigua Valley (the valley immediately west of Kaminaljuyu), volcanic ashfalls from nearby volcanoes may have produced "devastating

21. Charles D. Cheek, "Excavations at the Palangana and the Acropolis, Kaminaljuyú," in *Teotihuacan and Kaminaljuyú: A Study in Prehistoric Culture Contact*, ed. William T. Sanders and Joseph W. Michels (University Park: Pennsylvania State University Press, 1977), 166.

22. De Borhegyi, "Archaeological Synthesis," 28, 25.

23. John L. Sorenson, *A Chronological Ordering of the Mesoamerican Pre-Classic*, Middle American Research Institute Publication 18 (New Orleans: Tulane University, 1955), 43–68.

24. De Borhegyi, "Archaeological Synthesis," 24–25, 28.

25. Bove, "Dedicated to the Costeños," 5.

effects on agriculture and other human activities.”²⁶ More pointedly, Lowe et al. suggest a similar natural trigger in their discussion of the “widespread destruction of monuments.” They observed the “frequent destruction and burial of early [i.e., Preclassic] monuments, much of this apparently done deliberately during the two or three centuries after A.D. 1.” After listing 10 sites where monuments were destroyed in this manner, they noted that the “pattern of destruction [was] in two instances associated with heavy volcanic ash fallout.” This “Terminal Preclassic period volcanism, extending from southern Veracruz to El Salvador, in some instances achieved drastic destruction of entire communities and their ceremonial centers.”²⁷ In another paper, Lowe tentatively attributed early monument destruction to rejection of old cult practices and beliefs that resulted from fear instilled by volcanism and the associated earthquakes that may have been much more general than were the localized eruptions.²⁸ Sharer and Sedat added that “given what we know of later Maya ideology, such an event [as an eruption] also may have affected the local population, being viewed as supernatural disfavor, or caused repercussions in the shared attitudes of the people towards the supernatural . . . and might even explain the mutilation of Monument 1” at El Portón, Guatemala.²⁹

This natural-disaster explanation of course depends heavily on chronology, since eruptions might or might not have been simultaneous or even closely grouped. We shall see that close agreement in fact exists for a number of damaging eruptions and perhaps related natural disasters, lending

26. Eugenia J. Robinson et al., “Preclassic Settlements and Geomorphology in the Highlands of Guatemala,” in Love et al., *Incidents of Archaeology in Central America and Yucatán*, 268.

27. Gareth W. Lowe et al., *Izapa: An Introduction to the Ruins and Monuments*, New World Archaeological Foundation Papers 31 (Provo, UT: BYU New World Archaeological Foundation, 1982), 28. The 10 mentioned are Tres Zapotes, Chiapa de Corzo, Kaminaljuyu, Chinkultic, El Portón, Chalchuapa, La Lagunita, El Mirador, Tintal, and perhaps Yaxhá.

28. Gareth W. Lowe, “The Mixe-Zoque as Competing Neighbors of the Early Lowland Maya,” in *The Origins of Maya Civilization*, ed. Richard E. W. Adams (Albuquerque: University of New Mexico Press and School of American Research, 1977), 235–40.

29. Robert J. Sharer and David W. Sedat, *Archaeological Investigations in the Northern Maya Highlands, Guatemala: Interaction and the Development of Maya Civilization*, University Museum Monograph 59 (Philadelphia: University of Pennsylvania, 1987), 90–91.

credence to the position that nature largely caused or hastened dramatic religious and cultural changes in this period.

An Apparent Set of Natural Disasters in the Late Pre-Classic Period

Edwin Shook and Marion Popenoe de Hatch, the most influential archaeologists to have studied material for the Santa Clara period at Kaminaljuyu, date it to AD 100 to 200. However, those date limits are not based on specific hard data.³⁰ If we compare cultures more widely, the Santa Clara period begins ca. AD 50 and closes around 200. At Chiapa de Corzo, AD 50 is close to the moment of the “deliberate” violence (the burning of structures) that marked the close of the spectacular Horcones period.³¹ The movement of the Izapan art style into southern Veracruz from south of the Isthmus of Tehuantepec (see chapter 23) had just previously produced Stela C at Tres Zapotes. The stela bears an engraved date equivalent to 31 BC. Shortly after this cultural influence from the south arrived, a layer of volcanic ash fell at the site.³² A date for a volcanic/earthquake event of around AD 50 would fit this scenario too.

A similar date is confirmed by recent work on an eruption by a volcano that overlooks the site of Izapa, on the border between Guatemala and Mexico. The San Antonio volcano (part of the Tacaná volcanic complex) had a major eruption about 1,950 years ago (three radiocarbon dates place the eruption between AD 25 and 72 [calibrated]). The geologists who studied this event correlated it with a halt in construction at Izapa and consequent termination of an Horcones-equivalent archaeological period at that

30. Edwin M. Shook and Marion Popenoe de Hatch, “Las tierras altas centrales: Períodos Preclásico y Clásico,” in *Historia general de Guatemala*, directed by Marion Popenoe de Hatch (Guatemala: Fundación para la Cultura y el Desarrollo, 1999), 1:289–318.

31. Gareth W. Lowe, *Mound 5 and Minor Excavations, Chiapa de Corzo, Chiapas, Mexico*, New World Archaeological Foundation Papers 12 (Provo, UT: BYU New World Archaeological Foundation, 1962), 10; and Bruce W. Warren, “The Sociocultural Development of the Central Depression of Chiapas, Mexico: Preliminary Considerations” (PhD diss., University of Arizona, 1977), 66.

32. Michael D. Coe, “Archaeological Synthesis of Southern Veracruz and Tabasco,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 3:696.

site. They thought the natural disaster caused a temporary abandonment of Izapa because of nearby lahars (mudflows of volcanic debris and water).³³

Furthermore, in central Mexico “a growing body of archaeological and geological data suggests that the Late Pre-Classic and Early Classic witnessed numerous volcanic events of varying intensity.”³⁴ This activity was especially detected at the site of Tetimpa, near the volcano Popocatepetl, east of Mexico City. A huge lava flow covered settlements and a considerable adjacent land area to a depth of between 98 and 328 feet (30 and 100 meters). Excavators used seven radiocarbon dates to establish “with high likelihood” that this eruptive sequence took place in the range 45 BC to AD 90.³⁵ Ceramics of Teotihuacán’s Tzacualli period that were recovered from Tetimpa match potsherds associated with a deposit of volcanic ash uncovered at the great central Mexican metropolis itself. That ash layer separates ceramics and architecture of the Early Tzacualli period from those of Late Tzacualli; the ash dates to about AD 50.³⁶ Thus the same volcanic eruption seems to be evidenced at both Tetimpa and Teotihuacán in the middle of the first century AD.

Traces of two other possible major eruptions at around the time of Christ are also emerging. One is in El Salvador, where specimens from under volcanic ash produced radiocarbon dates of AD 59, 80, and 59 (calibrated).³⁷

33. J. L. Macías et al., “Late Holocene Peléan-Style Eruption at Tacaná Volcano, Mexico and Guatemala: Past, Present, and Future Hazards,” *Geological Society of America Bulletin* 112/8 (2000): 1234–49.

34. Patricia Plunket and Gabriela Uruñuela, “Preclassic Household Patterns Preserved under Volcanic Ash at Tetimpa, Puebla, Mexico,” *Latin American Antiquity* 9/4 (1998): 289–90. Within Mesoamerica are 83 volcanoes (<http://www.en.wikipedia.org/wiki/Mesoamericans>).

35. If we exclude as archaeologically improbable the extreme dates of the sequence that Plunket and Uruñuela give in their table 1, and if we recalibrate the remaining dates (using Minze Stuiver and Paula J. Reimer, “Extended ¹⁴C Data Base and Revised CALIB 3.0 ¹⁴C Age Calibration Program,” *Radiocarbon* 35/1 [1993]: 215–30), the best reconciliation of the central set of dates is AD 53.

36. René Millon and James A. Bennyhoff, “A Long Architectural Sequence at Teotihuacán,” *American Antiquity* 26 (1961): 516–23; and Evelyn C. Rattray, “The Teotihuacán Ceramic Chronology: Early Tzacualli to Early Tlamimilolpa Phases” (PhD diss., University of Missouri, 1973), 25–26.

37. S. Valastro Jr. et al., “University of Texas at Austin Radiocarbon Dates XI,”

In an interpretative synthesis³⁸ of the volcanic history of the area, Sheets included these as anomalies in a long list of dates that he assumed applied to an eruption that was finally determined to have occurred at about AD 429.³⁹ However, the close clustering of the three earlier dates suggests that they may mark a distinct eruption that occurred around the middle of the first century AD, keeping in mind what Gill called “the vagaries of radiocarbon dating [of] volcanic deposits.”⁴⁰

On the basis of a number of radiocarbon samples, Santley et al. dated an eruption in the Tuxtla Mountains of Veracruz to soon after the time of Christ, although “the precise timing of the eruption remains unclear” due to inconsistencies in the dates obtained.⁴¹ It would not be surprising if these samples coincided with the eruption that deposited the layer of ash on top of Monument E (which postdates Stela C with its 31 BC date) at the nearby site of Tres Zapotes (see above, in this section).

Overall, considerable evidence confirms the idea of Lowe et al. that the widespread intentional destruction of monuments “during the two or three centuries after 1 A.D.” was connected to a series of volcanic events that extended “from southern Veracruz to El Salvador[,] in some instances achiev[ing] drastic destruction of entire communities.”⁴²

Any major eruption could have affected far more than its immediate area. The Ilopango volcanic event in El Salvador (dated about AD 429)

Radiocarbon 19/2 (1977): 320, item TX-2324; Payson D. Sheets, ed., *Archeology and Volcanism in Central America: The Zapotitán Valley of El Salvador* (Austin: University of Texas Press, 1983), 7, item GFIGNR-5004; and Bruce Anderson, “Excavations at Laguna Cuzcachapa and Laguna Seca,” in *The Prehistory of Chalchuapa, El Salvador*, ed. Robert J. Sharer (Philadelphia: University of Pennsylvania Press, 1978), 1:59.

38. Sheets, ed., *Archeology and Volcanism*, 1–13, 275–93.

39. Robert A. Dull et al., “Volcanism, Ecology and Culture: A Reassessment of the Volcán Ilopango TBJ Eruption in the Southern Maya Realm,” *Latin American Antiquity* 12/1 (2001): 25–44.

40. Richardson B. Gill, *The Great Maya Droughts: Water, Life, and Death* (Albuquerque: University of New Mexico Press, 2000), 217.

41. Robert S. Santley et al., “When Day Turned to Night: Volcanism and the Archaeological Record from the Tuxtla Mountains, Southern Veracruz, Mexico,” in *Environmental Disaster and the Archaeology of Human Response*, ed. Garth Bawden and Richard M. Reyecraft (Albuquerque: University of New Mexico, 2000), 156.

42. Lowe et al., *Izapa: An Introduction*, 28.

buried two entire valleys, depositing more than 40 feet (12 meters) of volcanic material;⁴³ it is unlikely that anyone there survived.⁴⁴ But beyond that area, “most of [neighboring] southeastern Guatemala was also abandoned . . . immediately following” the Ilopango disaster. Such an “event . . . should not be viewed exclusively in terms of its [direct] environmental impacts; the more potent blow to the entire southern Maya realm” was that the system of trade collapsed. This resulted in “the political destabilization and decentralization” of societies over a wide area, extending even to a “weakened Kaminaljuyu” in the Valley of Guatemala,⁴⁵ as we saw above in the Santa Clara period. Dull and colleagues believe that social structures in El Salvador were probably damaged by “great psychological effect[s] on human populations over an area much larger than the [directly] devastated zone” because of “earthquakes, heavy rain, lightning storms, and daytime darkness [that] probably accompanied the . . . eruption.”⁴⁶ To illustrate, they cite the 1835 Consegüina eruption in Nicaragua. Within a couple of hours it enveloped everything in the greatest darkness. Fear-struck wild animals blundered into settlements, adding to the population’s terror. Earthquakes caused a perpetual undulation of the ground; one tremor was strong enough to throw people to the ground. Ash and dust perpetuated the darkness for 43 hours. Several days of nearly complete darkness occurred over an area 550 kilometers (340 miles) in diameter, from Guatemala City to Rivas, Nicaragua.

During the Consegüina event, residents of León, Nicaragua, attributed the earthquake, darkness, and violent electrical storms to “divine anger, and flocked to the temples [churches] imploring the mercy of heaven.”⁴⁷ We can well imagine the fear and panic that such extreme natural phenomena could induce. Of a 1793 eruption in the Tuxtla Mountains, Moziño reported “grand thunderclaps, but underground”; more than 400 underground claps

43. Payson D. Sheets, “An Ancient Natural Disaster,” *Expedition* 14 (1971): 28.

44. Dull et al., “Volcanism, Ecology and Culture,” 32.

45. Dull et al., “Volcanism, Ecology and Culture,” 33, 35–36.

46. Dull et al., “Volcanism, Ecology and Culture,” 36–37.

47. Dull et al., “Volcanism, Ecology and Culture,” 37.

were heard, even up to hundreds of miles away.⁴⁸ “Shock and awe” would be an understandable response.

Historical cases further inform us about the dire consequences of such disasters. The Ilopango eruption in El Salvador 1,600 years ago was much stronger than any in modern or Spanish times. In surrounding areas not immediately affected by the eruption, “at a minimum . . . centralized political systems were abandoned and monumental construction was halted.”⁴⁹ And in a weird turn of events for the survivors, as perhaps for ancient victims, an eruption’s ecological consequences would have drastically upset human demography. For example, in 1902 when the volcano Santa María erupted in Guatemala, it killed all the birds for hundreds of miles around, with the result that “flies, mosquitoes, and rats [multiplied] to such an extent that life for human beings became nearly unbearable” because of illnesses.⁵⁰

Chase’s article concerning an eruption in the Tuxtla Mountains of Veracruz further expands our understanding of the consequences of such events. He notes probable noxious effects on human health from the eruption’s volcanic ash and gases. Furthermore, he infers that ashfall would contaminate water supplies and stop agriculture for years in some areas. Mudflows, which are known to move at speeds up to 95 miles per hour (153 kph), could deeply cover buildings and people.⁵¹ A combination of several or all of these factors likely would cause massive population decline.

In an important study on more general grounds, Gill and Keating examined published “reports of drought and famine during the period AD 1440 to 1840 and compare[d] them with known, large volcanic eruptions.” They found a highly significant statistical correlation that demonstrated with great probability that “Mesoamerica was repeatedly devastated by drought and subsequent famine between 1440 and 1840”—the period for which they had data—“due to the indirect climatic effects of large volcanic eruptions

48. D. Jose Moziño, *Informe de D. Jose Moziño sobre la erupción del volcán de San Martín Tuxtla [Veracruz] ocurrida en el año de 1793* (Mexico City: Tipografía Mexicana, 1869), 11.

49. Dull et al., “Volcanism, Ecology and Culture,” 37.

50. Dull et al., “Volcanism, Ecology and Culture,” 37.

51. James E. Chase, “The Sky Is Falling: The San Martín Tuxtla Volcanic Eruption and Its Effects on the Olmec at Tres Zapotes, Veracruz,” *Vínculos* 7 (1981): 53–69.

that could be located *anywhere in the world*.”⁵² These effects apparently resulted from volcanic debris and chemicals in the atmosphere that blocked normal sunshine.

Population declines and cultural fluctuations such as those contributing to the sudden decline in level of civilization evident in the Santa Clara period at Kaminaljuyu plausibly could have resulted from one or a combination of natural disasters.

Using a deposit of volcanic ash, we can date one crucial eruption rather precisely at the time boundary between the Arenal and Santa Clara periods. Shook identified the very first Santa Clara-period material found at Kaminaljuyu 50 years ago in a pit that had been dug into layers of sterile dark-brown clay. In the pit's bottom level, beneath layers of later debris, was a burial, together with crushed pots of the type he used to characterize the Santa Clara-period ceramics. This deposit was directly covered by a 4-inch (10-cm) layer of volcanic ash.⁵³ The ash in the narrow-mouthed pit would probably not have been from the natural ashfall of the eruption itself but from site-clearing operations where the ash was dumped on top of very recent pottery debris. As discussed earlier in this chapter, the date for the start of the Santa Clara period, and thus for the eruption that provided this ash layer, appears to have been about the middle of the first century AD.

Archaeological discoveries of the results of such natural catastrophes are rare because of the depth of most buried remains. In fact, it is quite remarkable that so many remains have already been discovered, as we are able to document here.

Recent discoveries in the Lake Atitlan basin of the south highlands of Guatemala add to the picture of geological activity that produced a crisis in southern Mesoamerican culture history. Lothrop worked at a site, Chukumuk, that was partly submerged in Lake Atitlan. His work led him to conjecture that other sites might exist at greater depth.⁵⁴ In 1999 Benitez

52. Richardson B. Gill and Jerome P. Keating, “Volcanism and Mesoamerican Archaeology,” *Ancient Mesoamerica* 13 (2002): 125; emphasis added.

53. Popenoe de Hatch, “New Perspectives on Kaminaljuyú,” 288.

54. The style of some of Lothrop's pottery from Chukumuk showed that the area was inhabited in about the first century BC. Samuel K. Lothrop, *Atitlan: An Archaeological Study of Ancient Remains on the Borders of Lake Atitlan, Guatemala*, Publication 444 (Washington, DC: Carnegie Institution, 1933), 37ff.

and Samayoa reported ruins of stone buildings in the lake that they found during scuba dives.⁵⁵ A modest-sized pyramid and a number of stelae have since been located at their city site, called Samabaj.⁵⁶ The structures were some 56 feet (17 m) beneath the surface near the south shore.

The Scripps Institute of Oceanography of La Jolla, California (with support from the Reinhart Foundation), subsequently used advanced technology to complete a high-resolution map of the lakebed. Ruins of submerged settlements appear to exist at several places. Plans are being made to carry out underwater archaeology at selected points in this complex. An expert has suggested that a volcanic event beneath the lakebed forced it, and thus the water above it, to rise suddenly, engulfing buildings formerly situated near the shoreline. The buildings appear to have been undamaged before their submersion, implying a sudden rise of the water.⁵⁷

Ceramics recovered suggest that these ruins date to the Late Pre-Classic period, probably around the time of Christ. Several unsculpted stelae photographed underwater must date to a pre-Santa Clara period, for such stelae were not erected after the onset of Santa Clara.⁵⁸ It is evident that a serious tectonic event occurred in the southern highlands of Guatemala at about the same time as the eruption that resulted in the abrupt demographic and sociocultural decline at Kaminaljuyu around roughly AD 50.

At Chiapa de Corzo, the Horcones period (75 BC–AD 50) ended with what Warren considered a “general destruction of some of the major mound structures.” “Mound 5 was burned and the roof and other destruction

55. Henry D. Benítez and Roberto Samayoa, “Samabaj y la arqueología subacuática en el lago de Atitlán,” in *XIII Simposio de investigaciones arqueológicas en Guatemala, 1999*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2000), 2:849–54.

56. Sonia Medrano and Roberto Samayoa Asmus, “Samabaj: Un sitio subacuático en el lago de Atitlán,” in *XXIII Simposio de investigaciones arqueológicas en Guatemala, 2009*, ed. Bárbara Arroyo et al. (Guatemala: Ministerio de Cultura y Deportes, 2010), 335–45; and Sonia Medrano, “Excavaciones bajo el agua: Samabaj, Atitlán,” in *XXIV Simposio de Investigaciones Arqueológicas en Guatemala, 2010*, ed. Bárbara Arroyo et al. (Guatemala: Ministerio de Cultura y Deportes, 2011), 159–62.

57. For a general orientation to the volcanology of the Atitlán area, see Gill, *Great Maya Droughts*, 221–23, which updates Felix Webster McBryde, *Cultural and Historical Geography of Southwest Guatemala*, Institute of Social Anthropology Publication 4 (Washington, DC: Smithsonian Institution, 1945), 168, 179–80.

58. De Borhegyi, “Archaeological Synthesis,” 24–25, 28.

materials fell on the huge collection of [exotic] pottery vessels” found therein.⁵⁹ It is uncertain whether the burning was “ceremonial” and “deliberate,” as Lowe believed,⁶⁰ or was due to natural causes. The question is, what triggered the fire?

Feldman used documentary sources to describe a severe earthquake that occurred in Guatemala in 1765. The source noted that many hurricanes were suffered both before and after the quake⁶¹ (whether the two classes of natural events were causally connected is uncertain, of course). On at least one occasion in Yucatan, a hurricane destroyed houses whose straw roofs had caught fire, causing the structures to burn due to the high wind.⁶² Such a fire, or one caused by lightning, might have caused the damage at Chiapa de Corzo. The destruction there was carbon dated at about AD 78.⁶³ Lowe’s annotation to Delgado’s monograph said, “This date is in remarkable agreement with that [of a fire] from the interior Mound F structure at Santa Rosa, and likely dates a similar phenomenon at the end of the Early Protoclassic [Horcones period].”⁶⁴ Lowe’s mention of Santa Rosa references two carbon-14 samples that yielded dates of AD 8 and, coincidentally, AD 78,⁶⁵ averaging near AD 50. The subsequent Period 4 at Santa Rosa (equivalent to Istmo period at Chiapa de Corzo) ceramic inventory is contemporaneous with the Santa Clara period at Kaminaljuyu. The pottery of Santa Rosa 4 was tempered entirely with coarse volcanic ash,⁶⁶ suggesting a recent eruption nearby.

59. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 66.

60. Lowe, “Mound 5 and Minor Excavations,” 10.

61. Lawrence H. Feldman, “Effects of an Earthquake in Chiquimula, Guatemala,” *Katunob* 12/1 (1982/1986): 4.

62. Alfred M. Tozzer, ed. and trans., *Landa’s Relación de las Cosas de Yucatan: A Translation*, Peabody Museum of American Archaeology and Ethnology Papers 18 (Cambridge, MA: Harvard University, 1941), 41.

63. Agustín Delgado, *Excavations at Santa Rosa, Chiapas, Mexico*, New World Archaeological Foundation Papers 17 (Provo, UT: BYU New World Archaeological Foundation, 1965), 78. The date of AD 78 involves a correction being made for an error in the published report of the original laboratory reading and after the latest calibration scale is applied.

64. Delgado, *Excavations at Santa Rosa*, 78.

65. Delgado, *Excavations at Santa Rosa*, 77; and John L. Sorenson, “A Mesoamerican Chronology: 2004,” unpublished monograph.

66. Donald L. Brockington, “A Prolongation of the Preclassic Period Indicated by the

The upshot of all these dating considerations is that numerous lines of evidence converge to establish that volcanic eruptions occurred in multiple locations in Mesoamerica at about AD 50, give or take a bit.⁶⁷

Clearly this was what volcanologist Siebe has called “a period of extraordinary eruptive activity.”⁶⁸ It seems likely that several other forms of natural disasters also occurred at this time. Together they must have contributed to the collapse, or near collapse, of a number of regional societies. Populations declined sharply from what they had been in the glory days (Horcones period) of the Central Depression and the contemporary Late Pre-Classic Arenal period of the Valley of Guatemala. Declines that followed these disasters impacted social and economic life in more distant Mesoamerican regions such that Mesoamerican civilization was reshaped in major ways after roughly the middle of the first century AD.

Changes after AD 50

For archaeologists, perhaps the most striking cultural discontinuity after AD 50 was the termination of the old cult features already mentioned. At Kaminaljuyu the Miraflores tradition ended abruptly at this time, so that with the Santa Clara phase—the last Late Pre-Classic phase—the cessation of figurine making and other sweeping changes in religious practices are particularly visible. The changes were fundamental and pervasive. The

Ceramics of Santa Rosa, Chiapas,” in *Los maya del sur y sus relaciones con los Náhuas meridionales: VIII mesa redonda* (Mexico City: Sociedad Mexicana de Antropología, 1961), 85–92.

67. We cannot, of course, take literally the AD 50 date that has come up a number of times. The caution expressed in chapter 4 about uncertainties attached to all archaeological dating needs repeating here. Nevertheless, dating these natural events in about the mid-first century is currently the best approximation we can make. Still more recent studies of the volcanoes in Mesoamerica have confirmed and expanded statements made above. For example, Patricia Plunket and Gabriela Uruñuela, “Social and Cultural Consequences of a Late Holocene Eruption of Popocatepetl in Central Mexico,” *Quaternary International* 151 (2006): 19–28; and Plunket and Uruñuela, “Mountain of Sustenance, Mountain of Destruction: The Prehispanic Experience with Popocatepetl Volcano,” *Journal of Volcanology and Geothermal Research* 170 (2008): 111–20, emphasize the scale of destruction of the Tetimpa eruption of Popocatepetl in Puebla, Mexico, arguing that casualties likely were at least 20,000 and that hundreds of square miles were devastated.

68. Gill, *Great Maya Droughts*, 219.

following is a list of cult furniture and associated practices that all disappeared completely:⁶⁹

- figurines (mainly female) of modeled clay
- three-pronged incense burners (in several base forms)
- flat-stemmed and roller stamps
- effigy whistles
- stelae (both plain basalt columns and sculpted pillars)
- inscriptions
- tombs
- “mushroom stones” and, perhaps, cultic ingestion of mushrooms

We do not know precisely how these features related to “religion” and culture generally at Kaminaljuyu, but Borhegyi characterized their disappearance as constituting “a sharp and sudden change in the religious structure.”⁷⁰ Further evidence of a cult revolution is shown by the “violent breaking up and burying of carved stone monuments at Chiapa de Corzo, Chinkultic, and various other sites in Guatemala and El Salvador” at the same time, constituting what Lowe called “a cultic or religious overthrow.”⁷¹

Consider the case of Chinkultic, a center on the border between Chiapas and Guatemala, up in the highlands north and east of the Grijalva River. The area was first settled from the Central Depression beginning around 50 BC.⁷² Its culture thus resembled that of the Horcones period. This inhabitation was terminated in the first century AD (not later than AD 75, Ball

69. Stephan F. de Borhegyi, “Figurinas articuladas de Mesoamérica,” *Antropología e Historia de Guatemala* 6/2 (1954): 3–9; de Borhegyi, “Archaeological Synthesis of the Guatemalan Highlands,” 15, 25–28; Popenoe de Hatch, “New Perspectives on Kaminaljuyu”; and Tomás Barrientos, “Evolución tecnológica del sistema de canales hidráulicos en Kaminaljuyu y sus implicaciones sociopolíticas,” in *X Simposio de investigaciones arqueológicas en Guatemala, 1996*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1997), 1:62.

70. De Borhegyi, “Archaeological Synthesis,” 28.

71. Lowe, “Mixe-Zoque as Competing Neighbors,” 236.

72. Joseph W. Ball, *The Archaeological Ceramics of Chinkultic, Chiapas, Mexico*, New World Archaeological Foundation Papers 43 (Provo, UT: BYU New World Archaeological Foundation, 1980), 87–88.

estimated,⁷³ although he added that it could have ended slightly earlier). At that juncture the sculptures at the site (in the old Izapan art style) were intentionally damaged and then buried. What followed was the entry of a different culture strongly influenced from the area around the Isthmus of Tehuantepec and very similar to that appearing at Chiapa de Corzo in the contemporary Istmo period.

A cultural analogue from the Old World supports the idea that a sharp modification in cult furniture and sacred symbols signals sweeping change in religious practice. Referring to the archaeology of Israel, Stern reported that “the Jewish exiles who returned from Babylon to the land of their ancestors [Israel, in the sixth century BC] no longer tolerated [any] cultic figurines,” having “purified” their religion during their captivity. Archaeologists find no female figurines around Jerusalem dating from the fifth century BC on.⁷⁴

At Kaminaljuyu, as already discussed, cult modification was just one aspect of broader sociocultural change. Similarly, at Chiapa de Corzo the violent end of the Horcones period was followed in the succeeding Istmo period featuring the appearance of a ceramic and artifact complex of “a remarkably different nature.”⁷⁵ “The general pottery tradition now manufactured at Chiapa de Corzo [was] quite typical of pottery being made throughout the general isthmian area of southern Veracruz, western Tabasco, the Isthmus of Tehuantepec,” and so on.⁷⁶ A former affiliation in style with the Maya lowland area had been terminated in favor of this Tehuantepec zone connection.⁷⁷ As noted above, Ball also saw the ceramic style that came into Chinkultic in the second half of the first century AD as being affiliated with the isthmus.

Another indication of a major cultural change at Chiapa de Corzo is

73. Ball, *Archaeological Ceramics of Chinkultic*, 87.

74. Ephraim Stern, “What Happened to the Cult Figurines? Israelite Religion Purified after the Exile,” *Biblical Archaeological Review* 15/4 (1989): 54.

75. Lowe, “Mound 5 and Minor Excavations,” 10.

76. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 73.

77. Gareth W. Lowe and J. Alden Mason, “Archaeological Survey of the Chiapas Coast, Highlands, and Upper Grijalva Basin,” in Wauchope and Willey, *Handbook of Middle American Indians*, 2:221.

that tomb burials, whose elaborate, imported offerings in the Horcones period had indicated a high level of trade and of internal differentiation in social rank and wealth, are entirely absent in the Istmo period at Chiapa de Corzo.⁷⁸ Lowe refers to the “subdued nature” of Istmo burials in contrast to “relatively extravagant” ones that occurred before.⁷⁹

Yet as great as apparently were the blows of unfriendly nature, the socio-cultural sphere may already have been declining when physical catastrophe struck. At Kaminaljuyu, for example, the best art of the Verbena period qualitatively declined somewhat in the Arenal period, although the population seems to have peaked during Arenal.⁸⁰ And by the following Santa

78. Gareth W. Lowe, “Burial Customs at Chiapa de Corzo,” in Pierre Agrinier, *The Archeological Burials at Chiapa de Corzo, Mexico, and Their Furniture*, New World Archaeological Foundation Papers 16 (Provo, UT: BYU New World Archaeological Foundation, 1964), 74.

79. Lowe, “Burial Customs at Chiapa de Corzo,” 75. Popenoe de Hatch has explained the sharp change in culture at the onset of the Santa Clara period in the Valley of Guatemala, conjecturing that there must have been aggression from and replacement by “the Solano Tradition,” supposedly coming from the western highlands of Guatemala. Her basis proves entirely speculative. Actually, only a very small population occupied the whole west highland area prior to the Santa Clara period, as noted previously in chapter 22. See Miguel Rivera Dorado, “La primera temporada de excavaciones en Salcajá (Guatemala),” *Revista española de antropología americana* 8 (1978): 124; Robert Wauchope, *Zacualpa, El Quiché, Guatemala: An Ancient Provincial Center of the Highland Maya*, Middle American Research Institute Publication 39 (New Orleans: Tulane University, 1975), 48–50; Marie-Charlotte Arnould, “Arqueología de la Alta Verapaz occidental: Sociedad y patrones de asentamiento,” *Antropología e historia de Guatemala* 2/2 (1980): 26–27; Arnould, “Regional Ceramic Development in the Northern Highlands, Alta Verapaz, Guatemala: Classic and Postclassic Material,” in *Maya Ceramics: Papers from the 1985 Maya Ceramic Conference, Part II*, ed. Prudence M. Rice and Robert J. Sharer (Oxford, England: BAR, 1987), 310.

So the source of Popenoe de Hatch’s supposed replacement population is problematic. Ichon’s La Lagunita material (Alain Ichon, “Regional Ceramic Development in El Quiché and Baja Verapaz, Guatemala,” in Rice and Sharer, *Maya Ceramics*, 277–306) indicates that the population in the western sector was too minor to “exert pressure” of any kind on Kaminaljuyu. Furthermore, as Popenoe de Hatch admits, the Santa Clara people/culture left no trace indicating where they might have relocated (Popenoe de Hatch, “New Perspectives on Kaminaljuyu,” 288, 290). A greatly reduced population for the Santa Clara period due to natural disaster(s) is a more economical and plausible explanation for what happened at Kaminaljuyu than external aggression.

80. Popenoe de Hatch, *Kaminaljuyu/San Jorge*, 99.

Clara period, the elaborate Kaminaljuyu irrigation system had seemingly fallen into disuse,⁸¹ which could signal the weakening ability of late Arenal leaders to exercise power to maintain the system. A reasonable conjecture is that the driving ideology and leadership behind the Miraflores tradition's glory had, as it were, "run out of steam" at about the moment when natural disaster struck.

A similar situation of decline might have prevailed at Chiapa de Corzo, where public structures burned at the end of the corresponding Horcones period. Perhaps Lowe was correct in supposing that deliberate ceremonial abandonment of the buildings (maybe a sign of rebellion or dynastic dispute in the face of declining socioeconomic conditions) preceded the burning.

After the Disasters

In the aftermath of the destructive termination of the Horcones period at Chiapa de Corzo and its equivalents elsewhere, a period of retrenchment was ushered in throughout Mesoamerica. Among the results was that in the second half of the first century AD and throughout the second century a process of cultural and political fragmentation prevailed. Each sizable community became more or less a center of power unto itself. No doubt the reduced population owing to the recent natural disasters forced remaining local leaders to focus more on internal problems than on external relations. The disasters would also have drastically disturbed previous patterns of commerce, rendering old intersociety tensions merely minor concerns.

Following the collapse of the Miraflores tradition in Guatemala, the highland region became increasingly diverse.⁸² The Miraflores ceramic sphere that had brought together communities from central highland Guatemala, the south coast, and western El Salvador into a special relationship in the previous century was now replaced by what Freidel interprets as "a mosaic of small polities characterized by local art styles."⁸³ The political situation was diversified—"balkanized"—apparently with no

81. Shook and Popenoe de Hatch, "Las Tierras Altas Centrales," 305.

82. Braswell, "Dating Early Classic Interaction," 100.

83. David A. Freidel, "Civilization as a State of Mind: The Cultural Evolution of the Lowland Maya," in *The Transition to Statehood in the New World*, ed. Grant D. Jones and Robert R. Kautz (Cambridge: Cambridge University Press, 1981), 191.

overarching structure to integrate localities. Each political unit was based on a related-but-separate-and-equal status.⁸⁴

At Tikal in the Maya lowlands after a Late Pre-Classic climax, there followed “something of a pause.”⁸⁵ For the same period in Tlaxcala, central Mexico, García Cook detected the population becoming “more rural, and a general cultural stagnation set in.”⁸⁶ On the upper Grijalva River, the Santa Rosa area tended to a still greater degree of isolation, going its own way.⁸⁷ At Chiapa de Corzo what developed was the “local culture” of the Istmo period, which manifested only broad cultural influence from outside.⁸⁸

The exceptions to this rule were a few big northern centers that eventually became great foci of power—Teotihuacán, Cholula, and perhaps Monte Albán. But even those places offer little evidence that focused political power was involved in their growth during the period from AD 50 to 200. For example, Cowgill suggested⁸⁹ that at Teotihuacán power may not have been concentrated in a few ruling hands but may have been dispersed in a council style of leadership, such as that which prevailed at Cholula at the time of the Spanish conquest.⁹⁰

We recall that the reduced population at Chiapa de Corzo in the Istmo

84. Freidel, “Civilization as a State of Mind,” 203–4.

85. George L. Cowgill, “Teotihuacan, Internal Militaristic Competition, and the Fall of the Classic Maya,” in *Maya Archaeology and Ethnohistory*, ed. Norman Hammond and Gordon R. Willey (Austin: University of Texas Press, 1979), 52.

86. Angel García Cook, “The Historical Importance of Tlaxcala in the Cultural Development of the Central Highlands,” in *Supplement to the Handbook of Middle American Indians*, ed. Jeremy A. Sabloff (Austin: University of Texas Press, 1981), 1:263.

87. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 70; and Donald L. Brockington, *The Ceramic History of Santa Rosa, Chiapas, Mexico*, New World Archaeological Foundation Papers 23 (Provo, UT: BYU New World Archaeological Foundation, 1967), 69.

88. Lowe and Mason, “Archaeological Survey,” 221.

89. George L. Cowgill, “Social Differentiation at Teotihuacan,” in *Mesoamerican Elites: An Archaeological Assessment*, ed. Diane Chase and Arlen Chase (Norman: University of Oklahoma Press, 1992), 212.

90. George L. Cowgill, “Tiempo Mesoamericano V: Clásico temprano (150/200–600 d.C.),” *Arqueología mexicana* 8/47 (2001): 25; compare Bernal Díaz del Castillo, *The Bernal Diaz Chronicles: The True Story of the Conquest of Mexico*, trans. and ed. Albert Idell (Garden City, NY: Doubleday, 1956), 124–27.

period was culturally related to the isthmian region to the west.⁹¹ The same was true of Chinkultic, just southeast of the Central Depression.⁹² Furthermore, the ceramic style of the northwest zone of highland Guatemala also showed isthmian influence, at least by the subsequent Aurora period at Kaminaljuyu.⁹³ Taken together, these data show that in the period from AD 50 to 200, a cultural (not, however, to say political) influence spread from the isthmus area southeastward into the Central Depression and beyond.

As noted earlier, the burials of the Istmo period at Chiapa de Corzo marked a sharp change in the nature of society. The simple graves contained no rich offerings. The excavators saw “no great social differentiation implied” in the disposition of the dead; instead they drew a picture of a “subdued” social order.⁹⁴ Unfortunately, we have no excavations to help us describe culture in the Isthmus of Tehuantepec itself at this time, but possibly related adjectives have been applied to the art of contemporaneous (Miccaotli period) Teotihuacán and Monte Albán in Period II: “monotonous but severe beauty”⁹⁵ and “refinement” that was “elegant and noble,”⁹⁶ respectively.

In the apparent absence of expansive political rulers, it is likely that groups in the core Mesoamerican areas tended to rely on their ancient, underlying social arrangements to attend to orderly functioning. Especially if the elite strata had declined after the natural disasters that initiated the period, the societies would have needed fewer structures of control (i.e., government). For example, competition for (and conflict over) agrarian land would have decreased with a smaller population. This brief period shows no archaeological sign of intercommunity aggression.

91. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 73.

92. Ball, *Archaeological Ceramics of Chinkultic*, 91–93.

93. Marion Popenoe de Hatch, “Evidencia de un observatorio astronómico en Tak’alik Ab’aj,” in *XV Simposio de investigaciones arqueológicas en Guatemala, 2001*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2002), 397.

94. Lowe, “Burial Customs at Chiapa de Corzo,” 73–75.

95. Pedro Armillas, “Exploraciones recientes en Teotihuacán, Mexico,” *Cuadernos americanos* 16 (1944): 129.

96. Miguel Covarrubias, *Mexico South, The Isthmus of Tehuantepec* (New York: Knopf, 1947), 183.

The period also seems to mark a pause in the construction of the massive public buildings that had consumed so much wealth and effort in the previous period. Only Teotihuacán evidences much new public building (and that only after about AD 150). Energy might instead have focused on rebuilding the population, settling the forms of damaged or modified social norms and institutions, and renewing the agricultural and craft infrastructure. There were apparently few or no upper social ranks demanding surplus energy and wealth for prestige projects. The limited trade, which had always aimed at providing goods of mainly elite concern, would have shrunk the “social overhead” of local societies considerably. Beyond AD 50, the bare bones of everyday social control—through kinship, tribal, and community-level structures—could have taken care of most of the tasks that government under an elite class had formerly carried out.

The social system among the Cuicatec Indians of central Mexico at the time of the Spanish conquest was probably somewhat typical of the default system of social organization that operated in the absence of an elaborate political structure.⁹⁷ The role of rulers among the Cuicatec was in some ways nearly superfluous. Beneath rulers’ surface level of control, fundamental (mainly kinship) institutions provided mechanisms for making most social decisions. In some regions the ruler nominally “owned” the community’s lands, but he could utilize them only according to an established cultural order, not as he pleased. The formal rulers were concerned with reallocating Cuicatec farmlands annually to residents, yet this too was done according to long-held cultural rules, so the political head’s role was mainly to formally validate what had already been largely decided by custom. Other routine governmental tasks, like the adjudication of disputes and implementing the community ceremonial calendar, were in the Cuicatec ruler’s hands. For carrying out these limited administrative tasks, the ruler was granted certain traditional privileges. He was allotted a parcel of land that citizens cultivated for him according to seasonal routines; the chief was presumed to be too occupied with formalities to personally do basic agricultural work. Hunt

97. Eva Hunt, “Irrigation and the Socio-political Organization of Cuicatec Cacicazgos,” in *Chronology and Irrigation*, ed. Frederick Johnson (Austin: University of Texas Press, 1972), 162–274.

describes with superior clarity a number of other customary arrangements governing relationships between tribal heads and citizens.

Essentially similar arrangements prevailed at local levels in other areas of Mesoamerica at the time the Spaniards arrived. In highland Guatemala most people lived in rural communities where they farmed lands that were communally owned, allotments being assigned annually to families by a council of community elders.⁹⁸ Analogous patterns probably prevailed elsewhere as well, including in the first and second centuries AD, which offer little evidence for “big man” leadership.

It was in this era that the sacred figure known by the Aztecs as Quetzalcoatl, “Precious Serpent,” began taking a major part in Mesoamerican religious life. As discussed in chapter 20, some academics dispute this figure’s significance and even whether he existed. Yet influential scholars maintain that the complex of beliefs and symbols that was associated with this god/man in later years appeared by at least the second century. “We know that . . . he appears as a serpent covered with precious feathers in the murals of Teotihuacán.” These murals were created around 150 AD.⁹⁹ Since the cult was thoroughly institutionalized by then, Sejourné’s insistence (with Caso’s agreement) that the Quetzalcoatl religion arose near the beginning of our era appears to be correct.¹⁰⁰ López Austin and López Luján “are convinced that the [Aztec] symbol complex of Feathered Serpent has . . . manifestations” back in “Miccaotli-phase Teotihuacán (150–200 C.E.)” at the latest.¹⁰¹

98. McBryde, *Cultural and Historical Geography*, x; and Sol Tax, *Heritage of Conquest: The Ethnology of Middle America* (Glencoe, IL: Viking Fund, 1952), 60–62.

99. Blas R. Castellón Huerta, “Cúmulo de símbolos: La serpiente emplumada,” *Arqueología mexicana* 9/53 (2002): 29; Saburo Sugiyama, “Termination Programs and Prehispanic Looting at the Feathered Serpent Pyramid in Teotihuacan, Mexico,” in *The Sowing and the Dawning: Termination, Dedication, and Transformation in the Archaeological and Ethnographic Record of Mesoamerica*, ed. Shirley B. Mock (Albuquerque: University of New Mexico Press, 1998), 147–64; and Laurette Sejourné, *Burning Water: Thought and Religion in Ancient Mexico* (1956; repr., Berkeley: Shambhala Publications, 1976), 25, “around the time of Christ.”

100. Alfonso Caso, “Dioses y signos teotihuacanos,” in *Teotihuacán, onceava mesa redonda: El Valle de Teotihuacán y su contorno* (Mexico City: Sociedad Mexicana de Antropología, 1966), 265.

101. Alfredo López Austin and Leonardo López Luján, “The Myth and Reality of Zuyuá: The Feathered Serpent and Mesoamerican Transformations from the Classic to

The belief system was manifested in other Mesoamerican areas also, and only an early origin can explain this widespread distribution. In fact, Pohl treats what she considers an earlier appearance in southern Mesoamerica of “the Serpent-Winged Deity” as a virtual counterpart of Precious Serpent/Quetzalcoatl. In Pohl’s view, this winged deity was represented first in “the early part of the Izapan horizon, ca. 200–1 B.C.”¹⁰²

In any case, the power of the name of this deity or ancestor long continued to bear great significance. On this point, three prominent scholars observe, “The Feathered Serpent [was] revered as the [claimed] ancestor of most of the important ruling families of Mesoamerica. [Such] descent . . . was [deemed] a necessary attribute of legitimate rule.”¹⁰³ The archaeology of Maya area sites they discuss suggests that various intrusive rulers later on brought this revered name and status with them when they moved into new areas.

Florescano provides a useful historical perspective in his summary of the older evidence at Teotihuacán, which is still largely accurate.¹⁰⁴ Starting by AD 150, he thought, the Plumed Serpent deity, supposedly representing the creative and renewing powers of nature, was the dominant sacred figure at Teotihuacán. Priests at that time were secondary in importance to the god or gods, he supposed. The Plumed Serpent deity’s exclusive domination at Teotihuacán was brief, however. Around AD 250, if not a bit earlier, the (“Old”) Temple of the Plumed Serpent was partially destroyed, then covered with a new structure. The god Tlaloc rose to prominence at that time, co-opting many of the Plumed Serpent’s characteristics. Religious life from

the Postclassic,” in *Mesoamerica’s Classic Heritage: From Teotihuacan to the Aztecs*, ed. David Carrasco et al. (Boulder: University Press of Colorado, 2000), 71n25.

102. Lee A. Parsons, “Altars 9 and 10, Kaminaljuyu, and the Evolution of the Serpent-Winged Deity,” in *Civilization in the Ancient Americas*, ed. Richard M. Leventhal and Alan L. Kolata (Cambridge, MA: University of New Mexico Press, 1983), 154.

103. Norman Hammond et al., “A Maya ‘Pocket Stela,’” in *Studies in Ancient Mesoamerica II*, ed. John A. Graham, Contributions 27 (Berkeley: University of California Archaeological Research Facility, 1975), 22.

104. Enrique Florescano, “La serpiente emplumada: Tlaloc y Quetzalcoatl,” *Cuadernos americanos* 133/2 (1964): 138–55. Compare Rubén Cabrera Castro, “La secuencia arquitectónica del Edificio de los Animales Mitológicos en Teotihuacan,” in *Homenaje a Román Piña Chan* (Mexico City: Instituto de Investigaciones Antropológicas, UNAM, 1987), 370.

that time on accentuated the priestly hierarchy and a multiplicity of symbols rather than gods.

The concentration on Teotihuacán as the special scene for this art by no means signifies that the particular symbols of the Feathered Serpent religion visible at that site dominated all of Mesoamerica. The unusual degree of preservation of Teotihuacán's art simply gives us a better picture than we happen to have recovered from other sites. However, other religious centers could well have seen related ritual practices and beliefs at about the same time as Teotihuacán, but the appropriate strata have yet to be excavated.

From AD 200 on, adaptive changes ensued in the cult or cults as well as in society in many spots, with Teotihuacán as the visual bellwether. Whether the Feathered or Precious Serpent figure was everywhere or even generally central to that shift is impossible to determine on the basis of what we know now.

Comparison with Book of Mormon History

While the text (in 3 Nephi and 4 Nephi) is lengthy regarding certain events during the first two centuries after Christ's birth, little of it details historical events or culture. Notably, a conjunction of natural disasters occurred around AD 30 (3 Nephi 7:21; 8–10).¹⁰⁵ The reports about the natural phenomena mention “a great storm,” “a great and terrible tempest” with “terrible thunder,” “great quaking of the whole earth,” “sharp lightnings,” and whirlwinds in both Nephite and Lamanite territories. These phenomena abated after a few hours, but then a “thick darkness” gathered that could be felt as a “vapor”; it prevented even the kindling of fire. The text does not

105. Establishing the chronology of the birth and death of Jesus Christ is fraught with contradictions and complications. To the calculations of scholars who use the Judean data (as in Finegan, *Handbook of Biblical Chronology*) is added unique data in the book of 3 Nephi itself where Christ's death is attested to have occurred “in the thirty and fourth year [after the astronomical signs of the birth of Christ], in the first month, on the fourth day of the month,” “in the reckoning of our time” (3 Nephi 8:5, 1), whatever that mode of reckoning was. Of the few scholars who have attempted a reconciliation of all the sources, none has provided a satisfactory solution in all respects, although one of the better attempts was Jay H. Huber, “Lehi's 600 Year Prophecy and the Birth of Christ” (Provo, UT: FARMS, 1982). See Bart J. Kowallis, “In the Thirty and Fourth Year: A Geologist's View of the Great Depression in 3 Nephi,” *BYU Studies* 37/3 (1997–98): 136–90.

indicate the area the darkness covered. (Kowallis demonstrates the likelihood that the darkness resulted from a volcanic eruption.) The dark condition continued for three days. Several specifically named cities had been buried “in the depths of the earth” (vv. 6, 8), and others were covered by waters. Many more unnamed cities were also destroyed: “many great and notable cities were sunk, and many were burned.” Casualties were vast, at least in selected areas (10:12–14). Obviously earthquakes were a primary cause.

After these phenomena ceased, from the heavens the voice of Jesus Christ announced himself to be the author of the disasters. He proclaimed that he was the Jehovah of the Jews, and he commanded that the survivors were no longer to follow the law of Moses. He told them to change their entire pattern of religious practice.

Jesus Christ's status as the Nephites' principal deity had earlier been recognized periodically in anticipation of his birth and his appearance among the people (e.g., Jacob 7:9–11; Mosiah 18:2; Helaman 14:2, 12). At least a religious elite gave him that recognition, although the general populace acknowledged his preeminence only some of the time.

One particular instance of Nephite symbolism for Jesus Christ is noteworthy in relation to the Feathered Serpent motif in Mesoamerica. The Book of Mormon repeatedly compares Christ to the serpent emblem known in the Old Testament or Torah as *nehushtan*. Before 75 BC the prophet Amulek stated that it “was spoken of by Moses; . . . and . . . a type was raised up in the wilderness, that whosoever would look upon it might live” (Alma 33:19). Of course, this was a reference to the bronze serpent described in Numbers 21:9.¹⁰⁶ Two generations later (about 25 BC), Nephi₂ told a group of his people the same thing, that Moses “did . . . bear record that the Son of God should come[.] And as he [Moses] lifted up the brazen serpent in the wilderness, even so shall he be lifted up who should come. And as many as should look upon that serpent should live, even so as many as should look upon the Son of God with faith . . . might live, even unto that life which is eternal” (Helaman 8:14–15). The Nephites might well have read the “lifted

106. Lowell K. Handy, “Serpent, Bronze,” in *Anchor Bible Dictionary*, ed. David N. Freedman (New York: Doubleday, 1992), 5:1117.

up” of the Israelite imagery in terms of “flying,” and thus “feathered” or birdlike.¹⁰⁷

Some months after the momentous natural disasters, on an occasion when “a great multitude” were gathered together “round about the temple . . . in the land Bountiful,” the resurrected Christ was introduced by the voice of God from the heavens (3 Nephi 11:1–8) as Jesus appeared before the crowd. He then proceeded over a period of two days to instruct them in terms that partly paralleled his Sermon on the Mount to his Jewish disciples in the land of Judea. He appointed 12 prophets (“disciples”) among them as religious leaders before he departed as dramatically as he had come. Returning a second day to a greatly expanded crowd, he continued his instructions, healed their sick and disabled, and caused the believers to undergo a number of sacred experiences.

Despite some initial opposition, the church he formed under the appointed leaders quickly spread to “all the lands round about” Bountiful. As the religious pattern spread through active proselytizing (4 Nephi 1:1–2), local societies adopted communitarian economies where people “had all things common among them; therefore there were not rich and poor, bond and free” (v. 3). Peace and prosperity gradually followed as facilities and cities were rebuilt (vv. 6–7). Socially there were “no robbers, nor murderers, neither were there Lamanites, nor any manner of -ites; but they were . . . one” people (v. 17). The unifying factor was the shared ideology and values that sprang from the experiences of the great catastrophe, plus the personal visit and teachings of Christ.

The geographical boundaries within which these unifying ideas and socioeconomic arrangements were shared were ambiguously said to be “all the lands round about.” These lands evidently referred to the areas, centered on Bountiful in the isthmus, that had been occupied previously by the Nephites and Lamanites.

The ensuing record of the time period is extremely brief. It says little

107. The Hebrew term *seraph* in Isaiah 30:6, where it is translated as “fiery, flying serpent,” is the same as that in Numbers 21:6, where the reading is “fiery serpents.” It is plausible to suppose that a sense of “flying” was attached to both the injurious serpents (*nehushtai*) and to the healing counterpart. (This point was suggested by Matthew Roper in a personal correspondence.) In 2 Nephi 25:13 and 20, Christ is referred to prophetically as a figure having “healing in his wings.”

more than that by about AD 135 the people had “prospered” and “there was no contention in all the land” (4 Nephi 1:18). By around AD 190 “a small part of the people . . . had revolted from the church and taken upon them the name of Lamanites” (v. 20).¹⁰⁸ For that fission to have become noteworthy to the historian and for the underlying social and cultural reasons behind it to have matured sufficiently by the specified date of around AD 190, the divisive movement must have been simmering for a decade or more, say from AD 175. Thus archaeological evidence for divergent cultic activity might begin to appear that early. In any case, the dissidence against the church and its norms spread quickly as a social and cultural force. By around AD 195, social rank differentiation (the “wearing of costly apparel . . . and of the fine things of the world,” v. 24) had become so widespread that “they [the people generally] did have their goods and their substance no more [in] common among them” (v. 25).

The record of Mormon says nothing useful about how the experiences of the core Nephite disciples were communicated and found symbolic expression among those living farther afield, such as at Teotihuacán.

Summarizing, we see at least the following correspondences that exist between Mesoamerican archaeology and the Book of Mormon account of events in the first and second centuries AD:

1. Archaeologists' previous interpretation of events in this interval—that is, the supposition that there must have been a smooth transition from a lesser cultural level in the Late Pre-Classic to a level of full civilization in an elaborated Early Classic—has been widely given up in favor of a view that the earlier time was as fully civilized as the later and that unexpected changes of many sorts marked the transition.
2. Major cultural discontinuity is evident at many sites around AD 30/50. For instance, in the Valley of Guatemala, the great Miraflores cultural tradition collapsed; the Santa Clara period that followed dropped sharply in population; and,

108. The nature of this “revolt” is implied to be that one corporate “tribe” or other had revived a name equivalent to *Lamanites*. They would not have adopted that name had they not been descendants of the former people so labeled.

simultaneously, great ideological changes occurred. In varying degrees, other major centers underwent similar drastic disruptions. The Book of Mormon account implies parallel disruptions throughout the area.

3. Many areas suffered nearly simultaneous natural disasters—chiefly from volcanic eruptions and earthquakes—more or less in the middle of the first century AD. These phenomena were the proximate causes of the population declines, cultural disruptions, and other elements of collapse and discontinuity previously mentioned. The Book of Mormon reports natural disasters that occurred about AD 30 throughout the lands in the isthmian area, with results that in many cases sound similar to what the secular data show.
4. One specific consequence of the natural phenomena described in the Book of Mormon account that is apparently documented by archaeology was the burning of Zarahemla. At least one major structure at Santa Rosa (the probable site of Zarahemla), and one of the few structures excavated at the site, was destroyed by unexplained fire ca. AD 50.
5. Moreover, the destruction of the city of Jerusalem in the land of Nephi that resulted from its being “covered with water” agrees strikingly with the sudden submergence of a newly discovered ruined city beneath the waters of Lake Atitlan in highland Guatemala, precisely where the geographical correlation followed in this book places the Lamanite city of Jerusalem.
6. Entrained consequences of the natural disasters (reduced population, disruption of ecology, dislocation of trade relations and health, psychological traumas, etc.) are assumed by Mesoamericanists to have accompanied such natural events when they have occurred historically, with further dire consequences for the survivors. The Nephite record details some of the same features stemming from the series of disasters it reports.
7. One aspect of the cultural discontinuity occasioned by these events was political disruption; that is, previous patterns of governance were upset. Social, political, and economic structures

were fragmented in a process that some scholars have called “balkanization.” The Book of Mormon actually describes a similar condition of political devolution that immediately preceded the disasters and that can be called “tribalization.” When it occurred, functions of the former centralized government were taken over by default by localized, kin-based social elements.

8. Archaeological evidence indicates the presence of the major cult of the Feathered Serpent, or Quetzalcoatl, during the second century AD, at least. Mesoamerican scholars consider this cult to have been based on the teachings of a “man/god” who came among the people, as reported in Mexican traditions. Versions of the cult were influential in many parts of Mesoamerica for the rest of the pre-Hispanic period, despite considerable syncretism with other beliefs as time went on. The Book of Mormon reports the miraculous appearance of the resurrected Jesus Christ among the Nephites in the area of the narrow neck of land (by geographic correlation, very near to Coatzacoalcos, a key location in the Quetzalcoatl cult according to Mexican tradition). The description of the two deities and their teachings were similar in significant ways.
9. In particular, Jesus Christ forbade the adherents of his new “church” to continue their former Mosaic rituals; he established a new church among them. The termination of a traditional pattern of ritual (figurines, censers, stelae, etc.), especially in southern Mesoamerica, is shown by archaeology to have taken place simultaneously.
10. Jesus Christ had been symbolized in anticipation by Nephite religious figures in the late first century BC by the icon of a serpent raised on a pole (compare the *nehushtan* serpent of the Israelites). In Mesoamerican religious tradition a serpent was a common, positive iconographic feature that was particularly applied to represent Quetzalcoatl, whose name means “Precious Serpent.”
11. A new societal pattern resulted from acceptance of Christ’s teachings by former Nephites and Lamanites and was characterized

by a localized, communalist economy and a classless, egalitarian social structure. Archaeologists have described social conditions in parts of Mesoamerica at this time that are broadly in agreement with these features. For example, burial customs shown by archaeology reveal that tombs were not used at that time, nor were any rich burial offerings made, indicating an unranked society.

12. According to the Book of Mormon, the period characterized by the spread of the church established by Christ's disciples saw (at least religious) influence spread outward from the city Bountiful, in the narrow neck of land (Isthmus of Tehuantepec). Archaeology shows that at that time (first century AD) cultural influence from the isthmian area was newly infusing parts of southern Mesoamerica.

To recapitulate detailed parallels would be tedious; an alert reader can identify further general and specific correspondences between the Book of Mormon account and the archaeological history for the period covered in this chapter. Overall, it appears that the textual account and the history reconstructed on the basis of archaeology report different versions of some of the same events. It seems to me impossible to explain how that could be unless the Nephite record was produced on the Mesoamerican scene.

Chapter 25

Archaeology and History between AD 200 and 400

Scholarly literature has yet to clarify satisfactorily the timing, nature, and causes of the sweeping changes that occurred in Mesoamerican civilization beginning in the third century. Those changes included what Bauer et al. called the “collapse of El Mirador, Nakbe, Cerros and San Bartolo” in the lowland Maya area.¹ Archaeologists now speak of “profound historical, ideological, demographic and socio-political changes that occurred at the start of the Early Classic” and suggest that “extensive war” was involved.² Careful dirt archaeology does not broadly establish that preliminary picture, but it seems likely. Bove had the same phenomena in mind when he referred to a “general disruption” at the transition from the Pre-Classic to the Classic, citing indications at important sites like El Mirador, Tikal, Komchen, Edzná, Izapa, Becán, and especially Balberta on the Pacific littoral.³ All were “abandoned or disrupted” at about the same time. But so far we lack details of the cultural shifts that prepared the ground for those huge societal changes soon after AD 200. Only with difficulty can we attempt to clarify what went on and why.

1. Jeremy Bauer et al., “El pasado Preclásico y monumental de la región Holmul: Resultados de las temporadas de campo 2003 y 2004 in Cival, Petén,” in *XVIII Simposio de investigaciones arqueológicas en Guatemala, 2004*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2005), 207.

2. Bauer, “El pasado Preclásico,” 207.

3. Frederick J. Bove, “Dedicated to the Costeños: Introduction and New Insights,” in *New Frontiers in the Archaeology of the Pacific Coast of Southern Mesoamerica*, ed. Frederick J. Bove and Lynette Heller, Anthropological Research Papers No. 39 (Tempe: Arizona State University, 1989), 8–9.

Mesoamerica in the Third and Fourth Centuries AD

A paucity of evidence from very limited excavations handicaps any summary of developments in this period. A great deal of local variation prevailed; some regions appear to have flourished, while others suffered decline. It is obvious that we cannot yet definitively synthesize what was happening around the end of the Pre-Classic and the start of the Early Classic; however, we have clues as to sharp changes in progress.

For instance, “the sudden shift in production and consumption of regionally distributed pottery around A.D. 250 accords with other evidence of discontinuity on the central Guatemalan Pacific slope around this time. . . . The scope of the changes implies extensive rearrangement of human groups.”⁴ In regard to the lowland Maya peoples, although the causes are uncertain, “there is no doubt that the Early Classic saw a decline in population and construction at many sites,” said Demarest.⁵ Thus “there is no possibility of constructing a continuous . . . curve for the cultural development of the Maya. It is too dramatically discontinuous.” Demarest suggests that a “pulsating” or at least erratic political history was responsible.⁶ Lorenzen too thought that “during the [initial] Early Classic a marked depopulation occurred in many parts of the northern Maya Lowlands. It is supposed [by some] that the desertion of early sites resulted from the collapse of the . . . Yucatecan trade network.”⁷ Demarest, meanwhile, is confident that drought was a major factor.⁸

4. Hector Neff et al., “A Ceramic Compositional Perspective on the Formative to Classic Transition in Southern Mesoamerica,” *Latin American Antiquity* 5 (1994): 354.

5. Arthur A. Demarest, “Proyecto El Mirador de la Harvard University, 1982–1983, VII: Conclusiones y especulaciones,” *Mesoamerica* 7/5 (1984): 141, 145.

6. Demarest, “Proyecto El Mirador,” 144.

7. Karl J. Lorenzen, “New Discoveries at Tumben-Naranjal: Late Postclassic Reuse and the Ritual Recycling of Cultural Geography,” *Mexicon* 21/5 (1999): 100.

8. Although Book of Mormon lands were in the tropics, they were sometimes subject to droughts. The two most dramatic historical examples are reported in Ether 9:30–35 and Helaman 11, but other occasions are indirectly referenced as well; see multiple references to “famines” in George Reynolds, *A Complete Concordance of the Book of Mormon*, ed. Philip C. Reynolds (1899; repr., Salt Lake City: Deseret Book, 1973), 221. In broad terms in Mesoamerica, periodic droughts occurred even in statistically low-rainfall variability areas. Jorge A. Vivó Escoto, “Weather and Climate of Mexico and Central America,”

As local societies in the more marginal, drought-vulnerable zones suffered dearth, Lorenzen suggests, population in the damaged areas may have moved aggressively against more naturally favored areas.⁹ He joins a growing number of scientists in emphasizing that natural causes were importantly at work in the decline of certain areas because of what happened elsewhere.¹⁰ But the data currently available fail to convince most archaeologists of the adequacy of any one explanation. Although the precise sequence of events involved is unclear, there is no question that the third and fourth centuries were times of major physical, social, cultural, political, demographic, and ideological change.¹¹

One popular explanation offered for Early Classic history involves “the Teotihuacán factor.” The basic facts are that features of culture familiar at the metropolis in the Valley of Mexico appeared at many places across Mesoamerica (especially south of the Isthmus of Tehuantepec) between about AD 200 and 500. Archaeologists widely consider that in some unspecified way this cultural movement caused revolutionary changes such as those we have been noting. A major reason for researchers’ failure to agree about the historical effects of the Teotihuacán factor is that we do not yet understand the nature and values of society at Teotihuacán during that period.¹²

Another key issue is unsettled chronology at the sites receiving Teotihuacán influence; firmer dates would clarify the picture of that

in *Handbook of Middle American Indians*, ed. Robert Wauchope and Robert C. West (Austin: University of Texas Press, 1964), 1:203. Richardson B. Gill and Jerome P. Keating, “Volcanism and Mesoamerican Archaeology,” *Ancient Mesoamerica* 13/1 (2002): table 2, report numerous Mesoamerican droughts that occurred between AD 1440 and 1840: the Valley of Mexico suffered 45, Yucatan 19, and Guatemala 19.

9. Lorenzen, “New Discoveries at Tumben-Naranjál,” 98–107.

10. Bruce H. Dahlin, “Climate and Prehistory on the Yucatan Peninsula,” *Climatic Change* 5/3 (1983): 245–63; Barbara W. Leyden et al., “Cultural and Climatic History of Cobá, a Lowland Maya City in Quintana Roo, Mexico,” *Quaternary Research* 49/1 (1998): 111–22; and Richardson B. Gill, *The Great Maya Droughts: Water, Life and Death* (Albuquerque: University of New Mexico Press, 2000), 314–16.

11. Larry C. Peterson and Gerald H. Haug, “Climate and the Collapse of Maya Civilization,” *American Scientist* 93/4 (2005): 322–29.

12. Donald McVicker, “Images of Violence in Mesoamerican Mural Art,” in *Latin American Indigenous Warfare and Ritual Violence*, ed. Richard J. Chacon and Rubén G. Mendoza (Tucson: University of Arizona Press, 2007), 73–90.

influence. That Teotihuacán was extremely powerful, rich, and influential is beyond question. What is not exactly clear is the nature of the power and influence it exerted at a distance,¹³ for in some areas it had little or no presence. For example, García Cook established that in Tlaxcala and Puebla, adjacent to Teotihuacán, the metropolitan presence was limited to certain key sites along what is presumed to have been a trade route—the Teotihuacán Corridor. It appears that Teotihuacán did not affect or control a wide stretch of the country.¹⁴

Amid the present uncertainties about details, this book can consider only local or regional sequences for clues about the history of this period and how they shed light on Mormon's record.

We start in the state of Chiapas. Close to AD 200 Chiapa de Corzo's Jiquipilas period began. We see at that time a rather abrupt unfolding of characteristics visible in the Early Classic era elsewhere. What had been the "subdued" culture of the preceding Istmo period was replaced quite abruptly by something more like the spectacular displays shown in the earliest Classic period in the lowland Maya area, although the population level at Chiapa de Corzo was lower than it had been over the previous two centuries.

During the Jiquipilas period at Chiapa de Corzo (AD 200–350), the culture resumed burial practices that distinguished elite persons from commoners (between AD 50 and 200, inhabitants buried their deceased in unelaborated graves). Yet even though the revived custom of tomb construction demonstrated the presence of rank differences throughout the Jiquipilas period, overall "there is a noticeable decline in almost every way from . . . [the level of civilization that prevailed in the] Horcones Phase [before the time of Christ], and external contacts and interaction seem to be minimal."¹⁵ After AD 200 the number of sites increased modestly throughout the Central Depression, particularly in the northwestern sector of the Grijalva basin,¹⁶

13. McVicker, "Images of Violence," 88–89.

14. Angel García Cook, "The Historical Importance of Tlaxcala in the Cultural Development of the Central Highlands," in *Supplement to the Handbook of Middle American Indians*, ed. Jeremy A. Sabloff (Austin: University of Texas Press, 1981), 267–68.

15. Bruce W. Warren, "The Central Depression of Chiapas: Its Role within the Evolution of Mesoamerican Civilization" (master's thesis, University of Arizona, 1969), 22.

16. Bruce W. Warren, "The Sociocultural Development of the Central Depression of

where “massive” ceremonial remains are now found in remote caves,¹⁷ as though perhaps a pattern of secret worship was going on. At Santa Rosa, farther south, a light manifestation of the new high (Jiquipilas) culture shows up. Then, shockingly, this Early Classic development throughout the whole Grijalva basin came to a crashing halt by AD 350.¹⁸ From then on the area was largely abandoned for centuries.

In the Valley of Guatemala (Kaminaljuyu), the period comparable to the Jiquipilas of Chiapas was called Aurora. It also mustered only limited cultural vigor (however, little excavation has been devoted to remains of this period, so our story in that venue may be incomplete); perhaps the valley's population had not yet fully recovered from the natural disasters that hit the area at the beginning of our era. The Aurora period was characterized by a new ceramic complex, along with some modest public structures and tombs.¹⁹ That development continued into the fourth century AD. Meanwhile the western portion of the highlands, which had previously been but little settled, now showed substantial growth.²⁰

In the Petén area in northern Guatemala, the center of lowland Maya culture, the “transition from the Late Preclassic to the Early Classic Period . . . was a time of significant social change.” This was probably when the

Chiapas, Mexico: Preliminary Considerations” (PhD diss., University of Arizona, 1978), 79–81.

17. Gareth W. Lowe and J. Alden Mason, “Archaeological Survey of the Chiapas Coast, Highlands, and Upper Grijalva Basin,” in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 2:223.

18. Lowe and Mason, “Archaeological Survey,” 223, 226.

19. Charles D. Cheek, “Excavations at the Palangana and the Acropolis, Kaminaljuyu,” in *Teotihuacan and Kaminaljuyu: A Study in Prehistoric Culture Contact*, ed. William T. Sanders and Joseph W. Michels (University Park: Pennsylvania State University Press, 1977), 166.

20. Miguel Rivera Dorado, “La primera temporada de excavaciones en Salcajá (Guatemala),” *Revista española de antropología americana* 8 (1978): 124; Marie-Charlotte Arnauld, “Desarrollo cultural en el altiplano norte: Período Clásico,” in *Historia general de Guatemala*, ed. Marion Popenoe de Hatch (Guatemala: Asociación de Amigos del País, Fundación para la Cultura y el Desarrollo, 1999), 1:227–39; and Robert Wauchope, *Zacualpa, El Quiché, Guatemala: An Ancient Provincial Center of the Highland Maya*, Middle American Research Institute Publication 39 (New Orleans: Tulane University, 1975), 48–50.

sociopolitical centralization that characterized later Maya society came into being.²¹

Other areas too had brief, sharp periods of growth in the third and fourth centuries. In the Escuintla (piedmont) area of the Guatemalan Pacific lowlands, Bove and colleagues found a “flourishing” development of state-level society and significant population growth occurring in the range AD 250–400.²² But the growth was spotty; elsewhere along the Pacific lowlands almost no such pattern is evident at this time.²³ Neff et al. attribute the sudden swings in the level of society in that region to “some sort of historical bottleneck or filter [that] disrupted the lives of people, including potters, on the central Guatemalan Pacific slope sometime around A.D. 250.”²⁴

At Teotihuacán, tumultuous events began soon after AD 200. Cabrera Castro says that in the third century AD the cult of Quetzalcoatl was faced with rivals: “belief systems were in competition” through their respective cadres of priests.²⁵ The competition was shown by “the covering up of the Old Temple of Quetzalcoatl and intentional mutilation of some of the enormous serpent heads on the south facade. This represents the struggle among religious groups,” one feature of which was “the instability of the group or faction that represented Quetzalcóatl” during the Early Tlamimilolpa period (AD 200–275). Sugiyama believes that the early symbolic meanings of the “Old Temple of Quetzalcoatl,” which were connected with the original

21. Arlen F. Chase and Diane Z. Chase, “External Impetus, Internal Synthesis, and Standardization: E Group Assemblages and the Crystallization of Classic Maya Society in the Southern Lowlands,” in *The Emergence of Lowland Maya Civilization: The Transition from the Preclassic to the Early Classic*, ed. Nikolai Grube (Möckmühl, Germany: Saurwein, 1995), 100.

22. Frederick J. Bove, “The Terminal Formative-Early Classic Transition,” in *The Balberta Project: The Terminal Formative-Early Classic Transition on the Pacific Coast of Guatemala*, ed. Frederick J. Bove et al. (Pittsburgh: University of Pittsburgh Department of Anthropology, 1993), 177.

23. Michael Love et al., “La cerámica de El Ujuxte, Retalhuleu: Un estudio preliminar,” in *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, ed. Juan P. Laporte and Héctor L. Escobedo (Guatemala: Ministerio de Cultura y Deportes, 1995), 1:19–24.

24. Neff et al., “Ceramic Compositional Perspective,” 355.

25. Rubén Cabrera Castro, “La secuencia arquitectónica del Edificio de los Animales Mitológicos en Teotihuacan,” in *Homenaje a Román Piña Chan* (Mexico City: Instituto de Investigaciones Antropológicas, UNAM, 1987), 349–71.

beliefs about that deity, were terminated around AD 260/270 by burning the Flying Serpent temple in an act of “profanation” or “desecration.”²⁶ For that same period Müller reported an increase in the pantheon of gods represented in art, notably the addition of the old god of fire, known to the Aztecs many generations later as Huehuetotl.²⁷ In the Late Tlamimilolpa phase (ca. AD 275–375), the fat god and various esoteric symbols appeared. These apparent cultic elaborations and clashes were not just matters of theological disputing but involved violence and surely had political consequences. Overall, for the period between AD 200 and 350, we can observe “an epoch of social crisis, of unknown causes,” in which “political ends” were framed in religious terms.²⁸

This sort of conflict is explicit at Teotihuacán, but it is also implicit in most other regions of Mesoamerica. Struggles of profound consequence, probably owing to multiple causes, were going on from one end of the area to the other in the 200s and 300s AD. The onset of drought may have been one of the causes. Another cause might have been a rise in the cultural acceptability of militarism; the earliest evidence for militarism at Teotihuacán dates to between AD 200 and 250.

The Role of Warfare

In this historical situation, what has been called euphemistically “social conflict” in short order turned into widespread warfare. David Webster, the chief proponent of militarization as a key in the shift from the Pre-Classic to the Classic, summarized: “Archaeologists have documented warfare over much of [the range of Maya history], beginning with destruction levels, mass burials, and fortifications from Middle and Late Preclassic times.”²⁹

26. Saburo Sugiyama, “Termination Programs and Prehispanic Looting at the Feathered Serpent Pyramid in Teotihuacan, Mexico,” in *The Sowing and the Dawning: Termination, Dedication, and Transformation in the Archaeological and Ethnographic Record of Mesoamerica*, ed. Shirley B. Mock (Albuquerque: University of New Mexico Press, 1998), 150, 158.

27. Florencia Müller, *La cerámica del centro ceremonial de Teotihuacán* (Mexico City: Instituto Nacional de Antropología e Historia, 1978), 181.

28. Cabrera Castro, “La secuencia arquitectónica,” 370.

29. David Webster, “The Not So Peaceful Civilization: A Review of Maya War,” *Journal of World Prehistory* 14/1 (2000): 69.

Furthermore, “destruction episodes, mass graves of probable war victims, and very large fortifications . . . clearly date to Late Preclassic times.”³⁰ Webster believed that in the Yucatan Peninsula, Becán’s massive fortification embankment was likely erected between AD 250 and 300, or possibly slightly earlier.³¹ Laporte added that projectile (spear) points first show up in the archaeology of the Maya area during the period of the Becán fortifications.³² Webster first offered his views in the early phase of Mesoamerican warfare studies. Thirty years later we have more information, and many other archaeologists have come to adopt his position about the practice of warfare in and prior to the Early Classic.³³

In recent decades the decipherment of many Classic inscriptions from the Maya area has demonstrated further that armed conflict was routine throughout that era, which was once thought of as peaceful. War was probably a fundamental social process, as it has been in all other areas where ancient civilizations flourished.³⁴

War was common well before the Classic at many places besides Becán. At El Mirador, for example, more than 4,166 feet (1,270 m) of fortification walls were erected in the “later Pre-Classic,” probably between AD 200 and 300.³⁵ In southern Guatemala, the site of Balberta, near Escuintla, was

30. Webster, “Not So Peaceful Civilization,” 69.

31. David Webster, *Defensive Earthworks at Becán, Campeche, Mexico*, Middle American Research Institute Publication 41 (New Orleans: Tulane University, 1976), 87.

32. Juan Pedro Laporte, “El ‘talud-tablero’ en Tikal, Peten: Nuevos datos,” in *Homenaje a Román Piña Chan* (Mexico City: UNAM, 1987), 265–316.

33. This is not to say that Mesoamericanists have adopted generally the particulars of Webster’s emphases. On varieties of interpretation regarding warfare and the indeterminacy of the evidence from art, see McVicker, “Images of Violence,” 73–90. But regardless of the variety of interpretations offered, there can be no question that war in Mesoamerica must be seen as old and general.

34. Steven A. LeBlanc and Katherine E. Register, *Constant Battles: The Myth of the Peaceful, Noble Savage* (New York: St. Martin’s, 2003).

35. Demarest, “Proyecto El Mirador,” 140. Guesses that this site was abandoned as early as AD 150 remain speculative. Reese-Taylor and Walker suppose the date at anywhere between “AD 159 and 238.” Kathryn Reese-Taylor and Debra S. Walker, “The Passage of the Late Preclassic into the Early Classic,” in *Ancient Maya Political Economies*, ed. Marilyn A. Masson and David A. Freidel (Walnut Creek, CA: Altamira, 2002), 100.

fortified with a ditch and wall before AD 350–400, but it was soon abandoned.³⁶ Evidence of fortifications belonging to the same general time appears also at Edzna, Tikal, and Uaxactun in Yucatan,³⁷ as well as in Puebla and Tlaxcala.³⁸ Inasmuch as all these areas show evidence of warfare and also were loci of social distress at this period of time, we cannot avoid concluding that the two phenomena are related and had become general in Mesoamerica in the fourth century AD.

That these were not just manifestations of local skirmishes or battles is shown by the effect of war on entire regions. The effect is clearest in central Chiapas. This fact was first noted in connection with research at Chiapa de Corzo, where almost 45 years ago Lowe and Mason reported “a general abandonment of most occupied archaeological sites at the close of . . . period VIII” (Jiquipilas, AD 350).³⁹ Lowe reported, “This apparent abandonment of [the region, which included Santa Rosa] during the [latter half of the] Early Classic appears to be real rather than illusionary, as the valley has [now] been thoroughly scouted.”⁴⁰ La Libertad, on the upper Grijalva, was abandoned at the same time,⁴¹ and so was nearby Chinkultic.⁴² Agrinier concluded that at “the end of the first half of the Early Classic” (AD 350),

36. Marion Popenoe de Hatch, “Observaciones sobre el desarrollo cultural en la Costa Sur de Guatemala,” in *Investigaciones arqueológicas en la Costa Sur de Guatemala*, ed. David S. Whitley and Marilyn P. Beaudry (Los Angeles: UCLA Institute of Archaeology, 1989), 29; Popenoe de Hatch and Edwin M. Shook, “La arqueología de la Costa Sur,” in *Historia general de Guatemala*, ed. Marion Popenoe de Hatch (Guatemala: Asociación de Amigos del País, y Fundación para la Cultura y el Desarrollo, 1999), 1:183; and Sonia Medrano, “El período Clásico en la Costa Sur,” in *Piezas maestras mayas: Patrimonio del Museo Nacional de Arqueología y Etnología de Guatemala*, ed. Luis Gustavo Jurado Duarte (Guatemala: Fundación G & T, 1996), 101.

37. Bove, “Dedicated to the Costeños,” 9.

38. García Cook, “Historical Importance of Tlaxcala,” 263–64.

39. Lowe and Mason, “Archaeological Survey,” 226.

40. Gareth W. Lowe, *Archaeological Exploration of the Upper Grijalva River, Chiapas, Mexico*, New World Archaeological Foundation Papers 2 (Orinda, CA: New World Archaeological Foundation, 1959), 45.

41. Warren, “Sociocultural Development of the Central Depression of Chiapas,” 79.

42. Joseph W. Ball, *The Archaeological Ceramics of Chinkultic, Chiapas, Mexico*, New World Archaeological Foundation Papers 43 (Provo, UT: BYU New World Archaeological Foundation, 1980), 88, 94.

the Central Depression seems to have suffered “social disturbances that resulted in the destruction of temples at El Mirador and the abandonment of . . . ceremonial structures in Chiapa de Corzo and [nearby] Ocozocoautla.”⁴³ We are left with virtually no evidence of the continuation of the traditional population of the Central Depression after that time.

The scenario continued in the Cintalapa Valley (the northwest wing of the Central Depression). Pursuers must have forced the inhabitants westward past Mirador toward the Isthmus of Tehuantepec. Agrinier’s excavations at Mirador led him to conclude that around AD 350 there was an “intense fire that totally destroyed” the largest sacred building at the site. “It seems that the temple had been thoroughly cleaned of its contents prior to its burning.”⁴⁴ That suggests a calculated retreat by the defenders in the face of impending attack. Furthermore, tombs were looted at about the same time.⁴⁵

A period of temporary abandonment of Mirador followed; excavation indicated that this lasted just one or two rainy seasons before small numbers of new settlers came in. Mirador was one of only a handful of sites inhabited by the invaders. The resettlement was marked by “shoddier construction” than before, perhaps indicating the presence of a “transitory elite . . . more concerned with quickly [constructed] public buildings rather than with long-range durability.”⁴⁶ The pottery of that small successor population showed connections to the Kaminaljuyu area of Guatemala,⁴⁷ confirming the assumption that the invaders of the Central Depression had come from highland Guatemala.

It is plausible to assume that this conflict was connected to the long-term tensions that Lowe hypothesized to have existed across the language/culture boundary that separated speakers of the Mayan language family

43. Pierre Agrinier, *Mounds 9 and 10 at Mirador, Chiapas, Mexico*, New World Archaeological Foundation Papers 39 (Provo, UT: BYU New World Archaeological Foundation, 1975), 9; and Agrinier, “Desarrollo del zoque Clásico y el problema del estilo teotihuacano en el occidente de Chiapas,” paper presented at 41st International Congress of Americanists, Mexico City, 1974.

44. Agrinier, *Mounds 9 and 10 at Mirador*, 9.

45. Agrinier, *Mounds 9 and 10 at Mirador*, 31, 39.

46. Agrinier, *Mounds 9 and 10 at Mirador*, 99–100.

47. Agrinier, *Mounds 9 and 10 at Mirador*, 99.

from Mixe-Zoquean speakers, who had long been located in Chiapas and westward into the Isthmus of Tehuantepec.⁴⁸ As we have seen (above), that language boundary ran more or less along the present Mexico-Guatemala border and thence to the Gulf of Mexico on the coast of Tabasco. We must suppose that in the fourth century armies from south and east of the line pushed out of Guatemala and through the Central Depression, forcing the abandonment of all significant sites there.

The abandonment phenomenon was no minor one; the area depopulated was as much as 20,000 square miles (51,800 sq km) in extent! No plausible reason for the disappearance of these people is evident other than large-scale war in which invaders slew or expelled most of the old inhabitants.

Around the same time (or soon afterward), on the south side of the actual isthmus the major site of Laguna Zope was abandoned. The culture of that site was related to that of the Jiquipilas period in Chiapas.⁴⁹ This evidence seems to show the track of the population that fled from Chiapas moving northward past the isthmus.

Where would those people have gone? Probably where they had linguistic friends and ethnic allies. A clue comes from the expansion of the Izapan style of monument art in the first century BC. This style spread northward from Chiapas.⁵⁰ Mixe-Zoquean-speaking relatives of the inhabitants of the Central Depression were apparently at home in south-central Veracruz.⁵¹

While it is logical that refugees from Chiapas would seek allies and

48. Gareth W. Lowe, "The Mixe-Zoque as Competing Neighbors of the Lowland Maya," in *The Origins of Maya Civilization*, ed. Richard E. W. Adams (Albuquerque: University of New Mexico Press and School of American Research, 1977), 197–248.

49. Lowe and Mason, "Archaeological Survey," 226; Warren, "Central Depression of Chiapas," 21; and Robert N. Zeitlin, "Long-Distance Exchange and the Growth of a Regional Center: An Example from the Southern Isthmus of Tehuantepec, Mexico," in *Prehistoric Coastal Adaptations: The Economy and Ecology of Maritime Middle America*, ed. Barbara L. Stark and Barbara Voorhies (New York: Academic Press, 1978), 200.

50. Michael D. Coe, "Archaeological Synthesis of Southern Veracruz and Tabasco," in *Handbook of Middle American Indians*, ed. Robert Wauchope and Gordon R. Willey (Austin: University of Texas Press, 1965), 3:696; see chapters 23 and 24 herein.

51. Lowe, "Mixe-Zoque as Competing Neighbors," 212–26; Gareth W. Lowe, "Los olmecas, mayas y mixe-zoques," in *Antropología e historia de los mixe-zoques y mayas: Homenaje a Frans Blom*, ed. Lorenzo Ochoa and Thomas A. Lee Jr. (Mexico City: Universidad Nacional Autónoma de México and Brigham Young University, 1983), 125–29.

asylum in the territory of their ethnic relatives north and west of the isthmus, archaeology for the area and period that concern us here is too limited to allow us to conclude for sure that the Chiapas refugees retreated to there. A key to cultural and political power in the last half of the fourth century ought to have been the large center of Tres Zapotes, but excavations there that have stretched over seven decades have yielded only a murky picture of the occupational history of the area.⁵²

The major disruption that large-scale war caused in the culture sequence of isthmian Mesoamerica was accompanied by, or quickly followed by (inexact chronology once more makes the point uncertain), widespread abandonment or depopulation of a number of other parts of Mesoamerica in the Early Classic. It is possible that the war on the Chiapas front was somehow connected with conflict in the Petén of lowland Guatemala that began even earlier, although the nature of any connection is not yet apparent.

According to Walker et al., the Maya area saw conflict in “the early katuns of [their] Early Classic I” (ca. AD 160–200).⁵³ Meanwhile, at the badly looted site of Tintal in the El Mirador basin, Hansen et al. found a rich tomb inside a massive defensive ditch, with vessels that belong to “the beginning of the Early Classic, between A.D. 300 and 400.”⁵⁴ So there was contemporaneous warfare in the lowlands, although any connection with the conflict scenes in Chiapas and Veracruz is uncertain.

Considerable data confirm the general aptness of Demarest’s observation that “there is no doubt that the Early Classic saw a decline in population and construction at many sites,” punctuating an era of history that was “dramatically discontinuous.”⁵⁵ Supporting examples from the archaeological literature include the following:

52. Christopher A. Pool, “From Olmec to Epi-Olmec at Tres Zapotes,” in *Olmec Art and Archaeology in Mesoamerica*, ed. John E. Clark and Mary E. Pye (Washington, DC: National Gallery of Art, 2000), 137–53.

53. Debra S. Walker et al., “Después de la caída: Una redefinición del Clásico temprano maya,” in *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 2006), 667.

54. Richard D. Hansen et al., “Investigaciones arqueológicas en el sitio Tintal, Petén,” in Laporte et al., *XIX Simposio de investigaciones arqueológicas en Guatemala*, 685, 691.

55. Demarest, “Proyecto El Mirador,” 144–45.

- “During the Early Classic a marked depopulation occurred in many parts of the northern Maya Lowlands,”⁵⁶ not only at El Mirador but also at nearby Nakbe, where “Early Classic pottery is virtually nonexistent, . . . suggesting an insignificant occupation during this period.”⁵⁷
- The Soconusco (Chiapas lowlands near Izapa) provides almost no data for the Early Classic period.⁵⁸
- Major sites on the Pacific coastal plain of Guatemala “were either abandoned or experienced a strong disruption” in the Early Classic.⁵⁹
- Few sites dating to the Early Classic have been found in the central Veracruz/Gulf Coast region.⁶⁰ To García Payón, “the paucity of Classic period structures . . . is puzzling”;⁶¹ “very few Preclassic sites continued to be occupied.” For the same area, Medellín reported that “the violent change of forms and styles of the ceramics of this epoch” is “astonishing.”⁶²
- The lower Grijalva area (i.e., Tabasco) almost entirely lacks Early Classic sites.⁶³

56. Lorenzen, “New Discoveries at Tumben-Naranjál,” 100.

57. Donald W. Forsyth, “La cerámica arqueológica de Nakbe y El Mirador,” in *III Simposio de investigaciones arqueológicas in Guatemala, 1989*, ed. Juan P. Laporte et al. (Guatemala: Ministerio de Cultura y Deportes, 1993), 119.

58. Lowe and Mason, “Archaeological Survey,” 202.

59. Bove, “Dedicated to the Costeños,” 9.

60. Paula H. Krotser, “Veracruz: Corredor hacia el sureste,” in *Interacción cultural en México central*, ed. Evelyn C. Rattray et al. (Mexico City: Universidad Nacional Autónoma de México, 1981), 178–79.

61. José García Payón, “Archaeology of Central Veracruz,” in *Handbook of Middle American Indians*, ed. Gordon F. Ekholm and Ignacio Bernal (Austin: University of Texas Press, 1971), 11:532, 526.

62. Alfonso Medellín Zenil, *Cerámicas del Totonacapan: Exploraciones arqueológicas en el centro de Veracruz* (Xalpa, Mexico: Universidad Veracruzana, Instituto de Antropología, 1960), 55.

63. Alain Ichon, “Regional Ceramic Development in El Quiché and Baja Verapaz, Guatemala,” in *Maya Ceramics: Papers from the 1985 Maya Ceramic Conference*, ed. Prudence M. Rice and Robert J. Sharer, BAR International Series 345 (Oxford: BAR, 1987), 2:295.

- In the area of the Tuxtla Mountains around Maticapan, “occupation . . . plummeted dramatically” at a certain point partway into the Early Classic. “The extreme decline in site numbers and regional population is difficult to explain.”⁶⁴

One has to suppose that these cultural discontinuities and demographic declines happened more or less simultaneously and from a related set of causes. One cause seems certain to have been of natural origin—the consequences of drought⁶⁵—but also evident is competition and conflict between belief systems and the factions or societies that held those beliefs.

That there were conflicts and discontinuities does not mean, however, that some centers and regions did not flourish, comparatively. But so far archaeology has been simply unable to identify clearly the winners from the losers. The Chiapas Central Depression is exceptional because the entire region was swept nearly clean of its established population.

As we noted above, one frequently hypothesized cause for Early Classic changes in southern Mesoamerica is influence from Teotihuacán. The complex relationships involved between that metropolis and various sites in southeast Mesoamerica have yet to be clarified in a persuasive historical scenario.⁶⁶ Little evidence from art or archaeology indicates that Teotihuacán as a state had the power or inclination to intervene directly in the distant south or in fact did so. One explanation that makes sense of a good deal of the data sees armed Teotihuacán “adventurers” who “sought their fortunes.”⁶⁷

64. Robert S. Santley and Philip J. Arnold III, “Prehispanic Settlement Patterns in the Tuxtla Mountains, Southern Veracruz, Mexico,” *Journal of Field Archaeology* 23/2 (1996): 231.

65. Lorenzen, “New Discoveries at Tumben-Naranjal,” 98–107.

66. The problems, data, and hypotheses are summarized and assessed in David Stuart, “‘The Arrival of Strangers’: Teotihuacan and Tollan in Classic Maya history,” *PARI Online Publications*, Newsletter 25 (1998); and George L. Cowgill, “Teotihuacan and Early Classic Interaction: A Perspective from Outside the Maya Region,” in *The Maya and Teotihuacan: Reinterpreting Early Classic Interaction*, ed. Geoffrey E. Braswell (Austin: University of Texas Press, 2003), 315–35.

67. Cowgill, “Teotihuacan and Early Classic Interaction,” 329–30; this involved possibly “a small group of warlike adventurers . . . [who] became overlords” at Kaminaljuyu according to Alfred V. Kidder et al., *Excavations at Kaminaljuyu, Guatemala*, Publication 561 (Washington, DC: Carnegie Institution, 1946), 255.

They would have carried Teotihuacán weapons, insignia, and costumes in order to profit from the prestige of the great metropolis as they intruded into southern centers. Some scholars have speculated that the migrants may have brought from Teotihuacán certain administrative concepts, ideological notions, or military weapons or tactics that helped them gain power over relatively less-organized local societies.

It was not until AD 377 that an identified Teotihuacán figure came visibly to power among the Maya.⁶⁸ His equipment indicates that he had arrived by way of the Pacific lowlands of Guatemala, where evidence clearly shows Teotihuacán usurpers exerting power at about that time or even before.⁶⁹ Whatever the role played by the Teotihuacanos in the early Early Classic conflict that drove a major portion of the population out of the Central Depression of Chiapas, they would not likely have been primary figures, nor would their actions have involved the northern metropolis in any direct way.

Aside from the opaque results of excavations at Tres Zapotes, little digging for the Early Classic has been carried out in southern Veracruz, the area immediately north and west of the isthmus, where the refugees from Chiapas may have moved. They may have gravitated there in part because it is a "land of unprecedented fertility, watered in all directions by streams, waterfalls and lakes,"⁷⁰ and thus could have supported a sudden surge of (refugee) population. Loughlin's survey of the densely populated El Mesón area just north of Tres Zapotes shows that its primary occupation dated to

68. This information comes from a dated monument in the Maya lowlands. See Clemency C. Coggins, "An Instrument of Expansion: Monte Albán, Teotihuacan, and Tikal," in *Highland-Lowland Interaction in Mesoamerica: Interdisciplinary Approaches*, ed. Arthur G. Miller (Washington, DC: Dumbarton Oaks, 1983), 51; and Stuart, "Arrival of Strangers."

69. For Pacific coastal Guatemala, see Bove, "Terminal Formative-Early Classic Transition," 179; compare the findings at Altun Há, Belize, in Evelyn C. Rattray, "El barrio de los comerciantes en Teotihuacan," in *Investigaciones recientes en el área maya, XVII mesa redonda: San Cristobal de Las Casas, Chiapas, 21-27 Junio 1981* (Mexico City: Sociedad Mexicana de Antropología, 1984), 1:148; and findings in Yucatan described in Irwin Rovner, "Implications of the Lithic Analysis at Becan," paper presented at the annual meeting of the Society for American Archaeology, 1972, 3, 7.

70. Miguel Covarrubias, *Mexico South, The Isthmus of Tehuantepec* (New York: Knopf, 1947), 27.

the Late and Terminal Formative (i.e., Pre-Classic) periods, but no decisive excavation has yet been done there.⁷¹

Three archaeologists who made a cursory survey of sites in the vicinity of Cerro El Vigía, near Tres Zapotes, discovered some previously unrecorded places inhabited during the Early Classic period. Potsherd samples indicated the sites may have been inhabited in the fourth century,⁷² but none of the places have been further studied.

Minimal research in the Matacapan area (in the Tuxtla uplands around Lake Catemaco) has shown that occupation in that immediate region “plummeted dramatically” in the vague range between AD 300 and 400, whatever we make of that.⁷³ Unfortunately, Coe’s early synthesis of the history of the area was too incomplete to serve as a reliable guide today,⁷⁴ as is García Payón’s.⁷⁵

All the archaeological work done on the southern Gulf Coast in the Late and Terminal Pre-Classic and Early Classic periods (prior to the arrival of Teotihuacán settlers at Matacapan, ca. AD 400–450) leaves the sequence of events unclear. One archaeologist has said, understating the problem, “Our understanding of this period remains limited.”⁷⁶ The unfortunate fact is that nobody has yet provided a believable, up-to-date outline (let alone a thoroughgoing synthesis) of archaeological history in and near the Tuxtla Mountains for the period AD 200–400. Yet what is reliably known is

71. The area around El Mesón exhibits such a continuous distribution of ruined architectural features and surface artifacts scattered across the landscape that separate “sites” cannot be distinguished. The population there was patently extremely dense. Michael L. Loughlin, “Recorrido arqueológico El Mesón,” FAMSI, 2003, <http://www.famsi.org/reports/02058/index.html>.

72. David A. Palmer, *In Search of Cumorah*, rev. ed. (Bountiful, UT: Horizon, 1992), 111–12.

73. Santley and Arnold, “Prehispanic Settlement Patterns,” 231.

74. Coe, “Archaeological Synthesis,” 679–715.

75. García Payón, “Archaeology of Central Veracruz,” 526. More recently Daneels discussed some results of research in the general area but confuses our sense of history by idiosyncratically assigning her “Early Classic” a date of AD 100–300. Annick Daneels, “Settlement History in the Lower Cotaxtla Basin,” in Barbara L. Stark and Philip J. Arnold III, *Olmec to Aztec* (Tucson: University of Arizona Press, 1997), 243.

76. Loughlin, “Recorrido arqueológico El Mesón.”

consistent with the picture of social, political, and demographic turbulence sketched previously for southern Mesoamerica broadly.

The Final Two Centuries of Book of Mormon History

The communitarian/egalitarian socioeconomic system among the Nephites broke down just before AD 200. A dramatic process of social change followed. Fourth Nephi 1:23–46 documents some steps in the process. Population had already increased greatly and continued for a while to spiral upward from its first-century low point. Simultaneously the people “had become exceedingly rich.” Social rank distinctions (with their emblematic elaborations of garb and ornamentation) became marked, and the people “began to be divided into classes.”

In any ancient society, wealth differences normally arose on the basis of commerce. Both the historical account left by Mormon and the archaeological record show this process at work. About AD 200, when their economic structure dramatically changed, some Book of Mormon people came to “traffic in all manner of traffic.” This included the importing of “fine pearls” and “the fine things of the world” desired by people of high rank (4 Nephi 1:46; compare v. 24). At Chiapa de Corzo, Lowe noted that the rich objects placed in tombs of elite persons during the Jiquipilas period (AD 200–350) had been imported.

In addition, the Nephites “began to build up churches . . . to get gain” and “were led by many priests and false prophets” (4 Nephi 1:26, 34). Some of those “churches” or cults were variants of the structure and belief system of “the true church of Christ” (v. 26), which had been more or less universal among these people for nearly 165 years. Prison sentences and other harsh sanctions were imposed on opponents of the class-structure changes.

Near AD 200 society divided into two broad religious factions. Membership or affiliation was based on descent. After many years of latency, the old megatribes once again came to the fore. Major tribes were based on descent from the seven original Lehite ancestors: Nephites, Jacobites, Josephites, and Zoramites once again comprised one grand faction, while Lamanites, Lemuelites, and Ishmaelites formed the rival grouping (4 Nephi 1:35–39). By about AD 260 the Lamanite portion had become “exceedingly more

numerous” (v. 40) and culturally influential than the Nephites, as had been the case among their ancestors three centuries earlier.

Both sides “did still continue to build up [unorthodox] churches unto themselves, and adorn them with all manner of precious things” (4 Nephi 1:41).⁷⁷ According to the historian’s judgment, by about AD 300 the people of both the Nephite and Lamanite factions had become “wicked one like unto [one] another” (v. 45); that is, they had become culturally indistinguishable in fundamental ways.

Up to this point in time, Mormon had constructed his historical record from lineage, tribal, or “house” records kept and preserved by designated Nephite scribes. He himself was the last of that line (Mormon 1:1–4), beginning about AD 320. The rest of the account of the Nephites is based on the personal knowledge and records kept by Mormon and his son, Moroni₂. Within an extension of his line’s history, Mormon concisely recorded his eyewitness account of the last decades of his people’s history in his own book.

The scene of his recollections was pretty much the entire traditional land of the Nephites, consisting of the territory that had been occupied by that megatribe at the time of Christ. He eventually came to know virtually all of that area from personal experience. The territory consisted of the greater land of Zarahemla, plus the isthmus, and the Nephites’ “north countries” (in the land northward).

As shown in chapter 7, this territory very probably ranged from the Grijalva River basin through the Isthmus of Tehuantepec into south-central Veracruz to about the Papaloapan river. For the most part this was the area where surviving speakers of the Mixe-Zoquean family of languages lived when the Spaniards arrived.

In Mormon’s day, in addition to the revived descent groups, the society also saw a resurgence of “secret societies.” About AD 260 “part of the people began again to build up the secret oaths and combinations of Gadianton” (4 Nephi 1:42). The reference is to “one Gadianton, who was exceedingly expert in many words, and also in his craft” (Helaman 2:4). Around 50 BC

77. George L. Cowgill, “Tiempo Mesoamericano V: Clásico temprano (150/200–600 d.C.),” *Arqueología mexicana* 8/47 (2001): 21: “religion was an omnipresent force” in Early Classic society.

he had become leader of a Nephite “band” whose aim was “to murder, and to rob, and to gain power” (v. 8). A later leader of that group, Giddianhi, who lived around AD 15, claimed that this “secret society of Gadianton” was “of ancient date” and operated according to a charter handed down to them by “tradition.” (See the discussion in chapter 14 herein.) They asserted “rights of government” over all Lehi’s descendants (thus obviously they were of the social elite). By then they controlled armies that threatened the Nephite state (3 Nephi 3:8–10). At about AD 30 those secret bands were thought to have been utterly eliminated, yet the pattern was revived by around AD 260. Those groups continued growing in power (4 Nephi 1:46), especially among the Lamanites, until they “did infest the whole land” (Mormon 1:18). From that time forward their armies came to play a powerful role in the geopolitics of the Book of Mormon area and were still operating in the fifth century, after the demise of Nephite society (Mormon 8:9).

Mormon’s personal record began when he was only 10 years old and living in his homeland in the land northward. At that time his father took him to the land of Zarahemla. He recalled being impressed because the “land had become covered with buildings, and the people were as numerous almost, as it were the sand of the sea” (Mormon 1:7). It is safe to suppose that his trip was between south-central Veracruz and the Central Depression of Chiapas.

Mormon was a precocious youth. “Being about ten years of age” and “quick to observe,” he had already “beg[un] to be learned somewhat after the manner of the learning of my people” (Mormon 1:2). In his “sixteenth year,” already being “large in stature,” he was made leader of the combined Nephite tribal armies (2:1–2). Obviously he was a person of privilege (his son later proudly spoke of him as “a descendant of [founding king] Nephi,” 8:13); probably he would have been the ranking member of his generation in a senior lineage or “house” within the Nephite faction.

Actual warfare between the Nephite and Lamanite factions began around AD 320. Both groups seem at that time to have been centered in the traditional areas where their ancestors had lived, for they began battling “in the borders of Zarahemla, by the waters of Sidon” (Mormon 1:10). That was where their ancestors had first fought each other almost 500 years earlier (Words of Mormon 1:13–14). Again the Lamanite army must have

come to this renewed battle primarily from the highlands to the south (the land of Nephi), while the Nephites defended their territory in the Sidon River basin.

In line with centuries-old military strategy, the Nephites conceived of the “north countries” beyond the narrow neck as a potential refuge (Mormon 2:3), a “country whither they might flee” (Alma 22:34) in the face of Lamanite pressure.

The social, economic, and political conditions in Nephite lands during Mormon’s early years there were chaotic. He speaks of “wickedness [that] did prevail upon the face of the whole land” (Mormon 1:13). One expression of this disorder was “sorceries, and witchcrafts, and magics” (v. 19). These elements, combined with raids by robbers, made it impossible for the people to retain “their treasures” except by hiding them up in the earth (v. 18).

Regardless of possible immediate reasons for war, such as economic gain by looting, it must be appreciated that the basic motivations were much more fundamental and irreducible. For more than eight centuries, the Lamanites had nourished a grudge against the Nephite rulers for governing illegitimately.⁷⁸

Nephite loyalists, those with established descent links, were evidently not exclusive residents of the land of Zarahemla. The Gadianton robbers also “did infest the land” (Mormon 1:18) at that time, either by infiltration or by raids.

Under Lamanite pressure, the groups composing the Nephites abandoned the immediate Zarahemla area. When their retreat reached the city then called Angola, Mormon’s forces had to “take possession of the city” (Mormon 2:4) before preparing to defend it. Apathetic or reluctant Nephites, or else people with their own loyalties, had to be displaced or coerced before Mormon’s forces could control the place enough to prepare for an attack. Conditions were not promising for an adequate defense: “there was blood and carnage spread throughout all the face of the land, both on

78. “Maya warfare was often ritually based. . . . Rulers . . . were *supposed* to go to war and defeat other rulers.” This was a basic theme in Maya war during the Classic. M. Kathryn Brown and James F. Garber, “Evidence of Conflict during the Middle Formative in the Maya Lowlands: A View from Blackman Eddy, Belize,” in *Ancient Mesoamerican Warfare*, ed. M. Kathryn Brown and Travis W. Stanton (Walnut Creek, CA: Altamira, 2003), 106; emphasis added.

the part of the Nephites and also on the part of the Lamanites.” In the absence of any effective civil government, “it was one complete revolution throughout all the face of the land” (v. 8), although, as Mormon put it, “We [no doubt meaning the allied key “houses” or lineages] did gather in our people as fast as it were possible, that we might get them together in one body” (v. 7). Later on he said, “Whatsoever lands we had passed by, and the inhabitants thereof were not gathered in, were destroyed by the Lamanites, and their towns, and villages, and cities were burned with fire” (5:5).

In any case, the Nephite military defense in the general land of Zarahemla proved inadequate. By about AD 325 they had been pushed to the north and west into, and then beyond, the intermediate cities/regions of Angola and David (Mormon 2:3–5).⁷⁹ As explained in chapter 23 herein, that area was near the only pass on the route out of the basin toward the west sea coast. In short order the Nephite force was pushed in that direction through the pass and into the coastal lowland, known to them at that time as the land of Joshua (v. 6). For the next 14 years they were able to resist the unrelenting Lamanite military threat, likely because of successful defense of that vital pass.

It is patent that the retreat of the Nephite faction from the land of Zarahemla coincides in time (ca. AD 350) and space with the Early Classic depopulation of the Central Depression of Chiapas described above.

Finally, in fleeing from their temporary refuge in the land of Joshua, the Nephites moved northward through the narrow neck and its “narrow passage” into the land northward (the exact route they took is never spelled out in the text). After further defeats interspersed with some victories, about AD 350 they made a treaty with their enemies by which the Nephites were ceded all the territory northward of the neck/pass while the Lamanites controlled the land southward (Mormon 2:29). (See map 10.)

Conditions among Mormon's refugee people continued to deteriorate. At some point late in the fourth century, he lamented the terrible suffering of women, children, and old men from famine and the “awful brutality” of the Lamanites (Moroni 9:17; see vv. 7–8, 16, 19). The latter were charged with forcing cannibalism on powerless prisoners of war (v. 8). Twice

79. Either Angola or David was probably the same or in the same area as the city/land called Ammonihah in the first century BC.

Mormon reports human sacrifice by their enemies (Mormon 4:15, 21). Yet he is even harder on his own people: “their wickedness doth exceed that of the Lamanites” (Moroni 9:20). Among the gross offences committed by his soldiers were rape and torture of Lamanite women prisoners and eating their flesh “for a token of bravery” (vv. 9–10), something never reported before.

Sacrifice of prisoners after battles was an established practice in later Mesoamerica. For example, “the sacrifices that followed [the battle pictured at Cacaxtla, Puebla] were viewed as especially critical to the political . . . success of the victors and central to their claim of legitimate rulership.”⁸⁰ Archaeological documentation of the practice of cannibalism dates back to at least the fifth century.⁸¹

Both Nephites and Lamanites generally considered themselves to be mutually distinct in terms of ethnicity (biology). Early in the first century AD, the historian tells us, the darker skins of (some?) Lamanites “became white like unto the Nephites” (3 Nephi 2:15), after they had adopted the Nephite-based religious system. When the Lamanite social category was revived late in the second century AD (4 Nephi 1:20), the population was said to be descended from Lamanite “fathers” who had been anti-Nephite, so they must have had the genetic makeup that gave those forebears “dark” skins. At the end of Mormon’s own record, he refers to his Nephite peers as “fair ones” (Mormon 6:17, 19); evidently they retained a distinction in complexion (see chapter 12 herein for further information on differences in skin shades in Mesoamerican art).

The treaty reported in Mormon 2:29 gave the beleaguered Nephites a respite but did not end the Lamanite/robber threat. In about AD 365 the Lamanites overwhelmed the Nephite defenders at the narrow pass and drove the inhabitants en masse farther northward. Around AD 380 the respective military commanders agreed on an appointment for a decisive battle. The Nephites were to be allowed to spend the next four years gathering all their

80. Ellen T. Baird, “Stars and War at Cacaxtla,” in *Mesoamerica after the Decline of Teotihuacan, AD 700–900*, ed. Richard A. Diehl and Janet C. Berlo (Washington, DC: Dumbarton Oaks, 1989), 119.

81. William T. Sanders, *The Cultural Ecology of the Teotihuacan Valley: A Preliminary Report of the Results of the Teotihuacan Valley Project* (University Park: Pennsylvania State University, 1965), 179.

forces to the land of Cumorah, “a land of many waters, rivers, and fountains” (Mormon 6:4).⁸²

When the climactic battle came about, it resulted in the extermination of the Nephites as a people. A total of 23 cohorts of 10,000 Nephite men each were reported slaughtered in a single day. This numbering apparently did not include the dependents who accompanied them (Mormon 6:8–15). However, in earlier years “many” Nephites had “deserted over unto the Lamanites” (Moroni 9:24), so a certain measure of biological and even cultural continuity was likely maintained in the newly dominated population even though their sociocultural structure would not have been reconstituted.

Mormon's son, Moroni₂, was the sole long-term survivor (that he reported) out of the handful of warriors who lived past the cataclysm. Before the final battle, Mormon had entrusted his completed record to his son. The tribal or “house” archive used to prepare his book—“the records which had been handed down by our fathers”—Mormon had “hid up in the hill Cumorah” (Mormon 6:6).

That this entire conflict was but a part of a wider pattern of war is made particularly clear in Moroni₂'s postscript to his father's book. He wrote nearly 20 years after the great battle: “The Lamanites are at war one with another; and the whole face of this land is one continual round of murder and bloodshed; and no one knoweth the end of the war” (Mormon 8:8). Obviously the warfare was about much more than destruction of the “Nephites.”

Moroni₂ lived on for years more. Near the very end of his record he

82. As explained in chapter 7 herein, Cumorah best qualifies as the zone near Cerro El Vigía, including the site of Tres Zapotes. Covarrubias said it “always” rains around Cerro El Vigía, so harvesting two crops of corn per year is routine; this ecological feature could have facilitated the feeding of the Nephites gathered for their last stand (Mormon 6:3–4). Covarrubias, *Mexico South*, 47. The Nephites' final gathering spot was in the same area of hilly upland where the Jaredites had fought the final battle of their civil war almost nine centuries earlier. The hill the Nephites now called Cumorah was known to the Jaredites as Ramah. It seems probable that some notion of astrological “fate” accompanied the choice of that location and the timing for the climactic battle.

There remain Latter-day Saints who insist that the final destruction of the Nephites took place in New York, but any such idea is manifestly absurd. Hundreds of thousands of Nephites traipsing across the Mississippi Valley to New York, pursued (why?) by hundreds of thousands of Lamanites, is a scenario worthy only of a witless sci-fi movie, not of history.

says, “More than four hundred and twenty years have passed away since the sign was given of the coming [i.e., birth] of Christ” (Moroni 10:1). That means he was still writing around AD 420. At that time he still had in his possession the records his father had left with him. (Of course, he would have long since departed the dangerous—and noxious because of hundreds of thousands of decaying corpses!—area of the final battle.) We are not told when and where Moroni₂ intended to “hide up the records in the earth” (Mormon 8:4) (but see below). When he wrote the final entry in the book/codex (Moroni 10:34, except for the title page), he had, of course, yet to finally dispose of the record.

The factionalism and ethnic rivalry displayed in the Nephite account agrees with the situation visible at the beginning of the Early Classic. There is substantial reason to believe that ethnic rivalry perpetuated conflicts in Mesoamerica in the third and fourth centuries AD. Ball and Taschek present arguments for such antagonisms in the lowland Maya area,⁸³ echoing in part ideas put forward by Clark, Hansen, and Perez Suarez.⁸⁴ Lowe proposed (and other scholars have accepted) that conflict between speakers of the Mayan and Mixe-Zoquean language families had a long history that continued even into the Classic period.⁸⁵ As already explained, an instance of that pattern of rivalry very likely was the war that resulted in the Mixe-Zoqueans’ abandonment of Chiapas around AD 350.

Ethnicity was patently one of the major factors in the warfare between the “Lamanites” and the “Nephites” reported in the last portion of the Book of Mormon. Mormon’s record makes this so clear that no discussion is necessary to establish the fact. But beyond the basic fact of that ethnic-difference flash point, the correspondence extends to geographical similarities between the centuries-long Lamanite-Nephite rivalry and the scene of the Maya–Mixe-Zoquean clash. Specifically, Mayan-language people, mainly from highland Guatemala, apparently drove out Mixe-Zoquean

83. Joseph W. Ball and Jennifer T. Taschek, “Reconsidering the Belize Valley Preclassic: A Case for Multiethnic Interactions in the Development of a Regional Culture Tradition,” *Ancient Mesoamerica* 14 (2003): 179–217.

84. John E. Clark et al., “La zona maya en el Preclásico,” in *Historia antigua de México*, ed. Linda Manzanilla and Leonardo López Luján, 2nd ed. (Mexico City: Instituto de Investigaciones Antropológicas, 2000), 1:437–510.

85. Lowe, “Mixe-Zoque as Competing Neighbors,” 197–248.

speakers from Chiapas and adjacent areas of southern Mesoamerica, and that operation coincided in space, time, and nature with what Nephite history represents as “Lamanites” expelling “Nephites” from their homeland in the Sidon/Grijalva River basin.

The resources deployed and consumed to sweep the Grijalva basin mostly clean of inhabitants must have required a vast scale of military preparation and action. Archaeological materials fail to clearly indicate the motives that could have produced such a massive effort. However, a close parallel in the evident fervor that produced apocalyptic desolation occurred around Aguateca, in the Maya area, in the ninth century AD.⁸⁶ That sort of deep-seated hatred was, beyond question, a major factor in the Aguateca destruction.

Preceding chapters examined a substantial number of specific correspondences between the Nephite account of their final war and Mesoamerican practices. I will review some of them here:

- Counting the Nephite and Lamanite sides together, the isthmian area must have suffered war casualties of more than half a million men (plus their women and children) in the late fourth century. Archaeological and ethnohistorical data about war casualties in later Mesoamerica suggest that such a level of casualties is not implausible.

Even with historical documents in hand, archaeologists have been unable to document some epic battles. One battle, according to Aztec history, involved 700,000 warriors on one side alone;⁸⁷ the casualties could have been very large, yet we cannot objectively check the reality of the historical report. As noted in chapter 18, central Mexican chronicler Alva Ixtlilxochitl claimed that in a three-year war involving “the Tultecas,” the total number slain was 5,600,000. Even if that number is arbitrarily reduced by a whole

86. Arthur A. Demarest and Juan Antonio Valdés, “Guerra, regresión política y el colapso de la civilización maya clásica en la región Petexbatun,” in Laporte and Escobedo, *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, 777–81.

87. Ross Hassig, *Aztec Warfare* (Norman: University of Oklahoma Press, 1988), 55. The size of Mesoamerican armies is also discussed in Diego Durán, *The Aztecs: The History of the Indies of New Spain*, trans. Doris Heyden and Fernando Horcasitas (New York: Orion Press, 1964), 217.

order of magnitude in the interest of credibility, archaeology has not confirmed warfare of such a scale for either the Tultecas or the Nephites.

- The Nephites were “white” or “fair” complexioned, or at least most of them were. Chapter 12 established that in Mesoamerican art and ethnohistory “white” ethnic characteristics were present and that such a physical description more or less applied to certain populations at times in the past. It could have been the case in the Early Classic.
- The Maya made appointments for battle on dates when certain calendrical (astronomical) events were predicted to occur. Evidence shows that this was true in the Classic era, and the same pattern quite likely prevailed earlier. In Book of Mormon history one thinks of the appointment for the final battle at Cumorah that was set for a particular day four years in advance. This is clearly an instance of an appointment for war and is likely also an example of calendrical scheduling.
- Lamanites and Nephites sometimes gave and expected advance warning of impending attacks (Mormon 3:4; 3 Nephi 3:11; Alma 54:12) as a part of the military aspect of their cultures. Redmond reports a similar custom for the Zapotecs.⁸⁸ The custom was also prevalent among the Aztecs and was probably even more widespread.
- Mormon’s survival through a long military career, from ages 16 to 75 (but with several lengthy periods of inactivity), may seem unlikely, yet long-serving, long-lived captains were known in Mesoamerican societies.
- Mormon reported difficulty in maintaining his command over Nephite forces. That difficulty may have been due to a factor reported, for example, among the Tlaxcalteca (neighbors of the Aztecs) at the time Cortez advanced among them. They had a single “supreme commander,” yet political authority over him was

88. Elsa M. Redmond, *A Fuego y Sangre: Early Zapotec Imperialism in the Cuicatlan Cañada, Oaxaca*, Studies in Latin American Ethnohistory and Archaeology 1 (Ann Arbor: University of Michigan, 1983), 29.

divided among a council of co-leaders (probably lineage heads) who countervailed his orders if they so decided.⁸⁹

- According to Mormon's history, the Lamanites, who were seemingly based in highland Guatemala, had the logistical capacity and population to plan to conquer or destroy their enemies even at distances as great as hundreds of miles. That would have been possible by Mesoamerican standards. In 1486 the Aztec leader Ahuitzotl planned a massive campaign to go from the Valley of Mexico to control southern Oaxaca and the Soconusco region as far away as the Guatemalan border, well over 600 miles (966 km) distant. They accomplished that objective, although by 1495 the expeditionary force decided to retreat from that extreme extension.⁹⁰ Another campaign stretched over 870 miles (1,400 km).⁹¹
- At several points, Book of Mormon history reports "robbers" or "secret organizations" carrying on organized warfare, most notably in the second half of the fourth century AD (Mormon 2:28; 8:9; see also 3 Nephi 2–4). A similar organizational pattern may have been present among the Aztecs, whose "military orders" consisted of special groups that received advanced honors and perquisites.⁹² Furthermore, guildlike organizations such as the Aztec *pochteca*—a society of militaristic, long-distance merchants—recall the trade association among the Nephite secret groups (4 Nephi 1:46). Some archaeologists believe that such closed groups tied closely to commerce were common in Mesoamerica since at least Teotihuacán times.⁹³

89. Hassig, *Aztec Warfare*, 277n3.

90. John M. D. Pohl and Angus McBride, *Aztec, Mixtec, and Zapotec Armies* (Oxford: Osprey/Reed International, 1991), 39–40; and Hassig, *Aztec Warfare*, 228, map 21.

91. Hassig, *Aztec Warfare*, 230.

92. Hassig, *Aztec Warfare*, 45–46.

93. Robert S. Santley, "Obsidian Trade and Teotihuacan Influence in Mesoamerica," in *Highland-Lowland Interaction in Mesoamerica: Interdisciplinary Approaches*, ed. A. G. Miller (Washington, DC: Dumbarton Oaks, 1983), 101; John B. Carlson, *Venus-Regulated Warfare and Ritual Sacrifice in Mesoamerica: Teotihuacan and the Cacaxtla "Star Wars" Connection* (College Park, MD: University of Maryland, Center for Archaeoastronomy, 1991), 59; Rudolf Van Zantwijk, "Las organizaciones social-económica y religiosa de los

- Mormon describes the genocidal war involving his Nephites that is plausible for Mesoamerica. We know that casualties among Mesoamerican military units could be extreme. For example, in AD 1480 a force of 32,000 Aztec warriors suffered 30,000 casualties⁹⁴ in war against the Tarascans, their militant neighbors to the west. Further, the Petexbatun area of the Maya lowlands demonstrated that wars of extermination were a fact of life a few centuries after the battles at Cumorah. Archaeologists have learned that in the ninth century AD virtually a whole region's population was destroyed by "a [prolonged] state of endemic siege and fortification warfare."⁹⁵ The whole process took about 70 years to play out, and only 5 to 10 percent of the original population remained as scattered country folk.⁹⁶ The Nephite cataclysm of similar scope took about 60 years to complete.

Getting the Codex to New York

How did the Codex get to a hill in New York from southern Mexico after the final battle involving the Nephites? The obvious answer is that someone carried it there, over a vast distance. Is that a plausible scenario? Yes, it is. In 1589 three English sailors trekked 3,000 miles from Tampico, on the Gulf Coast of Mexico, to Nova Scotia, more or less the same length as the journey Moroni₂ would have made to reach New York. They had been put ashore in Mexico from their privateer ship and decided to try to reach

mercaderes gremiales aztecas," *Boletín de estudios latino-americanos* 10 (1970): 1–20; Lee A. Parsons and Barbara J. Price, "Mesoamerican Trade and Its Role in the Emergence of Civilization," in *Observations on the Emergence of Civilization in Mesoamerica*, ed. Robert F. Heizer and John A. Graham (Los Angeles: University of California Archaeological Facility, 1971), 180–95; and Kenneth L. Brown, "The Valley of Guatemala: A Highland Port of Trade," in Sanders and Michels, *Teotihuacan and Kaminaljuyu*, 205–395.

94. Joyce Marcus, "Conquests: Pre-Hispanic Period," in *The Oxford Encyclopedia of Mesoamerican Cultures*, ed. David Carrasco (Oxford: Oxford University Press, 2001), 1:253.

95. Arthur A. Demarest et al., "Classic Maya Defensive Systems and Warfare in the Petexbatun Region: Archaeological Evidence and Interpretations," *Ancient Mesoamerica* 8 (1997): 248.

96. Demarest et al., "Classic Maya Defensive Systems," 231.

northeastern North America in hope of being found by a ship from Europe that might put in there. The original party was as large as 100, but en route all but three stopped off to join Amerindian groups. Upon completing the nine-month trip, the three men happened upon a French ship in Nova Scotia that agreed to take them back to England. Years later a royal inquiry in their home country elicited from the only survivor, one David Ingram, his account of the journey through dozens of American Indian “kingdoms.” Some of the story he told is laced with fantastic details, but the basic facts remain plausible and in some ways confirmed.⁹⁷

In the late 1990s a modern adventurer reversed their trek, going from Maine to Tampico by foot over a 4,000-mile path, in 11 months.⁹⁸

Joseph Smith became convinced in the last years of his life that the lands of the Nephites were in Mesoamerica.⁹⁹ On one occasion 10-year-old Mosiah Lyman Hancock heard Joseph tell his family in Nauvoo, Illinois, that “the United States will not receive you with the laws which God desires you to live [presumably polygamy], and you will have to go to where the Nephites lost their power. . . . [You] will have to go South,” indicating at the same time on a map with his finger the direction of Mexico.¹⁰⁰

97. BBC, “David Ingram’s Improbable Walk across 16th-Century America,” January 2004, <http://www.bbc.co.uk/dna/place-london/A1143488>; and Charlton Ogburn, “The Longest Walk: David Ingram’s Amazing Journey,” *American Heritage Magazine* 30/3 (April/May 1979), <http://www.americanheritage.com/content/longest-walk-david-ingram's-amazing-journey>.

98. “David Ingram’s Improbable Walk”; and Richard Nathan, *Walking with Time* (unpublished).

99. Notably, the Latter-day Saints’ newspaper in Nauvoo, Illinois, *Times and Seasons*, reported on 1 October 1842 in an editorial piece concerning Smith and his cohorts’ reading of John Lloyd Stephens’s book *Incidents of Travel in Central America, Chiapas, and Yucatán* (1841): “We have [just] found another important fact relating to the truth of the Book of Mormon. Central America . . . once embraced several hundred miles of territory from north to south—the city of Zarahemla . . . stood upon this land.” Smith had earlier announced his personal editorial responsibility for the paper. Other, complementary statements followed in discussions of the Stephens book. Evidently Smith and his associates had not previously thought very intently about the question of geography. See further John L. Lund, *MesoAmerica and the Book of Mormon: Is This the Place?* (n.p.: The Communications Company, 2007), 26–33.

100. Mosiah Lyman Hancock, “The Life Story of Mosiah Lyman Hancock,” typescript,

Joseph Smith told several people in his last years that Moroni₂ had left southern Mexico and journeyed by foot to New York with the “plates of gold.” He said that Moroni₂ buried the plates in a hill near Palmyra, where young Smith would live.¹⁰¹ William McBride and Andrew Hamilton, associates of Joseph in Nauvoo, who later lived in St. George, Utah, each repeated accounts of having heard Smith tell that a small group of Nephite survivors, including Moroni₂, had left “the land Bountiful” near the Isthmus of Tehuantepec to travel via the Great Basin and eventually reach the territory of New York. H. Donl Peterson includes reproductions of separate sketch maps made by McBride and Hamilton, both showing the route Smith indicated. Both maps indicate that Moroni₂’s starting place was the “land Bountiful” and show a track through Arizona and Utah to the upper Mississippi Valley, then on to New York. He evidently had plenty of time to make the prolonged journey. The Ingram account shows that it was plausible that he did so.

p. 19. Copy in L. Tom Perry Special Collections, Harold B. Lee Library, Brigham Young University, Provo, Utah.

101. H. Donl Peterson, “Moroni, the Last of the Nephite Prophets,” in *The Book of Mormon: Fourth Nephi through Moroni, from Zion to Destruction*, ed. Monte S. Nyman and Charles D. Tate Jr. (Provo, UT: BYU Religious Studies Center, 1995), 244–47; and Charles L. Walker, *The Diary of Charles Lowell Walker*, ed. A. Karl Larson and Katharine Miles Larson (Logan, UT: Utah State University Press, 1980), 2:525–26.

Chapter 26

Conclusions

In the first chapter of this book, I stated that my intent was to demonstrate that the content of the Book of Mormon parallels what one could expect of a document produced by participants in ancient Mesoamerican civilization. The intervening chapters have shown that what scholars have discovered about that area and what the Nephite record shows are very plainly related. At hundreds of points, the Book of Mormon corresponds in general or specific ways to Mesoamerican situations, statements, or allusions.

Upon examining the correspondences presented in *Mormon's Codex*, rational people will probably agree that the two records—the text of the Book of Mormon and the archaeological and anthropological record—are concerned with many of the same events, peoples, and contexts, even though names, details, and emphases may differ.

How could the Nephite volume compare so closely with the ancient Mesoamerican situation? It is irrational to suppose that mere chance accounts for the extensive similarities. The parallels are too striking and too sweeping to support that casual explanation.

Some have answered the question of the book's authorship by supposing that young Joseph Smith manifested unique creativity in bringing forth the volume. Literary critic Harold Bloom considered Smith a "religious genius,"¹ as though that label could explain how Smith was able to dictate this intricately plotted book of 270,000 words in less than 75 days (7 or 8 pages

1. Harold Bloom, *The American Religion: The Emergence of the Post-Christian Nation* (New York: Simon and Schuster, 1992), 80.

per day) without any revision of the manuscript.² Others have thought that Smith came up with the book by melding biblical language with notions about American Indians that were common on the western New York frontier in the 1820s. Another explanation has been that someone more literate than Smith produced the manuscript (but who and how?), which he then pirated. (Givens offers the most accessible survey of explanations for the origin of the book.)³

No such facile interpretations can account for the presence of so much Mesoamerican culture and history in the Book of Mormon. Even the greatest savant of the early 19th century, let alone a marginally literate, young frontier farmer, could not have produced a volume so rich in Mesoamericana. Even now, in the 21st century, the best-informed scholar could not produce such a book, let alone actively dictate it. No archaeologist controls enough reliable information on the ancient civilization to get so many details right. The information such a feat would require was unknown even to the best scholars until recent decades, and even now only in scattered fashion.

Any idea that Smith might have been acquainted with some abstruse body of knowledge about antiquity that he somehow “folded into” his dictation is absurd. One of Smith’s close collaborators, David Whitmer, said of him, “Joseph Smith was a man of limited education and could hardly write legibly.”⁴ In the same vein his wife, Emma Hale Smith, said, “Joseph Smith could neither write nor dictate a coherent and well-worded letter, let alone dictate a book like the Book of Mormon.”⁵

Only one explanation for the Mesoamerican content is plausible—that the cultural and physical data connecting the archaeological record and the historical text resulted from the fact that the account was written by

2. John W. Welch, “How Long Did It Take to Translate the Book of Mormon?,” in *Reexploring the Book of Mormon*, ed. John W. Welch (Provo, UT: FARMS, 1992), 1–4.

3. Terryl L. Givens, *By the Hand of Mormon: The American Scripture That Launched a New World Religion* (Oxford: Oxford University Press, 2002), chapter 6.

4. Lyndon W. Cook, ed., *David Whitmer Interviews* (Orem, UT: Grandin Book, 1991), 210.

5. Joseph Smith III, “Last Testimony of Sister Emma,” *Saints’ Herald* 26 (1879): 289; and Milton V. Backman, *Eyewitness Accounts of the Restoration* (Orem, UT: Grandin Books, 1983), 127.

a native Mesoamerican, probably in the fourth century AD. Furthermore, the historian-editor had to have personally witnessed some of the recorded events as well as particular scenes where actions recounted in the book took place. In addition, the writer must have had access to an extensive collection of written documents on Mesoamerican culture history up to the Early Classic period. How the resulting record reached New York State and Smith's hands, and how he translated it, are, of course, difficult questions for scholars to answer, but they pale compared with the question of how the original work was composed.⁶

The only form in which such a record could have come forward is that of a native Mesoamerican book, or codex.⁷ Of course, we do not have access to the original "gold plates" that Smith claimed to have possessed, but some contemporary descriptions of that record make its form sound rather like a Mesoamerican codex.

According to Smith's own statement, a heavenly messenger appeared to him multiple times during the night of 21–22 September 1823, when he was 17 years of age. The messenger told him that near his home in western New York State there was "a book deposited, written upon gold plates, giving an account" of "former inhabitants of this continent." If Smith was faithful to instructions, he would be able to obtain, translate, and publish the book. During annual visits over the next four years, the same messenger instructed Smith further about the volume. At the end of that time, Smith obtained the record. It was accompanied by a device—"interpreters"—that he used to translate the record "by the gift and power of God."⁸

6. In his offbeat book *Fantastic Archaeology: The Wild Side of North American Prehistory* (Philadelphia: University of Pennsylvania Press, 1991), retired Harvard professor Stephen Williams said that the gold plates Smith claimed to have were obtained by "discovery and excavation" (p. 161) and that the LDS faith "has deep roots in what must be called 'archaeological discoveries' in 1827 by Joseph Smith in New York State" (p. 25). No Latter-day Saint has used such language about the origin of the volume, but there is a measure of truth in what Williams said.

7. Some scholars might quibble about the suitability of this term for a body of material engraved on metal plates, yet the material used does not matter; *codex* is used to refer to central Mexican records painted on leather, for instance.

8. Joseph Smith—History, in *The Pearl of Great Price* (1838; Salt Lake City: The Church of Jesus Christ of Latter-day Saints, 1981), 51–55. Givens, *By the Hand of Mormon*, 30–33, gives the best treatment of what is known about the process of translation.

There are very few descriptions of what the markings on the gold plates looked like. But what is reported about the appearance of the pages sounds not dissimilar to a Mesoamerican codex. The most detailed description of the markings comes to us secondhand from Charles Anthon, “America’s most famous classicist,” a professor at Columbia College (later Columbia University) in New York City.⁹

In 1828, during the period when Smith was beginning to translate the record from the gold plates by using the “interpreters,” he made a copy of a considerable number of the “characters” (hieroglyphics) from the record. He took care that they were “perfectly reproduced.”¹⁰ Smith gave this copied segment, along with his translation of it, to his associate Martin Harris, who, hoping for confirmation of the antiquity of the characters and the accuracy of Smith’s translation, took the documents to New York City to Professor Anthon. Although Harris and the scholar gave conflicting accounts of what the professor told Harris, upon his return to western New York, Harris was satisfied enough that he mortgaged his farm to pay the \$5,000 cost of printing the Book of Mormon.

Years later Smith’s critics asked Anthon for his version of what transpired during Harris’s visit. Two letters by Anthon contain our best description of what Harris displayed.¹¹ In an 1834 letter the professor recalled that what he was shown

was in fact a singular scrawl. It consisted of all kinds of crooked characters disposed in columns, and had evidently been prepared by some person who had before him at the time a book containing various alphabets. Greek and Hebrew letters, crosses and flourishes, Roman letters inverted or placed side-ways, were arranged in perpendicular columns, and the whole ended in a rude delineation

9. Victor W. von Hagen, *Maya Explorer: John Lloyd Stephens and the Lost Cities of Central America and Yucatán* (Norman: University of Oklahoma Press, 1947), 14, 75. Coincidentally, young John Lloyd Stephens, who became the first great explorer of the Maya ruins, studied at Columbia, perhaps under Anthon, at about this time.

10. Cook, *David Whitmer Interviews*, 198.

11. B. H. Roberts, *A Comprehensive History of the Church of Jesus Christ of Latter-day Saints* (Salt Lake City: Deseret Book, 1930), 1:100–108; the original “copy” that Harris took with him has not been preserved.

of a circle divided into various compartments, decked with various strange marks, and evidently copied after the Mexican Calendar given by Humboldt, but copied in such a way as not to betray the source.¹²

In 1841 Anthon wrote to a different correspondent:

The characters were arranged in columns, like the Chinese mode of writing. . . . Greek, Hebrew and all sorts of letters, more or less distorted, . . . were intermingled with sundry delineations of half moons, stars, and other natural objects, and the whole ended in a rude representation of the Mexican zodiac.¹³

One other source, an article in a 19th-century (non-LDS) rural newspaper, reported that a person who had seen Harris displaying the copy of the characters he had shown to Anthon said that “on it were drawn rudely and bunglingly, concentric circles, between, above and below which were characters, with little resemblance to letters.”¹⁴

Nothing from LDS sources describes the appearance of the original text. A document is known that has been claimed to be Harris’s “Anthon Transcript,” but it shows a set of cursive characters arranged in horizontal lines, nothing at all like Anthon’s description. Its origin is unknown.¹⁵

David Whitmer, another of Smith’s intimate associates at the time, had

12. Backman, *Eyewitness Accounts of the Restoration*, 220. The reference to Alexander von Humboldt could only have been to his *Monumens Americaine*, 2 vols. (Paris, 1816), a copy of which was listed in Anthon’s personal library in 1845 (see Foundation for Ancient Research and Mormon Studies, “Martin Harris’ Visit with Charles Anthon: Collected Documents on the Anthon Transcript and ‘Shorthand Egyptian’” [Provo, UT: FARMS, 1990], 25), or possibly Humboldt, *Vues des cordilleres et monuments des peuples indigenes de l’Amérique* (Paris, 1810), or the English translation of the same published in London in 1814. What Humboldt illustrated was the subsequently famous Aztec calendar stone.

13. Backman, *Eyewitness Accounts of the Restoration*, 216.

14. Dan Vogel, ed., *Early Mormon Documents* (Salt Lake City: Signature Books, 2000), 3:52, from the *Shortsville Enterprize* [sic], ca. 1883, 35, based on Orsamus Turner, *History of the Pioneer Settlement of Phelps and Gorham’s Purchase, and Morris’ Reserve* (Rochester, NY: Alling, 1851), 215.

15. Roberts, *Comprehensive History of the Church*, 1:100–108.

something to say about the characters. According to an interview with him long after Smith's death, "sometimes [a] character would be [translated as] a single word, and frequently an entire sentence."¹⁶

Taken together, the descriptions we have of what was engraved on the metal plates are suggestive of what someone might say after a naive perusal of a Mesoamerican document—perpendicular columns of "singular characters," "natural objects," segmented circles, and so forth.

Upwards of two dozen individuals saw and/or felt the metal plates in Smith's possession.¹⁷ According to these witnesses, Smith unquestionably possessed a sizable artifact consisting of a set of thin sheets of (perhaps hammered) metal bound together with rings. The sheets had "the appearance of gold." They were said to be engraved with "characters." Writing on metal does not sound particularly Mesoamerican, although we know that hammered gold produced in Tabasco at the time of the Spanish conquest could be as "thin as gold paper."¹⁸

The idea that Smith or an unknown author had somehow acquired an ancient Mesoamerican text that was then used to "salt and pepper" his own manuscript and that this could account for the Mesoamericanisms is rendered entirely unlikely by the fact that the hundreds of Mesoamerican features are distributed widely throughout the Book of Mormon, some on virtually every page. If someone had tried to "season" the record after that

16. Cook, *David Whitmer Interviews*, 174, quoting the *Chicago Tribune*, 17 December 1885, whose correspondent had interviewed Whitmer in Richmond, Missouri.

17. Richard L. Anderson, "Attempts to Redefine the Experience of the Eight Witnesses," *Journal of Book of Mormon Studies* 14/1 (2005): 18–31.

18. Román Piña Chan, "Commerce in the Yucatan Peninsula: The Conquest and Colonial Period," in *Mesoamerican Communication Routes and Cultural Contacts*, ed. Thomas A. Lee Jr. and Carlos Navarrete (Provo, UT: Brigham Young University, 1978), 37–48; see also chapter 11 herein. Putnam argued on the basis of the weight of the plates as estimated by various witnesses that the material likely was the lighter Mesoamerican alloy tumbaga rather than gold as such. The surface of tumbaga objects was chemically treated so that gold molecules ended up covering a copper base; as a result, the object had the appearance of gold rather than being entirely of that material. Putnam suggested on the basis of the reported dimensions that had the plates been of gold, the set probably would have weighed nearly 100 pounds (45 kg), whereas plates of tumbaga would have been only 54 pounds (25 kg). The latter figure fits what witnesses reported. Read H. Putnam, "Were the Golden Plates Made of Tumbaga?," *Improvement Era*, 1966, 788–89, 828–31.

manner, he would have to have been a literary master in order to seamlessly integrate the Mesoamerican elements into his fictional work. Eyewitness reports of Smith's procedure for dictating the Book of Mormon indicate that he possessed no manuscript of any kind, let alone several documents including his supposed base document and a separate one for the Mesoamericanisms. Any such notion must be ruled out of court.

According to the record itself, the text was largely completed by Mormon, an inhabitant of the Mesoamerican isthmus area in the fourth century AD.¹⁹ Before his death, Mormon passed the record to his son, Moroni₂, who completed the record and survived his father by more than 35 years. To all appearances, Moroni₂ moved the record to western New York State, where Joseph Smith obtained it, as discussed in chapter 25.

Given the content and form of the volume, it seems appropriate to call it "Mormon's Codex." If it is authentic, it constitutes the oldest and most extensive Mesoamerican codex known. Scholars engaged in the study of that civilization have the possibility, and even the responsibility, of studying this unique document as such a codex.

The record begins soon after 600 BC at Jerusalem in Palestine. A few specialists in the ancient Near East have examined that portion of the Book of Mormon that deals with the Old World. Two examples of their results are pertinent to one purpose of this book. James Charlesworth, a noted (non-Mormon) specialist on Old World religious documents known as the Pseudepigrapha, was drawn to look at the Book of Mormon because "there are many . . . important parallels between the Pseudepigrapha and the Book of Mormon that deserve careful examination."²⁰ Krister Stendahl, at the time dean of Harvard Divinity School, added,

19. Hunter and Ferguson argued that Mormon was the person known in Toltec tradition (as reported by Alba Ixtlilxochitl) as Hueman or Huematzin, but the chronology they used to read/interpret Ixtlilxochitl's account makes that equation impossible. Milton R. Hunter and Thomas Stuart Ferguson, *Ancient America and the Book of Mormon* (Oakland, CA: Kolob Books, 1950), 337–43.

20. James H. Charlesworth, "Messianism in the Pseudepigrapha and the Book of Mormon," in *Reflections on Mormonism: Judaean-Christian Parallels*, ed. Truman G. Madsen (Provo, UT: BYU Religious Studies Center, 1978), 129.

I have applied standard methods of historical criticism, redaction criticism, and genre criticism [to the Book of Mormon]. From such perspectives it seems very clear that the Book of Mormon belongs to and shows many of the typical signs of the Targums and the pseudepigraphic recasting of biblical material. . . . It is obvious to me that the Book of Mormon stands within both of these traditions if considered as a phenomenon of religious texts.²¹

This approach of allowing the document to speak for itself, rather than prejudging it as merely an extraordinary 19th-century devotional work, displays mature scholarship that deserves emulation by Mesoamericanists.

There is a related lesson for Mesoamerican scholars in the story of Michael Coe's struggle to get the Grolier Codex accepted by professionals. His book *Breaking the Maya Code* details the matter.²² The Grolier document came to light through "unauthorized archaeology" (i.e., looting) in southern Mexico. After carefully examining it, Coe argued that it should be considered an authentic (late) Mesoamerican codex. Most orthodox archaeologists, however, at first considered it a fake, without giving it much if any scrutiny. Among the opponents was J. E. S. Thompson, the most famous Mayanist of the day, who wrote a scathing response to Coe's proposal. With justified satisfaction, Coe's book tells how the Grolier find was subsequently validated and widely accepted. He commented on "the irony of the whole business," noting that if someone had found the codex "while rummaging around in [Mexican] archives during the mid-19th century, it would [have been] accepted by even the most rock-ribbed scholar as the genuine article."²³ Rightly or wrongly, how an ancient writing, including the Book of Mormon, comes to light can be crucial to whether it is accepted as authentically ancient.

Some wise heads understand that more than provenience, a key question in any dispute about a document's authenticity is, Who knew enough to have faked it? When faced with a similar quandary, linguist John Justeson

21. Krister Stendahl, "The Sermon on the Mount and Third Nephi," in Madsen, *Reflections on Mormonism*, 152.

22. Michael D. Coe, *Breaking the Maya Code* (New York: Thames & Hudson, 1992).

23. Coe, *Breaking the Maya Code*, 229.

responded with precisely that question to a charge that the engraved stela discovered at La Mojarra, Veracruz, a few years ago was a modern fake: "Who could have faked it? At the time that the monument was discovered, no one had all the linguistic and cultural knowledge needed to produce such a text."²⁴ In the light of the evidence presented in this book, Justeson's is precisely the question that should be asked about the Book of Mormon. No sensible answer has been given about who the qualified author of Mormon's Codex might have been, if not Mormon himself.

But, some may object, the Book of Mormon is a religious book.²⁵ How, they may wonder, can scholarly inquiry deal with a volume that is still seen by people (over 14 million Latter-day Saints, or Mormons) as spiritually significant? Biblical scholarship furnishes an obvious answer to that objection. No religious book has stimulated more scholarly work than the Bible. Christian and Jewish believers have carried out some of this, but nowadays probably a majority of ongoing studies come from scientific or humanistic researchers who hold few or no directly related religious beliefs. And, as a matter of fact, a large majority of Greek, Assyrian, and Babylonian texts that scholars study are also filled with, and based on, religious assumptions of one sort or another.

From Mesoamerica we can draw another helpful parallel. It is unlikely that any one of the thousands of known Mesoamerican texts—on paper, leather, or stone—is *not* in some sense "religious." For instance, the Popol Vuh is a quintessentially religious source. Probably no "facts" in it are uncolored by Quiché Maya beliefs about the supernatural. Its text is arcane. Its "theology" and mythology are weird to most moderns, including virtually all Mesoamericanist scholars. Yet researchers comb its text assiduously to understand the ancient cultures of Mesoamerica. As a scholarly source on native beliefs and thought, and even aspects of history, it is considered fundamental.

One area of scholarly concern has been the relation between the Popol Vuh and the culture history of highland Guatemala. Carmack attempted to

24. Angela M. H. Schuster, "Case of the Suspect Stela," *Archaeology* 47/5 (1994): 53.

25. For an important scholarly treatment of the Book of Mormon, see Royal Skousen's multivolume Book of Mormon Critical Text Project (Provo, UT: FARMS, 2001–2009), with nine volumes published so far.

relate the Toltec intruders mentioned in the text to highland Guatemalan archaeology, but the results were somewhat indeterminate. He found textual evidence that “small numbers of the Toltec ancestors must have [entered the area and] come in contact with large, autochthonous, well-established populations.”²⁶ But the culture, language, and genes of the intruders from Mexico over the centuries “were apparently absorbed by the . . . much more numerous indigenous populations.”²⁷ Despite the fact that the details of the connections (i.e., “correspondences” in this book’s terminology) that Carmack found between the Popol Vuh text and archaeology remain indecisive, scholars agree that the Quiché notions and traditions (including those that are “religious”) in the text are unquestionably relevant to an understanding of Mesoamerican civilization.

In the case of Mormon’s Codex, the same manner of treatment might well prevail. Now that the Book of Mormon is demonstrated to be a Mesoamerican document, it will only be good scholarly sense to use it for the information it contains about the ancient world, as Charlesworth and Stendahl have done in relation to the Near East. That the source is a religious book is irrelevant to the question of how informative it can be for students of ancient cultures.²⁸

Of course, there are statements—lots of them—in Mormon’s Codex that are still puzzling to Mesoamericanist scholars. The same can be said about the Old Testament in relation to current understanding of Syro-Palestinian archaeology. Yet Dever, while granting that many details in the

26. Robert M. Carmack, “Toltec Influence on the Postclassic Culture History of Highland Guatemala,” in *Archaeological Studies in Middle America* (New Orleans: Tulane University, 1970), 71.

27. Carmack, “Toltec Influence,” 71.

28. Eric Thompson’s treatment of Russian Yuri Knorosov’s scholarship has a further lesson about how Mesoamerican researchers could “miss the boat” about the value to them of Mormon’s Codex. As described by Coe in *Breaking the Maya Code*, Knorosov’s theory about the decipherment of the Maya glyphs directly opposed Thompson’s then-dominant interpretation. The latter responded with “a contemptuous review” of the Russian’s work, calling it “a Marxist hoax.” However, over time Knorosov was proved right, and his work has provided the basis for the last half century of glyph decipherment. Had Thompson’s irrelevant “Marxist” smear succeeded in derailing Knorosov’s decipherment train, who knows where Mesoamerican epigraphy would be by now? There could be those who would be tempted, on the model of Thompson, to speak of Mormon’s Codex as “a Mormon hoax.”

biblical history of Israel cannot now be squared with the current archaeological model (as though that were the final word), insists that “this [people] Israel must not be written out of history.”²⁹ Meanwhile, the findings of modern archaeology continue to reduce the apparent disjunctions. Most of the convergences that Dever pointed out between archaeology and the biblical text depend on knowledge from recent excavations and the reinterpretation of old finds. He would not be surprised, I expect, if 20 years from now a much larger corpus of decisive convergences/correspondences between the two sources were to become visible.

Archaeologist John Clark has pointed out a similar trend in the relationship between Mesoamerican archaeology and scholarship on the Book of Mormon: “The trend over the last 50 years is one of convergence between the Book of Mormon and Mesoamerican archaeology. Book of Mormon claims [have] remain[ed] unaltered since 1830, so all the accommodation has been on the archaeology side.”³⁰ This book carries that trend much further. Consequently, in the spirit of Dever, I maintain that “the Nephites must not be written out of Mesoamerican history.”

This book has offered a plausible alternative model for interpreting Mesoamerican culture history in the spirit of arguments put forward in chapter 4 by some prominent archaeological theorists. The interpretation of Mesoamerican culture history presented here differs at many points from commonly accepted views; nevertheless, as the extensive documentation has shown, this alternative interpretation follows the facts at salient points. To the extent that the picture I have presented is plausible, it is incumbent on archaeologists and allied scholars to weigh it as a potentially valid interpretation.

It seems only good sense for Mesoamerican scholars to pursue carefully each line of evidence and inquiry that promises to shed further light on the civilization of the area of their interest. To do so, says Dever, “is simply

29. William G. Dever, *What Did the Biblical Writers Know and When Did They Know It? What Archaeology Can Tell Us about the Reality of Ancient Israel* (Grand Rapids, MI: Eerdmans, 2001), 298.

30. John E. Clark, “Archaeology, Relics, and Book of Mormon Belief,” *Journal of Book of Mormon Studies* 14/2 (2005): 49; and Clark, “Archaeological Trends and Book of Mormon Origins,” *BYU Studies* 44/4 (2005): 83–104.

sound historiographical method, which always depends upon the critical evaluation of numerous potential sources for history-writing and seeks to isolate a ‘core history’ that is beyond reasonable doubt.”³¹ Patently, Mesoamerican scholarly research should include careful examination of the cultural content of Mormon’s Codex as researchers seek the “core history” of Mesoamerican civilization.

For those who do not have a professional interest in another ancient document from Mesoamerica, their readerly interest in the Book of Mormon may still take advantage of what is known about the ancient world from archaeology and related studies to enhance their reading of Mormon’s book.

From any perspective—the scholarly, the curiosity-driven, or the devotional—it may now be said with confidence that the Book of Mormon—Mormon’s Codex—offers a unique window on the ancient world of Mesoamerica that deserves our careful study.

31. Dever, *What Did the Biblical Writers Know?*, 296.

Appendix: A New View of Jaredite Geography

Recent study on the location of Jaredite lands has led me to modify my earlier views on the probable correlation for those areas.¹ To a major degree, these changes stem from my reassessment of the size of the Jaredite immigrant population in relation to their occupied lands.

According to Ether 6:13–22, after crossing the ocean the Jaredites abandoned their eight sail-less barges, settled ashore, planted crops, and “began to be many” (v. 16). In less than a generation, when the two brothers who were their leaders “began to be old” (v. 19), they numbered their descendants and chose one to be their king (v. 22). Based on the first king’s menagerie of 31 children (7:2), we can suppose the first leaders had multiple wives. The text allows us to estimate the party’s composition at that time:

- brother of Jared + 4 (?) wives + 20 children
- Jared + 2 (?) wives + 12 children
- 22 (male) friends of the leaders (none are mentioned by name) + (at least) 22 wives + (estimated) 100 children. (The friends were on average probably slightly younger and poorer than the leaders.)

Thus the total number for the group nearly a generation after their arrival in the promised land can be estimated at around 190.

The original kingdom could have constituted no more than a minor chiefdom (using today’s social science terminology). The date was probably

1. See John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1985), 1–48.

in the first half of the third millennium BC (see chapter 3). If the initial population numbered around 190, then the total population 100 years later would not have exceeded double that number, based on generally accepted historical data on rates of population growth.² The actual figure, however, would likely have been lower because of the arduous pioneer living conditions.

An additional 100 years could conceivably again double the figure for living descendants of the transoceanic immigrants to 760. In the time of the fourth-generation ruler, one Corihor rebelled against his father, the king, “and went over and dwelt in the land of Nehor” (Ether 7:4). There “he drew away many people after him,” and having assembled an army, he defeated and took his father captive (v. 5).

By the time yet another generation had passed, there is mention of a city called Nehor (Ether 7:9), the first city reported in the Jaredite record. At that time the largest total population imaginable that could have been descended from just the original barge-borne settlers would have been around 1,000 (stretching the assumptions further would bring the total only to an unlikely 2,000). By this time they were distributed over three recognized lands: (1) the land of Moron (also called “the land of their first inheritance,” vv. 16–17); (2) “the land of Nehor” (v. 4), where there were “many people” and the previously mentioned city; and (3) “the land of Heth” (where also there were “many people,” 8:2). Given those numbers, if one were to assume that the population consisted only of descendants from the overseas immigrants, “the city Nehor” would have been no more than a small village, and the army assembled in the previous generation (7:5) would have numbered no more than a few score adult males. But by its use of the terms *city* and *army*, the text implies substantially greater numbers than that.

Ether’s historical account also reports two catastrophic population bottlenecks (there were likely more demographic crises of a lesser degree throughout Jaredite history). The first was less than 400 years after the initial colonization, when a long-lasting dynastic war destroyed “nearly all the

2. John L. Sorenson, “When Lehi’s Party Arrived in the Land, Did They Find Others There?,” *Journal of Book of Mormon Studies* 1/1 (1992): 3; and George L. Cowgill, “On Causes and Consequences of Ancient and Modern Population Changes,” *American Anthropologist* 77 (1975): 505–25.

people of the kingdom, yea, even all, save it were thirty souls” (Ether 9:12) plus refugee King Omer and his family and “a small number of men” (vv. 3, 9). Then, about 250 years later, a great drought befell the area and destroyed a major part of the population (vv. 30–34).

There simply could not have been enough descendants of the original immigrants to make sense of the terms *city* and *army*. Those language difficulties fade, however, if we suppose that in addition to the population descended from the voyagers, the Jaredite lineages had incorporated or subjected native peoples whose ancestors had already been living in the area when the barges arrived.

I previously argued that the civilization in which the Jaredites participated had its political center in the land of Moron.³ Upon further study, I must modify that position. When one pursues the details of the geography and history of conquests in Ether 7–9, the city of Nehor emerges as the seat from which most of the kings ruled. The land of Moron was indeed considered “the land of their first inheritance” (7:16–17), the earliest center of Jaredite settlement, but its political rival, Nehor, more often than not was where the rulers actually lived. Therefore, Nehor was superior in power and prestige to Moron (furthermore, no city is ever mentioned in the land of Moron).

More is said about Moron than about the other lands; people came up to the land (Ether 14:11), yet it was no great distance from the seashore (vv. 11–13). Moreover, Moron was explicitly said to be “near” the land called Desolation by the Nephites (7:6), and Desolation was adjacent to “the narrow pass which led into the land southward” (Mormon 3:5). For these things to be true, Moron must have been more southerly than northerly within the core Jaredite area.

Key Jaredite lands must, furthermore, have been subject to severe drought. At one point in time (estimated ca. 2100 BC), Ether’s record reported a drought that was perceived as bringing forth a plague of “poisonous serpents” (Ether 9:31). These were believed by the historian to pursue Jaredite flocks, causing them to flee toward the narrow pass that led into the land southward. Of course, no such pursuit by serpents is conceivable

3. Sorenson, *Ancient American Setting*, 15, 27; and John L. Sorenson, *Mormon’s Map* (Provo, UT: FARMS, 2000), 29, 46.

in naturalistic terms, for they could exist only in their established ecological zone, not move across country in pursuit of prey. But such a perception might arise if whatever natural phenomenon being reported took place somewhere in the limited area from semiarid central Veracruz southeastward via (modern) Acayucan to the Minatitlan area, where the pass was located (on the location of the pass, see chapter 7).

Taking all these points into consideration, the area inhabited by the Jaredites is plausibly set in central and southern Veracruz. (See map 11.)

The three key lands mentioned in the book of Ether are plausibly equated with valley areas below or near Jalapa, Córdoba, and Tuxtepec in central Veracruz (other possibilities exist); as such they would have been above the drier portions of Veracruz, in desirable arable areas.

1. One of those areas, moderately elevated, plausibly corresponds to the land of Moron, which the Jaredites considered “up” compared with other lands (Ether 7:5; 14:11).⁴
2. The area of hills near the east sea (Ether 14:26–28; 15:11) fits neatly with the Tuxtla Mountains, which was definitely a “land of many waters, rivers, and fountains” (Mormon 6:4).
3. Various plains, valleys, and areas of wilderness (forested areas?) are mentioned in Jaredite lands and plausibly consisted of landscape elements located throughout south-central Veracruz, although exact correlations are not apparent due to the brevity of the record.
4. The Gulf of Mexico fits what is said of the east sea (Ether 9:3) (no west sea is mentioned in Ether, and none apparently was in the Jaredites’ geographical cognizance); this suggests that the Jaredite voyagers crossed the Atlantic rather than the Pacific.
5. The “waters of Ripliancum” correspond well with the boggy lower

4. Incidentally, according to this correlation the Jaredite land of first inheritance would not be far from Pánuco (in extreme northern Veracruz), where traditions reported by Sahagún and Torquemada (see chapter 9) place the landing of “seven” ships that brought ancient transoceanic immigrants to Mexico (although the Jaredite record has eight vessels arriving). The historian Veytia located this landing place at Boca del Río on the coast of central Veracruz, at about 19 degrees north latitude, which would be closer to my hypothesized Jaredite scene than Pánuco is. Mariano Veytia, *Historia antigua de México* (1836; repr., Mexico City: Mexico Editorial Leyenda, 1944), 1:151.

Papaloapan basin/Laguna de Alvarado territory, which would be impossible for an army to traverse, as the text suggests in Ether 15:8, 10.

6. The site of the final Jaredite internecine battle would most plausibly be Cerro El Vigía, the northwest extremity of the Tuxtla Mountains (see the earlier discussion in chapter 7 of the location of the Nephite hill Cumorah).
7. No single river stands out among the numerous ones that flow through the south-central Veracruz area, just as no stream is mentioned in the Jaredite record.
8. The great ruined city at San Lorenzo Tenochtitlán came into being in the isthmus around 1300 BC and can be compared with the great city whose founding in a similar position in relation to the narrow neck is described in Ether 10:20 at roughly the same date.
9. It is reasonably accurate to say that bearers of the Olmec tradition lived north of the isthmus and that their spread to the south and east was limited, approximately as the book of Ether indicates (Ether 10:21), at least for the early Jaredites.

Obviously, the brevity of the Jaredite record does not allow us to locate their lands as specifically as those for the Nephites, yet the nine points just mentioned, and others that might be added more tentatively, find plausible correlations in the central and southern Veracruz area.

This correlation of Jaredite geography also fits isthmian Mesoamerica in another way. In terms of population, historian Ether credits the last king, Coriantumr, with realizing at one point not long before their final battle that “already nearly two millions of his people” had been slain (Ether 15:2; see also chapter 15 herein). Southern Veracruz is perhaps the only area that ecologically would likely have supported so large a population in the centuries shortly after 1000 BC. To be sure, so far there is insufficient hard evidence of a population of such size; however, the archaeological data relevant to a credible estimate of population for the area remains insufficient to allow a confident judgment to be made.

As already noted, locating Jaredite lands in Veracruz implies an Atlantic Ocean crossing for their ancestors. That is contrary to my former view that

they probably traveled across Asia and the North Pacific. But I have always considered any suggested route within the Old World only tentative because the limited information in the book of Ether regarding the path and direction of their journey does not allow certainty. So this proposal for a landing in Veracruz also remains tentative.

Bibliography

- Acosta, Jorge R. "Preclassic and Classic Architecture of Oaxaca." In Wauchope and Willey, *Handbook of Middle American Indians*, 3:814–36.
- . "Los toltecas." In *Los señoríos y estados militaristas*, edited by Román Piña Chan, 137–58. Mexico City: Instituto Nacional de Antropología e Historia, 1976.
- Adams, Daniel B. "Last Ditch Archaeology." *Science* 83 (December 1983): 28–37.
- Adams, Richard E. W. *The Ceramics of Altar de Sacrificios*. Peabody Museum of Archaeology and Ethnology Papers 63.1. Cambridge, MA: Harvard University Press, 1971.
- . "Maya Highland Prehistory: New Data and Implications." In *Studies in the Archaeology of Mexico and Guatemala*, edited by John A. Graham, 1–22. Contributions 16. Berkeley: University of California Archaeological Research Facility, 1972.
- . *Prehistoric Mesoamerica*. Boston: Little, Brown, 1977.
- . *Río Azul: An Ancient Maya City*. Norman: University of Oklahoma Press, 1999.
- Adams, Richard E. W., H. R. Robichaux, Fred Valdez Jr., Brett A. Houk, and Ruth Mathews. "Transformations, Periodicity, and Urban Development in the Three Rivers Region." In *The Terminal Classic in the Maya Lowlands: Collapse, Transition, and Transformation*, edited by Arthur A. Demarest, Prudence M. Rice, and Don S. Rice, 324–41. Boulder: University Press of Colorado, 2004.
- Adams, William J., Jr. "Synagogues in the Book of Mormon." *Journal of Book of Mormon Studies* 9/1 (2000): 4–13.
- Adams, William Y., Leland J. Abel, Dean E. Arnold, Neville Chittick, Whitney M. Davis, Pierre De Maret, Rodolfo Fattovich, H. J. Franken, Charles C. Kolb,

- Thomas P. Myers, Michael P. Simmons, E. Leigh Syms. "On the Argument from Ceramics to History: A Challenge Based on Evidence from Medieval Nubia." *Current Anthropology* 20/4 (1979): 727–44.
- Agrinier, Pierre. *The Archeological Burials at Chiapa de Corzo and Their Furniture*. New World Archaeological Foundation Papers 16. Provo, UT: BYU New World Archaeological Foundation, 1964.
- . "La cultura zoque en la Depresión Central de Chiapas en la época Clásica." In *La época Clásica: Nuevos hallazgos, nuevas ideas*, edited by Amalia Cardos de Mendez, 469–78. Mexico City: Museo Nacional de Antropología, 1990.
- . "Desarrollo del zoque Clásico y el problema del estilo teotihuacano en el occidente de Chiapas." Paper presented at 41st International Congress of Americanists, Mexico City, 1974.
- . "Linguistic Evidence for the Presence of Israelites in Mexico." *Society for Early Historic Archaeology Newsletter* 112 (1969): 4–5.
- . *Mounds 9 and 10 at Mirador, Chiapas, Mexico*. New World Archaeological Foundation Papers 39. Provo, UT: BYU New World Archaeological Foundation, 1975.
- Aikens, C. Melvin. "First in the World: The Jomon Pottery of Early Japan." In *The Emergence of Pottery: Technology and Innovation in Ancient Societies*, edited by William K. Barnett and John W. Hoopes, 11–21. Washington, DC: Smithsonian Institution, 1995.
- Albright, William F. *From the Stone Age to Christianity*. 2nd ed. Garden City, NY: Doubleday/Anchor Books, 1957.
- . "The High Place in Ancient Palestine." In *Supplements to Vetus Testamentum*, 242–58. Leiden: Brill, 1957.
- Alejandre, Marcelo. *Cartilla huasteca con su gramática, diccionario y varias reglas para aprender el idioma*. Mexico City: Secretaria de Fomento, 1899.
- Allen, James P. "Egyptian Language and Writing." In Freedman, *Anchor Bible Dictionary*, 4:188–93.
- Allison, Marvin J., Daniel Mendoza, and Alejandro Pezzia. "Documentation of a Case of Tuberculosis in Pre-Columbian America." *American Review of Respiratory Disease* 107 (1973): 985–91.
- Alsar, Vital. *La Balsa: The Longest Raft Voyage in History*. Pleasantville, NY: Reader's Digest, 1973.
- . *Pacific Challenge*. Video by Concord Films. La Jolla, CA: ALTI, 1974.
- al-Shimas, Kamar [pseud.]. *The Mexican Southland*. Fowler, IN: Benton Review Shop, 1922.

- Alva Ixtlilxochitl, Fernando de. *Obras históricas*. Edited by Alfredo Chavero. 2 vols. Mexico City: 1891–92. Reprint Mexico City: Editora Nacional, 1952, with prologue and annotations by José I. Dávila Garibi. First published 1600.
- Ambrosino, James N., Traci Ardren, and Travis W. Stanton. “The History of Warfare at Yaxuná.” In Brown and Stanton, *Ancient Mesoamerican Warfare*, 109–23.
- Anales de los Xahil de los indios cakchiqueles* (translation of the Popol Vuh). Translated by Georges Raynaud. Los dioses, los heroes y los hombres de Guatemala antigua 2. 2nd ed., rev. Guatemala: Tipografía Nacional, 1937.
- Anawalt, Patricia R. *Indian Clothing before Cortés: Mesoamerican Costumes from the Codices*. Norman: University of Oklahoma Press, 1981.
- Ancient Art of Veracruz, February 23–June 13, 1971: An Exhibit Sponsored by the Ethnic Arts Council of Los Angeles at the Los Angeles County Museum of Natural History. Los Angeles: Ethnic Arts Council of Los Angeles, 1971.
- Anderson, Arthur J. O., and Charles E. Dibble, trans. *The War of Conquest: How It Was Waged Here in Mexico; The Aztecs' Own Story as Given to Fr. Bernardino de Sahagun*. Salt Lake City: University of Utah Press, 1978.
- Anderson, Bruce. “Excavations at Laguna Cuzcachapa and Laguna Seca.” In *The Prehistory of Chalchuapa, El Salvador*, edited by Robert J. Sharer, 1:43–60. Philadelphia: University of Pennsylvania Press, 1978.
- Anderson, Richard L. “Attempts to Redefine the Experience of the Eight Witnesses.” *Journal of Book of Mormon Studies* 14/1 (2005): 18–31.
- Anderson, Robert. *The Coming Prince: Or the Seventy Weeks of David with an Answer to the Higher Critics*. 10th ed. Grand Rapids, MI: Kregel, 1957. First published 1915 by J. Nisbet in London.
- Andrews, E. Wyllys. “Archaeology and Prehistory in the Northern Maya Lowlands: An Introduction.” In Wauchope and Willey, *Handbook of Middle American Indians*, 2:288–330.
- . “Dzibilchaltun.” In Sabloff, *Supplement to the Handbook of Middle American Indians*, 1:313–41.
- “Anomalous Mitochondrial DNA Lineages in the Cherokee.” Abstract available at DNA Consultants website, <http://dnaconsultants.com/Cherokee/index.htm>.
- Anthony, Irvin. *Voyagers Unafraid*. Philadelphia: Macrae Smith, 1930.
- Araújo, Aduato. “Paleoepidemiologia da ancilostomose.” In *Paleoparasitologia no Brasil*, edited by Luis F. Ferreira, Aduato Araújo, and Ulisses Confalonieri, 144–51. Rio de Janeiro, Brazil: Programa de Educação Pública, 1988.

- Armillas, Pedro. "Exploraciones recientes en Teotihuacan, Mexico." *Cuadernos americanos* 16 (1944): 121–36.
- . "Fortalezas mexicanas." *Cuadernos americanos* 41/5 (1948): 143–63.
- . "Mesoamerican Fortifications." *Antiquity* 25 (1951): 77–86.
- Arnaiz-Villena, A., C. Parga-Lozano, E. Moreno, C. Areces, D. Rey, and P. Gomez-Prieto. "The Origin of Amerindians and the Peopling of the Americas according to HLA Genes: Admixture with Asian and Pacific People." *Current Genomics* 11/2 (2010): 103–14.
- Arnould, Marie-Charlotte. "Arqueología de la Alta Verapaz occidental: Sociedad y patrones de asentamiento." *Antropología e historia de Guatemala* 2/2 (1980): 21–52.
- . "Desarrollo cultural en el altiplano norte: Período Clásico." In Popenoe de Hatch, *Historia general de Guatemala*, 1:227–39.
- . "Regional Ceramic Development in the Northern Highlands, Alta Verapaz, Guatemala: Classic and Postclassic Material." In *Maya Ceramics: Papers from the 1985 Maya Ceramic Conference, Part II*, edited by Prudence M. Rice and Robert J. Sharer, 307–10. BAR International Series 345. Oxford, England: BAR, 1987.
- Arnold, Philip J., III. "An Overview of Southern Veracruz Archaeology." *Ancient Mesoamerica* 5 (1994): 215–21.
- Arnold, Philip P. "Fertility." In Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 1:404–6.
- Arreola, José M. "Sellos, indumentaria, utensilios doméstico o numéricos." In *La población del Valle de Teotihuacán*, edited by Manuel Gamio, 1:212–20. Mexico City: Secretaría de Educación Pública, 1922.
- Arroyo, Bárbara. "The Naranjo Rescue Project: New Data from Preclassic Guatemala." FAMSI 2007, accessed March 2011 at <http://www.famsi.org/reports/06109/06109Arroyo01.pdf>.
- Ashraf, Jaweed. "The Antiquity of Tobacco (*Nicotiana tabacum*) in India." *Indica* 22/2 (1985): 91–101.
- Aveni, Anthony F. *Skywatchers of Ancient Mexico*. Austin: University of Texas Press, 1980.
- Averitt, Beej, and Paul Averitt. "Mastodon of Moab." *Desert Magazine* (1947): 24–27.
- . "The Moab Mastodon Pictograph." *Scientific Monthly* 41/4 (1935): 378–79.

- Bach, Caleb. "Michael Coe: A Question for Every Answer." *Américas* 48/1 (1996): 14–21.
- Backman, Milton V. *Eyewitness Accounts of the Restoration*. Salt Lake City: Deseret Book, 1986.
- Baird, Ellen T. "Stars and War at Cacaxtla." In Diehl and Berlo, *Mesoamerica after the Decline of Teotihuacan*, 105–22.
- Balabanova, Svetla, F. Parsche, G. Bühler, W. Pirsig. "Was Nicotine Known in Ancient Egypt?" *Homo* 44/1 (1993): 92–94.
- Ball, Joseph W. *The Archaeological Ceramics of Becan, Campeche, Mexico*. Middle American Research Institute Publication 43. New Orleans: Tulane University, 1977.
- . *The Archaeological Ceramics of Chinkultic, Chiapas, Mexico*. New World Archaeological Foundation Papers 43. Provo, UT: BYU New World Archaeological Foundation, 1980.
- Ball, Joseph W., and Jennifer T. Taschek. "Reconsidering the Belize Valley Preclassic: A Case for Multiethnic Interactions in the Development of a Regional Culture Tradition." *Ancient Mesoamerica* 14 (2003): 179–217.
- Bancroft, Hubert H. *Native Races of the Pacific States*. 5 vols. San Francisco: Bancroft, 1883. First published 1875.
- Barrientos, Tomás J. "Evolución tecnológica del sistema de canales hidráulicos en Kaminaljuyú y sus implicaciones sociopolíticas." In Laporte and Escobedo, *X Simposio de investigaciones arqueológicas en Guatemala, 1996*, 1:61–66.
- Barthel, Thomas S. "Writing Systems." In *Native Languages of the Americas*, edited by Thomas A. Sebeok, 2:27–53. New York: Plenum, 1977.
- Barthel, Thomas S., and Hasso Von Winning. "La Mojarra Stela 1 Revisited." *Tribus* 40 (1991): 43–82.
- Barton, Humphrey. *Atlantic Adventures: Voyages in Small Craft*. New York: Van Nostrand, 1962.
- Batres, Leopoldo. *Civilización prehistórica de las riberas del Papaloapam y costa de Sotavento, estado de Veracruz*. Mexico City: Buznego y Leon, 1908.
- Baudez, Claude F. "Southeast Mesoamerican Periphery: Summary Comments." In *The Southeast Maya Periphery*, edited by Patricia A. Urban and Edward M. Schortman, 333–37. Austin: University of Texas Press, 1986.
- Baudez, Claude F., and Pierre Becquelin. *Archéologie de Los Naranjos, Honduras*. Etudes mésoaméricaines 2. Mexico City: Mission Archéologique et Ethnologique Française au Mexique, 1973.
- Bauer, Jeremy, Ángel Castillo, Daniel Leonard, Monica Antillón, Antolin Velásquez,

- Jennifer M. Johnson, and Joel Zovar. "El pasado Preclásico y monumental de la región Holmul: Resultados de las temporadas de campo 2003 y 2004 in Cival, Petén." In *XVIII Simposio de investigaciones arqueológicas en Guatemala, 2004*, edited by Juan P. Laporte, Bárbara Arroyo, and Héctor E. Mejía, 201–15. Guatemala: Ministerio de Cultura y Deportes, 2005.
- Bazy, Damien. "Hallazgos con motivos olmecoides descubiertos en las tierras bajas mayas: Un análisis preliminar de la distribución espacial y temporal." In Laporte, Arroyo, and Mejía, *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 559–69.
- BBC. "David Ingram's Improbable Walk across 16th-Century America." January 2004. <http://www.bbc.co.uk/dna/place-london/A1143488>.
- Bebrich, Carl A. "Mound B-III-1 Excavation." In *The Pennsylvania State University Kaminaljuyu Project: 1968 Season, Part I—The Excavations*, edited by William T. Sanders and Joseph W. Michels, 45–98. Department of Anthropology Occasional Papers 2. University Park: Pennsylvania State University, 1969.
- Beck, Horace P. "The Animal That Cannot Lie Down." *Journal of the Washington Academy of Sciences* 39 (1939): 294–301.
- Becker, Marshall J. "Kings and Classicism: Political Change in the Maya Lowlands during the Classic Period." In Miller, *Highland-Lowland Interaction in Mesoamerica*, 158–200.
- Bednarik, Robert G. "The Initial Peopling of Wallacea and Sahul." *Anthropos* 92 (1997): 355–67.
- . "Maritime Navigation in the Lower and Middle Paleolithic." *Comptes rendus de l'Académie des Sciences, Paris, Ser. 11A, Sciences de la terre et des planètes* 328/8 (1999): 559–63.
- . "Replicating the First Known Sea Travel by Humans: The Lower Pleistocene Crossing of Lombok Strait." *Human Evolution* 16 (2001): 229–42.
- Beer, Arthur. "Astronomy." In *Encyclopaedia Judaica* 3:795–808. Jerusalem: Keter, 1996.
- Beinlich, Horst. *Das Buch vom Fayum*. Wiesbaden, Germany: Harrassowitz, 1992.
- Benítez, Henry D., and Roberto Samayoa. "Samabáj y la arqueología subacuática en el lago de Atitlán." In Laporte, Escobedo, Suasnavar, and Arroyo, *XIII Simposio de investigaciones arqueológicas en Guatemala, 1999*, 2:849–54.
- Bennyhoff, James A. "The Preclassic Background for the Emergence of Civilization in the Mexican Highlands." Paper prepared for the 47th Burg Wartenstein Symposium, July 4–13, 1970. New York: Wenner-Gren Foundation for Anthropological Research, 1970.

- Benson, Elizabeth P., ed. *Dumbarton Oaks Conference on the Olmec, October 28th and 29th, 1967*. Washington, DC: Dumbarton Oaks Research Library, 1968.
- , ed. *Mesoamerican Sites and World-Views*. Washington, DC: Dumbarton Oaks, 1981.
- , ed. *The Olmec and Their Neighbors: Essays in Memory of Matthew W. Stirling*. Washington, DC: Dumbarton Oaks, 1981.
- . "Some Olmec Objects in the Robert Bliss Collection at Dumbarton Oaks." In Benson, *Olmec and Their Neighbors*, 95–108.
- Berdan, Frances F. *The Aztecs of Central Mexico: An Imperial Society*. New York: Holt, Rinehart and Winston, 1982.
- Berjonneau, Gérald, Emile Deletaille, and Jean-Louis Sonnery. *Rediscovered Masterpieces of Mesoamerica: Mexico-Guatemala-Honduras*. Boulogne, France: Editions Arts, 1985.
- Bernal, Ignacio. "Archaeological Synthesis of Oaxaca." In Wauchope and Willey, *Handbook of Middle American Indians*, 3:788–836.
- . "Monte Albán and the Zapotecs." *Boletín de estudios oaxaqueños* 1 (February 1958): 1–7.
- . "The Olmec Region: Oaxaca." In Heizer and Graham, *Emergence of Civilization in Mesoamerica*, 29–50.
- . *The Olmec World*. Translated by Doris Heyden and Fernando Horcasitas. Berkeley: University of California Press, 1969.
- Binford, Lewis R. "Reply." *Current Anthropology* 24 (1983): 372–76.
- Birrell, Jean. "Deer and Deer Farming in Medieval England." *Agricultural History Review* 40/2 (1992): 112–26.
- Bishop, Jerry E. "Strands of Time: A Geneticist's Work on DNA Bears Fruit for Anthropologists." *Wall Street Journal*, 10 November 1993, A1 and A6.
- Black, Susan Easton. *Finding Christ through the Book of Mormon*. Salt Lake City: Deseret Book, 1987.
- Blake, Michael, John E. Clark, Barbara Voorhies, George Michaels, Michael W. Love, Mary E. Pye, Arthur A. Demarest, and Bárbara Arroyo. "Radiocarbon Chronology for the Late Archaic and Formative Periods on the Pacific Coast of Southern Mesoamerica." *Ancient Mesoamerica* 6 (1995): 161–83.
- Blanton, Richard E., and Stephen A. Kowalewski. "Monte Albán and After in the Valley of Oaxaca." In Sabloff, *Supplement to the Handbook of Middle American Indians*, 1:94–116.
- Bloom, Harold. *The American Religion: The Emergence of the Post-Christian Nation*. New York: Simon and Schuster, 1992.

- Bökönyi, Sándor, and Dénes Jánossy. "Adatok a pulyka kolumbusz előtt Európai előfordulás ához." *Aquila: A Magyar Ornithologiai Központ Folyóirata* 65 (1953): 265–69.
- Borah, Woodrow. *Silk Raising in Colonial Mexico*. Berkeley: University of California Press, 1943.
- Borden, Charles A. *Sea Quest: Global Blue-Water Adventuring in Small Craft*. Philadelphia: Macrae Smith, 1967.
- Borg, Jim. "The History Within: Genetic Research Offers Intriguing New Views of Polynesian Migrations." *Hawaii Magazine* 14/1 (1997): 36–41.
- de Borhegyi, Stephan F. "Archaeological Synthesis of the Guatemalan Highlands." In Wauchope and Willey, *Handbook of Middle American Indians*, 2:3–58.
- . "Depósitos subterráneos en forma de botella y sonajas de barro del Preclásico de Guatemala." *Estudios de cultura maya* 8 (1972): 25–32.
- . "Figuras de incensarios de tres picos de la colección 'Raul Moreno,' Guatemala." *Antropología e historia de Guatemala* 10/2 (1958): 13–15.
- . "Figurinas articuladas de Mesoamérica." *Antropología e historia de Guatemala* 6/2 (1954): 3–9.
- . "Further Notes on Three-Pronged Incense Burners and Rim-Head Vessels in Guatemala." *Notes on Middle American Archaeology and Ethnology*, no. 105, 162–76. Washington, DC: Carnegie Institution of Washington, 1951.
- . "Miniature Mushroom Stones from Guatemala." *American Antiquity* 26 (1961): 498–504.
- . "A Study of Three-Pronged Incense Burners from Guatemala and Adjacent Areas." *Notes on Middle American Archaeology and Ethnology*, no. 101, 100–124. Washington, DC: Carnegie Institution of Washington, 1951.
- Born, Wolfgang. "The Use of Purple among the Indians of Central America." *Ciba Review* 4 (1937): 124–27.
- Bosch-Gimpera, Pedro. "Paralelos transpacíficos de las altas culturas americanas y su cronología." *Anales de antropología* 7 (1970): 43–89.
- Bove, Frederick J. "El colapso del período Clásico en la Costa Sur de Guatemala." In Laporte and Escobedo, *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, 763–75.
- . "Dedicated to the Costeños: Introduction and New Insights." In Bove and Heller, *New Frontiers*, 1–13.
- . "Settlement Classification Procedures in Formative Escuintla, Guatemala." In Bove and Heller, *New Frontiers*, 65–101.
- . "The Terminal Formative-Early Classic Transition." In *The Balberta*

- Project: The Terminal Formative-Early Classic Transition on the Pacific Coast of Guatemala*, edited by Frederick J. Bove, Sonia Medrano B., Brenda Lou P., and Bárbara Arroyo L., 145–83. Pittsburgh: University of Pittsburgh Latin American Archaeology, 1993.
- Bove, Frederick J., and Lynette Heller, eds. *New Frontiers in the Archaeology of the Pacific Coast of Southern Mesoamerica*. Anthropological Research Papers 39. Tempe: Arizona State University, 1989.
- Bower, Bruce. "Polynesian Tools Tout Ancient Travels." *Science News* 149/9 (1996): 135.
- Brain, Jeffrey P. "The De Soto Entrada into the Southeastern United States." *Review of Archaeology* 19/1 (1998): 30–35.
- Braswell, Geoffrey E. "Dating Early Classic Interaction between Kaminaljuyu and Central Mexico." In *The Maya and Teotihuacan: Reinterpreting Early Classic Interaction*, edited by Geoffrey E. Braswell, 81–104. Austin: University of Texas Press, 2003.
- . "Ethnogenesis, Social Structure, and Survival: The Nahuatization of K'iche'an Culture, 1450–1550." In *Maya Survivalism*, edited by Ueli Hostettler and Matthew Restall, 51–58. Acta Mesoamericana 12. Markt Schwaben, Germany: Saurwein, 2001.
- Bray, Warwick. "Ancient American Metal-Smiths." *Proceedings of the Royal Anthropological Institute of Great Britain and Ireland for 1971* (1971): 25–43.
- . "Gold-Working in Ancient America." *Gold Bulletin* 11/4 (1978): 136–43.
- Bricker, Victoria R. "The Origin of the Maya Solar Calendar." *Current Anthropology* 23/1 (1982): 101–3.
- Brinkman, John A., Miguel Civil, Ignace J. Gelb, A. Leo Openheim, and Erica Reiner, eds. *Assyrian Dictionary of the Oriental Institute*. Vol. 17. Chicago: Oriental Institute, University of Chicago, 1992.
- Brinton, Daniel G. *The Annals of the Cakchiquels*. New York: AMS Press, 1969. First published in 1885 as the Library of Aboriginal American Literature 6, Philadelphia.
- . "Nagualism. A Study in Native American Folk-Lore and History." *Proceedings of the American Philosophical Society* 33 (1894): 1–65.
- Brockington, Donald L. *The Ceramic History of Santa Rosa, Chiapas, Mexico*. New World Archaeological Foundation Papers 23. Provo, UT: BYU New World Archaeological Foundation, 1967.
- . "Investigaciones arqueológicas en la costa de Oaxaca." *Boletín Instituto Nacional de Antropología e Historia* 38 (1969): 33–40.

- . “A Prolongation of the Preclassic Period Indicated by the Ceramics of Santa Rosa, Chiapas.” In *Los maya del sur y sus relaciones con los Náhuas meridionales: VIII mesa redonda*, 85–92. Mexico City: Sociedad Mexicana de Antropología, 1961.
- Broda, Johanna. “Calendarios, cosmovisión y observación de la naturaleza.” In *Temas mesoamericanos*, edited by Sonia Lombardo and Enrique Nalda, 427–69. Mexico City: Instituto Nacional de Antropología e Historia, 1996.
- Brotherston, Gordon. “Huitzilopochtli and What Was Made of Him.” In Hammond, *Mesoamerican Archaeology: New Approaches*, 1–20. 155–66.
- . *A Key to the Mesoamerican Reckoning of Time: The Chronology Recorded in Native Texts*. British Museum Occasional Papers 38. London: British Museum, 1982.
- . “Mesoamerican Description of Space, II: Signs for Direction.” *Ibero-amerikanische Archiv* 1 (1976): 39–62.
- Brown, Cecil H. “Where Do Cardinal Direction Terms Come From?” *Anthropological Linguistics* 25 (1983): 121–61.
- Brown, Francis, Samuel R. Driver, and Charles A. Briggs. *A Hebrew and English Lexicon of the Old Testament*. Oxford: Clarendon, 1959.
- Brown, Kenneth L. “The Valley of Guatemala: A Highland Port of Trade.” In *Teotihuacan and Kaminaljuyu: A Study in Prehistoric Culture Contact*, edited by William T. Sanders and Joseph W. Michels, 205–395. University Park: Pennsylvania State University Press, 1977.
- Brown, Michael D., Seyed H. Hosseini, Antonio Torroni, Hans-Jürgen Bandelt, Jon C. Allen, Theodore G. Schurr, Rosaria Scozzari, Fulvio Cruciani, and Douglas C. Wallace. “mtDNA Haplogroup X: An Ancient Link between Europe/Western Asia and North America?” *American Journal of Human Genetics* 63/6 (1998): 1852–61.
- Brown, M. Kathryn, and James F. Garber. “Evidence of Conflict during the Middle Formative in the Maya Lowlands: A View from Blackman Eddy, Belize.” In Brown and Stanton, *Ancient Mesoamerican Warfare*, 91–108.
- Brown, M. Kathryn, and Travis W. Stanton, eds. *Ancient Mesoamerican Warfare*. Walnut Creek, CA: Altamira, 2003.
- Brown, S. Kent. *From Jerusalem to Zarahemla: Literary and Historical Studies of the Book of Mormon*. Provo, UT: BYU Religious Studies Center, 1998.
- Brown, S. Kent, John A. Tvedtnes, and John W. Welch. “When Did Jesus Appear to the Nephites in Bountiful?” Provo, UT: FARMS, 1989.

- Bruce, Robert D. "The Popol Vuh and the Book of Chan K'in." *Estudios de cultura maya* 10 (1977): 173–208.
- Brumfiel, Elizabeth M. "Ethnic Groups and Political Development in Ancient Mexico." In Brumfiel and Fox, *Factional Competition and Political Development*, 89–102.
- Brumfiel, Elizabeth M., and John W. Fox, eds. *Factional Competition and Political Development in the New World*. Cambridge: Cambridge University Press, 1994.
- Brush, Charles F. "Pre-Columbian Alloy Objects from Guerrero, Mexico." *Science* 138 (1962): 1336–38.
- Brush, Ellen S. "The Archaeological Significance of Ceramic Figurines from Guerrero, Mexico." PhD diss., Columbia University, 1968.
- Bryan, Alan L. "New Light on Ancient Nicaraguan Footprints." *Archaeology* 26 (1973): 146–47.
- Bryce, Trevor R. "The Trojan War: Is There Truth behind the Legend?" *Near Eastern Archaeology* 65/3 (2002): 182–95.
- Buccellati, Giorgio. *The Amorites of the Ur III Period*. Naples, Italy: Istituto Orientale di Napoli, 1966.
- Buckland, Paul C., and Eva Panagiotakopulu. "Rameses II and the Tobacco Beetle." *Antiquity* 75 (2001): 549–56.
- Bulliet, Richard W. *The Camel and the Wheel*. Cambridge, MA: Harvard University Press, 1975.
- Bushnell, Geoffrey H. S. "An Old World View of New World Prehistory." *American Antiquity* 27 (1961): 63–70.
- Butler, John M. "Addressing Questions Surrounding the Book of Mormon and DNA Research." In *The Book of Mormon and DNA Research*, edited by Daniel C. Peterson, 71–78. Provo, UT: Neal A. Maxwell Institute, 2008.
- . "A Few Thoughts from a Believing DNA Scientist." *Journal of Book of Mormon Studies* 12/1 (2003): 36–37.
- Buttles, Palma. "The Importance of Colha in Belize Archaeology." In *Archaeological Investigations in the Eastern Maya Lowlands: Papers of the 2003 Belize Archaeology Symposium*, edited by Jaime Awe, John Morris, and Sherilyne Jones, 281–94. Belmopan, Belize: Institute of Archaeology, 2004.
- Cabrera Castro, Rubén. "La secuencia arquitectónica del Edificio de los Animales Mitológicos en Teotihuacan." In *Homenaje a Román Piña Chan*, 349–72. Mexico City: Instituto de Investigaciones Antropológicas, UNAM, 1987.
- Cabrera Guerrero, Martha E. *Los pobladores prehispánicos de Acapulco: Proyecto*

- arqueológico renacimiento*. Mexico City: Instituto Nacional de Antropología e Historia, 1990.
- Caley, Earle R. *Orichalcum and Related Ancient Alloys: Origin, Composition and Manufacture with Special Reference to the Coinage of the Roman Empire*. Numismatic Notes and Monographs 151. New York: American Numismatic Society, 1964.
- Caley, Earle R., and Dudley T. Easby Jr. "New Evidence of Tin Smelting and the Use of Metallic Tin in Pre-Conquest Mexico." *Proceedings of the 35th International Congress of Americanists (Mexico, 1962)* (1964): 507–17.
- Calnek, Edward E. "The Internal Structure of Cities in America: Pre-Columbian Cities; The Case of Tenochtitlan." *Proceedings of the 41st International Congress of Americanists (Mexico, 1974)* (1976): 347–58.
- Campbell, Lyle. "Quichean Prehistory: Linguistic Contributions." In *Papers in Mayan Linguistics*, edited by Nora C. England, 25–54. Miscellaneous Publications in Anthropology 6. Columbia: University of Missouri-Columbia, 1978.
- Campbell, Lyle, and Terrence Kaufman. "A Linguistic Look at the Olmecs." *American Antiquity* 41 (1976): 80–89.
- Carlson, John B. "A Geomantic Model for the Interpretation of Mesoamerican Sites: An Essay in Cross-cultural Comparison." In Benson, *Mesoamerican Sites and World-Views*, 143–215.
- . "Lodestone Compass: Chinese, or Olmec Primacy?" *Science* 189 (1975): 753–60.
- . *Venus-Regulated Warfare and Ritual Sacrifice in Mesoamerica: Teotihuacan and the Cacaxtla "Star Wars" Connection*. College Park, MD: University of Maryland, Center for Archaeoastronomy, 1991.
- Carmack, Robert M. *Quichean Civilization: The Ethnohistoric, Ethnographic, and Archaeological Sources*. Berkeley: University of California Press, 1973.
- . *The Quiché Mayas of Uatatlán: The Evolution of a Highland Guatemala Kingdom*. Norman: University of Oklahoma Press, 1981.
- . "Toltec Influence on the Postclassic Culture History of Highland Guatemala." In *Archaeological Studies in Middle America*, 52–92. New Orleans: Tulane University, 1970.
- Carr, H. Sorayya. "Precolumbian Maya Exploitation and Management of Deer Populations." In *The Managed Mosaic: Ancient Maya Agriculture and Resource Use*, edited by Scott L. Fedick, 251–61. Salt Lake City: University of Utah Press, 1996.

- Carrasco, David, ed. *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. 3 vols. Oxford: Oxford University Press, 2001.
- . *Quetzalcoatl and the Irony of Empire: Myths and Prophecies in the Aztec Tradition*. Chicago: University of Chicago Press, 1982.
- Carrasco, Pedro. "Los barrios antiguos de Cholula." In *Estudios y documentos de la región de Puebla-Tlaxcala*, 9–88. Puebla, Mexico City: Instituto Poblano de Antropología e Historia, 1971.
- Carstensen, Roger N. "The Book of Zechariah." In *The Interpreter's One-Volume Commentary on the Bible*, 504–10. Nashville: Abingdon, 1971.
- Carter, George F. "Before Columbus." In *The Book of Mormon: The Keystone Scripture*, edited by Paul R. Cheesman, 164–86. Provo, UT: BYU Religious Studies Center, 1988.
- . "The Chicken in America: Spanish Introduction or Pre-Spanish?" In Gilmore and McElroy, *Across before Columbus?*, 151–60.
- . "Pre-Columbian Chickens in America." In Riley, Kelley, Pennington, and Rands, *Man across the Sea*, 178–218.
- Caso, Alfonso. "Dioses y signos teotihuacanos." In *Teotihuacán, onceava mesa redonda: El Valle de Teotihuacán y su contorno*, 249–78. Mexico City: Sociedad Mexicana de Antropología, 1966.
- . "Lapidaria y orfebrería en Oaxaca." In *Los señorios y estados militaristas*, edited by Román Piña Chan, 326–55. Mexico City: Instituto Nacional de Antropología e Historia, 1976.
- . "Lapidary Work, Goldwork, and Copperwork from Oaxaca." In Wauchope and Willey, *Handbook of Middle American Indians*, 3:896–930.
- Caso, Alfonso, and Daniel F. Rubín de la Borbolla. *Exploraciones en Mitla, 1934–1935*. Instituto Panamericano de Geografía e Historia Publicación 21. Mexico City: Talleros Graficos, 1936.
- Casson, Lionel. "Godliness and Work." *Science* 81 (September 1981): 36–43.
- . "Why Did the Ancients Not Develop Machinery?" In *Mysteries of the Past*, edited by Lionel Casson, Robert Claiborne, Brian Fagan, and Walter Karp, 139–54. New York: American Heritage, 1977.
- Castellón Huerta, Blas R. "Cúmulo de símbolos: La serpiente emplumada." *Arqueología mexicana* 9/53 (2002): 28–35.
- Cavalli-Sforza, L. Luca, Paolo Menozzi, and Alberto Piazza. *The History and Geography of Human Genes*. Princeton, NJ: Princeton University Press, 1994.
- Chadwick, Robert E. L., Jr. "Archaeological Synthesis of Michoacan and Adjacent

- Regions." In Wauchope, Ekholm, and Bernal, *Handbook of Middle American Indians*, 11:657–93.
- . "The Archaeology of a New World 'Merchant' Culture." PhD diss., Tulane University, 1974.
- Chang, Joseph T. "Recent Common Ancestors of All Present-Day Individuals." *Advances in Applied Probability* 31 (1999): 1002–26.
- Chang, Kwang-chih. "Chinese Prehistory in Pacific Perspective: Some Hypotheses and Problems." *Harvard Journal of Asiatic Studies* 22 (1959): 100–149.
- Chard, Chester S. "New World Migration Routes." *Anthropological Papers of the University of Alaska* 7/1 (1958): 23–26.
- de Charency, Hyacinthe. "Les noms des metaux chez differents peuples de la Nouvelle Espagne." *Proceedings of the 8th International Congress of Americanists (Paris, 1890)* (1890): 536–47. Reprint, Nendeln, Liechtenstein: Draus, 1968.
- Charlesworth, James H. "Messianism in the Pseudepigrapha and the Book of Mormon." In *Reflections on Mormonism: Judaeo-Christian Parallels*, edited by Truman G. Madsen, 99–137. Provo, UT: BYU Religious Studies Center, 1978.
- Charnay, Désiré. *The Ancient Cities of the New World*. London: Chapman & Hall, 1887.
- Chase, Arlen F. "Elites and the Changing Organization of Classic Maya Society." In Chase and Chase, *Mesoamerican Elites*, 30–49.
- Chase, Arlen F., and Diane Z. Chase. "External Impetus, Internal Synthesis, and Standardization: E Group Assemblages and the Crystallization of Classic Maya Society in the Southern Lowlands." In *The Emergence of Lowland Maya Civilization: The Transition from the Preclassic to the Early Classic*, ed. Nikolai Grube, 87–101. Möckmühl, Germany: Saurwein, 1995.
- Chase, Diane Z., and Arlen F. Chase, eds. *Mesoamerican Elites: An Archaeological Assessment*. Norman: University of Oklahoma Press, 1992.
- . "Texts and Contexts in Maya Warfare: A Brief Consideration of Epigraphy and Archaeology at Caracol, Belize." In Brown and Stanton, *Ancient Mesoamerican Warfare*, 171–88.
- Chase, James E. "The Sky Is Falling: The San Martín Tuxtla Volcanic Eruption and Its Effects on the Olmec at Tres Zapotes, Veracruz." *Vínculos: Revista de antropología del Museo Nacional de Costa Rica* 7 (1981): 53–69.
- Cheek, Charles D. "Excavations at the Palangana and the Acropolis, Kaminaljuyu." In *Teotihuacan and Kaminaljuyu: A Study in Prehistoric Culture Contact*,

- edited by William T. Sanders and Joseph W. Michels, 1–204. University Park: Pennsylvania State University Press, 1977.
- Cheetham, David, and John E. Clark. “Investigaciones recientes en Cantón Corralito: Un posible enclave olmeca en la costa del Pacífico de Chiapas, México.” In Laporte, Arroyo, and Mejía, *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 1:3–8.
- Chinchilla Mazariegos, Oswaldo. “Settlement Patterns and Monumental Art at a Major Pre-Columbian Polity: Cotzumalguapa, Guatemala.” PhD diss., Vanderbilt University, 1996.
- Christenson, Allen J. *Popol Vuh: The Sacred Book of the Maya*. Winchester, UK: O Books, 2003.
- . “The Use of Chiasmus by the Ancient Maya-Quiché.” *Latin American Literatures Journal* 4/2 (1988): 125–50.
- . “The Use of Chiasmus in Ancient Mesoamerica.” Provo, UT: FARMS, 1988.
- Clark, John E. “Archaeological Trends and Book of Mormon Origins.” *BYU Studies* 44/4 (2005): 83–104.
- . “Archaeology and Cumorah Questions.” *Journal of Book of Mormon Studies* 13 (2004): 144–51.
- . “Archaeology, Relics, and Book of Mormon Belief.” *Journal of Book of Mormon Studies* 14/2 (2005): 38–51.
- . “The Arts of Government in Early Mesoamerica.” *Annual Review of Anthropology* 26 (1997): 211–34.
- . “Ciudades tempranas olmecas.” In *Reconstruyendo la ciudad maya: El urbanismo en las sociedades antiguas*, edited by Andrés Ciudad Ruiz, María Josefa I. Ponce de León, and María del Carmen Martínez Martínez, 183–210. Madrid: Sociedad Española de Estudios Mayas, 2001.
- . “The Development of Early Formative Rank Societies in the Soconusco, Chiapas, Mexico.” PhD diss., University of Michigan, 1994.
- . *The Lithic Artifacts of La Libertad, Chiapas, Mexico: An Economic Perspective*. New World Archaeological Foundation Papers 52. Provo, UT: BYU New World Archaeological Foundation, 1988.
- Clark, John E., and David Cheetham. “Mesoamerica’s Tribal Foundations.” In *The Archaeology of Tribal Societies*, edited by William A. Parkinson, 278–339. Ann Arbor, MI: International Monographs in Prehistory, 2002.
- Clark, John E., and Richard D. Hansen. “Tiempo Mesoamericano IV: Preclásico Tardío (400 AC–200 DC).” *Arqueología mexicana* 8/46 (2000): 12–19.

- Clark, John E., Richard D. Hansen, and Tomás Pérez Suárez. "La zona maya en el Preclásico." In *Historia antigua de México*, edited by Linda Manzanilla and Leonardo López Luján, 437–510. Vol. 1. 2nd ed. Mexico City: Instituto Investigaciones de Antropológicas, 2000.
- Clark, John E., and Thomas A. Lee Jr. "Formative Obsidian Exchange and the Emergence of Public Economies in Chiapas, Mexico." In *Trade and Exchange in Early Mesoamerica*, edited by Kenneth G. Hirth, 235–74. Albuquerque: University of New Mexico Press, 1984.
- Clark, John E., and Mary E. Pye, eds. *Olmec Art and Archaeology in Mesoamerica*. Washington, DC: National Gallery of Art, 2000.
- . "The Pacific Coast and the Olmec Question." In Clark and Pye, *Olmec Art and Archaeology in Mesoamerica*, 217–56.
- Clavigero, Francesco Saverio. *The History of Mexico*. London: 1787. First published 1590.
- . *History of Mexico, I*. Translated by Charles Cullen. Philadelphia: Thomas Dobson, 1817.
- Clayton, Peter A. *Chronicle of the Pharaohs: The Reign-by-Reign Record of the Rulers and Dynasties of Ancient Egypt*. New York: Thames & Hudson, 1994.
- Clifford, Richard J. *The Cosmic Mountain in Canaan and the Old Testament*. Cambridge, MA: Harvard University Press, 1972.
- Clissold, P. "Early Ocean-Going Craft in the Eastern Pacific: An Appreciation of Part of 'American Indians in the Pacific,'" *Mariner's Mirror* 45 (1959): 234–42.
- Close, Angela E. "Few and Far Between: Early Ceramics in North Africa." In *The Emergence of Pottery: Technology and Innovation in Ancient Societies*, edited by William K. Barnett and John W. Hoopes, 23–37. Washington, DC: Smithsonian Institution, 1995.
- Cobean, Robert H. "La Oaxaqueña, Veracruz: Un centro olmeca menor en su contexto regional." In Mastache, Parsons, Santley, and Puche, *Arqueología mesoamericana*, 2:37–61.
- Cobean, Robert H., Michael D. Coe, Edward A. Perry Jr., Karl K. Turekian, and Dinkar P. Kharkar. "Obsidian Trade at San Lorenzo Tenochtitlan, Mexico." *Science* 174 (1971): 666–71.
- Codex Mendoza*. Edited by James C. Clark, 3 vols. London: Waterlow and Sons, 1938 [1540s].
- Coe, Michael D. *America's First Civilization*. New York: American Heritage, 1968.
- . "Ancient Maya Writing and Calligraphy." *Visible Language* 5/4 (1971): 293–307.

- . “Archaeological Synthesis of Southern Veracruz and Tabasco.” In Wauchope and Willey, *Handbook of Middle American Indians*, 3:679–715.
- . *Breaking the Maya Code*. New York: Thames & Hudson, 1992.
- . “Directions of Cultural Diffusion.” *Science* 155 (1967): 185–86.
- . “Early Steps in the Evolution of Maya Writing.” In *Origins of Religious Art and Iconography in Preclassic Mesoamerica*, edited by Henry B. Nicholson, 107–22. Los Angeles: UCLA Latin American Center and Ethnic Arts Council of Los Angeles, 1976.
- . “The Hero Twins: Myth and Image.” In *The Maya Vase Book*, edited by Justin Kerr, 161–84. Vol. 1. New York: Kerr Associates, 1989.
- . *The Maya*. 7th rev. ed. New York: Thames & Hudson, 2005.
- . *The Maya Scribe and His World*. New York: The Grolier Club, 1973.
- . *Mexico*. 3rd rev. ed. London: Thames & Hudson, 1984.
- . *Mexico: From the Olmecs to the Aztecs*. 4th rev. ed. New York: Thames & Hudson, 1994.
- . “A Model of Ancient Community Structure in the Maya Lowlands.” *Southwestern Journal of Anthropology* 21/2 (1965): 97–114.
- . “An Olmec Design on an Early Peruvian Vessel.” *American Antiquity* 27 (1962): 579–80.
- . “The Olmec Style and Its Distributions.” In Wauchope and Willey, *Handbook of Middle American Indians*, 3:739–75.
- . Review of *Skywatchers of Ancient Mexico*, by Anthony F. Aveni. *Archaeoastronomy* 4/1 (1981): 39–40.
- . “San Lorenzo and the Olmec Civilization.” In Benson, *Dumbarton Oaks Conference on the Olmec*, 41–71.
- . “San Lorenzo Tenochtitlan.” In Sabloff, *Supplement to the Handbook of Middle American Indians*, 1:117–46.
- Coe, Michael D., and Richard A. Diehl. *In the Land of the Olmec: The Archaeology of San Lorenzo Tenochtitlan*. Vol. 1. Austin: University of Texas Press, 1980.
- Coe, Michael D., and Kent V. Flannery. *Early Cultures and Human Ecology in South Coastal Guatemala*. Contributions to Anthropology 3. Washington, DC: Smithsonian, 1967.
- . “The Pre-Columbian Obsidian Industry of El Chayal, Guatemala.” *American Antiquity* 30 (1964): 43–49.
- Coe, Michael D., with Rex Koontz. *Mexico*. 5th rev. ed. London: Thames & Hudson, 2002.

- Coe, William R. "A Summary of Excavation and Research at Tikal, Guatemala: 1956–61." *American Antiquity* 27 (1962): 479–507.
- Coggins, Clemency C. "An Instrument of Expansion: Monte Albán, Teotihuacan, and Tikal." In Miller, *Highland-Lowland Interaction in Mesoamerica*, 49–68.
- . "The Manikin Scepter: Emblem of Lineage." *Estudios de cultura maya* 17 (1988): 123–48.
- Cohodas, Marvin. "The Iconography of the Panels of the Sun, Cross, and Foliated Cross at Palenque: Part I." In *Sociedad Mexicana de Antropología XIII mesa redonda, Xalapa, 1973*, 75–101. Pebble Beach: Robert Louis Stevenson School, 1975.
- Collins, Guy N., and Conrad B. Doyle. "Notes on Southern Mexico." *National Geographic Magazine* 22 (1911): 301–20.
- Comas, Juan. *Antropología de los pueblos ibero-americanos*. Barcelona: Editorial Labor, 1974.
- Compton, S. C. *Exodus Lost: An Inquiry into the Genesis of Civilization*. N.p.: printed by the author, 2011.
- Congdon, Lenore O. K. "Steel in Antiquity: A Problem in Terminology." In *Studies Presented to George M. A. Hanfmann*, edited by David G. Mitten et al., 17–27. Harvard University Fogg Art Museum Monographs in Art and Archaeology 2. Mainz: Von Zabern, 1971.
- Conkling, J. Christopher. "Alma's Enemies: The Case of the Lamanites, Amlicites, and Mysterious Amalekites." *Journal of Book of Mormon Studies* 14/1 (2005): 108–17.
- Cook, Lyndon W., ed. *David Whitmer Interviews*. Orem, UT: Grandin Book, 1991.
- Cook de Leonard, Carmen. "Sculptures and Rock Carvings at Chalcatzingo, Morelos." In *Studies in Olmec Archaeology*, 57–84. Contributions 3. Berkeley: University of California Archaeological Research Facility, 1967.
- Cooke, Strathmore R. B., and Stanley Aschenbrenner. "The Occurrence of Metallic Iron in Ancient Copper." *Journal of Field Archaeology* 2/3 (1975): 251–66.
- Cooper, Jerrold S. "Sumer, Sumerians." In Freedman, *Anchor Bible Dictionary*, 6:231–34.
- Cordova, Carlos, Ana L. Martín del Pozzo, and Javier López Camacho. "Palaeolandforms and Volcanic Impact on the Environment of Prehistoric Cuicuilco, Southern Mexico City." *Journal of Archaeological Science* 21/5 (1994): 585–96.

- Cornell, James. *The First Stargazers: An Introduction to the Origins of Astronomy*. London: Athlone, 1981.
- Cortez, Hernando. *Fernando Cortés: His Five Letters of Relation to the Emperor Charles V*. Edited and translated by Francis A. MacNutt. Glorieta, NM: Rio Grande, 1977.
- . *Five Letters of Cortés to the Emperor*. Translated by J. Bayard Morris. New York: Norton, 1969.
- Covarrubias, Miguel. *Indian Art of Mexico and Central America*. New York: Knopf, 1957.
- . *Mexico South: The Isthmus of Tehuantepec*. New York: Knopf, 1947.
- Cowgill, George L. "On Causes and Consequences of Ancient and Modern Population Changes." *American Anthropologist* 77 (1975): 505–25.
- . "Social Differentiation at Teotihuacan." In Chase and Chase, *Mesoamerican Elites*, 206–20.
- . "Teotihuacan and Early Classic Interaction: A Perspective from Outside the Maya Region." In *The Maya and Teotihuacan: Reinterpreting Early Classic Interaction*. Edited by Geoffrey E. Braswell. Austin: University of Texas Press, 2003, 315–35.
- . "Teotihuacan, Internal Militaristic Competition, and the Fall of the Classic Maya." In Hammond and Willey, *Maya Archaeology and Ethnohistory*, 51–62.
- . "Tiempo Mesoamericano V: Clásico temprano (150/200–600 d. C.)." *Arqueología mexicana* 8/47 (2001): 20–28.
- Craddock, Paul T. "Europe's Earliest Brasses." *MASCA Journal* 1 (December 1978): 4–5.
- Crawford, Michael H. *The Origins of Native Americans: Evidence from Anthropological Genetics*. New York: Cambridge University Press, 1997.
- Crowell, Angela. "Hebrew Poetry in the Book of Mormon, Part 1." *Zarahemla Record* 32 (1986): 2–9.
- Crystal, David. *Language Death*. Canto edition. Cambridge: Cambridge University Press, 2002.
- Cupello, Miryam. *Incógnitas del Nuevo Mundo*. Caracas, Venezuela: Cuadernos Lagoven, 1990.
- Cyphers, Ann. *Descifrando los misterios de la cultura olmeca*. Mexico City: Universidad Nacional Autónoma de México, 1995.
- . *Escultura Olmeca de San Lorenzo Tenochtitlán*. Mexico City: Universidad Nacional Autónoma de México, 2004.

- . “Exploraciones arqueológicas en San Lorenzo Tenochtitlan.” In *Memoria del coloquio: Arqueología del centro y sur de Veracruz*, edited by Sara Ladrón de Guevara and Sergio Vásquez Zárate, 127–39. Xalapa, Mexico: Universidad Veracruzana, 1997.
- Dahlin, Bruce H. “Climate and Prehistory on the Yucatan Peninsula.” *Climatic Change* 5/3 (1983): 245–63.
- Dahlin, Bruce H., Robin Quizar, and Andrea Dahlin. “Linguistic Divergence and the Collapse of Preclassic Civilization in Southern Mesoamerica.” *American Antiquity* 52 (1987): 367–82.
- Daneels, Annick. “Patrón de asentamiento prehispánico en la cuenca de Veracruz Mexico.” In *Boletín del Consejo de Arqueología 1990*, 71–74. Mexico City: Instituto Nacional de Antropología e Historia, 1991.
- . “Settlement History in the Lower Cotaxtla Basin.” In Stark and Arnold, *Olmec to Aztec*, 206–52.
- Darling, Samuel T. “Comparative Helminthology as an Aid in the Solution of Ethnological Problems.” *American Journal of Tropical Medicine* 5 (1925): 323–37.
- . “Observations on the Geographical and Ethnological Distribution of Hookworms.” *Parasitology* 12/3 (1920): 217–33.
- Daumas, Maurice, ed. *Histoire générale des techniques*. Vol. 1. Paris: Presses Universitaires de France, 1962.
- Dávalos Hurtado, Eusebio. “El hombre en Mesoamerica hasta la llegada de los Españoles.” *Memorias y revista de la Academia Nacional de Ciencias* 49 (1964): 389–416.
- Davies, Nigel. “The Aztec Concept of History: Teotihuacan and Tula.” In *The Native Sources and the History of the Valley of Mexico*, edited by Jacqueline de Durand-Forest, 207–20. Oxford: BAR, 1984.
- . *The Toltec Heritage: From the Fall of Tula to the Rise of Tenochtitlán*. Norman: University of Oklahoma Press, 1980.
- . *The Toltecs: Until the Fall of Tula*. Norman: University of Oklahoma Press, 1977.
- Davis, David, Robert Maddin, James D. Muhly, and T. Stech. “A Steel Pick from Mt. Adir in Palestine.” *Journal of Near Eastern Studies* 44/1 (1985): 41–51.
- Davis, Simon J. M. *The Archaeology of Animals*. New Haven: Yale University Press, 1987.
- Davis, Thomas W. “Faith and Archaeology: A Brief History to the Present.” *Biblical Archaeology Review* 19/2 (1993): 54–58.

- De León, Francisco, and Juan Antonio Valdés. "Excavaciones en Piedra Parada: Más información sobre el Preclásico medio del altiplano central de Guatemala." In Love, Popenoe de Hatch, and Escobedo, *Incidents of Archaeology in Central America and Yucatán*, 375–95.
- Delgado, Agustín. *Excavations at Santa Rosa, Chiapas, Mexico*. New World Archaeological Foundation Papers 17. Provo, UT: BYU New World Archaeological Foundation, 1965.
- Demarest, Arthur A. "Proyecto El Mirador de la Harvard University, 1982–1983, VII: Conclusiones y especulaciones." *Mesoamerica* 7/5 (1984): 138–50.
- Demarest, Arthur A., and Juan Antonio Valdés. "Guerra, regresión política y el colapso de la civilización maya clásica en la región Petexbatun." In Laporte and Escobedo, *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, 777–81.
- Demarest, Arthur A., Matt O'Mansky, Claudia Wolley, Dirk Van Tuerenhout, Takeshi Inomata, Joel Paika, and Héctor Escobedo. "Classic Maya Defensive Systems and Warfare in the Petexbatun Region: Archaeological Evidence and Interpretations." *Ancient Mesoamerica* 8 (1997): 229–53.
- Demarest, Arthur A., and Robert J. Sharer. "Late Preclassic Ceramic Spheres, Culture Areas, and Cultural Evolution in the Southeastern Highlands of Mesoamerica." In *The Southeast Maya Periphery*, edited by Patricia A. Urban and Edward M. Schortman, 194–223. Austin: University of Texas Press, 1986.
- . "The Origins and Evolution of Usulután Ceramics." *American Antiquity* 47 (1982): 810–22.
- Denevan, William M. *The Native Population of the Americas in 1492*. Madison: University of Wisconsin Press, 1976.
- de Vaux, Roland. *Ancient Israel: Its Life and Institutions*. Translated by John McHugh. Grand Rapids, MI: Eerdmans, 1997. First published 1961 at McGraw-Hill.
- Dever, William G. *What Did the Biblical Writers Know and When Did They Know It? What Archaeology Can Tell Us about the Reality of Ancient Israel*. Grand Rapids, MI: Eerdmans, 2001.
- Díaz del Castillo, Bernal. *The Bernal Diaz Chronicles: The True Story of the Conquest of Mexico*. Translated and edited by Albert Idell. Garden City, NY: Doubleday, 1956.
- . *Bernal Diaz del Castillo: The Conquest of New Spain*. Translated by J. M. Cohen. New York: Penguin Books, 1963.

- . *Bernal Díaz del Castillo: The Discovery and Conquest of Mexico*. Translated by Alfred Maudslay. New York: Farrer, Straus and Cudahy, 1956.
- Dickinson, William R., Yoshihiko H. Sinoto, Richard Shutler Jr., Mary E. Shutler, Jose Garanger, and Thomas M. Teska. "Japanese Jomon Sherds in Artifact Collections from Mele Plain on Efate in Vanuatu." *Archaeology in Oceania* 34 (1999): 15–24.
- "Did Voyagers from China Reach Ancient Mexico?" *Journal of Book of Mormon Studies* 7/1 (1998): 76.
- Diehl, Richard A. *Tula: The Toltec Capital of Ancient Mexico*. London: Thames & Hudson, 1983.
- Diehl, Richard A., and Janet C. Berlo, eds. *Mesoamerica after the Decline of Teotihuacan, A.D. 700–900*. Washington, DC: Dumbarton Oaks, 1989.
- . Introduction to Diehl and Berlo, *Mesoamerica after the Decline of Teotihuacan*, 1–8.
- Dillehay, Tom D. "Disease Ecology and Initial Human Migration." In *The First Americans: Search and Research*, edited by Tom D. Dillehay and David J. Meltzer, 231–64. Boca Raton, FL: CRC, 1991.
- Dillon, Brian D. "Meatless Maya? Ethnoarchaeological Implications for Ancient Subsistence." *Journal of New World Archaeology* 7 (1988): 59–70.
- Di Peso, Charles C. "The Correlation Question in General: Archaeological Perspective for Northern Mesoamerica and Beyond." *Proceedings of the 37th International Congress of Americanists (Buenos Aires, 1966)* (1968): 23–37.
- Dixon, E. James. *Bones, Boats, and Bison: Archeology and the First Colonization of Western North America*. Albuquerque: University of New Mexico Press, 1999.
- . *Quest for the Origins of the First Americans*. Albuquerque: University of New Mexico Press, 1993.
- Dobyns, Henry F. "Estimating Aboriginal American Population: An Appraisal of Techniques with a New Hemispheric Estimate." *Current Anthropology* 7/4 (1966): 395–416.
- Doran, Edwin, Jr. "The Sailing Raft as a Great Tradition." In Riley, Kelley, Pennington, and Rands, *Man across the Sea*, 115–38.
- . "Seaworthiness of Sailing Rafts." *Anthropological Journal of Canada* 16/3 (1978): 17–22.
- Dow, James W. "Astronomical Orientations at Teotihuacan: A Case Study in Astro-Archaeology." *American Antiquity* 32 (1967): 326–34.
- Drucker, Philip. "The La Venta Olmec Support Area." *Kroeber Anthropological Society Papers* 25 (1961): 59–72.

- . *La Venta, Tabasco: A Study of Olmec Ceramics and Art*. Bulletin 153. Washington, DC: Smithsonian Institution, 1952.
- . "On the Nature of the Olmec Polity." In Benson, *Olmec and Their Neighbors*, 29–47.
- Drucker, Philip, and Eduardo Contreras. "Site Patterns in the Eastern Part of Olmec Territory." *Journal of the Washington Academy of Sciences* 43/12 (1953): 389–96.
- Drucker, Philip, and Robert F. Heizer. "Commentary on W. R. Coe and Robert Stuckenrath's Review of Excavations at La Venta, Tabasco, 1955." *Kroeber Anthropological Society Papers* 33 (1965): 37–69.
- Drucker, Philip, Robert Heizer, and Robert Squier. *Excavations at La Venta, Tabasco, 1955*. Bulletin 170. Washington, DC: Smithsonian Institution, 1959.
- Dull, Robert A., John R. Southon, and Payson Sheets. "Volcanism, Ecology and Culture: A Reassessment of the Volcán Ilopango TBJ Eruption in the Southern Maya Realm." *Latin American Antiquity* 12/1 (2001): 25–44.
- Dunn, Henry. *Guatemala, or, the Republic of Central America, in 1827–8: Being Sketches and Memorandums Made during a Twelve-Months' Residence*. London: James Nisbet, 1829.
- Durán, Diego. *The Aztecs: The History of the Indies of New Spain*. Translated by Doris Heyden and Fernando Horcasitas. New York: Orion, 1964.
- . *The History of the Indies of New Spain by Fray Diego Duran*. Translated and edited by Doris Heyden. Norman: University of Oklahoma Press, 1994.
- Dütting, Dieter. "'Bats' in the Usumacinta-Valley: Remarks on the Inscriptions of Bonampak and Neighboring Sites in Chiapas, Mexico." *Zeitschrift für Ethnologie* 103 (1978): 1–56.
- Easby, Dudley T., Jr. "Aspectos técnicos de la orfebrería de la Tumba 7 de Monte Albán." In *El tesoro de Monte Albán*, by Alfonso Caso, 343–94. *Memorias del Instituto Nacional de Antropología e Historia* 3. Mexico City: Instituto Nacional de Antropología e Historia, 1969.
- . "Early Metallurgy in the New World." *Scientific American* 214/4 (1966): 73–81.
- . "Two 'South American' Metal Techniques Found Recently in Western Mexico." *American Antiquity* 28 (1962): 19–24.
- Easby, Elizabeth K., and John F. Scott. *Before Cortes: Sculpture of Middle America*. New York: Metropolitan Museum of Art, 1970.
- Easton, N. Alexander. "Mal de Mer above Terra Incognita, or What Ails the Coastal Migration Theory?" *Arctic Anthropology* 29/2 (1992): 28–41.

- Edmonson, Munro S., trans. *The Ancient Future of the Itza: The Book of Chilam Balam of Tizimin*. Austin: University of Texas Press, 1982.
- , trans. *The Book of Counsel: The Popol Vuh of the Quiche Maya of Guatemala*. New Orleans: Tulane University, 1971.
- . “Narrative Folklore.” In *Handbook of Middle American Indians*, edited by Robert Wauchope and Manning Nash, 357–68. Vol. 6. Austin: University of Texas Press, 1965.
- . *Quiche-English Dictionary*. New Orleans: Middle American Research Institute, 1965.
- . “Some Postclassic Questions about the Classic Maya.” *Estudios de cultura maya* 12 (1979): 157–78.
- Edmonston, Mary C. “The Mammoth and the Mastodon in the Folklore of the Indians of North America.” Master’s thesis, Columbia University, 1949.
- Edwards, Clinton R. *Aboriginal Watercraft on the Pacific Coast of South America*. Berkeley: University of California Press, 1965.
- . “Nautical Technology and Maritime Routes in Mesoamerica.” *Proceedings of the 40th International Congress of Americanists (Rome and Genova, 1972)* (1976): 199–202.
- . “New World Perspectives on Pre-European Voyaging in the Pacific.” In *Early Chinese Art and Its Possible Influence in the Pacific Basin*, edited by Noel Barnard, 843–87. Vol. 3. New York: Intercultural Arts, 1972.
- . “Possibilities of Pre-Columbian Contacts among New World Civilizations.” In *Pre-Columbian Contact within Nuclear America*, edited by J. Charles Kelley and Carroll L. Riley, 3–10. Carbondale: Southern Illinois University Museum, 1969.
- Eggington, William. “‘Our Weakness in Writing’: Oral and Literate Cultures in the Book of Mormon.” Provo, UT: FARMS, 1992.
- Eiseley, Loren C. “Myth and Mammoth in Archaeology.” *American Antiquity* 11 (1945): 84–87.
- Ekholm, Gordon F. *Excavations at Tampico and Panuco in the Huasteca, Mexico*. Anthropological Papers 38. New York: American Museum of Natural History, 1944.
- . *A Maya Sculpture in Wood*. New York: The Museum of Primitive Art, 1964.
- . “Wheeled Toys in Mexico.” *American Antiquity* 11 (1946): 224–26.
- Eliade, Mircea. *The Forge and the Crucible: The Origins and Structures of Alchemy*.

- Translated by Stephen Corrin. 2nd ed. Chicago: University of Chicago Press, 1978.
- Elkin, Adolphus P., and Neil W. G. Macintosh, eds. *Grafton Elliot Smith: The Man and His Work*. Sydney, Australia: Sydney University Press, 1974.
- El Tajin: Official Guide*. Mexico City: Instituto Nacional de Antropología e Historia, 1976.
- Engelbrecht, William E., and Carl K. Seyfert. "Paleoindian Watercraft: Evidence and Implications." *North American Archaeologist* 15 (1994): 221–34.
- England, Nora C. *La Autonomía de los Idiomas Mayas: Historia e Identidad*. Guatemala: Cholsamaj, 1992.
- Ericastilla, Sergio, and Shione Shibata. "Historia de las investigaciones arqueológicas en Kaminaljuyú y el Montículo de la Culebra." In *Primer informe de exploraciones arqueológicas*, edited by Kuniaki Ohi, 33–52. Tokyo: Museo de Tabaco y Sal, 1991.
- Escalante, Roberto. "El vocabulario cultural de las lenguas de Mesoamérica." In *La validez teórica del concepto mesoamérica*, 155–65. Mexico City: Sociedad Mexicana de Antropología e Instituto Nacional de Antropología e Historia, 1990.
- Estrada, Emilio, and Betty J. Meggers. "A Complex of Traits of Probable Transpacific Origin on the Coast of Ecuador." *American Anthropologist* 63 (1961): 913–39.
- Estrada-Belli, Francisco. "Lightning, Sky, Rain, and the Maize God: The Ideology of Preclassic Maya Rulers at Cival, Peten, Guatemala." *Ancient Mesoamerica* 17 (2006): 57–78.
- . "Putting Santa Rosa on the Map: New Insights on the Cultural Development of the Pacific Coast of Southeastern Guatemala." In Love, Popenoe de Hatch, and Escobedo, *Incidents of Archaeology in Central America and Yucatán*, 103–28.
- Estrada-Belli, Francisco, Jeremy Bauer, Michael Callaghan, Nina Neivens, Antolin Velásquez, and Josué Calvo. "Las épocas tempranas en al area de Holmul, Petén." In Laporte, Arroyo, and Mejía, *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 539–48.
- Evans, Clifford, and Betty J. Meggers. "Mesoamerica and Ecuador." In *Handbook of Middle American Indians*, edited by Robert Wauchope, Gordon F. Ekholm, and Gordon R. Willey, 253–64. Vol. 4. Austin: University of Texas Press, 1966.
- Fahey, Bede. "The Asiatic Neolithic, the Southern Mongoloid Dispersal, and Their

- Possible Significance for the Americas." *Pre-Columbiana: A Journal of Long-Distance Contacts* 2/2–3 (2001): 164–204.
- . *Mayan: A Sino-Tibetan Language? A Comparative Study*. Sino-Platonic Papers 130. Philadelphia: Department of East Asian Languages and Civilizations, University of Pennsylvania, 2004.
- Fahmel Beyer, Bernd. "El empleo de una brújula en el diseño de los espacios arquitectónicos en Monte Albán, Oaxaca, México: 400 A.C.–830 D.C." *Revista Española de Antropología Americana* 23 (1993): 29–40.
- . "La época Clásica en Monte Albán vista a través de su arquitectura." In *La época Clásica: Nuevas hallazgos, nuevas ideas*, edited by Amalia Cardos de Mendez, 61–70. Mexico City: Museo Nacional de Antropología, 1990.
- Fahsen, Federico. "Kaminaljuyú y sus vecinos." In Laporte, Escobedo, Suasnavar, and Arroyo, *XIII Simposio de investigaciones arqueológicas en Guatemala, 1999*, 57–84.
- . "Who Are the Prisoners in Kaminaljuyú Monuments?" In Love, Popenoe de Hatch, and Escobedo, *Incidents of Archaeology in Central America and Yucatán*, 359–74.
- Farmer, Jared. *On Zion's Mount: Mormons, Indians, and the American Landscape*. Cambridge, MA: Harvard University Press, 2008.
- Farriss, Nancy M. "Sacrifice and Communion in Colonial Maya Religion." In *Abstracts of Papers, 44th International Congress of Americanists (Manchester, 1982)*, 15. Manchester, England: Manchester University School of Geography, 1982.
- Fash, William L., and David S. Stuart. "Dynastic History and Cultural Evolution at Copan, Honduras." In *Classic Maya Political History: Hieroglyphic and Archaeological Evidence*, edited by T. Patrick Culbert, 147–79. Cambridge: Cambridge University Press, 1991.
- Fauria, Carmen. "El grupo Tumaco-Tolita a través de la colección de Torredembarra." *Boletín americanista* 35 (1986): 91–114.
- Feldman, Lawrence H. "Effects of an Earthquake in Chiquimula, Guatemala." *Katunob* 12/1 (1982/1986): 1–6.
- . "Languages of the Chiapas Coast and Interior in the Colonial Period, 1525–1820." In *Studies in Ancient Mesoamerica*, edited by John A. Graham, 77–85. Contributions 18. Berkeley: University of California Archaeological Research Facility, 1973.
- . "Moving Merchandise in Protohistoric Central Quauhtemallan." In Lee and Navarrete, *Mesoamerican Communication Routes*, 7–17.

- . *Papers of Escuintla and Guazacapan: A Contribution to the History and Ethnography of South-Eastern Guatemala*. Occasional Publications in Mesoamerican Anthropology 7. Greeley: University of Northern Colorado, 1974.
- . "Tollan in Central Mexico: The Geography of Economic Specialization." *Katunob* 8/3 (1973): 1–45.
- Ferguson, Thomas Stuart. *One Fold and One Shepherd*. San Francisco: Books of California, 1958.
- Fernandez, Juan. "A Stellar City: Uatlán and Orion." Paper presented at an international symposium, Time and Astronomy at the Meeting of Two Worlds. Warsaw, Poland, 1992.
- Fernandez, Rodolfo. "La estructura A de Yucuita." In *Investigaciones recientes en el área maya, XVII mesa redonda: San Cristobal de Las Casas, Chiapas, 21–27 Junio 1981*, 4:23–31. Mexico City: Sociedad Mexicana de Antropología, 1984.
- Ferreira, Luiz F., Adauto Araújo, and Ulisses E. Confalonieri. "The Finding of Eggs and Larvae of Parasitic Helminths in Archaeological Material from Unai, Minas Gerais, Brazil." *Transactions, Royal Society of Tropical Medicine and Hygiene* 74/6 (1980): 798–800.
- Ferreira, Luiz F., Adauto Araújo, Ulisses E. Confalonieri, Marcia Chame, and B. Ribeiro Filho. "Encontro de ovos de ancilostomídeos em coprólitos humanos datados de 7,230±80 anos B. P. no estado de Piauí, Brazil." In *Paleoparasitologia no Brasil*, edited by Luiz F. Ferreira, Adauto Araújo, and Ulisses Confalonieri, 37–40. Rio de Janeiro: Programa de Educação Pública, Escola Nacional de Saúde Pública, 1988.
- Finegan, Jack. *Handbook of Biblical Chronology: Principles of Time Reckoning in the Ancient World and Problems of Chronology in the Bible*. Princeton: Princeton University Press, 1964.
- Fladmark, Knut R. "Getting One's Bearings." *Natural History* 95 (1986): 8–19.
- . "Routes: Alternate Migration Corridors for Early Man in North America." *American Antiquity* 44 (1979): 55–69.
- . "Times and Places: Environmental Correlates of Mid-to-Late Wisconsin Human Population Expansion in North America." In *Early Man in the New World*, edited by Richard Shutler Jr., 13–41. Beverly Hills, CA: Sage Publications, 1983.
- Flannery, Kent V. "The Olmec and the Valley of Oaxaca." In Benson, *Dumbarton Oaks Conference on the Olmec*, 79–110.
- Flannery, Kent V., and Joyce Marcus. "Borrón, y Cuenta Nueva: Setting Oaxaca's Archaeological Record Straight." In *Debating Oaxaca Archaeology*, edited by

- Joyce Marcus, 17–69. *Anthropological Papers* 84. Ann Arbor: University of Michigan Museum of Anthropology, 1990.
- . “Evolution of the Public Building in Formative Oaxaca.” In *Cultural Change and Continuity: Essays in Honor of James Bennett Griffin*, edited by Charles E. Cleland, 205–21. New York: Academic Press, 1976.
- Florescano, Enrique. “La serpiente emplumada: Tlaloc y Quetzalcoatl.” *Cuadernos americanos* 133/2 (1964): 121–66.
- . *The Myth of Quetzalcoatl*. Baltimore: Johns Hopkins University Press, 1999.
- Foias, Antonia E. “Kaminaljuyu.” In Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 2:79–85.
- Folan, William J., and Burma H. Hyde. “Climatic Forecasting and Recording among the Ancient and Historic Maya: An Ethnohistoric Approach to Epistemological and Paleoclimatological Patterning.” In *Contributions to the Archaeology and Ethnohistory of Greater Mesoamerica*, edited by William J. Folan, 15–48. Carbondale: Southern Illinois University Press, 1985.
- Fonseca, Olympio da. *Parasitismo e migrações pré-históricas: Contribuições da parasitologia para o conhecimento das origens do homem americano*. Estudos de Pré-história Geral e Brasileira. Sao Paulo: Instituto de Pré-história de Universidade de São Paulo, 1970.
- Forbes, Robert J. *Metallurgy in Antiquity*. Leiden: Brill, 1950.
- Forbes, William T. M. “The Silkworm of Aristotle.” *Classical Philology* 25/1 (1930): 22–26.
- Forrer, Robert. “Les chars culturels préhistoriques et leurs survivances aux époques historiques.” *Préhistoire* 1 (1932): 19–123.
- Forsyth, Donald W. “La cerámica arqueológica de Nakbe y El Mirador.” In *III Simposio de investigaciones arqueológicas en Guatemala, 1989*, edited by Juan P. Laporte, Héctor L. Escobedo, and S. Villagrán de Brady, 111–40. Guatemala: Ministerio de Cultura y Deportes, 1993.
- Foster, Mary LeCron. “Old World Language in the Americas, 1.” Paper presented at the annual meeting of the Association of American Geographers, San Diego, 1992.
- . “Old World Language in the Americas, 2.” Paper presented at the annual meeting of the Language Origins Society, Cambridge, England, 1992.
- . “The Transoceanic Trail: The Proto-Pelagian Language Phylum.” *Pre-Columbiana: A Journal of Long-Distance Contacts* 1/1 (1998): 88–113.
- Foundation for Ancient Research and Mormon Studies. “Martin Harris’ Visit with

- Charles Anthon: Collected Documents on 'Shorthand Egyptian.'" Provo, UT: FARMS, 1990.
- Fox, John W. "On the Rise and Fall of Tuláns and Maya Segmentary States." *American Anthropologist* 91 (1989): 656–81.
- . "Political Cosmology among the Quiché Maya." In Brumfiel and Fox, *Factional Competition and Political Development*, 158–70.
- Fox, John W., Dwight T. Wallace, and Kenneth L. Brown. "The Emergence of the Quiché Elite: The Putun-Palenque Connection." In Chase and Chase, *Mesoamerican Elites*, 169–90.
- Franco C., José Luis. "La escritura y los codices." In *Esplendor del México antiguo*, edited by Raúl Noriega, Carmen Cook de Leonard, and Julio Rodolfo Moctezuma, 361–78. Mexico City: Centro de Investigaciones Antropológicas de México, 1978.
- Freddolino, Marie Kimball. "An Investigation into the 'Pre-Tarascan' Cultures of Zacapu, Michoacan, Mexico." PhD diss., Yale University, 1973.
- Freedman, David N., ed. *Anchor Bible Dictionary*. 6 vols. New York: Doubleday, 1992.
- . Preface to Welch, *Chiasmus in Antiquity*, 7–8.
- Freidel, David A. "Civilization as a State of Mind: The Cultural Evolution of the Lowland Maya." In *The Transition to Statehood in the New World*, edited by Grant D. Jones and Robert R. Kautz, 188–227. Cambridge: Cambridge University Press, 1981.
- Freidel, David A., Barbara MacLeod, and Charles K. Suhler. "Early Classic Maya Conquest in Words and Deeds." In Brown and Stanton, *Ancient Mesoamerican Warfare*, 189–215.
- Freidel, David A., Linda Schele, and Joy Parker. *Maya Cosmos: Three Thousand Years on the Shaman's Path*. New York: William Morrow, 1993.
- Frendo, Anthony J. *Pre-exilic Israel, the Hebrew Bible, and Archaeology: Integrating Text and Artefact*. Library of Hebrew Bible/Old Testament Studies 549. New York: T&T Clark, 2011.
- Furst, Jill Leslie. *Codex Vindobonensis Mexicanus I: A Commentary*. Albany: Institute for Mesoamerican Studies, State University of New York at Albany, 1978.
- Gabbert, Wolfgang. "On the Term 'Maya.'" In *Maya Survivalism*, edited by Ueli Hostettler and Matthew Restall, 25–30. Markt Schwaben, Germany: Saurwein, 2001.
- Gadacz, René R. *Pre-Spanish Commerce in the Gulf Coast Lowlands of Mexico*. Calgary, Canada: Western, 1979.

- Gamble, Clive. *Timewalkers: The Prehistory of Global Colonization*. Stroud, England: Sutton, 1993.
- García Cook, Angel. "The Historical Importance of Tlaxcala in the Cultural Development of the Central Highlands." In Sabloff, *Supplement to the Handbook of Middle American Indians*, 1:244–76.
- García de Palacio, Diego. *Carta dirigida al rey de España*. New York: Norton, 1860. First published 1576.
- García Payón, José. "Archaeology of Central Veracruz." In Wauchope, Ekholm, and Bernal, *Handbook of Middle American Indians*, 11:505–24.
- . "Una cabecita de barro de extraña fisonomía." *Boletín Instituto Nacional de Antropología e Historia* 6 (1961): 1–2.
- Gardner, Brant A. *Second Witness: Analytical and Contextual Commentary on the Book of Mormon*. 6 vols. Salt Lake City: Greg Kofford Books, 2007.
- Garduño Argueta, Jaime. "Introducción al patrón de asentamiento del sitio de Coba, Quintana Roo." Master's thesis, Escuela Nacional de Antropología e Historia, 1979.
- Garibay, Ángel María, and Miguel León-Portilla. *Visión de los vencidos: Relaciones indígenas de la conquista*. 12th ed. Mexico City: Universidad Nacional Autónoma de México, 1989.
- Garrido Aranda, Antonio, comp. *Pensar América: Cosmovisión mesoamericana y andina*. Córdoba, Spain: Obra Social y Cultural CajaSur, y Auntamiento de Montilla, 1997.
- Garrison, Thomas G. "La transición del Preclásico Tardío al Clásico temprano en la zona intersitio de Xultun y San Bartolo en Petén." In Laporte, Arroyo, and Mejía, *XVIII Simposio de investigaciones arqueológicas en Guatemala, 2004*, 261–66.
- Gay, Carlo T. E. "Olmec Hieroglyphic Writing." *Archaeology* 26 (1973): 278–88.
- Gay, José Antonio. *Historia de Oaxaca*. Vol. 1. Mexico City: Imprenta del Comercio, 1881.
- George, Wilma. "Sources and Background to Discoveries of New Animals in the Sixteenth and Seventeenth Centuries." *History of Science* 18 (1980): 79–104.
- Gerhard, Peter. "Shellfish Dye in America." In *Proceedings of the 35th International Congress of Americanists (Mexico, 1962)* (1964): 177–91.
- Gilbert-Peretz, Diana. "Ceramic Figurines." In *Excavations at the City of David, 1978–1985, Directed by Yigal Shiloh*, edited by Donald T. Ariel and Alon de Groot, 29–84. Vol. 4. Jerusalem: Hebrew University of Jerusalem, Institute of Archaeology, 1996.

- Gill, Richardson B. *The Great Maya Droughts: Water, Life and Death*. Albuquerque: University of New Mexico Press, 2000.
- Gill, Richardson B., and Jerome P. Keating. "Volcanism and Mesoamerican Archaeology." *Ancient Mesoamerica* 13 (2002): 125–40.
- Gillespie, Susan D. "Beyond Kinship: An Introduction." In *Beyond Kinship: Social and Material Reproduction in House Societies*, edited by Rosemary A. Joyce and Susan D. Gillespie, 1–21. Philadelphia: University of Pennsylvania Press, 2000.
- . "Rethinking Ancient Maya Social Organization: Replacing 'Lineage' with 'House,'" *American Anthropologist* 102 (2000): 467–84.
- Gillow, John, and Nicholas Barnard. *Traditional Indian Textiles*. London: Thames & Hudson, 1991.
- Gilmore, Donald Y., and Linda S. McElroy, eds. *Across before Columbus? Evidence for Transoceanic Contact with the Americas prior to 1492*. Edgecomb, ME: New England Antiquities Research Association, 1998.
- Gingerich, Owen. "Summary: Archaeoastronomy in the Tropics." In *Ethnoastronomy and Archaeoastronomy in the American Tropics*, edited by Anthony F. Aveni and Gary Urton, 333–36. *Annals of the New York Academy of Sciences*, 385. New York: New York Academy of Sciences, 1982.
- Givens, Terryl L. *By the Hand of Mormon: The American Scripture That Launched a New World Religion*. New York: Oxford University Press, 2002.
- . "Common Sense Meets the Book of Mormon." In *Revisiting Thomas F. O'Dea's "The Mormons": Contemporary Perspectives*, edited by Cardell K. Jacobson, John P. Hoffmann, and Tim B. Heaton, 79–98. Salt Lake City: University of Utah Press, 2008.
- Golden, Peter B. "Some Thoughts on the Origins of the Turks and the Shaping of the Turkic Peoples." In *Contact and Exchange in the Ancient World*, edited by Victor H. Mair, 136–57. Honolulu: University of Hawai'i Press, 2006.
- Gomez Rueda, Hernando. "Nuevas exploraciones en la región Olmeca: Una aproximación a los patrones de asentamiento." In *El Preclásico o Formativo: Avances y perspectivas*, edited by Martha C. Macias, 91–100. Mexico City: Museo Nacional de Antropología; Instituto Nacional de Antropología e Historia, 1989.
- González Calderón, O. Luis. *Cabecitas olmecas: Origenes de la primera civilizaton de América*. Mexico City: Ed. Culturales Mexicanas, 1977.
- . *The Jade Lords*. Coatzacoalcos, Mexico: The author, 1991.
- González Lauck, Rebecca B. "La zona del golfo en el Preclásico: La etapa olmeca."

- In *Historia antigua de México*, edited by Linda Manzanilla and Leonardo López Luján, 279–321. Vol. 1. 1st ed. Mexico City: Angel Porrúa, for INAH and UNAM, 1994.
- Good, Irene. “On the Question of Silk in Pre-Han Eurasia.” *Antiquity* 69/265 (1995): 959–68.
- Gould, Stephen J. “In the Mind of the Beholder.” *Natural History* 103 (1994): 14–23.
- Graham, John A. “Commentary: On Calendrics and Writing.” In Heizer and Graham, *Emergence of Civilization in Mesoamerica*, 133–40.
- Granberry, Julian. “Amazonian Origins and Affiliations of the Timucua Language.” In *Language Change in South American Indian Languages*, edited by Mary R. Key, 195–242. Philadelphia: University of Pennsylvania Press, 1991.
- Graulich, Michel. “Afterlife in Ancient Mexican Thought.” In *Circumpacifica: Festschrift für Thomas S. Barthel, Band I; Mittel- und Südamerika*, edited by Bruno Illius and Matthias Laubscher, 165–88. Frankfurt: Peter Lang, 1990.
- . “Aztec Human Sacrifice as Expiation.” *History of Religions* 39/4 (2000): 352–71.
- . “L’au-delà cyclique des anciens mexicains.” In *La antropología americanista en la actualidad: Homenaje a Raphael Girard*, 1:253–69. Mexico City: Editores Mexicanos Unidos, 1980.
- . “The Metaphor of the Day in Ancient Mexican Myth and Ritual.” *Current Anthropology* 22/1 (1981): 45–69.
- . “Myths of Paradise Lost in Pre-Hispanic Central Mexico.” *Current Anthropology* 24/5 (1983): 575–88.
- Greengo, Robert E. “Rocker-Stamped Pottery in the Old and New World.” In *Men and Cultures: Selected Papers of the Fifth International Congress of Anthropological and Ethnological Sciences, Philadelphia, September 1–9, 1956*, edited by Anthony F. C. Wallace, 553–65. Philadelphia: University of Pennsylvania Press, 1960.
- Greenhut, Zvi. “The City of Salt.” *Biblical Archaeology Review* 19/4 (1993): 32–43.
- Griender, Terence. “Rotary Tools in Ancient Peru.” *Archaeology* 28/3 (1975): 178–85.
- Griffin, Gillett G. “Olmec Forms and Materials Found in Central Guerrero.” In Benson, *Olmec and Their Neighbors*, 209–22.
- Griffin, James B. “Mesoamerica and the Eastern United States in Prehistoric Times.” In *Handbook of Middle American Indians*, edited by Robert Wauchope,

- Gordon F. Ekholm, and Gordon R. Willey, 111–31. Vol. 4. Austin: University of Texas Press, 1966.
- de Grinberg, Dora M. K. “Tecnologías metalúrgicas tarascas.” *Ciencia y Desarrollo* 15/89 (1989): 37–53.
- Grossman, Joel W. “An Ancient Gold Worker’s Tool Kit.” *Archaeology* 25/4 (1972): 270–75.
- Grove, David C. “The Formative Period and the Evolution of Complex Culture.” In Sabloff, *Supplement to the Handbook of Middle American Indians*, 1:373–91.
- . “Mesoamerican Chronology: Formative (Preclassic) Period (2000 BCE–250 CE).” In Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 2:236–43.
- . “Olmec.” In Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 2:405–9.
- . “Olmec Monuments: Mutilation as a Clue to Meaning.” In *The Olmecs and Their Neighbors: Essays in Honor of Matthew W. Stirling*, edited by Elizabeth P. Benson, 41–68. Washington, DC: Dumbarton Oaks, 1981.
- . “Stirrup-Spout Bottles and Carved Stone Monuments: The Many Faces of Interregional Interactions in Formative Period Morelos.” In *Archaeology, Art, and Ethnogenesis in Mesoamerican Prehistory: Papers in Honor of Gareth W. Lowe*, edited by Lynne S. Lowe and Mary E. Pye, 209–27. New World Archaeological Foundation Papers 68. Provo, UT: BYU New World Archaeological Foundation, 2007.
- Gruhn, Ruth. “Linguistic Evidence in Support of the Coastal Route of Earliest Entry into the New World.” *Man*, n.s., 23 (1988): 77–100.
- Guthrie, James L. “Human Lymphocyte Antigens: Apparent Afro-Asiatic, Southern Asian, and European HLAs in Indigenous American Populations.” *Pre-Columbiana: A Journal of Long-Distance Contacts* 2/2 (2000): 90–163.
- Haas, Jonathan. *The Evolution of the Prehistoric State*. New York: Columbia University Press, 1982.
- Hall, Barbara A. “Spindle Whorls and Cotton Production at Middle Classic Matcapan and in the Gulf Lowlands.” In Stark and Arnold, *Olmec to Aztec*, 115–35.
- Hall, Don A. “Charting the Way into the Americas: Following the Pacific Coast to America.” *Mammoth Trumpet* 14/1 (1999): 1–11.
- Hamblin, Nancy L. *Animal Use by the Cozumel Maya*. Tucson: University of Arizona Press, 1984.

- Hamblin, William J. "Armor in the Book of Mormon." In Ricks and Hamblin, *Warfare in the Book of Mormon*, 400–424.
- . "The Bow and Arrow in the Book of Mormon." In Ricks and Hamblin, *Warfare in the Book of Mormon*, 365–99.
- . "Directions in Hebrew, Egyptian, and Nephite Language." In Welch, *Reexploring the Book of Mormon*, 183–86.
- . "The Importance of Warfare in Book of Mormon Studies." In Ricks and Hamblin, *Warfare in the Book of Mormon*, 481–99.
- . "Sacred Writings on Metal Plates in the Ancient Mediterranean." *FARMS Review* 19/1 (2007): 37–54.
- . "Warfare in the Book of Mormon." In Sorenson and Thorne, *Rediscovering the Book of Mormon*, 462–74.
- Hamblin, William J., and A. Brent Merrill. "Notes on the Cimenter (Scimitar) in the Book of Mormon." In Ricks and Hamblin, *Warfare in the Book of Mormon*, 360–64.
- . "Swords in the Book of Mormon." In Ricks and Hamblin, *Warfare in the Book of Mormon*, 329–51.
- Hamblin, William J., and David R. Seely. *Solomon's Temple: Myth and History*. New York: Thames & Hudson, 2007.
- Hammond, Norman. "Ceremony and Society at Cuella: Preclassic Ritual Behavior and Social Differentiation." In *The Emergence of Lowland Maya Civilization: The Transition from the Preclassic to the Early Classic, a Conference at Hildesheim, November 1992*, edited by Nikolai Grube, 40–59. Möckmühl, Germany: Saurwein, 1995.
- . "The Earliest Maya." *Scientific American* 236/3 (1977): 116–33.
- . "The Emergence of Maya Civilization." *Scientific American* 225/2 (1986): 108–30.
- . *Mesoamerican Archaeology: New Approaches*. Austin: University of Texas Press, 1974.
- Hammond, Norman, David H. Kelley, and Peter Mathews. "A Maya 'Pocket Stela'?" In *Studies in Ancient Mesoamerica II*, edited by John A. Graham, 17–31. Contributions 27. Berkeley: University of California Archaeological Research Facility, 1975.
- Hammond, Norman, and Gordon R. Willey, eds. *Maya Archaeology and Ethnohistory*. Austin: University of Texas Press, 1979.
- Hancock, Mosiah Lyman. "The Life Story of Mosiah Lyman Hancock." Typescript

- in L. Tom Perry Special Collections, Harold B. Lee Library, Brigham Young University, Provo, Utah.
- Handy, E. S. Craighill. "Dreaming in Relation to Spirit Kindred and Sickness in Hawaii." In *Essays in Anthropology Presented to A. L. Kroeber*, 119–27. Berkeley: University of California Press, 1936.
- Handy, Lowell K. "Serpent, Bronze." In Freedman, *Anchor Bible Dictionary*, 5:1117.
- Hanks, William. *Referential Practice: Language and Lived Space among the Maya*. Chicago: University of Chicago Press, 1990.
- Hansen, Richard D., Beatriz Balcárcel, Edgar Suyuc, Héctor E. Mejía, Enrique Hernández, Gendry Valle, Stanley P. Guenter, and Shannon Novak. "Investigaciones arqueológicas en el sitio Tintal, Petén." In Laporte, Arroyo, and Mejía, *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 683–94.
- Harris, David R. "The Agricultural Foundations of Lowland Maya Civilizations: A Critique." In *Pre-Hispanic Maya Agriculture*, edited by Peter D. Harrison and B. L. Turner II, 305–15. Albuquerque: University of New Mexico Press, 1978.
- Harrison, Peter D. "Ancient Maya Architecture." In *Maya: Treasures of an Ancient Civilization*, edited by Flora S. Clancy, Charles Gallenkamp, and Regina E. Johnson, 84–96. New York: Abrams, Albuquerque Museum, 1985.
- Hartung, Horst. "Monte Alban in the Valley of Oaxaca." In Benson, *Mesoamerican Sites and World-Views*, 60–63.
- Harvey, L. P. "Yuse Banegas: Un moro noble en Granada bajo los reyes católicos." *Al-Andalus* 21 (1956): 297–302.
- Hassig, Ross. *Aztec Warfare: Imperial Expansion and Political Control*. Norman: University of Oklahoma Press, 1988.
- . *Trade, Tribute, and Transportation: The Sixteenth-Century Political Economy of the Valley of Mexico*. Norman: University of Oklahoma Press, 1985.
- . *War and Society in Ancient Mesoamerica*. Berkeley: University of California Press, 1992.
- de Hatch. See Popenoe de Hatch.
- Hatt, Robert T., Harvey I. Fisher, Dave A. Langebartel, and George Brainerd. "Faunal and Archeological Researches in Yucatan Caves." *Cranbook Institute of Science Bulletin* 33 (1953).
- von Heine-Geldern, Robert. "American Metallurgy and the Old World." In *Early Chinese Art and Its Possible Influence in the Pacific Basin: A Symposium Arranged by the Department of Art History and Archaeology, Columbia University, New*

- York City, August 21–25, 1967*, edited by Noel Barnard, 787–822. Vol. 3. New York: Intercultural Arts, 1972.
- . “Die asiatische Herkunft der südamerikanischen Metalltechnik.” *Paideuma* 5 (1954): 347–423.
- Heizer, Robert F. “Inferences on the Nature of Olmec Society Based upon Data from the La Venta Site.” *Kroeber Anthropological Society Papers* 25 (1961): 43–57.
- Heizer, Robert F., and John A. Graham, eds. *Observations on the Emergence of Civilization in Mesoamerica*. Contributions 11. Berkeley: University of California Department of Anthropology, 1971.
- Helgason, Agnar, Birgir Hrafnkelsson, Jeffrey R. Gulcher, Ryk Ward, and Kári Stefánsson. “A Populationwide Coalescent Analysis of Icelandic Matrilinial and Patrilinial Genealogies: Evidence for a Faster Evolutionary Rate of mtDNA Lineages than Y Chromosomes.” *American Journal of Human Genetics* 72 (2003): 1370–88.
- Heller, Lynette, and Barbara L. Stark. “Economic Organization and Social Context of a Preclassic Center on the Pacific Coast of Guatemala: El Balsamo, Escuintla.” In Bove and Heller, *New Frontiers*, 43–64.
- Helms, Mary W. *Ulysses’ Sail: An Ethnographic Odyssey of Power, Knowledge, and Geographical Distance*. Princeton, NJ: Princeton University Press, 1988.
- Henrickson, Kirk B., comp. “How Witnesses Described the ‘Gold Plates,’” *Journal of Book of Mormon Studies* 10/1 (2001): 16–21.
- Henshaw, Henry W. “Animal Carvings from the Mounds of the Mississippi Valley.” In *Second Annual Report of the Bureau of Ethnology (for 1880–81)*, 117–66. Washington, DC: Smithsonian Institution, 1883.
- Hernández, Francisco. *Historia de las plantas de Nueva España*. 3 vols. Mexico City: Imprenta Universitaria, 1942–46. First published before 1580.
- Hester, James (Jim) J. “Agency of Man in Animal Extinction.” In *Pleistocene Extinctions: The Search for a Cause*. Proceedings of the International Association for Quaternary Research 6, VII Congress, edited by Paul S. Martin and Herbert E. Wright Jr. New Haven: Yale University Press, 1967.
- . “Late Pleistocene Extinction and Radiocarbon Dating.” *American Antiquity* 26/1 (1960): 58–77.
- Hewes, Gordon W. “The Ecumene as a Civilizational Multiplier System.” *Kroeber Anthropological Society Papers* 25 (1961): 73–109.
- Heyden, Doris. “Caves, Gods, and Myths: World-View and Planning in Teotihuacan.” In Benson, *Mesoamerican Sites and World-Views*, 1–35.

- Hirth, Kenneth. "Roads, Thoroughfares, and Avenues of Power at Xochicalco, Mexico." In *Ancient Road Networks and Settlement Hierarchies in the New World*, edited by Charles D. Trombold, 211–19. Cambridge: Cambridge University Press, 1991.
- Hohmann, Hasso. "A Maya Keystone Vault at La Muñeca." *Mexicon* 27/4 (2005): 73–77.
- Holden, Constance. "Were Spaniards among the First Americans?" *Science* 286 (1999): 1467.
- Hooke, Samuel H. *Babylonian and Assyrian Religion*. Norman: University of Oklahoma Press, 1963.
- Horne, John H. *Bells, Cascabeles and Tintinnabulum*. Museum of Anthropology Publications 2. Thatcher: Eastern Arizona College Museum of Anthropology, 1990.
- Hornell, James. *Water Transport: Origins and Early Evolution*. Newton Abbot, England: David and Charles, 1970.
- Hosler, Dorothy. "Ancient West Mexican Metallurgy: A Technological Chronology." *Journal of Field Archaeology* 15/2 (1988): 191–217.
- . "Ancient West Mexican Metallurgy: South and Central American Origins and West Mexican Transformations." *American Anthropologist* 90 (1988): 832–55.
- Houston, Stephen D. "Archaeology and Maya Writing." *Journal of World Prehistory* 3 (1989): 1–32.
- . "An Example of Homophony in Maya Script." *American Antiquity* 49 (1984): 799–800.
- . "Literacy among the Pre-Columbian Maya: A Comparative Perspective." In *Writing without Words: Alternative Literacies in Mesoamerica and the Andes*, edited by Elizabeth H. Boone and Walter D. Mignolo, 27–49. Durham, NC: Duke University Press, 1994.
- . "The Shifting Now: Aspect, Deixis, and Narrative in Classic Maya Texts." *American Anthropologist* 99 (1997): 291–305.
- Houston, Stephen D., and Héctor L. Escobedo. "Grande es bello: Piedras Negras y el urbanismo de las tierras bajas mayas." In Love, Popenoe de Hatch, and Escobedo, *Incidents of Archaeology in Central America and Yucatán*, 519–36.
- Hrdlička, Aleš. "The Genesis of the American Indian." In *Proceedings of the 19th International Congress of Americanists (Washington, 1915)* (1917): 559–68.
- Hristov, Romeo H., and Santiago Genovés T. "Mesoamerican Evidence of Pre-Columbian Transoceanic Contacts." *Ancient Mesoamerica* 10 (1999): 207–13.

- . “Viajes transatlánticos antes de Colón.” *Arqueología mexicana* 6/33 (1998): 48–53.
- Hubbs, Carl L., and Gunnar I. Roden. “Oceanography and Marine Life along the Pacific Coast of Middle America.” In Wauchope and West, *Handbook of Middle American Indians*, 1:143–86.
- Huber, Jay H. “Lehi’s 600 Year Prophecy and the Birth of Christ.” Provo, UT: FARMS, 1982.
- Hunt, Eva. “Irrigation and the Socio-political Organization of Cuicatec Cacicazgos.” In *Chronology and Irrigation*, edited by Frederick Johnson, 162–274. Vol. 4 of *The Prehistory of the Tehuacan Valley*. Austin: University of Texas Press, 1972.
- Hunter, Milton R., and Thomas S. Ferguson. *Ancient America and the Book of Mormon*. Oakland, CA: Kolob Books, 1950.
- Hyman, David S. “Cements at Teotihuacan: A Criticism of Margain’s Appraisal.” *American Anthropologist* 75 (1973): 313–14.
- . *Precolumbian Cements: A Study of Calcareous Cements in Prehispanic Mesoamerican Building Construction*. Baltimore: Johns Hopkins University Press, 1970.
- Ichon, Alain. “Regional Ceramic Development in El Quiché and Baja Verapaz, Guatemala.” In *Maya Ceramics: Papers from the 1985 Maya Ceramic Conference*, edited by Prudence M. Rice and Robert J. Sharer, 277–306. BAR International Series 345. Oxford: BAR, 1987.
- Ingstad, Helge. *The Norse Discovery of America*. 2 vols. Oslo, Norway: Universitetsforlaget, 1985.
- Ixtlilxochitl. See Alva Ixtlilxochitl.
- Jacobo, Álvaro. “Resultados preliminares de las excavaciones de rescate arqueológico en el área sur de la Laguna El Naranjo, Kaminaljuyu.” In *V Simposio de investigaciones arqueológicas en Guatemala, 1991*, edited by Juan P. Laporte and Héctor L. Escobedo, 31–46. Guatemala: Ministerio de Cultura y Deportes, 1992.
- Jacobson, J. J., and Lyle B. Borst. “Egypt to Canterbury.” *Science* 167 (1970): 333.
- James, Edwin O. *The Tree of Life*. Leiden: Brill, 1966.
- Jett, Stephen C. “Before Columbus: The Question of Early Transoceanic Influences.” *BYU Studies* 33/2 (1993): 245–71.
- . “Diffusion versus Independent Development: The Bases of Controversy.” In Riley, Kelley, Pennington, and Rands, *Man across the Sea*, 5–53.
- . “Nicotine and Cocaine in Egyptian Mummies and THC in Peruvian

- Mummies: A Review of the Evidence and of Scholarly Reaction," *Pre-Columbiana: A Journal of Long-Distance Contacts* 2/4 (2002): 297–313.
- Jiménez Salas, Oscar H. "Geomorfología de la región de La Venta, Tabasco: Un sistema fluvio-lagunar costero del cuaternario." *Arqueología* 3/2 (1990): 5–16.
- Johannessen, Carl L. "Folk Medicine Uses of Melanotic Asiatic Chickens as Evidence of Early Diffusion to the New World." *Social Science and Medicine* 15D (1981): 427–34.
- . "Maize Diffused to India before Columbus Came to America." In Gilmore and McElroy, *Across before Columbus?*, 111–24.
- Johannessen, Carl L., Wayne Fogg, and May C. Fogg. "Distributional and Medicinal Use of the Black-Boned and Black-Meated Chicken in Mexico, Guatemala, and South America." *National Geographic Society Research Reports* 17 (1984): 493–95.
- Johannessen, Carl L., and Wang Siming. "American Crop Plants in Asia before A.D. 1500." *Pre-Columbiana: A Journal of Long-Distance Contacts* 1/1 (1998): 9–36.
- Johnson, Hollis R. "The Pole Star and North." Unpublished manuscript in author's possession, May 1977.
- Johnson, Irmgard W. "Basketry and Textiles." In Wauchope, Ekholm, and Bernal, *Handbook of Middle American Indians*, 10:297–391.
- Jones, Peter N. "American Indian Demographic History and Cultural Affiliation: A Discussion of Certain Limitations on the Use of mtDNA and Y Chromosome Testing." *AnthroGlobe Journal* (2002): 1–32.
- . *American Indian mtDNA, Y Chromosome Genetic Data, and the Peopling of North America*. Boulder, CO: The Bäu Institute, 2004.
- Joyce, Thomas A. *Mexican Archaeology*. New York: Kraus, 1969. First published 1914 by Philip Lee Warner in London.
- Juarros, Domingo. *A Statistical and Commercial History of the Kingdom of Guatemala*. New York: AMS Press, 1971. First published 1823 by John Hearne in London.
- Justeson, John S., and Peter Matthews. "Evolutionary Trends in Mesoamerican Hieroglyphic Writing." *Visible Language* 24 (1990): 88–132.
- Justeson, John S., William M. Norman, Lyle Campbell, and Terrence Kaufman. "The Foreign Impact on Lowland Mayan Language and Script: A Summary." In Miller, *Highland-Lowland Interaction in Mesoamerica*, 147–58.
- Kaplan, Jonathan. "From under the Volcanoes: Some Aspects of the Ideology of

- Rulership at Late Preclassic Kaminaljuyú." In Love, Popenoe de Hatch, and Escobedo, *Incidents of Archaeology in Central America and Yucatán*, 311–57.
- . "The Incienso Throne and Other Thrones from Kaminaljuyu, Guatemala: Late Preclassic Examples of a Mesoamerican Throne Tradition." *Ancient Mesoamerica* 6 (1995): 185–96.
- . "El Monumento 65 de Kaminaljuyu y su ilustración de ritos dinásticos de gobierno del Preclásico Tardío." In Laporte and Escobedo, *IX Simposio de investigaciones arqueológicas en Guatemala, 1996*, 451–60.
- . "El trono incienso y otros tronos de Kaminaljuyu, Guatemala." In Laporte and Escobedo, *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, 401–23.
- Kappelman, Julia G. "Of Macaws and Men: Late Preclassic Cosmology and Political Ideology in Izapan-Style Monuments." PhD diss., University of Texas at Austin, 1997.
- . "Reassessing the Late Preclassic Pacific Slopes: The Role of Sculpture." *Mexicon* 25/2 (2003): 39–42.
- Katz, Dolly. "Keeping Camels Down on the Farm." *Science* 82 (September 1982): 80.
- Kaufman, Terrence. "Archaeological and Linguistic Correlations in Mayaland and Associated Areas of Meso-America." *World Archaeology* 8/1 (1976): 101–18.
- . "Areal Linguistics and Middle America." In *Native Languages of the Americas*, edited by Thomas A. Sebeok, 2:63–87. New York: Plenum, 1977.
- . *El Proto-Tzeltal: Fonología comparada y diccionario reconstruido*. Vol. 5. Mexico City: Universidad Nacional Autónoma de México, 1972.
- Kaufman, Terrence, and John S. Justeson. "The Epi-Olmec Language and Its Neighbors." In *Classic Period Cultural Currents in Southern and Central Veracruz*, edited by Philip J. Arnold III and Christopher A. Pool, 55–83. Washington, DC: Dumbarton Oaks, 2008.
- Keeley, Lawrence H. *War before Civilization*. New York: Oxford University Press, 1996.
- Keen, Benjamin, trans. *Life and Labor in Ancient Mexico: The Brief and Summary Relation of the Lords of New Spain*, by Alonso de Zorita. New Brunswick, NJ: Rutgers University Press, 1963.
- Kelley, David H. "The Birth of the Gods at Palenque." *Estudios de cultura maya* 5 (1966): 93–134.
- . "Calendar Animals and Deities." *Southwestern Journal of Anthropology* 3 (1960): 317–37.

- . “A Cylinder Seal from Tlatilco.” *American Antiquity* 31/5 (1966): 744–46.
- . “Diffusion: Evidence and Process.” In Riley, Kelley, Pennington, and Rands, *Man across the Sea*, 60–65.
- . “An Essay on Pre-Columbian Contacts between the Americas and Other Areas, with Special Reference to the Work of Ivan Van Sertima.” In *Race, Discourse, and the Origin of the Americans: A New World View*, edited by Vera L. Hyatt and Rex Nettleford, 103–22. Washington, DC: Smithsonian Institution, 1995.
- . “Eurasian Evidence and the Maya Calendar Correlation Problem.” In Hammond, *Mesoamerican Archaeology: New Approaches*, 135–43.
- Kelley, David H., and Eugene F. Milone. *Exploring Ancient Skies: A Survey of Ancient and Cultural Astronomy*. 2nd ed. New York: Springer, 2011.
- Kelley, J. Charles. “The Classic Epoch in the Chalchihuites Culture of the State of Zacatecas [Mexico].” In *La época Clásica: Nuevos hallazgos, nuevas ideas*, edited by Amalia Cardos de Mendez, 11–24. Mexico City: Museo Nacional de Antropología, 1990.
- Kelly, Isabel. “Stirrup Pots from Colima: Some Implications.” In *The Archaeology of West Mexico*, edited by Betty Bell, 206–11. Ajijic, Mexico: West Mexican Society for Advanced Study, 1974.
- Key, Mary R. “American Indian Languages before Columbus.” In Gilmore and McElroy, *Across before Columbus?*, 183–92.
- . “American Indian Languages before Columbus.” *New England Antiquities Research Association Journal* 28/3 (1994): 103–12.
- . *Polynesian and American Linguistic Connections*. Edward Sapir Monographic Series in Language, Culture, and Cognition 12. Lake Bluff, IL: Jupiter, 1984.
- Kidder, Alfred V. “Miscellaneous Archaeological Specimens from Mesoamerica.” *Notes on Middle American Archaeology and Ethnology*, no. 117, 5–26. Washington, DC: Carnegie Institution of Washington, 1954.
- . “Preclassic Pottery Figurines of the Guatemalan Highlands.” In Wauchope and Willey, *Handbook of Middle American Indians*, 2:146–55.
- Kidder, Alfred V., Jesse D. Jennings, and Edwin Shook. *Excavations at Kaminaljuyu, Guatemala*. Publication 561. Washington, DC: Carnegie Institution, 1946.
- Kiddle, Lawrence B. “Spanish and Portuguese Cattle Terms in Amerindian Languages.” In *Italic and Romance Linguistic Studies in Honor of Ernst Pulgram*, edited by Herbert J. Izzo, 273–91. Amsterdam: Benjamins, 1980.
- Killion, Thomas W., and Javier Urcid. “The Olmec Legacy: Cultural Continuity

- and Change in Mexico's Southern Gulf Coast Lowlands." *Journal of Field Archaeology* 28/1–2 (2001): 3–25.
- King, Mary E. "Tree Worship in Mesoamerica and Some Asiatic Comparisons." Master's thesis, Columbia University, 1958.
- Kirby, Jon P. "The Non-Conversion of the Anufo of Northern Ghana." *Mission Studies* 2/2 (1985): 15–25.
- Kirchoff, Paul. "Mesoamérica: Sus límites geográficos, composición étnica y caracteres culturales." *Acta americana* 1 (1943): 92–107.
- . "El problema del origen de la civilización mexicana." In *México prehispánico: Culturas, deidades, monumentos*, edited by Jorge A. Vivó, 99–108. Mexico City: Editorial Emma Hurtado, 1946.
- Kirsch, Richard W. "Mound A-VI-6: A Terminal Formative Burial Site and Early Postclassic House Platform." In Michels and Sanders, *Pennsylvania State University Kaminaljuyu Project: 1969, 1970 Seasons, Part I*, 297–390.
- Kitchen, Kenneth A. *On the Reliability of the Old Testament*. Grand Rapids, MI: Eerdmans, 2003.
- Knowlton, Timothy. "Diphrastric Kennings in Mayan Hieroglyphic Literature." *Mexicon* 24/1 (2002): 9–14.
- Kosakowsky, Laura J., Francisco Estrada-Belli, and Hector Neff. "Late Preclassic Ceramic Industries of Pacific Guatemala and El Salvador: The Pacific Coast as Core, Not Periphery." *Journal of Field Archaeology* 26 (1999): 377–90.
- Kosakowsky, Laura J., Francisco Estrada-Belli, and Paul Pettitt. "Preclassic through Postclassic: Ceramics and Chronology of the Southeastern Pacific Coast of Guatemala." *Ancient Mesoamerica* 11 (2000): 199–215.
- Kowalewski, Stephen A. "Scale and Complexity: Issues in the Archaeology of the Valley of Oaxaca." In *Debating Oaxaca Archaeology*, edited by Joyce Marcus, 207–70. Anthropological Papers 83. Ann Arbor: University of Michigan Press, 1990.
- Kowallis, Bart J. "In the Thirty and Fourth Year: A Geologist's View of the Great Destruction in 3 Nephi." *BYU Studies* 37/3 (1997–98): 136–90.
- Kroeber, Alfred L. "The Ancient *Oikoumenê* as an Historic Culture Aggregate." In *The Nature of Culture*, 379–95. Chicago: University of Chicago Press, 1952.
- . "Stimulus Diffusion." *American Anthropologist* 42 (1940): 1–20.
- Krotser, Paula H. "Veracruz: Corredor hacia el sureste." In *Interacción cultural en México central*, edited by Evelyn C. Rattray, Jaime Litvak King, and Clara Díaz Oyarzabal, 175–85. Mexico City: Universidad Nacional Autónoma de México, 1981.

- Krotser, Paula H., and G. Ray Krotser. "The Life Style of El Tajin." *American Antiquity* 38 (1973): 199–204.
- Kurjack, Edward B., and Silvia Garza T. de Gonzalez. "Una visión de la geografía humana en la región Serrana de Yucatan." In *Memoria del Congreso Interno, 1979*, 39–54. Mexico City: Instituto Nacional de Antropología e Historia, 1981.
- La Barre, Weston. "Native American Beers." *American Anthropologist* 40 (1938): 224–34.
- Landa's Relación de las Cosas de Yucatan*. Edited and translated by Alfred M. Tozzer. Peabody Museum of American Archaeology and Ethnology Papers 18. Cambridge, MA: Harvard University, 1941.
- Laporte, Juan P. "El 'talud-tablero' en Tikal, Peten: Nuevos datos." In *Homenaje a Román Piña Chan*, 265–316. Mexico City: Universidad Nacional Autónoma de México, 1987.
- Laporte, Juan P., Bárbara Arroyo, and Héctor E. Mejía, eds. *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*. Guatemala: Ministerio de Cultura y Deportes, 2006.
- Laporte, Juan P., and Héctor L. Escobedo, eds. *VIII Simposio de investigaciones arqueológicas en Guatemala, Museo Nacional de Arqueología y Etnología, 1994*. Guatemala: Ministerio de Cultura y Deportes, 1995.
- , eds. *IX Simposio de investigaciones arqueológicas en Guatemala, Museo Nacional de Arqueología y Etnología, 1995*. Guatemala: Ministerio de Cultura y Deportes, 1996.
- , eds. *X Simposio de investigaciones arqueológicas en Guatemala, Museo Nacional de Arqueología y Etnología, 1996*. Guatemala: Ministerio de Cultura y Deportes, 1997.
- Laporte, Juan P., Héctor L. Escobedo, Ana C. de Suasnavar, and Bárbara Arroyo, eds. *XIII Simposio de investigaciones arqueológicas en Guatemala, Museo Nacional de Arqueología y Etnología, 1999*. Guatemala: Ministerio de Cultura y Deportes, 2000.
- Larsson, Gerhard. *The Secret System: A Study in the Chronology of the Old Testament*. Leiden: Brill, 1973.
- de las Casas, Bartolomé. *Apologética historia de las Indias*. Nueva Biblioteca Autores Españoles 13. Madrid: Bailly, Bailliere e hijos, 1909. First published ca. 1540.
- Latcham, Ricardo E. *Los animales domésticos de la América pre-Colombiana*. Museo de Etnología y Antropología Publication 3. Santiago, Chile: Cervantes, 1922.

- Laughlin, Robert M. *The Great Tzotzil Dictionary of San Lorenzo Zinacantan*. Washington, DC: Smithsonian Institution, 1975.
- . "The Tzotzil." In Wauchope and Vogt, *Handbook of Middle American Indians*, 7:152–94.
- Law, Howard W. "A Reconstructed Proto-culture Derived from Some Yuman Vocabularies." *Anthropological Linguistics* 3/4 (1961): 45–57.
- Layton, Lynn C. "An 'Ideal' Book of Mormon Geography." *Improvement Era*, 1938, 394–95.
- LeBlanc, Steven A. "Warfare in the American Southwest and Mesoamerica: Parallels and Contrasts." In Brown and Stanton, *Ancient Mesoamerican Warfare*, 265–86.
- LeBlanc, Steven A., and Katherine E. Register. *Constant Battles: The Myth of the Peaceful Noble Savage*. New York: St. Martin's, 2003.
- Lee, Thomas A., Jr. "The Historical Routes of Tabasco and Northern Chiapas and Their Relationship to Early Cultural Developments in Central Chiapas." In Lee and Navarrete, *Mesoamerican Communication Routes*, 49–66.
- . "Investigaciones arqueológicas recientes del Clásico, Postclásico y Colonial Maya en Chiapas: Resumen e implicaciones." In *Investigaciones recientes en el área maya, XVII mesa redonda: San Cristobal de Las Casas, Chiapas, 21–27 Junio 1981*, 113–30. Vol. 1. Mexico City: Sociedad Mexicana de Antropología 1984.
- . "The Middle Grijalva Regional Chronology and Ceramic Relations: A Preliminary Report." In Hammond, *Mesoamerican Archaeology: New Approaches*, 1–20.
- . "A Preliminary Report of the First Phase of Excavations at Guajilar, Chiapas." Paper in the files of the New World Archaeological Foundation, 1976.
- Lee, Thomas A., Jr., and Carlos Navarrete, eds. *Mesoamerican Communication Routes and Cultural Contacts*. New World Archaeological Foundation Papers 40. Provo, UT: BYU New World Archaeological Foundation, 1978.
- León-Portilla, Miguel. *The Aztec Image of Self and Society: An Introduction to Nahua Culture*. Edited by J. Jorge Klor de Alva. Salt Lake City: University of Utah Press, 1992.
- . *Aztec Thought and Culture: A Study of the Ancient Nahuatl Mind*. Norman: University of Oklahoma Press, 1963.
- , ed. *The Broken Spears: The Aztec Account of the Conquest of Mexico*. Expanded ed. Boston: Beacon, 1992.

- . “La institución cultural del comercio prehispánico.” *Estudios de cultura nahuatl* 3 (1962): 23–54.
- . *Pre-Columbian Literatures of Mexico*. Norman: University of Oklahoma Press, 1986.
- . “Pre-Hispanic Literature.” In Wauchope, Ekholm, and Bernal, *Handbook of Middle American Indians*, 10:452–58.
- Leopold, A. Starker. *Wildlife of Mexico: The Game Birds and Mammals*. Los Angeles: University of California Press, 1959.
- Levey, Martin. *Early Arabic Pharmacology*. Leiden: Brill, 1973.
- Levine, Baruch A. “Lpny YHWH: Phenomenology of the Open-Air Altar in Biblical Israel.” In *Biblical Archaeology Today, 1990: Proceedings of the Second International Congress on Biblical Archaeology, Jerusalem, June-July 1990*, 196–205. Jerusalem: Israel Exploration Society; Israel Academy of Sciences and Humanities, 1993.
- Lewis, A. L. “Orientation.” In *Memoirs, International Congress of Anthropology*, edited by C. Staniland Wake, 113–14. Chicago: Schulte, 1894.
- Lewy, H. “On Some Old Assyrian Cereal Names.” *Journal of the American Oriental Society* 76 (1956): 201–2.
- Leyden, Barbara W., Mark Brenner, and Bruce H. Dahlin. “Cultural and Climatic History of Cobá, a Lowland Maya City in Quintana Róo, Mexico.” *Quaternary Research* 49/1 (1998): 111–22.
- Lindemann, Hannes. *Alone at Sea*. New York: Random House, 1957.
- Ling, Shun-sheng. “Formosan Sea-Going Raft and Its Origin in Ancient China.” *Bulletin of the Institute of Ethnology, Academia Sinica* 1 (1956): 25–54.
- Linné, Sigvald. *Mexican Highland Cultures: Archaeological Researches at Teotihuacan, Calpulalpan, and Chalchicomula in 1934/35*. Ethnographical Museum of Sweden Publication 7. Stockholm: Ohlssons, 1942.
- . *Zapotecan Antiquities and the Paulson Collection in the Ethnographical Museum of Sweden*. Translated by Magnus Leijer. Ethnographical Museum of Sweden Publication 4. Stockholm: Thule, 1938.
- Lipset-Rivera, Sonya. “Law: Pre-Hispanic and Colonial Periods.” In Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 2:110–12.
- Littauer, Mary A., and J. H. Crowel. “Chariots.” In Freedman, *Anchor Bible Dictionary*, 1:888–92.
- . *Wheeled Vehicles and Ridden Animals in the Ancient Near East*. Leiden: Brill, 1979.

- Longacre, Robert E., and René Millon. "Proto-Mixtecan and Proto-Amuzgo-Mixtecan Vocabularies: A Preliminary Cultural Analysis." *Anthropological Linguistics* 3/4 (1961): 1–44.
- López Austin, Alfredo. "Cosmovision." In Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 1:268–74.
- . "Tras un método de estudio comparativo entre las cosmovisiones mesoamericana y andina a partir de sus mitologías." In *Pensar América: Cosmovisión mesoamericana y andina*, compiled by Antonio Garrido Aranda, 19–43. Córdoba, Spain: Obra Social y Cultural CajaSur, 1997.
- López Austin, Alfredo, and Leonardo López Luján. "The Myth and Reality of Zuyuá: The Feathered Serpent and Mesoamerican Transformations from the Classic to the Postclassic." In *Mesoamerica's Classic Heritage: From Teotihuacan to the Aztecs*, edited by David Carrasco, Lindsay Jones, and Scott Sessions, 21–84. Boulder: University Press of Colorado, 2000.
- López de Molina, Diana. "Excavaciones en Cacaxtla: Tercera temporada." *Comunicaciones proyecto Puebla-Tlaxcala* (Puebla, Mexico) 16 (1979): 141–48.
- . "Un informe preliminar sobre la cronología de Cacaxtla." In *Interacción Cultural en México Central*, edited by Evelyn C. Rattray, Jaime Litvak King, and Clara Díaz Oyarzabal, 169–73. Mexico City: Universidad Nacional Autónoma de México, 1981.
- Lorenzen, Karl J. "New Discoveries at Tumben-Naranjál: Late Postclassic Reuse and the Ritual Recycling of Cultural Geography." *Mexicon* 21/5 (1999): 98–107.
- Lothrop, Samuel K. *Atitlan: An Archaeological Study of Ancient Remains on the Borders of Lake Atitlan, Guatemala*. Publication 444. Washington, DC: Carnegie Institution, 1933.
- . *Pottery of Costa Rica and Nicaragua*. 2 Vols. Contributions from the Museum of the American Indian and Heye Foundation 8. New York: Museum of the American Indian and Heye Foundation, 1926.
- . "Random Thoughts on 'Men Out of Asia,'" *American Anthropologist* 50 (1948): 568–71.
- Loughlin, Michael L. "Recorrido arqueológico El Mesón." FAMSI, 2003. <http://www.famsi.org/reports/02058/index.html>.
- Lounsbury, Floyd G. "Astronomical Knowledge and Its Uses at Bonampak, Mexico." In *Archaeoastronomy in the New World*, edited by Anthony F. Aveni, 143–68. Cambridge: Cambridge University Press, 1982.

- Lou, Wing-Sou, Dennis [Liu Tun-Li]. Introduction to *The Discovery of Chinese Inscriptions in America*, 7–13. Vol. 1. Hong Kong: The author, 1971.
- Love, Michael W. "Ceramic Chronology and Chronometric Dating: Stratigraphy and Seriation at La Blanca, Guatemala." *Ancient Mesoamerica* 4 (1993): 17–29.
- . "Ceramic Chronology of Preclassic Period Western Pacific Guatemala and Its Relationship to Other Regions." In Love, Popenoe de Hatch, and Escobedo, *Incidents of Archaeology in Central America and Yucatán*, 49–73.
- Love, Michael, Ernesto Arredondo, Tomás Barrientos, Karla Cardona, Esther Mirón, Claudia Monzón, Pablo Rodas, Marla Sullivan, and Luisa Yurrita. "La cerámica de El Ujuxte, Retalhuleu: Un estudio preliminar." In Laporte and Escobedo, *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, 1:19–24.
- Love, Michael, Marion Popenoe de Hatch, and Héctor L. Escobedo, eds. *Incidents of Archaeology in Central America and Yucatán: Essays in Honor of Edwin M. Shook*. Lanham, MD: University Press of America, 2002.
- Lowe, Gareth W. *Archaeological Exploration of the Upper Grijalva River, Chiapas, Mexico*. New World Archaeological Foundation Papers 2. Orinda, CA: New World Archaeological Foundation, 1959.
- . "Burial Customs at Chiapa de Corzo." In *The Archeological Burials at Chiapa de Corzo, Mexico, and Their Furniture*, by Pierre Agrinier, 65–76. New World Archaeological Foundation Papers 16. Provo, UT: BYU New World Archaeological Foundation, 1964.
- . "Current Reports: Eastern Mesoamerica." *American Antiquity* 35 (1970): 513.
- . "Current Research: Eastern Mesoamerica." *American Antiquity* 34 (1969): 353–57.
- . "Eastern Mesoamerica." In *Chronologies in New World Archaeology*, edited by R. E. Taylor and Clement W. Meighan, 331–93. New York: Academic, 1978.
- . "The Heartland Olmec: Evolution of Material Culture." In *Regional Perspectives on the Olmec*, edited by Robert J. Sharer and David C. Grove, 33–67. Cambridge: Cambridge University Press, 1981.
- . *Mesoamérica olmeca: Diez preguntas*. Edited by Victor E. Jimeno. Mexico City: Instituto Nacional de Antropología e Historia, 1998.
- . "The Mixe-Zoque as Competing Neighbors of the Early Lowland Maya." In *The Origins of Maya Civilization*, edited by Richard E. W. Adams, 197–248.

- Albuquerque: University of New Mexico Press and School of American Research, 1977.
- . *Mound 5 and Minor Excavations, Chiapa de Corzo, Chiapas, Mexico*. New World Archaeological Foundation Papers 12. Provo, UT: BYU New World Archaeological Foundation, 1962.
- . “Los olmecas, mayas y mixe-zoques.” In *Antropología e historia de los mixe-zoques y mayas: Homenaje a Frans Blom*, edited by Lorenzo Ochoa and Thomas A. Lee Jr., 125–29. Mexico City: Universidad Nacional Autónoma de México and Brigham Young University, 1983.
- . “Southern Olmecs and Preclassic Zoques in Western Chiapas: Summary of Research and Writing, 1993.” Manuscript produced for the Brigham Young University’s New World Archaeological Foundation, 1994.
- Lowe, Gareth W., Thomas A. Lee Jr., and Eduardo Martínez Espinosa. *Izapa: An Introduction to the Ruins and Monuments*. New World Archaeological Foundation Papers 31. Provo, UT: BYU New World Archaeological Foundation, 1982.
- Lowe, Gareth W., and J. Alden Mason. “Archaeological Survey of the Chiapas Coast, Highlands, and Upper Grijalva Basin.” In Wauchope and Willey, *Handbook of Middle American Indians*, 2:195–236.
- Lowie, Robert H. Review of *Pots and Pans: The History of Ceramics*, by H. S. Harrison. *American Anthropologist* 31 (1929): 504–6.
- Lubensky, Earl H. “Valdivia Figurines.” In *The New World Figurine Project*, edited by Terry Stocker, 1:21–36. Provo, UT: Research Press, 1991.
- Ludlow, Jared W. “A Tale of Three Communities: Jerusalem, Elephantine, and Lehi-Nephi.” *Journal of Book of Mormon Studies* 16/2 (2007): 28–41.
- Lund, John L. *MesoAmerica and the Book of Mormon: Is This the Place?* N.p.: The Communications Company, 2007.
- Lundell, Cyrus L. *The Vegetation of Petén*. Publication 478. Washington, DC: Carnegie Institution, 1937.
- Lundquist, John M. and Stephen D. Ricks, eds. *By Study and Also by Faith: Essays in Honor of Hugh W. Nibley*. 2 vols. Salt Lake City: Deseret Book and FARMS, 1990.
- Lyman, Stanford M. “Chinese Secret Societies in the Occident: Notes and Suggestions for Research in the Sociology of Secrecy.” *Canadian Review of Sociology and Anthropology* 1 (1964): 79–102.
- Macías, J. L., J. M. Espíndola, A. García-Palomo, K. M. Scott, S. Hughes, and J. C. Mora. “Late Holocene Peléan-Style Eruption at Tacaná Volcano, Mexico

- and Guatemala: Past, Present, and Future Hazards." *Geological Society of America Bulletin* 112/8 (2000): 1234–49.
- MacKenzie, Norman, ed. *Secret Societies*. New York: Holt, Rinehart, and Winston, 1967.
- MacNeish, Richard S. "Mesoamerican Chronology: Early Development and the Archaic Period (before 2600 BCE)." In Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 2:226–36.
- . *The Origins of Agriculture and Settled Life*. Norman: University of Oklahoma Press, 1992.
- . "Tehuacan's Accomplishments." In Sabloff, *Supplement to the Handbook of Middle American Indians*, 1:31–47.
- MacNeish, Richard S., Antoinette Nelken-Terner, and Irmgard W. Johnson, eds. *Non-Ceramic Artifacts*. Vol. 2 of *The Prehistory of the Tehuacan Valley*. Austin: University of Texas Press, 1967.
- MacNutt, Francis Augustus, trans. and ed. *Fernando Cortés: His Five Letters of Relation to the Emperor Charles V*. Vol. 1. Glorieta, NM: Rio Grande, 1977.
- Magleby, Kirk. "A Survey of Mesoamerican Bearded Figures." Provo, UT: FARMS, 1979.
- Malamat, Abraham. "Tribal Societies: Biblical Genealogies and African Lineage Systems." *Archives européennes de sociologie* 14 (1973): 126–36.
- Malmström, Vincent H. "Geographical Diffusion and Calendrics in Pre-Columbian Mesoamerica." *Geographical Review* 82/2 (1992): 113–27.
- . "Knowledge of Magnetism in Pre-Columbian Meso-America." *Nature* 259 (1976): 390.
- . "A Reconstruction of the Chronology of Mesoamerican Calendrical Systems." *Journal for the History of Astronomy* 9 (1978): 105–16.
- Manrubia, Susanna C., Bernard Derrida, and Damián H. Zanette. "Genealogy in the Era of Genomics." *American Scientist* 91 (2003): 158–65.
- Manzanilla, Linda. "Corporate Groups and Domestic Activities at Teotihuacan." *Latin American Antiquity* 7/3 (1996): 228–46.
- Marcos, Jorge G. "Breve prehistoria del Ecuador." In *Arqueología de la costa ecuatoriana: Nuevos enfoques*, edited by Jorge G. Marcos, 25–50. Guayaquil, Ecuador: Escuela Politécnica del Litoral; Corporación Editora Nacional, 1986.
- . "De ida y vuelta a Acapulco con mercaderes de Mullu." In *Arqueología de la costa ecuatoriana: nuevos enfoques*, edited by Jorge G. Marcos, 163–96. Guayaquil, Ecuador: Escuela Politécnica del Litoral; Corporación Editora Nacional, 1986.

- Marcus, Joyce. "Archaeology and Religion: A Comparison of the Zapotec and Maya." *World Archaeology* 10/2 (1978): 172–91.
- . "Conquests: Pre-Hispanic Period." In Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 1:251–54.
- . "On the Nature of the Mesoamerican City." In *Prehistoric Settlement Patterns: Essays in Honor of Gordon R. Willey*, edited by Evon Z. Vogt and Richard M. Leventhal, 195–242. Albuquerque: University of New Mexico Press, 1983.
- . "The Origins of Mesoamerican Writing." *Annual Review of Anthropology* 5 (1976): 35–67.
- . Preface to Bove and Heller, *New Frontiers*, xv–xvii.
- . "Royal Families, Royal Texts: Examples from the Zapotec and Maya." In Chase and Chase, *Mesoamerican Elites*, 221–41.
- Margain, Carlos R. "Pre-Columbian Architecture of Central Mexico." In Wauchope, Ekholm, and Bernal, *Handbook of Middle American Indians*, 10:45–91.
- Marquez Morfin, Lourdes. "Paleoepidemiología en las poblaciones prehispánicas mesoamericanas." *Arqueología mexicana* 4/22 (1996): 4–11.
- Marquina, Ignacio. *Arquitectura prehispánica*. Vol. 1. Mexico City: Memorias, Instituto Nacional de Antropología e Historia, 1951.
- Marschall, Wolfgang. *Influencias asiáticas en las culturas de la América antigua: Estudios de su historia*. Mexico City: Ediciones Euroamericanas Klaus Theile, 1979. Spanish translation of *Transpazifische Kulturbeziehungen: Studien zu ihrer Geschichte*. Munich: Klaus Renner, 1972.
- Martin, Robert A., and S. David Webb. "Late Pleistocene Mammals from the Devil's Den Fauna, Levy County." In *Pleistocene Mammals of Florida*, edited by S. David Webb, 114–45. Gainesville: University Presses of Florida, 1974.
- Martínez Donjuán, Guadalupe. "Los olmecas en el estado de Guerrero." In *Los olmecas en Mesoamerica*, edited by John E. Clark, 142–63. Mexico City: CITIBANK/México, 1994.
- Martínez Muriel, Alejandro C.. "Don Martín, Chiapas: Inferencias económico-sociales de una comunidad arqueológica." Thesis, Universidad Nacional Autónoma de México, 1978.
- Mason, J. Alden. Foreword to *Research in Chiapas, Mexico*, iii–iv. New World Archaeological Foundation Papers 1–4. Orinda, CA: New World Archaeological Foundation, 1959.
- Masson, V. M. "The Decline of the Bronze Age Civilization and Movements of the

- Tribes." In *History of Civilizations of Central Asia*, edited by A. H. Dani and V. M. Masson. Paris: Unesco, 1992.
- Mastache, Alba G., Jeffrey R. Parsons, Robert S. Santley, and Mari C. Serra Puche, eds. *Arqueología mesoamericana: Homenaje a William T. Sanders*. 2 vols. Mexico City: Instituto Nacional de Antropología e Historia, 1996.
- Matheny, Ray T. "El Mirador: An Early Maya Metropolis Uncovered." *National Geographic Magazine* 172/3 (1987): 317–39.
- Matheny, Ray T., Deanne L. Gurr, Donald W. Forsyth, and F. Richard Hauck. *Investigations at Edzná, Campeche, Mexico*. New World Archaeological Foundation Papers 46.1.1. Provo, UT: BYU New World Archaeological Foundation, 1980.
- Matheny, Ray T., and Deanne G. Matheny. "El Mirador." In Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 2:373–77.
- Matos Moctezuma, Eduardo. *Treasures of the Great Temple*. La Jolla, CA: ALTI, 1990.
- McBryde, Felix Webster. *Cultural and Historical Geography of Southwest Guatemala*. Institute of Social Anthropology Publication 4. Washington, DC: Smithsonian Institution, 1945.
- . "Studies in Guatemalan Meteorology (I): The Climate of Southwest Guatemala." *Bulletin of the American Meteorological Society* 23 (1942): 254–56.
- . "Studies in Guatemalan Meteorology (II): Two Weather Types in Southwest Guatemala." *Bulletin of the American Meteorological Society* 23 (1942): 400–406.
- McCafferty, Geoffrey G. "Ethnic Conflict in Postclassic Cholula, Mexico." In Brown and Stanton, *Ancient Mesoamerican Warfare*, 219–44.
- McCafferty, Geoffrey G., and David Carrasco. "Mesoamerican Chronology: Classic Period (250–900 [CE])." In Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 2:243–48.
- McClellan, David A. "Detecting Lehi's Genetic Signature: Possible, Probable, or Not?" In *The Book of Mormon and DNA Research*, edited by Daniel C. Peterson, 99–155. Provo, UT: Neal A. Maxwell Institute, 2008.
- McGovern, Patrick E. "The Innovation of Steel in Transjordan." *Journal of Metals* (July 1988): 50–52.
- McGowan, Charlotte. "The Philosophical Dualism of the Aztecs." *Katunob* 10/4 (1977): 37–51.
- McVicker, Donald. "Images of Violence in Mesoamerican Mural Art." In *Latin*

- American Indigenous Warfare and Ritual Violence*, edited by Richard J. Chacon and Rubén G. Mendoza, 73–90. Tucson: University of Arizona Press, 2007.
- Medellín Zenil, Alfonso. *Cerámicas del Totonacapan: Exploraciones arqueológicas en el centro de Veracruz*. Xalapa, Mexico: Universidad Veracruzana, Instituto de Antropología, 1960.
- Medrano, Sonia. “El período Clásico en la Costa Sur.” In *Piezas maestras mayas: Patrimonio del Museo Nacional de Arqueología y Etnología de Guatemala*, edited by Luis Gustavo Jurado Duarte, 98–107. Guatemala: Fundación G & T, 1996.
- . “Excavaciones bajo el agua: Samabaj, Atitlán.” In *XXIV Simposio de Investigaciones Arqueológicas en Guatemala, 2010*, edited by Bárbara Arroyo, Lorena Paiz Aragón, Adriana Linares Palma, and Ana Lucía Arroyave, 159–62. Guatemala: Ministerio de Cultura y Deportes, 2011.
- Medrano, Sonia, and Roberto Samayoa Asmus. “Samabaj: Un sitio subacuático en el lago de Atitlan.” In *XXIII Simposio de investigaciones arqueológicas en Guatemala, 2009*, edited by Bárbara Arroyo, Adriana Linares Palma, and Lorena Paiz Aragón, 335–45. Guatemala: Ministerio de Cultura y Deportes, 2010.
- Meggers, Betty J. “El origen transpacífico de la cerámica Valdivia: Una revaluación.” *Boletín del Museo Chileno de Arte Precolombino* 2 (1987): 9–31.
- . “The Transpacific Origin of Mesoamerican Civilization: A Preliminary Review of the Evidence and Its Theoretical Implications.” *American Anthropologist* 77 (1975): 1–27.
- Meighan, Clement W. “Cultural Similarities between Western Mexico and Andean Regions.” In *Pre-Columbian Contact within Nuclear America*, edited by J. Charles Kelley and Carroll L. Riley, 11–25. Mesoamerican Studies 4. Carbondale: Southern Illinois University Museum, 1969.
- Méluzin, Sylvia. *Further Investigations of the Tuxtla Script: An Inscribed Mask and La Mojarra Stela 1*. New World Archaeological Foundation Papers 65. Provo, UT: BYU New World Archaeological Foundation, 1995.
- . “The Tuxtla Statuette: An Internal Analysis of Its Writing System.” In *The Periphery of the Southeastern Classic Maya Realm*, edited by Gary W. Pahl, 68–113. UCLA Latin American Studies Series 61. Los Angeles: UCLA Latin American Center Publications, 1987.
- Mendoza, Ruben G. “Mesoamerican Chronology: Periodization.” In Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 2:222–26.
- Menzies, Gavin. *The Lost Empire of Atlantis: History’s Greatest Mystery Revealed*. London: Swordfish, 2011.

- Mercer, Henry C. *The Hill-Caves of Yucatán: A Search for Evidence of Man's Antiquity in the Caverns of Central America*. Philadelphia: Lippincott, 1896.
- Merrill, A. Brent. "Nephite Captains and Armies." In Ricks and Hamblin, *Warfare in the Book of Mormon*, 266–95.
- Merriwether, D. Andrew, Brian M. Kemp, Douglas E. Crews, and James V. Neel. "Gene Flow and Genetic Variation in the Yanomama as Revealed by Mitochondrial DNA." In *America Past, America Present: Genes and Languages in the Americas and Beyond*, edited by Colin Renfrew, 89–124. Cambridge, England: McDonald Institute for Archaeological Research, 2000.
- Meyers, Carol. "Jachin and Boaz." In Freedman, *Anchor Bible Dictionary*, 3:597–98.
- Michels, Joseph W., and William T. Sanders, eds. *The Pennsylvania State University Kaminaljuyu Project: 1969, 1970 Seasons, Part I: Mound Excavations*. University Park: Pennsylvania State University, 1973.
- Miles, Suzanne W. "Sculpture of the Guatemala-Chiapas Highlands and Pacific Slopes, and Associated Hieroglyphs." In Wauchope and Willey, *Handbook of Middle American Indians*, 2:237–75.
- . "Summary of Preconquest Ethnology of the Guatemala-Chiapas Highlands and Pacific Slopes." In Wauchope and Willey, *Handbook of Middle American Indians*, 2:276–87.
- Miller, Arthur G., and Nancy M. Farriss. "Religious Syncretism in Colonial Yucatan: The Archaeological and Ethnohistorical Evidence from Tancah, Quintana Roo." In Hammond and Willey, *Maya Archaeology and Ethnohistory*, 223–40.
- Miller, Mary, and Karl Taube. *The Gods and Symbols of Ancient Mexico and the Maya: An Illustrated Dictionary of Mesoamerican Religion*. London: Thames & Hudson, 1993.
- Miller, Wade E. "Mammot Americanum, Utah's First Record of the American Mastodon." *Journal of Paleontology* 61/1 (1987): 168–83.
- . *Science and the Book of Mormon: Cureloms, Cumoms, Horses and More*. Laguna Niguel, CA: KCT and Associates, 2009.
- Millon, René, and James Bennyhoff. "A Long Architectural Sequence at Teotihuacan." *American Antiquity* 26 (1961): 516–23.
- Montagu, M. F. Ashley. "An Indian Tradition Relating to the Mastodon." *American Anthropologist* 46 (1944): 568–71.
- Moorey, Peter R. S. "The Archaeological Evidence for Metallurgy and Related Technologies in Mesopotamia, c. 5500–2100 B.C." *Iraq* 44/1 (1982): 13–38.

- Moorhead, Max L. "Hernán Cortés and the Tehuantepec Passage." *Hispanic American Historical Review* 29 (1949): 370–79.
- Mora-Marín, David F. "Kaminaljuyu Stela 10: Script Classification and Linguistic Affiliation." *Ancient Mesoamerica* 16/1 (2005): 63–85.
- Morell, Virginia. "Genes May Link Ancient Eurasians, Native Americans." *Science* 280 (1998): 520.
- Morgenstern, Julian. "Biblical Theophanies." *Zeitschrift für Assyriologie* 25 (1911): 139–93.
- . *The Fire upon the Altar*. Chicago: Quadrangle Books, 1963.
- Morley, Sylvanus G. *The Ancient Maya*. 2nd ed. Stanford, CA: Stanford University Press, 1947.
- Morris, Earl H., Jean Charlot, Ann Axtell Morris, *Temple of the Warriors at Chichen Itzá, Yucatan*. 2 vols. Publication 406. Washington, DC: Carnegie Institution, 1931.
- Morris, J. Bayard. *See* Hernando Cortés. 1969.
- Moser, Christopher L. "The Wheel Problem in Ancient Mesoamerica." *Katunob* 10/1 (1977): 59–63.
- Mountjoy, Joseph B., and David Peterson. *Man and Land at Prehispanic Cholula*. Anthropology Publication 4. Nashville: Vanderbilt University, 1973.
- Mourant, Arthur E. "The Jews in Palestine." In *The Genetics of the Jews*, edited by Arthur E. Mourant, Ada D. Kopec, and Kazimiera Domaniewska-Sobczak, 14–19. Oxford: Clarendon, 1978.
- Moziño, D. Jose. *Informe de D. Jose Moziño sobre la erupción del volcán de San Martín Tuxtla [Veracruz] ocurrida en el año de 1793*. Mexico City: Tipografía Mexicana, 1869.
- Muhly, James D. "The Beginnings of Metallurgy in the Old World." In *The Beginning of the Use of Metals and Alloys*, edited by Robert Maddin. Cambridge, MA: Massachusetts Institute of Technology, 1988, 2–20.
- . "Mining and Metalwork in Ancient Western Asia." In Sasson, *Civilizations of the Ancient Near East*, 3:1501–19.
- Müller, Florencia. *La cerámica del centro ceremonial de Teotihuacán*. Mexico City: Instituto Nacional de Antropología e Historia, 1978.
- . "Instrumental y armas." In *Teotihuacán, onceava mesa redonda: El Valle de Teotihuacán y su contorno*, 225–38. Mexico City: Sociedad Mexicana de Antropología, 1966.
- Murdy, Carson N. "Prehispanic Settlement and Society in the Valley of Guatemala,

- 1500 B.C.–A.D. 1524.” In Mastache, Parsons, Santley, and Puche, *Arqueología mesoamericana*, 2:79–107.
- Murphy, Thomas W. “Simply Implausible: DNA and a Mesoamerican Setting for the Book of Mormon.” *Dialogue* 36/4 (2003): 109–31.
- Nagao, Debra. “Public Proclamation in the Art of Cacaxtla and Xochicalco.” In Diehl and Berlo, *Mesoamerica after the Decline of Teotihuacan*, 83–104.
- Nakhai, Beth Alpert. *Archaeology and the Religions of Canaan and Israel*. Boston: American Schools of Oriental Research, 2001.
- Navarrete, Carlos. *Archaeological Explorations in the Region of the Frailesca, Chiapas, Mexico*. New World Archaeological Foundation Papers 7. Orinda, CA: New World Archaeological Foundation, 1960.
- . “The Pre-Hispanic System of Communications between Chiapas and Tabasco (Preliminary Report).” In Lee and Navarrete, *Mesoamerican Communication Routes and Cultural Contact*, 75–106.
- . *Un reconocimiento de la Sierra Madre de Chiapas: Apuntes de un diario de campo*. Vol. 13. Mexico City: Universidad Nacional Autónoma de México, 1978.
- Needham, Joseph, and Lu Gwei-djen. *Trans-Pacific Echoes and Resonances: Listening Once Again*. Singapore: World Scientific, 1984.
- Needham, Joseph, Wang Ling, and Lu Gwei-djen. *Science and Civilisation in China*. Vol. 4, part 3. Cambridge: Cambridge University Press, 1971.
- Neff, Hector, Frederick J. Bove, Eugenia J. Robinson, and Bárbara Arroyo L. “A Ceramic Compositional Perspective on the Formative to Classic Transition in Southern Mesoamerica.” *Latin American Antiquity* 5/4 (1994): 333–58.
- Nelson, Fred W., Jr., and John E. Clark. “Obsidian Production and Exchange in Eastern Mesoamerica.” In *Rutas de intercambio en Mesoamérica: III Coloquio Pedro Bosch-Gimpera*, edited by Evelyn C. Rattray, 277–333. Mexico City: Universidad Nacional Autónoma de México, 1998.
- Neuenswander, Helen. “Vestiges of Early Maya Time Concepts in a Contemporary Maya (Cubulco Achi) Community: Implications for Epigraphy.” *Estudios de cultura maya* 13 (1981): 125–63.
- Neves, Walter A., Joseph F. Powell, and Erik G. Ozolins. “Extra-continental Morphological Affinities of Palli Aike, Southern Chile.” *Interciencia* 24/4 (1999): 258–63.
- Nibley, Hugh W. *Lehi in the Desert and the World of the Jaredites*. Salt Lake City: Bookcraft, 1952.

- . *Lehi in the Desert; The World of the Jaredites; There Were Jaredites*. Salt Lake City: Deseret Book and FARMS, 1988.
- Nichols, Johanna. *Linguistic Diversity in Space and Time*. Chicago: University of Chicago Press, 1992.
- Nicholson, Henry B. "Montezuma's Zoo." *Pacific Discovery* 8/4 (1955): 3–11.
- . "Phoneticism in Late Pre-Hispanic Central Mexican Writing Systems." In *Mesoamerican Writing Systems*, edited by Elizabeth P. Benson, 1–46. Washington, DC: Dumbarton Oaks, 1973.
- . "Religion in Pre-Hispanic Central Mexico." In Wauchope, Ekholm, and Bernal, *Handbook of Middle American Indians*, 10:395–445.
- . *Topiltzin Quetzalcoatl: The Once and Future Lord of the Toltecs*. Boulder: University Press of Colorado, 2001.
- Nicholson, Irene. *Mexican and Central American Mythology*. London: Hamlyn, 1967.
- Niederberger, Christine. *Paleopaysages et archeologie pre-urbaine du bassin de Mexico*. 2 vols. Mexico City: Centre d'études Mexicaines et Centraméricaines, 1987.
- Nininger, Harvey H. *Our Stone-Pelted Planet*. Boston: Houghton Mifflin, 1933.
- Noguera, Eduardo. "Minor Arts in the Central Valleys." In Wauchope, Ekholm, and Bernal, *Handbook of Middle American Indians*, 10:258–69.
- Nordenskiöld, Erland. "The Origin of the Indian Civilizations in South America." In *Comparative Ethnographical Studies*, edited by Erland Nordenskiöld, 1–75. Vol. 9. Göteborg, Sweden: Elanders Boktryckeri Aktiebolag, 1933.
- Norman, V. Garth. "Astronomical Orientations of Izapa Sculptures." Master's thesis, Brigham Young University, 1980.
- . *Izapa Sculpture: Part 1, Album*. New World Archaeological Foundation Papers 30.1. Provo, UT: BYU New World Archaeological Foundation, 1973.
- . *Izapa Sculpture: Part 2, Text*. New World Archaeological Foundation Papers 30.2. Provo, UT: BYU New World Archaeological Foundation, 1976.
- Norton, Presley. "El señorío de Salangone y la liga de mercaderes: El cartel spondylus-balsa." *Miscelanea antropológica ecuatoriana* 6 (1986): 131–43.
- Noyes, Ernest, trans. *Fray Alonso Ponce in Yucatan, 1588*, 297–372. Research Series 4. New Orleans: Tulane University, 1932.
- Nuñez de la Vega, Francisco. *Constituciones diocesanas del obispado de Chiappa*. Rome: 1702.
- Nuttall, Zelia. "Some Unsolved Problems in Mexican Archaeology." *American Anthropologist* 8 (1906): 133–49.
- O'Connor, M. "Cardinal-Direction Terms in Biblical Hebrew." In *Semitic Studies*

- in Honor of Wolf Leslau*, edited by Alan S. Kaye, 2:1140–57. Wiesbaden, Germany: Harrassowitz, 1991.
- Ogburn, Charlton. “The Longest Walk: David Ingram’s Amazing Journey.” *American Heritage Magazine* 30/3 (April/May 1979). <http://www.american-heritage.com/content/longest-walk-david-ingram's-amazing-journey>.
- Ohi, Blanca, and Kimiki Tsuruga. “Capítulo I: Los mayas y la naturaleza.” In *Kaminaljuyu (1991-'94)*, edited by Kuniaki Ohi, 31–46. Tokyo: Museo de Tabaco y Sal, 1994.
- Ohi, Kuniaki, ed. *Kaminaljuyu (1991-'94)*. 2 vols. Tokyo: Museo de Tabaco y Sal, 1994.
- Ohi, Kuniaki, Nobuyuki Ito, Shione Shibata, and Hiroshi Minami. “Los resultados de las investigaciones arqueológicas en Kaminaljuyu.” In Laporte and Escobedo, *X Simposio de investigaciones arqueológicas en Guatemala, 1996*, 93–100.
- de Ordoñez y Aguiar, Ramón. *Historia de la creación del cielo y de la tierra*. Mexico City: 1907.
- Orellana, Sandra L. *The Tzutujil Mayas: Continuity and Change, 1250–1630*. Norman: University of Oklahoma Press, 1984.
- Ortega, Edgar René, José Suasnavar Bolaños, Juan Luis Velásquez, and Julio A. Roldán. “El Montículo de la Culebra, Kaminaljuyu: Proyectos de rescate arqueológico.” In Laporte and Escobedo, *IX Simposio de investigaciones arqueológicas en Guatemala, 1995*, 2:461–76.
- Ortiz Ceballos, Ponciano. “Semblanza arqueológica de Veracruz.” *Arqueología mexicana* 1/5 (1994): 16–25.
- Osgood, Charles E. “The Cross-Cultural Generality of Visual-Verbal Synesthetic Tendencies.” *Behavioral Science* 5 (1960): 146–49.
- Ostler, Blake T. “The Covenant Tradition in the Book of Mormon.” In Sorenson and Thorne, *Rediscovering the Book of Mormon*, 230–40.
- Padden, R. C. *The Hummingbird and the Hawk: Conquest and Sovereignty in the Valley of Mexico, 1503–1541*. Columbus: Ohio State University Press, 1967.
- Palerm, Angel. “Notas sobre las construcciones militares y la guerra en Mesoamerica.” *Anales del Instituto Nacional de Antropología e Historia* 8 (1954): 123–34.
- Palmer, David A. *In Search of Cumorah*. Rev. ed. Bountiful, UT: Horizon, 1992.
- . “Trip Report—Bountiful Expedition.” Unpublished manuscript and photo album submitted to FARMS. 1990.
- . “Warfare and the Development of Nephite Culture in America.” Provo, UT: FARMS, 1985.

- Panagiotakopulu, Eva. In *Archaeology and Entomology in the Eastern Mediterranean: Research into the History of Insect Synanthropy in Greece and Egypt*. Archaeological Report 836. Oxford: BAR, 2000.
- Parrot, André. *Ziggurats et tour de Babel*. Paris: Michel, 1949.
- Parry, Donald W. "Hebraisms and Other Ancient Peculiarities in the Book of Mormon." In *Echoes and Evidences of the Book of Mormon*, edited by Donald W. Parry, Daniel C. Peterson, and John W. Welch, 155–89. Provo, UT: FARMS, 2002.
- . *Poetic Parallelisms in the Book of Mormon: The Complete Text Reformatted*. Provo, UT: Neal A. Maxwell Institute, 2007.
- Parry, Donald W., Daniel C. Peterson, and John W. Welch, eds. *Echoes and Evidences of the Book of Mormon*. Provo, UT: FARMS, 2002.
- Parsche, Franz, Svetlana Balabanova, and Wolfgang Pirsig. "Drugs in Ancient Populations." *Lancet* 341 (1993): 503.
- . "Evidence of the Alkaloids Cocaine, Nicotine, Tetrahydrocannabinol and Their Metabolites in Pre-Columbian Peruvian Mummies." *Eres (Serie de Arqueología)* 5/1 (1994): 109–16.
- Parsons, Lee A., "Altars 9 and 10, Kaminaljuyú, and the Evolution of the Serpent-Winged Deity." In *Civilization in the Ancient Americas: Essays in Honor of Gordon R. Willey*, edited by Richard M. Leventhal and Alan L. Kolata, 145–56. Cambridge, MA: University of New Mexico Press and Harvard University Peabody Museum, 1983.
- Parsons, Lee A., and Barbara J. Price. "Mesoamerican Trade and Its Role in the Emergence of Civilization." In Heizer and Graham, *Emergence of Civilization in Mesoamerica*, 180–95.
- Patterson, Clair C. "Native Copper, Silver, and Gold Accessible to Early Metallurgists." *American Antiquity* 36 (1971): 286–321.
- Paul, Lewis M., ed. *Ethnologue: Languages of the World*. 16th ed. Dallas: SIL International, 2009.
- Paxton, Merideth. "Chilam Balam, Books of." In Carrasco, *Oxford Encyclopedia of Mesoamerican Cultures*, 1:190–95.
- Pendergast, David M. "Altun Ha, Honduras Británica (Belice), temporadas 1966–1968." *Estudios de cultura maya* 8 (1972): 35–56.
- . *The Prehistory of Actun Balam, British Honduras*. Art and Archaeology Occasional Papers 16. Toronto: Royal Ontario Museum, 1969.
- Perez de Barradas, José. *Viejas y nuevas teorías sobre el origen de la orfebrería prehispánica en Colombia*. Bogotá, Colombia: Banco de la República, 1956.

- Peterson, Daniel C. "The Gadianton Robbers as Guerrilla Warriors." In Ricks and Hamblin, *Warfare in the Book of Mormon*, 146–73.
- Peterson, Fredrick A. *Some Ceramics from Mirador, Chiapas, Mexico*. New World Archaeological Foundation Papers 15. Provo, UT: BYU New World Archaeological Foundation, 1963.
- Peterson, H. Donl. "Moroni, the Last of the Nephite Prophets." In *The Book of Mormon: Fourth Nephi through Moroni, From Zion to Destruction*, edited by Monte S. Nyman and Charles D. Tate Jr., 244–47. Provo, UT: BYU Religious Studies Center, 1995.
- Peterson, Larry C., and Gerald H. Haug. "Climate and the Collapse of Maya Civilization." *American Scientist* 93/4 (2005): 322–29.
- Piezas maestras mayas: Patrimonio del Museo Nacional de Arqueología y Etnología de Guatemala*. Galería Guatemala 3. Edited by Luis Gustavo Jurado Duarte. Guatemala: Fundación G and T, 1996.
- Piggott, Stuart. "The Beginnings of Wheeled Transport." *Scientific American* 219/7 (1968): 82–90.
- Piña Chan, Román. "Commerce in the Yucatan Peninsula: The Conquest and Colonial Period." In Lee and Navarrete, *Mesoamerican Communication Routes*, 37–48.
- . *Las culturas preclásicas de la cuenca de México*. Mexico City: Fondo de Cultura Económica, 1955.
- . *Tlatilco*. 2 vols. Mexico City: Instituto Nacional de Antropología e Historia, 1958.
- Piña Chan, Román, and Luis Covarrubias. *El pueblo del jaguar (Los olmecas arqueológicos)*. Mexico City: Consejo para la planeación e instalación del Museo Nacional de Antropología, 1964.
- Piña Chan, Román, and Carlos Navarrete. *Archeological Research in the Lower Grijalva River Region, Tabasco and Chiapas*. New World Archaeological Foundation Papers 22. Provo, UT: BYU New World Archaeological Foundation, 1967.
- Pires-Ferreira, Jane W. "Shell and Iron-Ore Mirror Exchange in Formative Mesoamerica with Comments on Other Commodities." In *The Early Mesoamerican Village*, edited by Kent V. Flannery, 311–28. New York: Academic, 1976.
- Plunket, Patricia, and Gabriela Uruñuela. "Mountain of Sustenance, Mountain of Destruction: The Prehispanic Experience with Popocatepetl Volcano." *Journal of Volcanology and Geothermal Research* 170 (2008): 111–20.

- . “Preclassic Household Patterns Preserved under Volcanic Ash at Tetimpa, Puebla, Mexico.” *Latin American Antiquity* 9/4 (1998): 287–309.
- . “Social and Cultural Consequences of a Late Holocene Eruption of Popocatepetl in Central Mexico.” *Quaternary International* 151 (2006): 19–28.
- Pohl, John M. D., and Angus McBride. *Aztec, Mixtec, and Zapotec Armies*. London: Osprey/Reed International, 1991.
- Pohl, Mary. “Maya Ritual Faunas: Vertebrate Remains from Burials, Caches, Caves, and Cenotes in the Maya Lowlands.” In *Civilization in the Ancient Americas: Essays in Honor of Gordon R. Willey*, edited by Richard M. Leventhal and Alan L. Kolata, 55–103. Cambridge, MA: University of New Mexico Press and Harvard University Peabody Museum, 1983.
- Pohl, Mary E. D., and Lawrence H. Feldman. “The Traditional Role of Women and Animals in Lowland Maya Economy.” In *Maya Subsistence: Studies in Memory of Dennis E. Puleston*, edited by Kent V. Flannery, 295–311. New York: Academic, 1982.
- Pohl, Mary E. D., Kevin O. Pope, and Christopher von Nagy. “Olmec Origins of Mesoamerican Writing.” *Science* 298 (2002): 1984–87.
- Pokharia, A. K., and K. S. Saraswat. “Plant Economy during Kushana Period (100–300 A.D.) at Ancient Sanghol, Punjab.” *Pragdhara* 9 (1999): 75–104.
- Pollard, Helen Perlstein. “Ethnicity and Political Control in a Complex Society: The Tarascan State of Prehispanic Mexico.” In Brumfiel and Fox, *Factional Competition and Political Development*, 79–88.
- Pollock, Harry E. D., and Clayton E. Ray. “Notes on Vertebrate Animal Remains from Mayapan.” *Carnegie Institution of Washington Department of Archaeology, Current Reports* 41 (1957): 633–56.
- Pollock, Harry E. D., Ralph L. Roys, Tatiana Proskouriakoff, and A. Ledyard Smith. *Mayapan, Yucatan, Mexico*. Publication 619. Washington, DC: Carnegie Institution, 1962.
- Pool, Christopher A. “From Olmec to Epi-Olmec at Tres Zapotes.” In Clark and Pye, *Olmec Art and Archaeology in Mesoamerica*, 137–54.
- Popenoe de Hatch, Marion. “Evidencia de un observatorio astronómico en Tak'alik Ab'aj.” In *XV Simposio de investigaciones arqueológicas en Guatemala, Museo Nacional de Arqueología y Etnología, 2001*, edited by Juan P. Laporte, Héctor L. Escobedo, and Bárbara Arroyo, 437–49. Guatemala: Ministerio de Cultura y Deportes, Instituto de Antropología e Historia, Asociación Tikal, 2002. 437–49.

- , ed. *Historia general de Guatemala*. Vol. 1. Guatemala: Asociación de Amigos del País y Fundación para la Cultura y el Desarrollo, 1999.
- . *Kaminaljuyú/San Jorge: Evidencia arqueológica de la actividad económica en el Valle de Guatemala, 300 a.C. a 300 d.C.* Guatemala: Universidad del Valle de Guatemala, 1997.
- . “Los K'iche'-Kaqchikeles en el altiplano central de Guatemala: Evidencia arqueológica del período Clásico.” *Mesoamérica* 35 (1998): 93–115.
- . “New Perspectives on Kaminaljuyú, Guatemala: Regional Interaction during the Preclassic and Classic Periods.” In Love, Popenoe de Hatch, and Escobedo, *Incidents of Archaeology in Central America and Yucatán*, 277–96.
- . “Observaciones sobre el desarrollo cultural en la Costa Sur de Guatemala.” In *Investigaciones arqueológicas en la Costa Sur de Guatemala*, edited by David S. Whitley and Marilyn P. Beaudry, 4–37. Los Angeles: UCLA Institute of Archaeology, 1989.
- Popenoe de Hatch, Marion, and Edwin M. Shook. “La arqueología de la Costa Sur.” In Popenoe de Hatch, *Historia general de Guatemala*, 1:171–90.
- Porter, Muriel N. *Tlatilco and the Pre-Classic Cultures of the New World*. Publication 19. New York: Viking Fund Publications in Anthropology, 1953.
- Prem, Hanns J. “The Chronological Dilemma.” In *The Native Sources and the History of the Valley of Mexico*, edited by Jacqueline de Durand-Forest, 5–24. International Series 20. Oxford: BAR, 1984.
- Proskouriakoff, Tatiana. “Early Architecture and Sculpture in Mesoamerica.” In Heizer and Graham, *Emergence of Civilization in Mesoamerica*, 141–56.
- . “Historical Implications of a Pattern of Dates at Piedras Negras, Guatemala.” *American Antiquity* 25 (1960): 454–75.
- . “Olmec and Maya Art: Problems of Their Stylistic Relation.” In Benson, *Dumbarton Oaks Conference on the Olmec*, 119–34.
- Puleston, Dennis E. “An Epistemological Pathology and the Collapse, or Why the Maya Kept the Short Count.” In Hammond and Willey, *Maya Archaeology and Ethnohistory*, 63–71.
- . “The Role of Semi-domesticated Animal Resources in Middle American Subsistence.” Paper presented at the 37th Annual Meeting of the Society for American Archaeology, 5 May 1972, Bal Harbour, FL.
- Putnam, Read H. “Were the Golden Plates Made of Tumbaga?” *Improvement Era*, 1966, 788–89, 828–31.
- Raab, L. Mark, Matthew Buxt, Brian Stokes, Katherine Bradford, and Rebecca B.

- González Lauck. "Investigaciones arqueológicas en 'Isla' Alor: Un sitio en el área de sostenimiento de La Venta, Tabasco." *Arqueología* 26 (2001): 3–14.
- Radday, Yehuda T. "Chiasmus in Hebrew Biblical Narrative." In Welch, *Chiasmus in Antiquity*, 50–117.
- Rands, Robert L. "Appendix: Outline of Guatemalan Highland Preclassic Figurine Traits by Phase." From Alfred V. Kidder, "Preclassic Pottery Figurines of the Guatemalan Highlands." In Wauchope and Willey, *Handbook of Middle American Indians*, 2:146–55.
- . "Some Evidences of Warfare in Classic Maya Art." PhD diss., Columbia University, 1952.
- Rands, Robert L., and Robert E. Smith. "Pottery of the Guatemalan Highlands." In Wauchope and Willey, *Handbook of Middle American Indians*, 2:95–145.
- Rathje, William L. "The World's Oldest Profession." *MSW Management: The Journal for Municipal Solid Waste Professionals*, July–August 2002. http://www.mswmanagement.com/MSW/Articles/The_Worlds_Oldest_Profession_3982.aspx.
- Rattray, Evelyn C. "El barrio de los comerciantes en Teotihuacan." In *Investigaciones recientes en el área maya, XVII mesa redonda: San Cristobal de Las Casas, Chiapas, 21–27 Junio 1981*, 1:147–59. Mexico City: Sociedad Mexicana de Antropología, 1984.
- . "A Regional Perspective on the Epiclassic Period in Central Mexico." In Mastache, Parsons, Santley, and Puche, *Arqueología mesoamericana*, 1:213–33.
- . "The Teotihuacan Ceramic Chronology: Early Tzacualli to Early Tlamimilolpa Phases." PhD diss., University of Missouri, 1973.
- Ray, Clayton E. "Pre-Columbian Horses from Yucatan." *Journal of Mammalogy* 38 (1957): 278.
- Raynaud, Georges. See *Anales de los Xabil*.
- Rebetéz, René. *Objetos prehispánicos de hierro y piedra*. Mexico City: Librería Anticuaria, n.d.
- Recinos, Adrián, and Delia Goetz, trans. *The Annals of the Cakchiquels*. Norman: University of Oklahoma Press, 1953.
- Recinos, Adrián, Delia Goetz, and Sylvanus G. Morley, trans. *Popol Vuh: The Sacred Book of the Ancient Quiché Maya*. Norman: University of Oklahoma Press, 1950.
- Redmond, Elsa M. *A Fuego y Sangre: Early Zapotec Imperialism in the Cuicatlan Cañada, Oaxaca*. Studies in Latin American Ethnohistory and Archaeology 1. Edited by Joyce Marcus. Ann Arbor: University of Michigan, 1983.

- Reed, Alma M. *The Ancient Past of Mexico*. New York: Crown, 1966.
- Reed Czitrom, Carolyn B. *Figurillas sólidas de estilo Colima: Una tipología*. Colección científica: Arqueología 66. Mexico City: Instituto Nacional de Anthropología e Historia, 1978.
- Reese-Taylor, Kathryn, and Debra S. Walker. "The Passage of the Late Preclassic into the Early Classic." In *Ancient Maya Political Economies*, edited by Marilyn A. Masson and David A. Freidel, 87–112. Walnut Creek, CA: Altamira, 2002.
- Rehm, Merlin D. "Levites and Priests." In Freedman, *Anchor Bible Dictionary*, 4:297–310.
- Reich, Ronny. "The Great Mikveh Debate." *Biblical Archaeology Review* 19/2 (1993): 52.
- Reilly, F. Kent, III, and James F. Garber. "The Symbolic Representation of Warfare in Formative Period Mesoamerica." In Brown and Stanton, *Ancient Mesoamerican Warfare*, 127–48.
- Reinhard, Karl J. "Parasitology as an Interpretive Tool in Archaeology." *American Antiquity* 57 (1992): 231–45.
- Rendon, Silvia, trans. *Relaciones originales de Chalco Amaquemecan: Paleografiadas y traducidas del Náhuatl*, con una introducción. Biblioteca americana series. Mexico City: Fondo de Cultura Económica, 1965.
- Reynolds, George. *A Complete Concordance of the Book of Mormon*. Edited by Philip C. Reynolds. Salt Lake City: Deseret Book, 1973. First published 1899.
- Reynolds, Noel B. "Nephi's Political Testament." In Sorenson and Thorne, *Rediscovering the Book of Mormon*, 220–29.
- . "The Political Dimension in Nephi's Small Plates." *BYU Studies* 27/4 (1987): 15–37.
- Richter, Gisela M. A. "Silk in Greece." *American Journal of Archaeology* 33/1 (1929): 27–33.
- Ricks, Stephen D. "'Holy War': The Sacral Ideology of War in the Book of Mormon and in the Ancient Near East." In Ricks and Hamblin, *Warfare in the Book of Mormon*, 103–17.
- . "King, Coronation, and Covenant in Mosiah 1–6." In Sorenson and Thorne, *Rediscovering the Book of Mormon*, 209–19.
- Ricks, Stephen D., and William J. Hamblin, eds. *Warfare in the Book of Mormon*. Salt Lake City: Deseret Book and FARMS, 1990.
- Riddle, J. M., and J. M. Vreeland. "Identification of Insects Associated with Peruvian Mummy Bundles by Using Scanning Electron Microscopy." *Paleopathology Newsletter* 39 (September 1982): 5–9.

- Riley, Carroll L., J. Charles Kelley, Campbell W. Pennington, and Robert L. Rands, eds. *Man across the Sea: Problems of Pre-Columbian Contacts*. Austin: University of Texas Press, 1971.
- Ringle, William M., Tomás Gallareta Negrón, and George J. Bey III. "The Return of Quetzalcoatl: Evidence for the Spread of a World Religion during the Epiclassic Period." *Ancient Mesoamerica* 9 (1998): 183–232.
- Rivera Dorado, Miguel. "La primera temporada de excavaciones en Salcajá (Guatemala)." *Revista española de antropología americana* 8 (1978): 111–25.
- Roberts, B. H. *A Comprehensive History of the Church of Jesus Christ of Latter-day Saints*. 6 vols. Salt Lake City: Deseret Book, 1930.
- Robinson, Eugenia J., Patricia M. Farrell, Kitty F. Emery, Dorothy E. Freidel, and Geoffrey E. Braswell. "Preclassic Settlements and Geomorphology in the Highlands of Guatemala: Excavations at Urias, Valley of Antigua." In Love, Popenoe de Hatch, and Escobedo, *Incidents of Archaeology in Central America and Yucatán*, 251–76.
- Robinson, Eugenia J., Marlen Garnica, and Geoffrey Braswell. "En el final del Preclásico: Kaminaljuyu y su perifería oeste." In Laporte, Arroyo, and Mejía, *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 1:145–55.
- Robinson, Eugenia J., Marlen Garnica, Patricia Farrell, Dorothy Freidel, Kitty Emery, Marilyn Beaudry-Corbett, and David Lentz. "El Preclásico en Urias: Una adaptación ambiental y cultural en el Valle de Antigua." In Laporte, Escobedo, Suasnavar, and Arroyo, *XIII Simposio de investigaciones arqueológicas en Guatemala, 1999*, 2:841–48.
- Rodríguez Martínez, María del Carmen, Ponciano Ortíz Ceballos, Michael D. Coe, Richard A. Diehl, Stephen D. Houston, Karl A. Taube, and Alfredo Delgado Calderón. "Oldest Writing in the New World." *Science* 313 (2006): 1610–14.
- Rohde, Douglas L. T. "On the Common Ancestors of All Living Humans." Paper dated 11 November 2003 in possession of author.
- Root, William C. "Report on the Metal Objects from Mayapan." In *Mayapan, Yucatan, Mexico*, edited by Harry E. D. Pollock et al., 391–99. Publication 619. Washington, DC: Carnegie Institution, 1962.
- Roper, Matthew. "Eyewitness Descriptions of Mesoamerican Swords." *Journal of Book of Mormon Studies* 5/1 (1996): 150–58.
- . "Swords and 'Cimeters' in the Book of Mormon." *Journal of Book of Mormon Studies* 8/1 (1999): 34–43.
- . "Travel across the 'Narrow Neck of Land,'" *Insights* (May 2000): 2.

- Rosenberg, Stephen G. "The Jewish Temple at Elephantine." *Near Eastern Archaeology* 67/1 (2004): 4–13.
- Rovner, Irwin. "Implications of the Lithic Analysis at Becán." Paper presented at the annual meeting of the Society for American Archaeology, 1972.
- Roys, Ralph L. *The Book of Chilam Balam of Chumayel*. Publication 438. Washington, DC: Carnegie Institution, 1933. Reprint, Norman: University of Oklahoma Press, 1967.
- . *The Ethno-botany of the Maya*. Middle American Research Institution Publication 2. New Orleans: Tulane University, 1931.
- . *The Indian Background of Colonial Yucatan*. Norman: University of Oklahoma Press, 1972.
- . "Lowland Maya Native Society at Spanish Contact." In Wauchope and Willey, *Handbook of Middle American Indians*, 3:659–78.
- Rubín de la Borbolla, Daniel F. "Orfebrería tarasca." *Cuadernos americanos* 3/15 (1944): 127–38.
- Ruhlen, Merritt. "The Origin of the Na-Dene." *Proceedings of the National Academy of Sciences USA* 95 (1998): 13994–96.
- Rust, William F., III, and Barbara W. Leyden. "Evidence of Maize Use at Early and Middle Preclassic La Venta Olmec Sites." In *Corn and Culture in the Prehistoric New World*, edited by Sissel Johannessen and Christine A. Hastorf, 181–95. Boulder, CO: Westview, 1992.
- Rust, William F., III, and Robert J. Sharer. "Olmec Settlement Data from La Venta, Tabasco." *Science* 242 (1988): 102–4.
- Sabloff, Jeremy A., ed. *Supplement to the Handbook of Middle American Indians*. Vol. 1. Austin: University of Texas Press, 1981.
- Sabloff, Jeremy A., Lewis R. Binford, and Patricia A. McAnany. "Understanding the Archeological Record." *Antiquity* 61 (1987): 203–9.
- von Sadoszky, Otto J. *The Discovery of California: A Cal-Ugrian Comparative Study*. Los Angeles: International Society for Trans-Oceanic Research, 1996.
- . "The Reconstruction of IE *pisko and the Extension of Its Semantic Sphere." *Journal of Indo-European Studies* 1 (1975): 81–100.
- . "Report on the State of Uralo-Penutian Research." *Ural-Altäische Jahrbücher* 48 (1976): 191–204.
- . "The Time of Arrival of the Cal-Ugrians in California in the Light of the Ugrian Sound Change *k->x->h-." Unpublished paper, ca. 1973.
- . "Die Zeit der Ankunft der Cal-Ugrier in Kalifornien im Lichte des

- ugrischen Lautwechsels *k->x->h-." In *Congressus Sextus Internationalis Fenno-Ugristarum, Abstracts: Linguistics*, 1:19. Komy Branch: Syktyvkar, 1985.
- Safford, William E. "Food Plants and Textiles of Ancient America." *Proceedings of the 19th International Congress of Americanists (Washington, DC, 1915)* (1917): 12–30.
- . "The Isolation of Ancient America as Established by the Cultivated Plants and the Languages of Its Aborigines." *Proceedings of the 20th International Congress of Americanists (Rio de Janeiro, 1922)* (1924): 167–71.
- de Sahagún, Bernardino. *Florentine Codex: General History of the Things of New Spain*. Translated by Arthur J. O. Anderson and Charles E. Dibble. 12 vols. Santa Fe, NM: School of American Research and University of Utah, 1961.
- . *Historia general de las cosas de Nueva España*. 3 vols. Mexico City: Nueva España, 1969.
- . *Historia general de las cosas de Nueva España*. Edited by Ángel M. Garibay Kintana. Mexico City: Editorial Porrúa, 1956.
- Sánchez Castro, Alejandro. *Luis Nicolas Guillemaud, interesante historia de un buen Francés que vino a México en 1830: Los mixes, historia, leyendas, música*. Mexico City: 1947.
- Sanders, William T. *The Cultural Ecology of the Teotihuacan Valley: A Preliminary Report of the Results of the Teotihuacan Valley Project*. University Park: Pennsylvania State University, 1965.
- . "The Epiclassic as a Stage in Mesoamerican Prehistory: An Evaluation." In Diehl and Berlo, *Mesoamerica after the Decline of Teotihuacan*, 211–18.
- Santley, Robert S. "Obsidian Trade and Teotihuacan Influence in Mesoamerica." In Miller, *Highland-Lowland Interaction in Mesoamerica*, 69–124.
- Santley, Robert S., and Philip J. Arnold III. "Prehispanic Settlement Patterns in the Tuxtla Mountains, Southern Veracruz, Mexico." *Journal of Field Archaeology* 23/2 (1996): 225–49.
- Santley, Robert S., Philip J. Arnold III, and Thomas P. Barrett. "Formative Period Settlement Patterns in the Tuxtla Mountains." In Stark and Arnold, *Olmec to Aztec*, 174–205.
- Santley, Robert S., Michael J. Berman, and Rani T. Alexander. "The Politicization of the Mesoamerican Ballgame and Its Implications for the Interpretation of the Distribution of Ballcourts in Central Mexico." In *The Mesoamerican Ballgame*, edited by Vernon L. Scarborough and David R. Wilcox, 3–24. Tucson: University of Arizona Press, 1991.
- Santley, Robert S., Stephen A. Nelson, Bently K. Reinhardt, Cristopher A. Pool,

- and Philip J. Arnold, III. "When Day Turned to Night: Volcanism and the Archaeological Record from the Tuxtla Mountains, Southern Veracruz, Mexico." In *Environmental Disaster and the Archaeology of Human Response*, edited by Garth Bawden and Richard M. Reycraft, 143–62. Albuquerque: University of New Mexico, 2000.
- Sasson, Jack M. *Civilizations of the Ancient Near East*. Vol. 3. New York: Scribner's Sons, 1995.
- Satterthwaite, Linton, Jr. Review of *Archaeological Reconnaissance in Campeche, Quintana Roo, and Petén*, by Karl Ruppert and John H. Denison. *American Antiquity* 10 (1944): 216–18.
- Saturno, William A., Karl Taube, David S. Stuart, Boris Beltrán, and Edwin Román. "Nuevos hallazgos arquitectónicos y pictóricos en la Pirámide de las Pinturas, San Bartolo, Petén." In Laporte, Arroyo, and Mejía, *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 571–78.
- Schackt, Jon. "Los mayas: El origen del término y la creación del pueblo." *Revista estudios interétnicos* 10/16 (2002): 7–26.
- Schafer, Edward H. *Shore of Pearls*. Berkeley: University of California Press, 1970.
- Schele, Linda. *Hidden Faces of the Maya*. Poway, CA: ALTI, 1997.
- Schele, Linda, and Peter Mathews. *Notebook for the XVIIth Maya Hieroglyphic Workshop at Texas*. Austin: University of Texas Press, 1993.
- Schmidt, Peter (Pedro) J. "La entrada del hombre a la península de Yucatán." In *Orígenes del hombre americano*, compiled by Alba Gonzalez-Jácome, 245–61. Mexico City: Secretaría de Educación Pública, 1988.
- Schneider, Harold K. "Prehistoric Transpacific Contact and the Theory of Culture Change." *American Anthropologist* 79 (1977): 9–25.
- Scholes, France V., and Ralph L. Roys. *The Maya Chontal Indians of Acalan Tixchel*. Publication 560. Washington, DC: Carnegie Institution, 1948.
- Scholes, France V., and David Warren. "The Olmec Region at Spanish Contact." In Wauchope and Willey, *Handbook of Middle American Indians*, 3:776–87.
- Schuhmacher, W. Wilfried, F. Seto, J. Villegas Seto, Juan R. Francisco. *Pacific Rim: Austronesian and Papuan Linguistic History*. Heidelberg, Germany: Carl Winter Universitätsverlag, 1992.
- Schuster, Angela M. H. "Case of the Suspect Stela." *Archaeology* (1994): 51–53.
- Scott, John F. "Post-Olmec Mesoamerica as Revealed in Its Art." *Proceedings of the 41st International Congress of Americanists (Mexico, 1974)* (1976): 380–86.
- Scuderi, Louis A. "Tree-Ring Evidence for Climatically Effective Volcanic Eruptions." *Quaternary Research* 34 (1990): 67–85.

- Sejourné, Laurette. *Burning Water: Thought and Religion in Ancient Mexico*. Berkeley: Shambhala Publications, 1976. First published 1956 at Vanguard in New York.
- . “El simbolismo de los rituales funerarios en Monte Albán.” *Revista mexicana de estudios antropológicos* 16 (1960): 77–90.
- . “El templo prehispánico.” *Cuadernos americanos* 149 (1966): 129–67.
- Service, Robert F. “Rock Chemistry Traces Ancient Traders.” *Science* 274 (1996): 2012–13.
- Shady Solís, Ruth. *La ciudad sagrada de Caral: Supe en los albores de la civilización en el Perú*. Lima: Fondo Editorial y Universidad Nacional Mayor de San Marcos, 1997.
- Shady Solís, Ruth, Jonathan Haas, and Winifred Creamer. “Dating Caral, a Pre-ceramic Site in the Supe Valley on the Central Coast of Peru.” *Science* 292 (2001): 723–26.
- Shanks, Hershel. “The Gap between Archaeology and the Bible.” *Biblical Archaeology Review* 31/4 (2005): 6, 62.
- Shanks, Hershel, and Dan P. Cole, eds. *Archaeology and the Bible: The Best of BAR*. Vol. 1. Washington, DC: Biblical Archaeology Society, 1990.
- Shao, Paul [Shao, Pang-hua]. *Asiatic Influences in Pre-Columbian American Art*. Ames: Iowa State University Press, 1976.
- . *The Origin of Ancient American Cultures*. Ames: Iowa State University Press, 1983.
- Sharer, Robert J. “Diversity and Continuity in Maya Civilization: Quirigua as a Case Study.” In *Classic Maya Political History: Hieroglyphic and Archaeological Evidence*, edited by T. Patrick Culbert, 180–96. Cambridge: Cambridge University Press, 1991.
- Sharer, Robert J., and David W. Sedat. *Archaeological Investigations in the Northern Maya Highlands, Guatemala: Interaction and the Development of Maya Civilization*. University Museum Monograph 59. Philadelphia: University of Pennsylvania, 1987.
- Shattuck, George C. *The Peninsula of Yucatan: Medical, Biological, Meteorological and Sociological Studies*. Publication 431. Washington, DC: Carnegie Institution, 1933.
- Sheets, Payson D. “An Ancient Natural Disaster.” *Expedition* 14 (1971): 28.
- , ed. *Archeology and Volcanism in Central America: The Zapotitán Valley of El Salvador*. Austin: University of Texas Press, 1983.

- Shook, Edwin M. "Lugares arqueológicos del altiplano meridional central de Guatemala." *Antropología e historia de Guatemala* 4/2 (1952): 3–40.
- Shook, Edwin M., and Alfred V. Kidder. *Mound E-III-3, Kaminaljuyu, Guatemala*. American Anthropology and History Contribution 53. Washington, DC: Carnegie Institution, 1952.
- Shook, Edwin M., and Marion Popenoe de Hatch. "Las tierras altas centrales: Períodos Preclásico y Clásico." In Popenoe de Hatch, *Historia general de Guatemala*, 1:289–318.
- Sisson, Edward B. "Settlement Patterns and Land Use in the Northwestern Chontalpa, Tabasco, Mexico: A Progress Report." *Cerámica de cultura maya* 6 (1970): 41–54.
- Sitwell, Nigel. "The 'Queen of Gems'—Always Stunning, and Now More Cultured Than Ever." *Smithsonian* 15/10 (1985): 41–50.
- Sjodahl, Janne M. *An Introduction to the Study of the Book of Mormon*. Salt Lake City: Deseret News Press, 1927.
- Skousen, Royal. *Analysis of Textual Variants of the Book of Mormon: Part Three, Mosiah 17–Alma 20*. Vol. 4. Provo, UT: FARMS, 2006.
- . *Critical Text of the Book of Mormon*. 9 vols. Provo, UT: FARMS 2001–2009.
- Smith, A. Ledyard. *Archaeological Reconnaissance in Central Guatemala*. Publication 608. Washington, DC: Carnegie Institution, 1955.
- Smith, Grafton E. *Elephants and Ethnologists*. London: Kegan Paul, Trench, Trubner, 1924.
- Smith, James E. "How Many Nephites? The Book of Mormon at the Bar of Demography." In *Book of Mormon Authorship Revisited: The Evidence for Ancient Origins*, edited by Noel B. Reynolds, 255–93. Provo, UT: FARMS, 1997.
- Smith, Joseph, III. "Last Testimony of Sister Emma." *Saints' Herald* 26 (1879): 289–90.
- Smith, Robert F. "Sawi-Zaa Word Comparisons." Typescript, 1977.
- . "Some Neologisms from the Mormon Canon." In *Conference on the Language of the Mormons, 1973*. Provo, UT: BYU Language Research Center, 1973.
- Soper, Fred L. "The Report of a Nearly Pure *Ancylostoma duodenale* Infestation in Native South American Indians and a Discussion of Its Ethnological Significance." *American Journal of Hygiene* 7 (1927): 174–84.

- Sorenson, John L. *An Ancient American Setting for the Book of Mormon*. Salt Lake City: Deseret Book and FARMS, 1985.
- . “Animals in the Book of Mormon: An Annotated Bibliography.” Provo, UT: FARMS, 1992.
- , ed. “A Bibliography for Yucatan Medicinal Plant Studies by William E. Gates.” *Tlalocan: Revista de fuentes para el conocimiento de las culturas indígenas de México* 3 (1957): 334–43.
- . “The Book of Mormon as a Mesoamerican Codex.” *Newsletter and Proceedings of the Society for Early Historic Archaeology* 139 (1976): 1–9.
- . “The Book of Mormon as a Mesoamerican Record.” In *Book of Mormon Authorship Revisited: The Evidence for Ancient Origins*, edited by Noel B. Reynolds, 391–521. Provo, UT: FARMS, 1997.
- . “Book of Mormon Peoples.” In *Encyclopedia of Mormonism*, edited by Daniel H. Ludlow, 1:191–95. New York: Macmillan, 1992.
- . “The ‘Brass Plates’ and Biblical Scholarship.” *Dialogue* 10/4 (1977): 31–39.
- . *A Chronological Ordering of the Mesoamerican Pre-Classic*. Middle American Research Institute Publication 18. New Orleans: Tulane University, 1955.
- . *A Complex of Ritual and Ideology Shared by Mesoamerica and the Ancient Near East*. Sino-Platonic Papers 195. Philadelphia: Department of East Asian Languages and Civilizations, University of Pennsylvania, 2009.
- . “The Composition of Lehi’s Family.” In Lundquist and Ricks, *By Study and Also by Faith*, 2:174–96.
- . “Digging into the Book of Mormon: Our Changing Understanding of Ancient America and Its Scripture. Part 1.” *Ensign*, September 1984, 26–37.
- . “Fortifications in the Book of Mormon Account Compared with Mesoamerican Fortifications.” In Ricks and Hamblin, *Warfare in the Book of Mormon*, 425–44.
- . *The Geography of Book of Mormon Events: A Source Book*. Rev. ed. Provo, UT: FARMS, 1992.
- . “How Could Joseph Smith Write So Accurately about Ancient American Civilization?” In *Echoes and Evidences of the Book of Mormon*, edited by Donald W. Parry, Daniel C. Peterson, and John W. Welch, 292–95. Provo, UT: FARMS, 2002.
- . *Images of Ancient America: Visualizing Book of Mormon Life*. Provo, UT: Research Press, 1998.

- . “Indications of Early Metal in Mesoamerica.” *University Archaeological Society Bulletin* 5 (1954): 1–5.
- . “Last-Ditch Warfare in Ancient Mesoamerica Recalls the Book of Mormon.” *Journal of Book of Mormon Studies* 9/2 (2000): 44–53.
- . “Mesoamerican C-14 Dates Revised.” *Katunob* 9/4 (1977): 56–71.
- . “A Mesoamerican Chronology: April 1977.” *Katunob* 9/4 (1977): 41–55.
- . “A Mesoamerican Chronology, 2004.” Unpublished monograph.
- . “Metals and Metallurgy Relating to the Book of Mormon Text.” Provo, UT: FARMS, 1992.
- . “Mormon’s Sources.” *Journal of the Book of Mormon and Other Restoration Scripture* 20/2 (2011): 2–15.
- . *Mormon’s Map*. Provo, UT: FARMS, 2000.
- . “The ‘Mulekites,’” *BYU Studies* 30/3 (1990): 6–22. Reprinted in *Nephite Culture and Society: Collected Papers*, edited by Matthew R. Sorenson, 105–29. Salt Lake City: New Sage Books, 1997.
- . “The Nephite Calendar in Mosiah, Alma, and Helaman.” In Welch, *Reexploring the Book of Mormon*, 173–75.
- . “The Political Economy of the Nephites.” In *Nephite Culture and Society: Selected Papers*, edited by Matthew R. Sorenson, 195–226. Salt Lake City: New Sage Books, 1997.
- . “A Reconsideration of Early Metal in Mesoamerica.” *Katunob* 9 (1976): 1–8.
- . “Religious Groups and Movements among the Nephites, 200–1 B.C.” In *The Disciple as Scholar: Essays on Scripture and the Ancient World in Honor of Richard Lloyd Anderson*, edited by Stephen D. Ricks, Donald W. Parry, and Andrew H. Hedges, 163–208. Provo, UT: FARMS, 2000.
- . “Seasonality of Warfare in the Book of Mormon and in Mesoamerica.” In Ricks and Hamblin, *Warfare in the Book of Mormon*, 445–77.
- . “Seasons of War, Seasons of Peace in the Book of Mormon.” In Sorenson and Thorne, *Rediscovering the Book of Mormon*, 249–55.
- . “The Settlements of Book of Mormon Peoples.” In *Nephite Culture and Society: Selected Papers*, edited by Matthew R. Sorenson, 131–54. Salt Lake City: New Sage Books, 1997.
- . “The Significance of an Apparent Relationship between the Ancient Near East and Mesoamerica.” In Riley, Kelley, Pennington, and Rands, *Man across the Sea*, 219–41.

- . “The Significance of the Chronological Discrepancy between Alma 53:22 and Alma 56:9.” Provo, UT: FARMS, 1990.
- . “Some Mesoamerican Traditions of Immigration by Sea.” *El México antiguo* 8 (1955): 425–38.
- . “Steel in Early Metallurgy.” *Journal of Book of Mormon Studies* 15/2 (2007): 108–27.
- . “Viva Zapato! Hurray for the Shoe!” Review of “Does the Shoe Fit? A Critique of the Limited Tehuantepec Geography,” by Deanne G. Matheny. *Review of Books on the Book of Mormon* 6/1 (1994): 297–361.
- . “Wheeled Figurines in the Ancient World.” Provo, UT: FARMS, 1981.
- . “When Lehi’s Party Arrived in the Land, Did They Find Others There?” *Journal of Book of Mormon Studies* 1/1 (1992): 1–34. Reprinted in *Nephite Culture and Society: Collected Papers*, edited by Matthew R. Sorenson, 65–104. Salt Lake City: New Sage Books, 1997.
- Sorenson, John L., and Carl L. Johannessen. “Biological Evidence for Pre-Columbian Transoceanic Voyages.” In *Contact and Exchange in the Ancient World*, edited by Victor H. Mair, 238–97. Honolulu: University of Hawai’i Press, 2006.
- . *Scientific Evidence for Pre-Columbian Transoceanic Voyages to and from the Americas*. Sino-Platonic Papers 133. Philadelphia: Department of East Asian Languages and Civilizations, University of Pennsylvania, 2004.
- . *World Trade and Biological Exchanges before 1492*. New York and Bloomington, IN: iUniverse, 2009.
- Sorenson, John L., and Martin H. Raish. *Pre-Columbian Contact with the Americas across the Oceans: An Annotated Bibliography*. 2 vols. 2nd ed. Provo, UT: Research Press, 1996.
- Sorenson, John L., and Robert F. Smith. “Barley in Ancient America.” In Welch, *Reexploring the Book of Mormon*, 130–32.
- Sorenson, John L., and Melvin J. Thorne, eds. *Rediscovering the Book of Mormon*. Salt Lake City: Deseret Book and FARMS, 1991.
- Soustelle, Jacques. *The Daily Life of the Aztecs on the Eve of the Spanish Conquest*. Translated by Patrick O’Brian. New York: Macmillan, 1962.
- Southerton, Simon G. *Losing a Lost Tribe: Native Americans, DNA, and the Mormon Church*. Salt Lake City: Signature Books, 2004.
- Spackman, Randall P. “Introduction to Book of Mormon Chronology: The Principal Prophecies, Calendars, and Dates.” Provo, UT: FARMS, 1993.

- . “The Jewish/Nephite Lunar Calendar.” *Journal of Book of Mormon Studies* 7/1 (1998): 48–59.
- Spear, John C. “Report on the Geology, Mineralogy, Natural History, Inhabitants, and Agriculture of the Isthmus of Tehuantepec.” In *Reports of Explorations and Surveys, to Ascertain the Practicability of a Ship Canal between the Atlantic and Pacific Oceans by the Way of the Isthmus of Tehuantepec*, by Robert W. Shufeldt, 99–139. Washington, DC: Government Printing Office, 1872.
- Spinden, Herbert J. “Origin of Civilizations in Central America and Mexico.” In *The American Aborigines: Their Origin and Antiquity. A Collection of Papers by Ten Authors (Published for Presentation at the Fifth Pacific Science Congress, Canada, 1933)*, edited by Diamond Jenness, 217–46. Toronto: University of Toronto Press, 1933.
- Spores, Ronald. *An Archaeological Settlement Survey of the Nochixtlan Valley, Oaxaca*. Publications in Anthropology 1. Nashville: Vanderbilt University, 1972.
- . “The Zapotec and Mixtec at Spanish Contact.” In Wauchope and Willey, *Handbook of Middle American Indians*, 3:962–87.
- Šprajc, Ivan. “Orientaciones astronómicas en la arquitectura prehispánica del centro de México.” Mexico City: Instituto Nacional de Antropología e Historia, 2001.
- Stanford, Dennis J., and Bruce A. Bradley. *Across Atlantic Ice: The Origin of America’s Clovis Culture*. Berkeley: University of California Press, 2012.
- Stark, Barbara L., and Philip J. Arnold III. “Introduction to the Archaeology of the Gulf Lowlands.” In Stark and Arnold, *Olmec to Aztec*, 3–32.
- , eds. *Olmec to Aztec: Settlement Patterns in the Ancient Gulf Lowlands*. Tucson: University of Arizona Press, 1997.
- Starr, Richard F. S. *Nuzi: Report on the Excavation at Yorgan Tepa near Kirkuk, Iraq, Conducted by Harvard University in Conjunction with the American Schools of Oriental Research and the University Museum of Philadelphia, 1927–1931*. 2 vols. Cambridge, MA: Harvard University Press, 1937–39.
- Steele, D. Gentry, and Joseph F. Powell. “Facing the Past: A View of the North American Human Fossil Record.” *Memoirs Presented to the California Academy of Sciences* 27 (2002): 93–122.
- . “Paleobiological Evidence of the Peopling of the Americas: A Morphometric View.” In *Method and Theory for Investigating the Peopling of the Americas*, edited by Robson Bonnichsen and D. Gentry Steele, 141–63. Corvallis: Oregon State University Peopling of the Americas Publications, 1994.

- . “Peopling of the Americas: A Historical and Comparative Perspective.” In *Who Were the First Americans*, edited by Robson Bonnichsen and Ruth Gruhn, 97–126. Corvallis: Oregon State University Peopling of the Americas Publications, 1999.
- . “Peopling of the Americas: Paleobiological Evidence.” *Human Biology* 64/3 (1992): 303–36.
- Steffy, J. Richard. “The Kyrenia Ship: An Interim Report on Its Hull Construction.” *American Journal of Archaeology* 89/1 (1985): 71–101.
- Stempell, W. “Die Tierbilder der Mayahandschriften.” *Zeitschrift für Ethnologie* 40 (1908): 704–43.
- Stendahl, Krister. “The Sermon on the Mount and Third Nephi.” In *Reflections on Mormonism: Judaeo-Christian Parallels*, edited by Truman G. Madsen, 139–54. Provo, UT: BYU Religious Studies Center, 1978.
- Stenger, Alison T. “Japanese-Influenced Ceramics in Pre-Contact Washington State: A View of the Wares and Their Possible Origin.” In *The New World Figurine Project*, edited by Terry Stocker, 111–22. Provo, UT: Research Press, 1991.
- Stephens, John L. *Incidents of Travel in Central America, Chiapas, and Yucatan*. New York: Harper, 1841.
- Stern, Ephraim. “What Happened to the Cult Figurines? Israelite Religion Purified after the Exile.” *Biblical Archaeological Review* 15/4 (1989): 22–29, 53–54.
- Stewart, Joe D. “A Consideration of the Posthole Murder Motif.” In *Diffusion and Migration: Their Roles in Cultural Development*, edited by P. G. Duke, J. Ebert, G. Langemann, and A. P. Buchner, 226–35. Calgary, Canada: University of Calgary Archeological Association, 1978.
- . “Ethnohistorical Implications of a Mythological Theme in Micronesia and Mesoamerica.” *Canadian Journal of Anthropology* 4/1 (1984): 23–37.
- . “Structural Evidence of a Luni-solar Calendar in Ancient Mesoamerica.” *Estudios de cultura nahuatl* 17 (1984): 171–91.
- Stewart, Thomas D. *The People of America*. New York: Scribner’s, 1973.
- Stirling, Matthew W., ed. *Indians of the Americas, a Color-Illustrated Record*. Washington, DC: National Geographic Society, 1961.
- . “Wheeled Toys from Tres Zapotes, Veracruz.” *Amerindia* 1 (1962): 43–49.
- Stocker, Terry. “Conquest, Tribute and the Rise of the State.” In *Studies in the Neolithic and Urban Revolutions: The V. Gordon Childe Colloquium, Mexico, 1986*, edited by Linda Manzanilla, 365–76. BAR International Series 349. Oxford: BAR, 1987.

- Stocker, Terry, Barbara Jackson, and Harold Riffell. "Wheeled Figurines from Tula, Hidalgo, Mexico." *Mexicon* 8/4 (1986): 69–72.
- Stokstad, Eric. "Oldest New World Writing Suggests Olmec Innovations." *Science* 298 (2002): 1872–74.
- Stone, Andrea. "Disconnection, Foreign Insignia, and Political Expansion: Teotihuacan and the Warrior Stelae of Piedras Negras." In Diehl and Berlo, *Mesoamerica after the Decline of Teotihuacan*, 153–72.
- Stone, Bryan J. "The Philistines and Acculturation: Culture Change and Ethnic Continuity in the Iron Age." *Bulletin of the American Schools of Oriental Research* 298 (1995): 7–32.
- Stone, Doris, and Carlos Balsler. *Aboriginal Metalwork in Lower Central America*. San José, Costa Rica: The authors, 1967.
- Stone, George C. *Glossary of the Construction, Decoration and Use of Arms and Armor in All Countries and in All Times*. New York: Jack Brussels, 1961.
- Stresser-Péan, Guy. "Ancient Sources on the Huasteca." In Wauchope, Ekholm, and Bernal, *Handbook of Middle American Indians*, 11:582–602.
- Strong, William D. "North American Indian Traditions Suggesting a Knowledge of the Mammoth." *American Anthropologist* 36 (1934): 81–88.
- Stross, Brian. "The Language of Zuyúa." *American Ethnologist* 10 (1983): 150–64.
- Stuart, David. "'The Arrival of Strangers': Teotihuacan and Tollan in Classic Maya History." *PARI Online Publications, Newsletter* 25 (1998). http://www.mesoweb.com/pari/publications/news_archive/25/strangers/strangers.html.
- Stubbs, Brian D. *A Few Hundred Hints of Egyptian and Two Dialects of Northwest Semitic in Uto-Aztecan*. Photocopy, 2006, 109 pp.
- . "Looking Over vs. Overlooking Native American Languages: Let's Void the Void." *Journal of Book of Mormon Studies* 5/1 (1996): 1–49.
- . *Uto-Aztecan: A Comparative Vocabulary*. Blanding, UT: Rocky Mountain Books, 2011.
- Stuiver, Minze, and Paula J. Reimer. "Extended ¹⁴C data Base and Revised CALIB 3.0 ¹⁴C Age Calibration Program." *Radiocarbon* 35/1 (1993): 215–30.
- Sugiyama, Saburo. "Termination Programs and Prehispanic Looting at the Feathered Serpent Pyramid in Teotihuacan, Mexico." In *The Sowing and the Dawning: Termination, Dedication, and Transformation in the Archaeological and Ethnographic Record of Mesoamerica*, edited by Shirley B. Mock, 147–64. Albuquerque: University of New Mexico Press, 1998.
- Swadesh, Morris. "Lexico-Statistic Dating of Prehistoric Ethnic Contacts: With

- Special Reference to North American Indians and Eskimos." *Proceedings of the American Philosophical Society* 96/4 (1952): 452–63.
- . "Linguistic Relations across Bering Strait." *American Anthropologist* 64 (1962): 1262–91.
- . "On Interhemisphere Linguistic Connections." In *Culture in History: Essays in Honor of Paul Radin*, edited by Stanley Diamond, 894–924. New York: Columbia University Press, 1960.
- Swanton, John R. 1940. "The First Description of an Indian Tribe in the Territory of the Present United States." In *Studies for William A. Read*, edited by Nathaniel M. Caffee and Thomas A. Kirby, 326–38. Freeport, NY: Books for Libraries, 1968. First published 1940 at Baton Rouge.
- Symonds, Stacey. "The Ancient Landscape at San Lorenzo Tenochtitlán, Veracruz, Mexico: Settlement and Nature." In Clark and Pye, *Olmec Art and Archaeology in Mesoamerica*, 55–73.
- . "Reconocimiento intensivo regional en San Lorenzo Tenochtitlan." In *Memoria del coloquio: Arqueología de centro y sur de Veracruz*, edited by Sara Ladrón de Guevara and Sergio Vásquez Zárate, 119–25. Xalapa, Mexico: Universidad Veracruzana, 1997.
- Tamayo, Jorge L., with Robert C. West. "The Hydrography of Middle America." In Wauchope and West, *Handbook of Middle American Indians*, 1:84–121.
- Tax, Sol. *Heritage of Conquest: The Ethnology of Middle America*. Glencoe, IL: Viking Fund, 1952.
- Tedlock, Barbara. *Time and the Highland Maya*. Rev. ed. Albuquerque: University of New Mexico Press, 1992.
- Tedlock, Dennis. "Mayan Books in Community and Nation: From the Postclassic to the Present." Paper delivered at the 44th International Congress of Americanists, Manchester, 1982.
- Teeter, Wendy G. "Animal Utilization in a Growing City: Vertebrate Exploitation at Caracol, Belize." In *Maya Zooarchaeology: New Directions in Method and Theory*, edited by Kitty F. Emery, 177–87. Cotsen Institute Monograph 51. Los Angeles: University of California, 2004.
- Te Velde, Herman. "Theology, Priests, and Worship in Ancient Egypt." In Sasson, *Civilizations of the Ancient Near East*, 3:1731–49.
- Thomas, Cyrus. *Report on the Mound Explorations of the Bureau of Ethnology*. Washington, DC: Smithsonian Institute, 1894.
- Thomas, David H. "Part One: The World as It Was." In *The Native Americans: An Illustrated History*, 23–108. Atlanta, GA: Turner, 1993.

- Thomas, Norman D. *The Linguistic, Geographic, and Demographic Position of the Zoque of Southern Mexico*. New World Archaeological Foundation Papers 36. Provo, UT: BYU New World Archaeological Foundation, 1974.
- Thompson, J. Eric S. "Maya Hieroglyphic Writing." In Wauchope and Willey, *Handbook of Middle American Indians*, 3:632–58.
- . *Maya History and Religion*. Norman: University of Oklahoma Press, 1970.
- . *The Rise and Fall of Maya Civilization*. 2nd ed. Norman: University of Oklahoma Press, 1966.
- , ed. *Thomas Gage's Travels in the New World*. Norman: University of Oklahoma Press, 1958.
- Tichy, Franz. "Order and Relationship of Space and Time in Mesoamerica: Myth or Reality?" In Benson, *Mesoamerican Sites and World-Views*, 217–45.
- Tolstoy, Paul. "Utilitarian Artifacts of Central Mexico." In Wauchope, Ekholm, and Bernal, *Handbook of Middle American Indians*, 10:270–96.
- de Torquemada, Juan. *Monarquía Indiana*. 3rd ed. Vol. 2. Mexico City: Editorial Salvador Chavez, 1943. First published 1723.
- Tovilla, Martín Alfonso. *Relación histórica-descriptiva de las provincias de la Verapaz e la del Manché*. Guatemala: Editorial Universitaria, 1960.
- Tozzer, Alfred M., ed. and trans., *Landa's Relación de las Cosas de Yucatan: A Translation*. Peabody Museum of American Archaeology and Ethnology Papers 18. Cambridge, MA: Harvard University, 1941.
- Trigger, Bruce G. "Archaeology and Epistemology: Dialoguing across the Darwinian Chasm." *Journal of Archaeology* 102 (1998): 1–34.
- . "The Strategy of Iroquoian Prehistory." *Ontario Archaeologist* 14 (1970): 30.
- Tuggle, H. David. "The Columns of El Tajín, Veracruz, Mexico." *Ethnos* (1968): 40–70.
- Turner, B. L., II, and Peter D. Harrison. "Implications from Agriculture for Maya Prehistory." In *Pre-Hispanic Maya Agriculture*, edited by Peter D. Harrison and B. L. Turner II, 337–73. Albuquerque: University of New Mexico Press, 1978.
- Turner, Orsamus. *History of the Pioneer Settlement of Phelps and Gorham's Purchase, and Morris Reserve*. Rochester, NY: Alling, 1851.
- Tvedtnes, John A., ed., "Book of Mormon Onomastica: The Phonology and Etymology of Book of Mormon Names and Their Cultural and Historical Implications," unpaginated typescript in the FARMS library. Provo, UT: 1985.
- . "The Hebrew Background of the Book of Mormon." In Sorenson and Thorne, *Rediscovering the Book of Mormon*, 77–91.

- . “King Benjamin and the Feast of Tabernacles.” In Lundquist and Ricks, *By Study and Also by Faith*, 2:197–237.
- . “Linguistic Implications of the Tel Arad Ostraca.” *Newsletter and Proceedings of the Society for Early Historic Archaeology* 127 (1971): 1–5.
- Tylor, Edward B. “Backgammon among the Aztecs.” *Macmillan's Magazine* 39 (1878): 142–50.
- . “On the Game of Patolli in Ancient Mexico, and Its Probably Asiatic Origin.” *Journal of the Anthropological Institute* 8 (1878): 116–31.
- Unger, Eckhard. “Ancient Babylonian Maps and Plans.” *Antiquity: A Quarterly Review of Archaeology* 9 (1935): 311–22.
- Unger, Merrill F. *The New Unger's Bible Dictionary*. Edited by Roland K. Harrison. Rev. ed. Chicago: Moody, 1988.
- United Bible Societies Committee on Translations. *Fauna and Flora of the Bible: Helps for Translators*. London: United Bible Societies, 1972.
- Vaillant, George C. *The Aztecs of Mexico*. Harmondsworth, England: Penguin, 1950.
- Valastro, S., Jr., E. Mott Davis, and Alexandra G. Varela. “University of Texas at Austin Radiocarbon Dates XI.” *Radiocarbon* 19/2 (1977): 280–325.
- Valdés, Juan Antonio. “Kaminaljuyú, Guatemala: Descubrimientos recientes sobre poder y manejo hidráulico.” In *Memorias del Tercer Congreso Internacional de Mayistas, 9 al 15 de Julio de 1995*, 751–70. Mexico City: Universidad Nacional Autónoma de México, 1998.
- . “El proyecto Miraflores II dentro del marco Preclásico de Kaminaljuyu.” In Laporte and Escobedo, *X Simposio de investigaciones arqueológicas en Guatemala, 1996*, 80–91.
- Van Blerkom, Linda M. “A Comparison of Maya and Egyptian Hieroglyphics.” *Katunob* 11/3 (1979): 1–8.
- Van Dam, Cornelis. *The Urim and Thummim: A Means of Revelation in Ancient Israel*. Winona Lake, IN: Eisenbrauns, 1997.
- Van der Merwe, Nikolas J., and Donald H. Avery. “Pathways to Steel.” *American Scientist* 70 (1982): 146–55.
- Van der Toorn, Karel. “Theology, Priests, and Worship in Canaan and Ancient Israel.” In Sasson, *Civilizations of the Ancient Near East*, 3:2043–58.
- Van Zantwijk, Rudolf. “Las organizaciones social-económica y religiosa de los mercaderes gremiales aztecas.” *Boletín de estudios latino-americanos* 10 (1970): 1–20.

- Velázquez Valadéz, Ricardo. "Recent Discoveries in the Caves of Loltun, Yucatan, Mexico." *Mexicon* 2 (1980): 54–55.
- Veytia, Mariano. *Historia antigua de México*. 2 vols. Mexico City: Imprenta Juan Ojeda, 1836. Reprint, Mexico City: México Editorial Leyenda, 1944.
- Vidal Lorenzo, Cristina. "Tumbas, enterramientos, ofrendas en el Grupo Ah Canul de la ciudad Maya Yucateca de Oxkintok, Yucatán." In Laporte and Escobedo, *VIII Simposio de investigaciones arqueológicas en Guatemala, 1994*, 1:273–300.
- Villa Rojas, Alfonso. "The Tzeltal." In Wauchope and Vogt, *Handbook of Middle American Indians*, 7:195–225.
- Vivó Escoto, Jorge A. "Weather and Climate of Mexico and Central America." In Wauchope and West, *Handbook of Middle American Indians*, 1:187–215.
- Voegelin, C. F., and Florence M. Voegelin. "Typological Classification of Systems with Included, Excluded and Self-Sufficient Alphabets." *Anthropological Linguistics* 3/1 (1961): 55–96.
- Vogel, Dan, ed. *Early Mormon Documents*. Vol. 3. Salt Lake City: Signature Books, 2000.
- Voget, Fred W. "Man and Culture: An Essay in Changing Anthropological Interpretation." *American Anthropologist* 62 (1960): 943–65.
- Vogt, Evon Z. "Cardinal Directions and Ceremonial Circuits in Mayan and Southwestern Cosmology." *National Geographic Society Research Reports* 21 (1985): 487–96.
- . *Zinacantan: A Maya Community in the Highlands of Chiapas*. Cambridge, MA: Belknap Press of Harvard University, 1969.
- . "Zinacanteco Astronomy." *Mexicon* 19/6 (1997): 110–16.
- Vogt, Evon Z., and Richard M. Levanthal, eds. *Prehistoric Settlement Patterns: Essays in Honor of Gordon R. Willey*. Cambridge, MA: Peabody Museum of Archaeology and Ethnology, Harvard University, 1983.
- Von Der Porten, Edward P. "The Drake Puzzle Solved." *Pacific Discovery* 37 (July/September 1984): 22–26.
- von Hagen, Victor W. *The Desert Kingdoms of Peru*. London: Weidenfeld and Nicolson, 1964.
- . *Maya Explorer: John Lloyd Stephens and the Lost Cities of Central America and Yucatán*. Norman: University of Oklahoma Press, 1947.
- von Nagy, Christopher. "The Geoarchaeology of Settlement in the Grijalva Delta." In Stark and Arnold, *Olmec to Aztec*, 253–77.
- von Winning, Hasso. "Figurillas de barro sobre ruedas procedentes de México y del Viejo Mundo." *Amerindia* 1 (1962): 11–39.

- . “Further Examples of Figurines on Wheels from Mexico.” *Ethnos* 25 (1960): 63–72.
- von Wuthenau, Alexander. *Altamerikanische Tonplastik: Das Menschenbild der neuen Welt*. Baden-Baden, Germany: Holle, 1965.
- . *The Art of Terracotta Pottery in Pre-Columbian Central and South America*. New York: Crown, 1969.
- . *Unexpected Faces in Ancient America, 1500 B.C.–A.D. 1500: The Historical Testimony of Pre-Columbian Artists*. New York: Crown, 1975.
- Wagner, Helmuth O. “Subsistence Potential and Population Density of the Maya on the Yucatan Peninsula and Causes for the Decline in Population in the Fifteenth Century.” *Proceedings of the 38th International Congress of Americanists (Stuttgart-Munich, 1968)*, 1:179–96. Munich: Renner, 1969.
- Waibel, Leo. *La Sierra Madre de Chiapas*. Mexico City: Ediciones de la Sociedad Mexicana de Geografía y Estadística, 1946.
- Waldbaum, Jane C. *From Bronze to Iron: The Transition from the Bronze Age to the Iron Age in the Eastern Mediterranean*. Studies in Mediterranean Archaeology 54. Göteborg, Sweden: 1978.
- Wales, H. G. Quaritch. *The Mountain of God*. London: Bernard Quaritch, 1953.
- Walker, Charles L. *The Diary of Charles Lowell Walker*, edited by A. Karl Larson and Katharine Miles Larson. 2 vols. Logan, UT: Utah State University Press, 1980.
- Walker, Debra S., Kathryn Reese-Taylor, and Peter Mathews. “Después de la caída: Una redefinición of Clásico temprano maya.” In Laporte, Arroyo, and Mejía, *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 2:659–72.
- Wallrath, Matthew. “Excavations in the Tehuantepec Region, Mexico.” *Transactions of the American Philosophical Society* 57/2 (1967): 9–10.
- Walters, Garry R., and Lawrence H. Feldman. “On Change and Stability in Eastern Mesoamerica.” *Current Anthropology* 23 (1982): 591–97.
- The War of Conquest: How It Was Waged Here in Mexico; The Aztecs' Own Story as Given to Fr. Bernardino de Sahagun*. Translated by Arthur J. O. Anderson and Charles E. Dibble. Salt Lake City: University of Utah Press, 1978.
- Warren, Bruce W. “The Central Depression of Chiapas: Its Role within the Evolution of Mesoamerican Civilization.” Master’s thesis, University of Arizona, 1969.
- . Review of *The World of the Jaredites*, by Hugh Nibley. *University Archaeological Society Newsletter* 27 (June 1955): 1–6. Reprinted in *Progress in Archaeology: An Anthology*, compiled and edited by Ross T. Christensen,

- 88–95. University Archaeological Society, Publication 4. Provo, UT: Brigham Young University, 1963.
- . “The Sociocultural Development of the Central Depression of Chiapas, Mexico: Preliminary Considerations.” PhD diss., University of Arizona, 1977.
- Watanabe, John M. “In the World of the Sun: A Cognitive Model of Mayan Cosmology.” *Man* 18/4 (1983): 710–28.
- Wauchope, Robert. *Introduction to The Indian Background of Latin American History: The Maya, Aztec, Inca, and Their Predecessors*, edited by Robert Wauchope, 1–15. New York: Knopf, 1970.
- . *Zacualpa, El Quiché, Guatemala: An Ancient Provincial Center of the Highland Maya*. Middle American Research Institute Publication 39. New Orleans: Tulane University, 1975.
- Wauchope, Robert, Gordon F. Ekholm, and Ignacio Bernal, eds. *Handbook of Middle American Indians*. Vol. 10. Austin: University of Texas Press, 1971.
- , eds. *Handbook of Middle American Indians*. Vol. 11. Austin: University of Texas Press, 1971.
- Wauchope, Robert, and Robert C. West, eds. *Handbook of Middle American Indians*. Vol. 1. Austin: University of Texas Press, 1964.
- Wauchope, Robert, and Gordon R. Willey, eds. *Handbook of Middle American Indians*. Vol. 2. Austin: University of Texas Press, 1965.
- , eds. *Handbook of Middle American Indians*. Vol. 3. Austin: University of Texas Press, 1965.
- Wauchope, Robert, and Evon Z. Vogt, eds. *Handbook of Middle American Indians*. Vol. 7. Austin: University of Texas Press, 1969.
- Webster, David L. “The B-V-11 Mound Group: A Middle Classic Elite Residence Compound.” In Michels and Sanders, *Pennsylvania State University Kaminaljuyu Project: 1969, 1970 Seasons, Part I*, 253–96.
- . *Defensive Earthworks at Becán, Campeche, Mexico: Implications for Maya Warfare*. Middle American Research Institute Publication 41. New Orleans: Tulane University, 1976.
- . *The Fall of the Ancient Maya: Solving the Mystery of the Maya Collapse*. London: Thames & Hudson, 2002.
- . “Groundhogs and Kings: Issues of Divine Rulership among the Classic Maya.” In Love, Popenoe de Hatch, and Escobedo, *Incidents of Archaeology in Central America and Yucatán*, 433–58.
- . “The Not So Peaceful Civilization: A Review of Maya War.” *Journal of World Prehistory* 14/1 (2000): 65–119.

- . “Warfare and Status Rivalry: Lowland Maya and Polynesian Comparisons.” In *Archaic States*, edited by Gary M. Feinman and Joyce Marcus, 311–51. Santa Fe, NM: School of American Research, 1998.
- Webster, David, Timothy Murtha, Kirk Straight, Horacio Martínez, Richard Terry, Rich L. Burnett, Ryan V. Sweetwood, Walter Alvarado, Irinna Montepeque, and Jay Silverstein. “Nuevos trabajos e interpretaciones de los terraplenes de Tikal: Segunda temporada de campo.” In Laporte, Arroyo, and Mejía, *XIX Simposio de investigaciones arqueológicas en Guatemala, 2005*, 2:695–703.
- Webster, Nesta H. *Secret Societies and Subversive Movements*. 7th ed. London: Britons, 1955.
- Wei, Chu-Hsien. “The Discovery of Chinese Inscriptions in America.” In *China and America: A Study of Ancient Communication between the Two Lands*, 15–21. Vol. 1. Hong Kong: The author, 1970–71.
- Weitlaner, Roberto J., and Howard F. Cline. “The Chinantec.” In Wauchope and Vogt, *Handbook of Middle American Indians*, 7:523–52.
- Welch, John W. “The Calling of a Prophet.” In *First Nephi, The Doctrinal Foundation*, edited by Monte S. Nyman and Charles D. Tate Jr., 35–54. Provo, UT: BYU Religious Studies Center, 1988.
- . “Chiasmus in Alma 36.” Provo, UT: FARMS, 1989.
- , ed. *Chiasmus in Antiquity: Structures, Analyses, Exegesis*. Hildesheim, Germany: Gerstenberg Verlag, 1981.
- . “Chiasmus in Helaman 6:7–13.” Provo, UT: FARMS, 1987.
- . “Chiasmus in the Book of Mormon.” *BYU Studies* 10/1 (1969): 69–84.
- . “Criteria for Identifying and Evaluating the Presence of Chiasmus.” *Journal of Book of Mormon Studies* 4/2 (1995): 1–14.
- . “The Father’s Command to Keep Records in the Small Plates of Nephi.” Provo, UT: FARMS, 1985.
- . “How Long Did It Take to Translate the Book of Mormon?” In Welch, *Reexploring the Book of Mormon*, 1–4.
- . *The Legal Cases in the Book of Mormon*. Provo, UT: Brigham Young University Press and Neal A. Maxwell Institute, 2008.
- . “Number 24.” In Welch, *Reexploring the Book of Mormon*, 272–74.
- , ed. *Reexploring the Book of Mormon*. Salt Lake City: Deseret Book and FARMS, 1992.
- . *The Sermon at the Temple and the Sermon on the Mount: A Latter-day Saint Approach*. Salt Lake City: Deseret Book and FARMS, 1990.
- Wendel, Jonathan F., Andrew Schnabel, and Tosak Seelanan. “An Unusual

- Ribosomal DNA Sequence from *Gossypium gossypioides* Reveals Ancient, Cryptic, Intergenomic Introgression." *Molecular Phylogenetics and Evolution* 4/3 (1995): 298–313.
- Wenner-Gren Foundation for Anthropological Research: Report for 1974. New York: 1975.
- West, Robert C. "Aboriginal Sea Navigation between Middle and South America." *American Anthropologist* 63 (1961): 133–35.
- . "Surface Configuration and Associated Geology of Middle America." In Wauchope and West, *Handbook of Middle American Indians*, 1:33–83.
- Wheeler, Tamara S., and Robert Maddin. "Metallurgy and Ancient Man." In *The Coming of the Age of Iron*, edited by Theodore A. Wertime and James D. Muhly, 99–126. New Haven: Yale University Press, 1980.
- White, Christine D., Michael W. Spence, Fred J. Longstaffe, and Kimberley R. Law. "Testing the Nature of Teotihuacán Imperialism at Kaminaljuyú Using Phosphate Oxygen-Isotope Ratios." *Journal of Anthropological Research* 56 (2000): 335–58.
- Whiting, Michael F. "DNA and the Book of Mormon: A Phylogenetic Perspective." *Journal of Book of Mormon Studies* 12/1 (2003): 24–35.
- Wichmann, Søren. *The Relationship among the Mixe-Zoquean Languages of Mexico*. Salt Lake City: University of Utah Press, 1995.
- Wiercieński, Andrzej. "An Anthropological Study on the Origin of 'Olmecs.'" *Swiatowit* 33 (1972): 143–74.
- . "Canon of the Human Body, Mexican Measures of Length and the Pyramid of Quetzalcoatl from Teotihuacan." *Polish Contributions in New World Archaeology* 2 (1980): 103–23.
- . "Inter- and Intrapopulational Racial Differentiation of Tlatilco, Cerro de las Mesas, Teotihuacan, Monte Alban and Yucatan Maya." In *Proceedings of the 39th International Congress of Americanists (Lima, 1970)* (1972): 231–48.
- . "Pyramids and Ziggurats as the Architectonic Representations of the Archetype of the Cosmic Mountain." *Katunob* 10 (1976): 69–121.
- . "Time and Space in the Sun Pyramid from Teotihuacan." *Polish Contributions in New World Archaeology* 1 (1977): 87–103.
- Wilkinson, David. "Cities, Civilizations, and *Oikumenes*." *Comparative Civilizations Review* 27 (1992): 51–87; and 28 (1993): 41–72.
- Wiley, Gordon R. *An Introduction to American Archaeology*. 2 vols. Englewood Cliffs, NJ: Prentice-Hall, 1966–71.

- . “The Prehistoric Civilizations of Nuclear America.” *American Anthropologist* 57 (1955): 571–93.
- . Review of *Aboriginal Cultural Development in Latin America*, edited by Betty Meggers and Clifford Evans. *American Anthropologist* 66 (1964): 442–46.
- Willey, Gordon R., and Norman Hammond. Introduction to Hammond and Willey, *Maya Archaeology and Ethnohistory*, xi–xvii.
- Willey, Gordon R., and Jeremy A. Sabloff. *A History of American Archaeology*. San Francisco: Freeman, 1980.
- Williams, Camille S. “Women in the Book of Mormon: Inclusion, Exclusion, and Interpretation.” *Journal of Book of Mormon Studies* 11 (2002): 66–79.
- Williams, Howel. *Geologic Observations on the Ancient Human Footprints near Managua, Nicaragua*. American Anthropology and History Contribution 52. Washington, DC: Carnegie Institution, 1952.
- Williams, John J. *The Isthmus of Tehuantepec, Being the Results of a Survey for a Railroad to Connect the Atlantic and Pacific Oceans*. New York: Appleton, 1852.
- Williams, Samuel C., ed. *Adair’s History of the American Indians*. Johnson City, TN: Watauga, 1930.
- Williams, Stephen. *Fantastic Archaeology: The Wild Side of North American Prehistory*. Philadelphia: University of Pennsylvania Press, 1991.
- . “The Island 35 Mastodon: Its Bearing on the Age of Archaic Cultures in the East.” *American Antiquity* 22 (1957): 359–72.
- Williamson, George. “Antiquities in Guatemala.” In *Annual Report of the Board of Regents of the Smithsonian Institution . . . [for] 1876*, 418–21. Washington, DC: Smithsonian, 1877.
- Wilson, Robert R. “The Old Testament Genealogies in Recent Research.” *Journal of Biblical Literature* 94 (1975): 169–89.
- Wilson, William. *Wilson’s Old Testament Word Studies*. Grand Rapids, MI: Kregel, 1978.
- Wirth, Diane E. *Parallels: Mesoamerican and Ancient Middle Eastern Traditions*. St. George, UT: Stonecliff, 2003.
- . “Quetzalcoatl, the Maya Maize God, and Jesus Christ.” *Journal of Book of Mormon Studies* 11/1 (2002): 4–15.
- Wiseman, Donald J. “Archaeology and the Old Testament.” In *Archaeology and the Bible: An Introductory Study*, edited by Donald J. Wiseman and Edwin Yamauchi, 3–59. Grand Rapids, MI: Zondervan, 1979.
- Wiseman, Donald J., and Edwin Yamauchi, eds. *Archaeology and the Bible: An Introductory Study*. Grand Rapids, MI: Zondervan, 1979.

- Wood, Bryant G. "To Dip or Sprinkle? The Qumran Cisterns in Perspective." *Bulletin of the American Schools of Oriental Research* 256 (1984): 45–60.
- Woodbury, Richard B., and James A. Neely. "Water Control Systems of the Tehuacan Valley." In *Chronology and Irrigation*, edited by Frederick Johnson, 81–153. Vol. 4 of *The Prehistory of the Tehuacan Valley*. Austin: University of Texas Press, 1972.
- Woodward, John. "An Early Ceramic Tradition on the Pacific Coast." *The Masterkey for Indian Lore and History* 51/2 (1977): 66–72.
- Woolley, Leonard. *Digging Up the Past*. Harmondsworth, England: Penguin, 1937.
- "Worldwide: Susa, Elam." *Biblical Archaeology Review* 22/5 (1996): 80.
- Wright, H. Curtis. "Ancient Burials of Metal Documents in Stone Boxes." In Lundquist and Ricks, *By Study and Also by Faith*, 2:273–334.
- . *Modern Presentism and Ancient Metallic Epigraphy*. Salt Lake City: Wings of Fire, 2006.
- Wu, Xiaohong, Chi Zhang, Paul Goldberg, David Cohen, Yan Pan, Trina Arpin, and Ofer Bar-Yosef. "Early Pottery at 20,000 Years Ago in Xianrendong Cave, China." *Science* 336 (2012): 1696–700.
- Wuthenau, Alexander von. *See von Wuthenau*.
- Xu, H. Mike. "The Culture of Shang and Zhou Dynasties of Ancient China and the Civilization of Mesoamerica." *Quarterly Journal of the Shanghai Academy of Social Sciences* 59/3 (1999): 181–96.
- . "The Evidence of Mesoamerican Writing—Transpacific Origin?" *Yindu Journal, Special Edition Commemorating the 100th Anniversary of the Discovery of Ancient Chinese Inscriptions* (1999): 28–43.
- . "New Evidence for Pre-Columbian Transpacific Contact between China and Mesoamerica." *Journal of the Washington Academy of Sciences* 88/1 (2002): 1–11.
- . "The New Evidence of a Connection between Ancient Chinese Inscriptions and Mesoamerican Motifs." *Zhongguo wen zi yan jiu* 1 (1999): 410–18.
- . *Origin of Olmec Civilization*. Edmond: University of Central Oklahoma Press, 1996.
- Yadin, Yigael. *The Art of Warfare in Biblical Lands*. 2 vols. New York: McGraw-Hill, 1963.
- Yerman, Bruce H. "Ammon and the Mesoamerican Custom of Smiting Off Arms." *Journal of Book of Mormon Studies* 8/1 (1999): 44–47.
- Zeitlin, Robert N. "Long-Distance Exchange and the Growth of a Regional Center: An Example from the Southern Isthmus of Tehuantepec, Mexico." In

Prehistoric Coastal Adaptations: The Economy and Ecology of Maritime Middle America, edited by Barbara L. Stark and Barbara Voorhies, 183–210. New York: Academic Press, 1978.

Zevallos Menéndez, Carlos. “Estudio regional de la orfebrería precolombina de Ecuador y su posible relación con las áreas vecinas.” *Revista del Museo Nacional* 34 (1965–66): 68–81.

Zevit, Ziony. *The Religions of Ancient Israel: A Synthesis of Parallaxic Approaches*. London: Continuum, 2001.

Illustration Credits

- 4.1 Barra phase pottery. Illustrated by Áyax Moreno. Courtesy New World Archaeological Foundation.
- 6.1 Stela 25. Vucub Caquix. Courtesy New World Archaeological Foundation.
- 7.1 Lake Atitlan, Guatemala. Photograph by John W. Welch. Used by permission.
- 7.2 Cerro El Vigía, Veracruz. Photograph by David A. Palmer. Used by permission.
- 12.1 Ethnic variety.

ROW ONE (from left to right)

1. From John L. Sorenson, *Images of Ancient America: Visualizing Book of Mormon Life* (Provo, UT: Research Press, 1988), 18.
2. Courtesy Museo Amparo Collection. Photograph by Carlos Varillas.
3. From Sorenson, *Images of Ancient America*, 18. In collection of Mr. and Mrs. Ellsworth La Boyteaux, Orinda, CA.
4. Courtesy Museo Amparo Collection. Photograph by Carlos Varillas.
5. From Sorenson, *Images of Ancient America*, 20.

ROW TWO

1. From Sorenson, *Images of Ancient America*, 20.
2. From Sorenson, *Images of Ancient America*, 21.
3. From Sorenson, *Images of Ancient America*, 18.
4. From Sorenson, *Images of Ancient America*, 20.

ROW THREE

1. From Sorenson, *Images of Ancient America*, 20.
2. Photograph K3521. © Justin Kerr.
3. From Sorenson, *Images of Ancient America*, 19. Instituto Nacional de Antropología e Historia.
4. From Sorenson, *Images of Ancient America*, 20.

ROW FOUR

1. From Sorenson, *Images of Ancient America*, 21.

2. From Sorenson, *Images of Ancient America*, 21.
3. From Sorenson, *Images of Ancient America*, 20.
4. From Sorenson, *Images of Ancient America*, 20.
- 12.2 Chichen Itzá. Detail of mural painting, Temple of the Warriors, Chichen Itzá, by Ann Axtell Morris. Courtesy of the Peabody Museum of Archaeology and Ethnology, Harvard University, 46-34-20/26287 (digital file #60742828).
- 12.3 Carved wooden figure. Mexico/Guatemala. 6th century. Precolumbian period. Maya style. Wood, red hematite, 14 1/8 x 9 x 9 in. (35.9 x 22.9 x 22.9 cm). The Michael C. Rockefeller Memorial Collection, Bequest of Nelson A. Rockefeller, 1979 (1979.206.1063). Photograph by Schecter Lee. Image copyright: © The Metropolitan Museum of Art. Image source: Art Resource, NY.
- 16.1 Wheeled platform. Photograph by Paul R. Cheesman. Used by permission.
- 16.2 Drawing of wheeled platform. Illustrated by Michael P. Lyon after Hasso von Winning, "Figurillas de barro sobre ruedas procedentes de México y del Viejo Mundo," *Amerindia* 1 (1962): 13 (Montevideo).
- 16.3 Maya highway. Photograph by Allen J. Christenson. Used by permission.
- 16.4 Ecuadorean raft. From Alexander von Humboldt, *Vues des cordillères, et monuments des peuples indigenes de l'Amérique* (Paris: Schell, 1810), plate 33.
- 18.1 Sword from Loltun Cave. From Stephen D. Ricks and William J. Hamblin, *Warfare in the Book of Mormon* (Salt Lake City: Deseret Book and FARMS, 1990), 339.
- 18.2 Curved dagger on Stela 11. Gianni Dagli Orti/The Art Archive at Art Resource, NY.
- 20.1 Stela 11, Piedras Negras. From Sylvanus G. Morley and George W. Brainerd, *The Ancient Maya*, 4th ed., rev. Robert Sharer (1946, 1947, 1956; Stanford, CA: Board of Trustees of the Leland Stanford Jr. University, 1983). All rights reserved. Used with the permission of Stanford University Press, www.sup.org.
- 21.1 Monument 47, San Lorenzo. Illustration by Michael P. Lyon.
- 22.1a La Venta Stela 3 as excavated. Papers of Robert F. Heizer (heizer_1290.tif) National Anthropological Archives, Smithsonian Institution.
- 22.1b La Venta Stela 3 reconstruction. From Philip Drucker, Robert Heizer, and Robert Squier, *Excavations at La Venta Tabasco, 1955*. Bureau of American Ethnology Bulletin 170 (Washington, DC: Smithsonian, 1959), plate 55. Used by permission.
- 22.2 The Alvarado Stela from Ignacio Bernal, *The Olmec World* (Berkeley: University of California Press, 1969), fig. 8.

Index

- Aaron, city of, San Isidro as, 596–97
Abinadi, 489, 557–58
acculturation of Lehites and Mulekites, 35–36, 39–40. *See also* cultural interchange
Adams, Richard E. W., 87n65, 603
Adams, William Y., 13n18
adoption: into houses, 267–68, 278; as Nephites, 211, 290; population and, 288–91
agave, 171
agriculture: correspondences concerning, 302–9; culture history of Mesoamerica and, 67, 68, 69; of Early Pre-Classic period, 69; fortifications and, 612–13; of Jaredites, 29; during Late Pre-Classic period, 88; of Lehites, 34; as source of wealth, 259; warfare and, 386
Agrinier, Pierre, 181, 674–75
Aguilar, Gerónimo, 233–34
Ahuitzotl, 692
Albright, William F., 222
Alma₁, 121, 132–33, 282–83
Alma₂: house concept and, 269–70; as military leader, 421, 481–82; mission of, 46; preaches in Ammonihah, 481, 589–90; uses oracle stones, 485; in Zarahemla, 598–99, 602
alphabetic writing, 222
Alphitobius diaperinus, 155–56
Alsar, Vital, 170
altars, 492–93
Alta Vista, 444
Alux, 571
Alvarado, Pedro de, 353, 394, 543
Alvarado stela, 530–32, 531 fig.
Amalickiah: as aggressor, 48–52, 369, 391, 600, 608–9; death of, 370, 442–43; gathers army, 397; legitimacy of, 366–67; “narrow passage” and, 130; reign of, 604; Teancum intercepts, 616–17
Amalickiahites, 49–51
Amlici, 421
Amlicites, 48, 49, 308, 390–91, 400
Ammon: defends Lamoni’s flocks, 400; foreign relations and, 380; gifts offered to, 372; sling of, 417
Ammon, people of, 619–20
Ammonihah: Alma₂ preaches in, 46, 481, 589–90; destruction of records in, 231; entrances of, 299; Lamanite attack on, 138; Mirador as, 595; in warfare, 619
Ammoron: on contention between Nephites and Lamanites, 204; lineage histories and, 201; Moroni’s correspondence with, 211, 255–56, 391; as ruler, 367
Amnihu, hill, 138

- Amulek, 269–70, 367
- Amulonites, 45–46, 290
- ancient Near East: Book of Mormon
and religion of, 456–61; religion of
Mesoamerica and, 451–56
- Ancylostoma duodenale*, 159–60
- angels, 471
- Angola, 59, 685–86
- animals: of Lehites, 35; correspondences
concerning, 309–21; as evidence
of transoceanic voyages, 154–56;
sacrificial, 459, 487
- annals, 195
- Anthon, Charles, 699–700
- Anti-Nephi-Lehies, 283, 393
- Antipas, Mount, 416–17
- aqueducts, 445
- arch, true, 327–28
- archaeology: and animals and, 317n60;
authentication of historical documents,
7–10; Book of Mormon and
Mesoamerican, 706; culture history
of Mesoamerica and, 65–66; of Early
Pre-Classic period, 69–72; historical
interpretation and, 26; limitations of,
10–14, 63–65; modern approach to,
516–17; warfare and, 382–86
- archaeology and history
before 600 BC: broad correspondences
in, 499–508; detailed
correspondences in, 508–24; later
Jaredite era, 524–27
between 600 and 1 BC: arrival
of Semitic foreigners during,
532–33; Chiapas as Zarahemla
and, 581–85; correlations to
Mulekite history during, 538–42;
and correspondences between
ancient and modern cities, 596–
98; culture history of Valley of
Guatemala during, 561; detailed
correspondences during, 570–78;
environmental correlations during,
556–58; ethnic appearances in
Kaminaljuyu during, 549–51;
and fall of La Venta culture,
536–38; formation of Nephites and
Lamanites and, 563–66; growth in
Kaminaljuyu during, 558–61; key
centers of civilization during, 602–4;
land northward and, 626–33; and
Mirador as Ammonihah, 595;
Nephites and Lamanites and,
542–45; overview of, 528–32,
579–81; peace and prosperity
during, 623–26; population and
geographical correlations during,
567–70; population sizes during,
552–53; public works during,
554–56; rise of civilization during,
545–49; and rise of La Venta culture,
533–35; Santa Rosa as Zarahemla
and, 585–94; shared cultural
traditions during, 562–63; and sites
in Chiapas and Zarahemla, 598–99;
warfare during, 604–23; Zarahemla
during, 599–602
between AD 1 and 200: according to
Book of Mormon, 659–65; changes
after AD 50, 649–53; changes
preceding Early Classic period and,
638–41; Late Pre-Classic natural
disasters and, 641–49; overview
of, 634–38; retrenchment period
during, 653–59
between AD 200 and 400: according
to Book of Mormon, 682–93;
transition during, 666–72; warfare
during, 672–83
- Archaic period, 66–68
- architecture, 322–25
- Arenal period, 652–53
- armies: clothing of, 348; food and shelter
for, 419–20; gathering of, 394–95,

- 396–97, 570; organization of, 110, 395–96, 402–3; size of, 286, 397–99
- Armillas, Pedro, 384
- armor, 348, 418–19
- arms as battle trophies, 400–401, 608
- “arms, place of,” 330, 416, 571–72. *See also* weapons
- Arnaiz-Villena, A., 252
- Arnold, Philip J., III, 508
- arrows, 415–16
- art: armor in, 418; death and rebirth in, 467–68; deity represented in, 672; facial hair in Mesoamerican, 242–45; of Late Pre-Classic period, 89; Olmec, 503, 507, 515, 519; standards in, 421; of Teotihuacán, 655, 659; during Terminal Middle Pre-Classic period, 79; varied people in Mesoamerican, 236–42, 532, 540, 691; in Veracruz during Early Classic period, 102; warfare in, 423; weaponry in, 382, 411, 415, 416. *See also* ceramics; figurines; Izapan art style
- astronomy, 430–34, 559–60
- Atitlán, Lake, 133–35, 134 fig., 647–48, 664
- atlatl*, 415–16
- Aurora period, 670
- Aztecs and Aztec empire: archaeological limitations and, 11; civilization of, 146; customs of, 113; directions of, 124, 299; fortifications of, 405; intelligence resources of, 403; lands conquered by, 390; legal punishments in, 375–77; messengers in, 405; military orders in, 277; organization of armies in, 402; rebellions against, 391; records of, 107, 185; secret combinations among, 275–77, 692; seers among, 484; selection of leaders in, 371; social structure of, 271–73; societal units of, 268–69
- Balberta, 99, 606, 666, 673–74
- baldness, 244
- balkanization, 653–54, 663–64
- Ball, Joseph W., 576n155
- balsa log rafts, 136–37, 170, 359–60, 631
- Balser, Carlos, 343
- baptism, 486
- barley, 304–6
- Barnard, Nicholas, 349
- batabs*, 395
- battles: aftermath of, 422–23; combat during, 420–23; communication during, 404–5; declaring, 399; scheduling, 194, 399, 691; tricks in, 400; trophies in, 400–401. *See also* warfare
- battle standards, 109–10, 421
- beans, 153, 306
- beards, 242–45
- Becán, fortifications at, 409–10, 611, 612, 673
- Becker, Marshall J., 365
- beetle, 155–56
- beggars, 272
- being, dual nature of, 463–64
- Bené-Israel Jews, 289–90
- Benjamin, King, 42, 47, 195–96, 216–18
- Bennyhoff, James A., 276–77
- Benson, Elizabeth P., 532
- Berdan, Frances E., 131, 394
- Bernal, Ignacio, 625–26
- bias in histories, 107–8, 207–12
- Bible: archaeological aspects of, 13–14; and authentication of historical documents, 7–9; scholarship concerning, 704
- binary nature of being, 463–64
- Binford, Lewis R., 12, 63
- biology, human. *See* human biology
- blood: drinking, 423; sacrificial, 459, 488
- Bloom, Harold, 696
- Book of Mormon: author of, 3–4; content summary of, 4–6; in hill Cumorah, 693–95; language of, 224–30; Mesoamerican archaeology and, 706; Mesoamerican content in, 696–98;

- Book of Mormon (*continued*)
 nature of history in, 104–8; origin of, 6–15
- books: burning of, 230; and education of rulers, 367; Mayan, 230; in Mesoamerica, 185–87
- “borders by the east sea,” 139–40, 581, 608–10, 616, 619–20
- Borhegyi, Stephan F. de, 639, 650
- Bountiful, 164–65n40, 615
- Bove, Frederick J., 91, 279, 392–93, 636, 639
- bows and arrows, 413–15
- brass, 335–36
- Braswell, Geoffrey E., 637
- Bricker, Victoria R., 437–38
- bricks, 323
- Brockington, Donald, 300–301, 582, 589, 593, 600
- bronze, 335–36, 338
- brother of Jared, 105, 216
- Brotherston, Gordon, 125, 186
- Brown, Cecil H., 124
- buffalo, 315
- buildings: between AD 1 and 200, 656; Jaredite, 507; at Kaminaljuyu, 558, 561; knowledge systems correspondences and, 443–45; material culture correspondences and, 321–28; at Santa Rosa, 586, 593; Valley of Guatemala population and, 552–53
- burials: at Chiapa de Corzo, 623, 651–52, 655, 669–70; following Christ’s visit, 665; funerary texts and, 186–87, 197. *See also* sepulchres; tombs
- Cabrera Castro, Rubén, 671
- Cahal Pech, 576n155
- caimans, 321
- Cakchiquels, Annals of, 210
- calendar(s) and calendar systems: in Book of Mormon and ancient Near East religions, 461; correspondences concerning, 434–42; cyclical repetition and, 193–94, 439, 537–38n26; Hebrew influence on Mesoamerican, 180–81; lunar, 432–33; records concerning, 192–94; warfare and, 194–95, 399–400, 691
- Caley, Earle R., 339
- calpullec*, 268–69
- canal systems, 95, 445, 555–56. *See also* irrigation
- cannibalism, 60, 493–94, 686–87
- Capacha ceramic tradition, 510
- capital cities, 374–75
- captivity: of Jaredite kings, 518; of Kim, 30–31
- Caral, 68–69
- cardinal directions, 19–20, 124–27, 299–300, 431
- Carlson, John B., 275
- Carmack, Robert M., 104, 364, 392, 565–66, 704–5
- Carrasco, David, 214
- carros*, 353–54
- Carter, George, 222
- Cascajal stone block, 523
- Caso, Alfonso, 340, 475
- casualties: of Jaredites, 286–87; of Nephites, 397; of Nephites and Lamanites, 690–91; of Tultecs, 397–98
- catastrophic geological events. *See* natural disasters
- cement, 322, 632
- ceramics: between AD 200 and 400, 667; Capacha, 510; correspondences concerning, 328–29, 510–11; of Early Classic Aurora period, 95; of Early Pre-Classic period, 69–71; East Asian influence on, 512–13, 543; following AD 50, 651; near Laguna Mecoacán, 141, 609; of Late Pre-Classic period, 88; of Santa Rosa periods 3a and 3b, 591. *See also* figurines

- ceremonial situations, records concerning, 190–91
- Cerro El Vigía, 142, 143 fig., 443–44n58, 681, 688n82
- Chadwick, Robert E. L., Jr., 341
- Chalcatzingo, Morelos, 276, 423
- chariots, 350–51, 356
- Charlesworth, James, 702
- Chase, Arlen F., 382–83
- Chase, Diane Z., 382–83
- Chase, James E., 645
- Cheetham, David, 67
- Cherokee DNA Project, 248–49
- Chiapa de Corzo: abandonment of, 674–75, 680–81; burials at, 655; as center of civilization, 602–4; cylinder seal excavated at, 222–24; destruction of buildings in, 653; ethnicity and languages of, 579–81; Francesa period in, 585; Horcones period in, 93; Horcones-period natural disasters in, 647–48; Jiquipilas period in, 95, 294; Mound 5 at, 88, 273, 600; prosperity in, 623–26; Santa Rosa and, 592; as Sidom, 597–98; sociocultural change in, 652–53; transition in, 669–70
- Chiapanec, 272
- Chiapas: “borders by the east sea” and, 140; correspondences concerning, 138; geography of, 605; as heart of Nephite country, 142; as land of Zarahemla, 137, 581–85; obsidian shortage in, 607–8; population of, 294; sites in, 598–99; traditions of transoceanic voyages in, 166
- chiasmus, 446–47, 461
- Chichén Itzá mural, 239–40, 241 fig.
- Chichimecatl, 162
- chickens, 154–55, 320
- chief judges, 47–48
- children: innocence of, 464; socialization of, 270
- Chinese language and writing, 178–79, 221, 511–12
- Chinese rafts, 170
- Chinkultic, 650–51
- Ch'olti'an, 220
- Cholula, 101–2, 377, 654
- Christenson, Allen J., 447
- Christian era, 472–78
- chronology: of Book of Mormon, 15, 23–25; early Jaredite phases, 27–30; Jaredite final phase, 31; Jaredite middle phase, 30–31; Lehite and Mulekite migration phase, 31–36; Pre-Classic, 73–74 table
- Cipactli*, 455, 458–59
- circumcision, 486–87
- cities: capital, 374–75; fortified, 406; housing in, 301; Jaredites and, 29–30; planning and fortification of, 360; possession of, 53; settlement patterns and, 295–300
- city gates, 9
- civilization: in Central America, 144–49; Jaredite, 505–8; key centers of, 602–4; origins of Mesoamerican, 499–505; in Valley of Guatemala, 545–49
- Clark, John E., 67, 96–97, 571, 706
- class: political economy and, 260–61; social structure and, 271–74
- Classic Ch'olti'an, 220
- Classic era, 90–91
- Classic Maya writing system, 219–20
- clay bricks, 323
- climate and climate change, 95–96, 128
- cloak, 347–48
- clothing, 345–50, 418–19
- coats, 347–48
- Coatzacoalcos River, 129, 359, 617–18
- Codex Mendoza, 214
- Coe, Michael D.: on funerary texts and rites, 186–87; Grolier Codex and, 703; on Jaredite social decay, 525; on Las Charcas chronology, 546;

- Coe, Michael D. (*continued*)
 on monuments at San Lorenzo and La Venta, 424; on monuments at Tres Zapotes, 102, 630; on Olmec government, 515; on Olmec stone monuments, 237, 278, 368; on Olmec style and civilization, 501; on Olmec writing, 218–19; on scheduling battles, 399; on speculating, 158
- Coe, William, 84n52
- Coggins, Clemency C., 366
- Cohodas, Marvin, 467–68
- Com, 518, 524–25
- commerce. *See* trade
- communion, 489–92
- Conchas people, 83
- concrete, 322, 632
- confession, 488
- conflict phase, 58–62
- Congdon, Lenore O. K., 338
- Conseguina eruption, 644
- convergence, 16
- copper, 335–36, 338
- Cordilleran mountain chain, 137
- Coriantumr₁, 505, 527, 587
- Coriantumr₂, 228–29
- Corihor, 710
- corn (maize), 35, 67, 157, 303, 556
- Cortez, Hernando: on beggars, 272; on fortifications, 406; on Mesoamerican fabric, 347; messengers of, 378; on personal temples, 492; on pyramids in Cholula, 462; spies of, 233; on white Aztec ruler, 239
- couplets, parallel, 445–46, 461
- courtly staff, 372
- Covarrubias, Miguel, 79
- Cowgill, George L., 65
- crafts, 328–44. *See also* ceramics
- creation, 476–77
- crimes, punishments for, 375–76, 378
- crimson dye, 348–49
- crocodiles, 321
- Cuicatecs: church organization of, 480; classes among, 271; foreign relations and, 379–80; foreign rulers and, 633; rulership among, 281; social organization of, 656–57; warfare and, 390
- Cuicuilco, 629
- cult. *See* religion
- “cultural hijacking,” 79
- cultural interchange: between 600 and 1 bc, 573–74; during Expansion phase, 51–52; during Late Pre-Classic period, 88, 89; Valley of Guatemala and, 562–63. *See also* acculturation of Lehites and Mulekites
- “cultural isolationists,” 110–11
- culture history of Book of Mormon: of Conflict phase, 58–62; of Elaboration phase, 56–58; of Expansion phase, 44–54; of Jaredites, 27–31; of Lehite and Mulekite Migration phase, 31–36; of Nephite and Mulekite Nucleation phase, 41–43; of Nephite Pioneering phase, 36–40; overview of, 26–27; of Retrenchment phase, 54–56. *See also* material culture
- culture history of Mesoamerica: Early Classic period, 94–103; Early Pre-Classic period, 69–77; Late Pre-Classic period, 81–89; Middle Pre-Classic period, 77–80; overview of, 63–69; Terminal Late Pre-Classic period, 89–92; transition from Terminal Late Pre-Classic to Initial Early Classic period, 92–94. *See also* material culture
- Cumorah: Book of Mormon Codex in, 693–95; distance between city of Nephi and, 121; final battle at, 60–61, 109, 294, 373, 400; location of, 142, 688n82
- Curl Snout, 100
- currency, 305

- curse(s): of Lamanites, 38–39, 550; north and, 131, 459; of Zeniffites, 489
- cyclical repetition, 193–94, 439, 537–38n26
- cylinder seal, 221–23, 523–24
- Cyphers, Ann, 515
- dagger, curved double, 413, 414 fig.
- Dahlin, Bruce H., 92, 95–96, 636–37
- dams, 444–45
- Darling, Samuel, 159–60
- Davies, Nigel, 107, 208
- Davis, Simon J. M., 317n60
- death: life after, 466–69; translation and, 472. *See also* burials
- deer, 312–13, 315–16, 318
- deforestation, 514
- deity: in Mesoamerican religion, 470–72; warfare and, 482. *See also* Quetzalcoatl
- De León, Francisco, 85
- Delgado, Agustín, 582, 602
- Demarest, Arthur A., 562, 667, 677
- demographic mixing. *See* acculturation of Lehiters and Mulekites; cultural interchange
- demography: natural disasters and, 645; population and, 288; settlement patterns and, 295–300
- demons, 471
- de Sahagún, Bernardino, 276
- Desolation, land of, 19, 131, 710. *See also* land northward
- de Vaux, Roland, 324
- Dever, William, 7–9, 705–7
- de Zorita, Alonso, 268–69
- Díaz del Castillo, Bernal, 109, 272, 346
- Diehl, Richard A., 75
- “diffusionists,” 110, 111–12
- difrasismo, 447–48. *See also* merismus
- Dillon, Brian D., 310–12
- directions, 19–20, 124–27, 299–300, 431
- disease, 158–61, 235–36, 449. *See also* illness
- distances in Book of Mormon geography, 120–23
- diversity in Mesoamerican population. *See* ethnicity
- divination, 186, 196–97, 207. *See also* prophecies
- Dixon, E. James, 168–69, 176
- DNA, 248–54
- domesticated animals, 310–14
- dragons, 322, 455–56, 458–59
- drought, 95–96, 667, 711–12
- Drucker, Philip, 129
- drugstore beetle, 156
- dual nature of being, 463–64
- Dull, Robert A., 644
- duplicate-invention theory, 344
- Dütting, Dieter, 208, 213
- dyes, 348–50
- Early Classic period: population decline during, 295, 677–81; sharp changes preceding, 638–41; transition during, 94–104, 667–71; transition to, 90, 91, 92–9, 635–38
- Early Pre-Classical period: artifacts from, 66; Book of Mormon history and, 149; culture in, 72–77; destruction of Olmec monuments during, 368, 515–16; Olmec climax in, 519–20; overview of, 69–72; transition to, 67; warfare during, 423
- earth monster, 455, 458–59
- earthquake, 648
- Easby, Dudley T., Jr., 332, 333, 339, 341
- East Asia, contact from, 511–12, 543
- “east sea, borders by,” 139–40, 581, 608–10, 616, 619–20
- ecological zones, 293
- Edmonson, Munro S., 213, 445–46, 447, 538n26
- education of rulers, 367
- Egypt: demise of cultural system of, 80–81n42; directions and, 127

- Egyptian, reformed, 215–17, 225–26
 Egyptian language, 179–80, 219–20
 Egyptian solar calendar, 438–39
 Ekholm, Gordon F., 242, 351
 Elaboration phase, 56–58
 El Chayal, 330, 416–17, 607–8
 elephants, 313–14
 Eliade, Mircea, 342
 El Mirador: abandonment of, 666, 675;
 as Ammonihah, 595; fortifications at,
 90–91, 673; growth of, 636; during
 Late Pre-Classic period, 84–85
 El Ujuxte, 89, 431
 engineering, 443–45
 entrances, city, 299
 Estrada, Emilio, 70
 Ether, lineage histories and, 202
 ethnicity: as factor in warfare, 689–90;
 hybrid, 211, 267–68, 278, 288–91;
 in Kaminaljuyu, 549–51; near Laguna
 Mecoacán, 141–42; in Mesoamerican
 population, 232–47; population and,
 291–95; social structure and, 279–80
 Evans, Clifford, 70–71
 extermination: of Jaredites, 369; of
 Nephites, 60–61, 294, 688; possibility
 of, 693

 facial hair, 242–45
 factions, 277–79, 373–74
 Fahey, Bede, 178–79
 family: housing and, 301; social structure
 and, 265, 270
 famine, 449–50
 Farriss, Nancy M., 490
 fasting, 488, 489
 Feathered Serpent, 366, 472–78, 657–59,
 664. *See also* Quetzalcoatl
 Feldman, Lawrence, 199, 231
 feng shui, 469n39
 Ferguson, Thomas Stuart, 222
 figurines: abandonment of, 639, 650,
 651; Chinese influence on, 511–12;
 depicting ethnic variety, 238 fig., 240,
 250, 540, 549–50, 551; imported
 European, 239; as portraits, 236–37; as
 sacred objects, 489n115; of supernatural
 beings, 471; depicting warriors, 417,
 424, 519; wheeled-animal, 351;
 discovered at Zohapilco, 70
 Finno-Ugric family of language, 174–75
 flora and fauna. *See* animals; plants
 Florescano, Enrique, 468, 658–59
 Fonseca, Olympio da, 159, 161
 food: animals and, 309–11; for armies,
 419, 420
 foreign rulers, 263–64, 280–82, 364
 fortifications: between AD 200 and 400,
 673–74; around cities, 297, 360;
 discovery of, 613–14; during Early
 Classic period, 98; at La Oaxaquena,
 423–24; during Late Pre-Classic and
 Early Classic transition, 90; of Lehi-
 Nephi and Shilom, 568; Nephite, 49,
 611–13; at Tikal, 98, 407; warfare and,
 384–85, 405–10; of Zarahemla, 607.
 See also wall(s)
 Foster, Mary LeCron, 179–80
 fowl, 154–55, 310
 Fox, John W., 288, 366
 Frailesca, 620
 Francesa period, 579–80, 585
 Freddolino, Marie Kimball, 289
 “freemen,” 50–51
 Freidel, David A., 84
 funerary texts, 187, 197
 Furst, Jill Leslie, 213

 Gabbert, Wolfgang, 282
 Gadianton robbers: creation and power
 of, 683–84; during Expansion phase,
 53; Giddianhi and, 229; political
 dominance and, 256–57. *See also* secret
 combinations
 Gage, Thomas, 234, 307
 García Payón, José, 678

- gardens, private, 298, 491–92
 Garrison, Thomas G., 93, 94–95, 637
 gemstones, 330–31
 genealogies: as records, 196, 199; rivalry over government and, 429; of rulers, 206, 366–71, 392; social structure and, 265–70. *See also* lineage histories
 genetic data, molecular, 247–54
 Genovés T., Santiago, 239
 geography: of Book of Mormon, 14, 17–23; continental scope of, 20; correspondences concerning, 119–20, 567–70; distances in Book of Mormon, 120–23; directions and, 124–27; general configuration and characteristics of, 128; specific points of correspondence in, 129–43; warfare and, 604
 geological events. *See* natural disasters
 Giddianhi: correspondence with Lachoneus, 256; deity and, 283; Jaredite record and, 229; motivation of, 53, 204, 275–76; war policy of, 390
 Gideon, valley of, 46, 138, 583, 621–22
 Gill, Richardson B., 643, 645–46
 Gillow, John, 349
 glyphic writing systems, 212, 217–18, 219–20, 226–28, 461
 God, Nephites and, 482. *See also* deity
 gold plates, 339–40, 698–701
 González Calderón, O. Luis, 237, 250, 512, 532, 540
 government: administrative control and foreign relations and, 379–80; between AD 1 and 200, 656–57, 663–64; courtly staff and, 372; cultural rules governing kingship and, 365–71; of defeated populations, 389–90; by divine right, 257; during Expansion phase, 47–49, 53–54; factions and schisms and, 373–74; of Jaredites, 105–6, 517–18; jurisprudence and, 375–78; of Kaminaljuyu, 575–76; of Lamanites, 44–45, 575; migrant hijacking of, 632–33; in Nephite and ancient Near East religions, 460–61; of Olmecs and Jaredites, 515–18; overview of, 362–63; and palaces as symbols of kingship, 374; right to, 104–5; rivalry over, 429; state-level, 363–65; during wartime, 396. *See also* political economy; political processes
 Graham, John, 223–24
 grains, 305–6. *See also* barley
 Granberry, Julian, 177–78
 granulation, 342–43
 grapes, 307–8
 Graulich, Michael, 429, 466, 467
 great city/cities: Jacobugath as, 628–29; Kaminaljuyu as, 558; in Nephi settlements, 296; San Lorenzo Tenochtitlán as, 74, 287, 519–20
 “Great Wall,” 85–86, 384–86, 554
 Greek ship, 171
 green obsidian, 99–100
 Griffin, Gillett G., 146
 Grijalva River: conditions by, 138, 308–9, 584; “narrow strip of wilderness and,” 140–41; Sidon River as, 21, 141
 Grolier Codex, 703
 Grove, David C., 517
 Gruhn, Ruth, 176
 Guajilar, 621
 Guatemala: judicial system in, 377; piedmont area of, 543–44; traditions of transoceanic voyages in, 163–64; wilderness in, 292–93. *See also* Valley of Guatemala
 Guatemalan tale, 112
 Guthrie, James L., 253–54
 Hagoth, 136–37, 358–60, 630
 hailstorms, 557
 Hamblin, Nancy L., 311
 Hamblin, William, 381, 418
 Hamilton, Andrew, 695

- Hancock, Mosiah Lyman, 694
 Hanks, William, 125
 Hansen, Richard D., 96–97
 haplotypes, 247–49
 Harris, David R., 312
 Harris, Martin, 699
 Hassig, Ross, 411
 health, 448–50. *See also* medicines
 Hearthom, King, 518
 Hebraisms, 14
 Hebrew: Book of Mormon language
 and, 226; and historicity of Book of
 Mormon, 14; Mayan language and,
 180–81; Moroni₂'s knowledge of, 216;
 Uto-Aztec family and, 181–83
 Helam, land of, 132–33, 295–96
 hell, 466
 Heller, Lynette, 391–92
 hemispheric scope of geography, 20
 herbal remedies, 197, 306, 448–49
 Hero Twins, 113–14, 115 fig.
 Herrera, Antonio de, 366, 486, 489
 highways, 357
 hill Cumorah. *See* Cumorah
 historical documents, authentication of,
 7–10. *See also* records
 historical interpretation of Book of
 Mormon: Conflict phase, 58–62; early
 Jaredite phases, 27–30; Elaboration
 phase, 56–58; Expansion phase, 44–54;
 Jaredite final phase, 31; Jaredite middle
 phase, 30–31; Lehite and Mulekite
 migration phase, 31–36; Nephite and
 Mulekite Nucleation phase, 41–43;
 Nephite Pioneering phase, 36–40;
 overview of, 26–27; Retrenchment
 phase, 54–56
 HLAs (human lymphocyte antigens),
 253–54
 Hohmann, Hasso, 328
 Hohokam people, 303–4
 hookworms, 159–60
 Horcones period: building activity during,
 586; at Chiapa de Corzo, 600–603,
 624–26; destruction during, 647–49,
 653; end of, 93; tomb burials during,
 651–52; violence during transition to,
 592
 Horne, John H., 342
 horses, 313, 315–19
 households, 266
 house(s): factions and, 277–78; rivalries
 between, 391–93; social structure and,
 266–70
 housing, 301. *See also* buildings
 Houston, Stephen D., 213–14, 288
 Hrdlička, Aleš, 236
 Hristov, Romeo H., 239
 Huastecan, 331–32
 Huehuetotl, 672
 human biology: diseases and, 235–36;
 facial hair and ethnic variety and,
 242–45; molecular genetic data and,
 247–54; overview of, 233–35; variations
 in Mesoamerican, 236–42, 245–47
 human lymphocyte antigens (HLAs),
 253–54
 human sacrifice, 60, 240, 460, 487–88,
 686–87
 Hunahpu, 113–14, 115 fig., 455
 Hungarian, 174–75
 Hunt, Eva, 281, 390, 480
 hunting, 66, 309
 hybrid ethnicity, 211, 267–68, 278,
 288–91
 Icelander DNA study, 250–51
 ideology. *See* religion
 illness, 158–61, 235–36, 449, 488–89. *See
 also* disease
 Ilopango volcanic event, 643–44, 645
 incense burners, 91, 315–16, 548–49, 560
*Incidents of Travel in Central America,
 Chiapas, and Yucatan* (Stephens),
 144–45, 694n99
 independent invention, 110–12, 344

- India, Bené-Israel Jews in, 289–90
- Indians: civilizations of, 144–45; molecular genetic data of, 247–54
- industries, 328–44
- Ingram, David, 694
- Initial Late Pre-Classic period, 81–83
- “interpreters,” 483–84
- invention, independent, 110–12, 344
- iron, 336–38
- irrigation, 360–61, 555–56. *See also* canal systems
- isolation, 37, 40, 589, 590
- Israelites, facial hair of, 244
- Isthmus of Tehuantepec: as center of Early Pre-Classic civilization, 72, 74–75; culture in, 655, 665; during Early Classic period, 98–99; ethnic groups in, 250; Feathered Serpent and, 476; as location of Book of Mormon events, 21, 22, 122–23, 130; as “narrow neck of land,” 122–23, 130; terrain of, 616; in warfare, 608–9. *See also* “narrow neck of land”
- Istmo period, 651–52, 654, 655
- “it came to pass,” 228
- Itzcoatl, 107, 209
- Ixtlilxochitl, Alva, 240, 286, 397–98
- Izapan art style: abandonment of, 93; land northward and, 630; spread of, 87, 89, 625–26, 676; in Veracruz, 102
- Jacob₂, 215–16, 224–25, 567
- Jacob₃, 373, 574
- Jacob₄, 628–29
- Jacobugath, 628–29
- jade, 330
- jaguars, 276, 320
- Jalieza, 296
- Jared, descendants of, 105–6
- Jaredites: agriculture and, 302, 303, 304–5; anomalies concerning, 522–23; archaeological correspondences concerning, 508–10; casualties among, 286–87; civilization of, 147; civil war among, 369; decline of, 524–27; early phases of, 27–30; extinction of, 586–89; facial hair and, 244; final phase of, 31; geography of, 23, 142–43; government of, 515–16, 517–18; history of, 105–6; land northward and, 628; lands of, 709–14; lineage histories and, 200–202; Mesoamerica civilization and, 502–4, 505–8; middle phase of, 30–31; Mulekites and, 6, 37; Olmecs and, 519–22; overview of, 5; residence of, 19; transoceanic immigration and, 513; vessels of, 171–72; warfare and, 423–24, 518; writing of, 216, 228–30, 522–24
- jealousy, 373, 429
- Jershon, 610
- Jerusalem: destruction of, 663; waters of Mormon and, 135
- Jesus Christ: appears to Nephites, 474, 660–61; birth and death of, 659n105; clothing of, 348; crucifixion and resurrection of, 55, 262; Quetzalcoatl and, 434, 477–78, 664
- Jett, Stephen C., 111
- Jewish DNA, 252–53
- Jiquipilas period, 95, 294, 669–70
- Jones, Peter N., 251, 279
- Joseph of Egypt, 347
- judges, 258, 375–78
- jurisdiction, 375–77
- jurisprudence, 375–78
- Justeson, John, 703–4
- Kaminaljuyu: city of Nephi and, 22, 131–32; civilization at, 86–87; ethnic appearance in, 549–51; fortifications at, 385–86; government of, 575–76; growth of, 558–61; irrigation and, 360–61; obsidian and, 330; sociocultural change in, 651; thrones at, 370–71; towers at, 570; trade and, 574; during

- Kaminaljuyu (*continued*)
 transition to Early Classic period, 92;
 as Tulan, 576. *See also* Nephi, land of;
 Valley of Guatemala
- Kaplan, Jonathan: on government of
 Kaminaljuyu, 575; on Kaminaljuyu, 86,
 575–76; on Kaminaljuyu's Preclassic
 writing system, 559; on thrones at
 Kaminaljuyu, 577; on trade, 574
- Kappelman, Julia G., 83–84, 635
- katun* prophecy pattern, 193–94, 439–41,
 537–38n26
- Keating, Jerome P., 645–46
- Kelley, David H., 111, 180, 222–23
- Kelley, J. Charles, 444
- kenning, 447–48. *See also* merismus
- Key, Mary Ritchie, 177
- Kicab Tanub, 394
- Kiddle, Lawrence B., 319
- Killion, Thomas W., 504
- Kim, 30
- king-men: destruction of, 379; lineage
 histories and, 201; rebellion of, 50–51,
 258, 592, 600
- kingship: courtly staff and, 372; cultural
 rules governing, 366–71; factions and
 schisms and, 373–74; in Nephite and
 ancient Near East religions, 461; palaces
 as symbols of, 374. *See also* rulers
- Kirsch, Richard W., 546–47
- Kitchen, Kenneth, 8, 9
- Knorosov, Yuri, 705n28
- knowledge systems: astronomy, 430–34;
 calendar systems, 434–42; defined, 426;
 engineering and public works, 443–45;
 health and medicine, 448–50; literary
 forms, 445–48; measurement, 442–43;
 worldviews, 426–30
- Korihor, 377
- Laban, sword of, 338
- Lachoneus, 256, 371
- Laguna Inferior, 136
- Laguna Mecoacán, 141, 609, 611
- Laguna Superior, 136
- Laguna Zope, 676
- Laman, 255, 268, 429
- Lamanites: attack routes of, 137–38;
 bias against, 108, 207–12; boundary
 between Nephites and, 141, 622;
 cannibalism and, 493–94; Conflict
 phase of, 58–62; demographic
 superiority of, 604–5; Elaboration phase
 of, 56–58; during Expansion phase, 44–
 54; government of, 575; as house, 268;
 inheritance of titles among, 370; invade
 Zarahemla, 41–42; judicial system of,
 376; kingship among, 367; language
 of Nephi and, 227; and Nephite
 Pioneering phase, 36–40; political
 dominance and, 255; population of,
 291; record keeping and, 184–85,
 203–4; Retrenchment phase of, 54–56;
 rivalry between Nephites and, 429,
 684–90; shared cultural traditions and,
 562–63; skin color of, 38–39, 550–51;
 syncretism in formation of, 563–66;
 wartime capabilities of, 692; wealth of,
 259–60
- Lamoni, 45, 212, 372, 481
- Lamoni, father of, 372
- Landa, Diego de, 390, 423, 432–33
- land northward: cultural influence on,
 626–33; division of land southward
 and, 129; geography of, 22; Jaredite
 ruins in, 506–7; migrations into, 49–
 50, 51, 52, 514; settlements in, 55–56;
 terrain of, 19; timber and, 358–59. *See
 also* Desolation, land of
- land southward: division of, 19, 128;
 division of land northward and, 129;
 geography of, 22; width of, 121
- language boundary, 675–76
- language(s): of Book of Mormon,
 224–30; of Chiapa de Corzo, 579–81;
 connections between Mesoamerican,

- 178–83; and historicity of Book of Mormon, 14; lack of knowledge concerning, 173–74; near Laguna Mecoacán, 141–42; of Lamanites, 45–46; of Lehites and Mulekites, 37; in lineage histories, 212–18; Maya/Zoque boundary zone and, 293–94; metallurgy and, 343–44; of Mulekites, 582, 588; of Nephi, 227; old world, known in new world, 174–78; plant names and, 151; syncretization of Nephite, 565–66; at time of Spanish conquest, 280–81; of Zarahemla, 601
- La Oaxaquena, 423–24
- Las Casas, Bartolomé de, 106
- Las Charcas period, 82–83, 545–47, 549, 550–51
- Late Pre-Classic period: culture history of, 81–89, 149, 635–37; facial hair during, 243–44; fortifications during, 407–8; Kaminaljuyu during, 576; natural disasters during, 641–49; political situation during, 365; population during, 285–86, 287; sculpted monuments from, 560; thrones from, 370–71, 577–78; wars during, 391–92; wine during, 307–8
- La Venta: correlations between Mulekite history and, 538–42; Escalera phase in, 527; fall of, culture, 536–38; figurines of, 237, 250, 424; final culture at, 528–32; during Middle Pre-Classic period, 78–80; Mulek and, 614; rise of, culture, 533–35; Semitic foreigners in, 532–33; writing at, 218–19, 511–12. *See also* Stela 3 monument
- Law, Howard, 318
- law of Moses: customs of, 456–57; Nephite adherence to, 34, 39, 436–37, 465, 486–88, 561; termination of, 55, 494, 660
- laws, breaking, 375–76, 378
- Layton, Lynn C., 18n3
- LeBlanc, Steven A., 612
- Lehi, land of, 615–16
- Lehi, 5, 31–33, 36–37, 224–25, 291–92
- Lehi-Nephi, 44, 562, 568, 571–72, 578
- Lehites: animal names and, 319–21; migration phase, 31–36; overview of, 5
- Lemuel, 255, 429
- León-Portilla, Miguel, 375
- Levi, King, 105
- Levine, Baruch A., 492
- Levi-Strauss, Claude, 103, 373
- life expectancy, 288
- lime cement, 322
- Limhi, 46, 121–22, 590
- lineage histories: ethnocentric bias in, 207–12; group relations in, 207; Mesoamerican, 198–200; obscure language in, 213–18; origin and migration histories and, 207; prominence of, among Nephites, 196; purpose of, 200–202; ruler legitimacy and, 204–6; sacred myths and, 207; as territorial history, 202–3; used to foretell future, 207. *See also* genealogies
- linen, 346, 347
- lions, 320
- literacy, 184–85, 260
- literary forms, 445–48, 461. *See also* writing and writing systems
- locusts, 557–58
- Loltun Cave, 317, 412
- López Austin, Alfredo, 472–73, 476–77, 657
- López Luján, Leonardo, 472–73, 657
- Lorenzen, Karl J., 667–68
- lost-wax metallurgical technique, 342–43
- Lothrop, Samuel K., 344
- Loughlin, Michael L., 102
- Love, Michael, 83
- Lowe, Gareth W.: on abandonment of Chiapa de Corzo, 674; on burials at Chiapa de Corzo, 623; on Central Depression of Chiapas, 600; on

- Lowe, Gareth W. (*continued*)
 destruction at Chiapa de Corzo, 648;
 on destruction of monuments, 91,
 643; on ethnic division, 141–42; on La
 Venta Phase III, 534; on language of
 Chiapas and Tabasco, 581; on Maya/
 Zoque boundary zone, 293; on stones
 for slings, 417
- Lowie, Robert, 329, 344
- Luffa*, 512
- lumber, 322, 514
- lunar calendar, 432–33
- MacNeish, Richard S., 67–68, 501
- macuahuitl*, 411, 412, 415
- magic, 494
- maize, 35, 67, 157, 303, 556
- mammoths, 313–14
- Manti, 621
- Manzanilla, Linda, 311
- maps, Aztec, 403–4
- Marcus, Joyce, 463
- Marduk, 455–56
- Margain, Carlos R., 322, 462
- marriage, 263, 270, 379–80
- Martínez Muriel, Alejandro C., 307–8
- Martyr, Peter, 312
- Mason, J. Alden, 594n50
- mastodons, 313–14
- material culture: agriculture, 302–9;
 animals, 309–21; industries and crafts,
 328–44; structures, 321–28; textiles
 and clothing, 345–50; transportation,
 350–61
- Maya: calendar of, 435, 436, 437–38;
 deities of, 470–71; directions and, 124–
 25; language of, 141–42; literary forms
 of, 445–46; priestly hierarchy among,
 479; records of, 185–87, 230; writing
 of, 218–20. *See also* Quiché Maya
- Mayan language: Hebrew and, 180–81;
 Mixe-Zoquean languages and, 689–90;
 Sino-Tibetan family and, 178–79
- Maya/Zoque boundary zone, 293–94
- McBride, William, 695
- mealworm, 155–56
- measurement, 442–43, 506
- meat, 309
- Medel, Tomás, 234
- Medellín Zenil, Alfonso, 678
- medical texts, 197–98
- medicines, 197–98, 306, 448–50
- Medrano, Sonia, 134–35
- Meggers, Betty J., 70, 71
- Melek, 619–20
- Méluzin, Sylvia, 219, 221
- merchants, 272–73
- merismus, 213, 447–48, 461
- Merriwether, Andrew, 251
- Mesoamerica: between AD 200 and 400,
 667–72; Book of Mormon and religion
 of, 456–61; defined, 63; origins of
 civilization in, 499–505; religion of
 ancient Near East and, 451–56; religion
 of Book of Mormon and, 462–63;
 variations of people in, 236–42,
 245–47; warfare in, 604–23. *See also*
 culture history of Mesoamerica
- Mesoamericanisms in Book of Mormon,
 3–4
- Mesopotamia: agriculture in, 304–5;
 writing in, 29
- messengers, 123, 404–5
- metallurgy, 331–36, 340–44, 522
- metal(s): in Book of Mormon culture,
 331–44; Jaredites and, 522; records of,
 231–32, 339–40
- Michels, Joseph W., 547
- Micronesian tale, 112
- Middle Pre-Classic period: culture of, 77–
 80; facial hair during, 242–44; military
 conflict during, 423, 424, 518–190;
 Southern Mesoamerica during, 528–32
- migration: lineage histories and, 199–200;
 molecular genetic data and, 251–53;
 records concerning, 189, 207

- militia. *See* armies
- Minatitlan, 617–18
- Miraflores Canal, 555–56
- Miraflores ceramic sphere, 92, 653–54
- Mixe-Zoquean languages, 141–42, 179–80, 588, 689–90
- Moctezuma, 347, 404–5
- molecular genetic data, 247–54
- money, 305
- monotheism, 470–71
- Monte Albán, 81, 102, 296–97
- Montículo de la Culebra, 361, 554–55
- Monument 31, 423
- Monument 47, 521
- monuments, destruction of, 368, 515, 639–40, 643, 650–51
- moon, 432–33
- Moorey, Peter R. S., 343
- moral ideals, 465–66
- Morianton, 129–30, 517–18, 616, 617, 627
- Mormon: as child, 684; geographical information of, 119; as military leader, 58–61, 398, 691–92; as record keeper, 5, 683
- Mormon, waters of, 133–35
- Mormon's Map* (Sorenson), 17–20
- Moron, 711
- Moroni (city), 608–11
- Moroni, meaning of name, 506
- Moroni₁: Amalickiah and, 369; Ammoron's correspondence with, 211–12, 255–56; fortifications and, 405–6, 409, 612; gathers army, 397; on government during Expansion phase, 53–54; king-men and, 592, 600; as military leader, 49–50, 364–65, 387–88, 391, 401, 590, 607, 608; standard of, 109–10
- Moroni₂: Book of Mormon language and, 215–16; Conflict phase and, 58, 61; goal of, 106; as record keeper, 5, 225–26, 688–89, 695
- morphological studies, 245–47
- Morris, Ann Axtell, 239–40
- Moser, Christopher L., 355
- Mosiah₁: flees to Zarahemla, 551, 568; Mulekites and, 588; reign of, 41, 47; sacred objects of, 205–6; translates stone, 587
- Mosiah₂: inauguration of, 190, 300; judicial system under, 376–77; as record keeper, 203, 206; reign of, 42, 47, 48, 367; sons of, 44
- Mound 5, 88, 273, 600, 624, 647–48
- Mound of the Serpent, 360–61, 554–55
- mounds, sacred, 453–54, 560–61, 586, 593
- Mound S platform, 593–94
- mountain, mounds as, 453–54
- Mulek, 5, 33, 538
- Mulek, city of, 538–39, 614
- Mulekites: civilization of, 147–48; history of, 106, 588–89; join Nephites, 210–11, 289; La Venta correlations to, 538–42; lineage histories and, 201; during migration phase, 31–36; and Nephite Pioneering phase, 36–40, 582; during Nucleation phase, 41–43; overview of, 5–6
- mummification, 155–56
- mustaches, 242, 243 fig.
- myths, sacred, 207
- Nacaste phase, 526, 534
- Necator americanus*, 159
- Na-Dene language family, 174
- Nagao, Debra, 209, 394
- nahualistas*, 276–77
- names: of animals, 319–20; Jaredite, among Nephites, 505–6; as royal title, 565; written, 227–28
- Naranjo, 430, 546, 560
- “narrow neck of land”: great war and, 608–9, 616–17; in Mormon's map, 18–19; specific correspondences

- “narrow neck of land” (*continued*)
 regarding, 129–30. *See also* Isthmus of Tehuantepec
- “narrow strip of wilderness,” 140–41
- natural disasters: between AD 1 and 200, 663; Book of Mormon geography and, 20–21; destruction of monuments and, 640–41; during Early Classic period, 96–97; during Late Pre-Classic period, 81–82, 641–49; during Terminal Late Pre-Classic period, 91, 94; at time of crucifixion, 54–55, 262, 659–60; waters of Mormon and, 132–35
- natural remedies, 197–98, 306, 448–50
- neas, 306
- Nehor (city), 29–30, 710, 711
- Nehor (dissident), 191, 505
- Nehor, order of, 191, 283, 506, 587
- nehushtan*, 476, 660
- Nephi, as title, 39, 565
- Nephi, land of: as center of civilization, 603–4; correlations between Valley of Guatemala and, 556–58; culture history of, 561; distance between Zarahemla and, 18, 121; establishment of, 38; geography of, 119; as Kaminaljuyu, 22; as Lamanite capital, 44; Valley of Guatemala and, 131–32, 569; wall surrounding, 385–86; wilderness north of, 292–93; Zeniffites return to, 568–69. *See also* Kaminaljuyu; Valley of Guatemala
- Nephi, language of, 227
- Nephi₁: Book of Mormon language and, 217–18, 224–25; buildings constructed by, 481, 553; culture of, 34; genealogy and, 196; in Nephite Pioneering phase, 38, 563–65; political dominance and, 255; as record keeper, 200–201, 204–5, 206; rivalry between Laman and Lemuel and, 429; as ruler, 105, 370; ship built by, 171
- Nephi₂, 325, 491
- Nephihah, 596, 610, 617
- Nephites: bias against, 108, 207–12; boundary between Lamanites and, 141–42, 622; calendars of, 435–36, 437; civilization of, 147–48; Conflict phase of, 58–62; culture and society of, 567–68; Elaboration phase of, 56–58; during Expansion phase, 44–54; extermination of, 5, 294, 373, 688, 693; fortifications of, 408–9, 611–13; as house, 267–68; inheritance of titles among, 369–70; Jaredite influences on, 505–8, 587–88; judicial system of, 376, 377–78; kingship among, 367; Mulekites and, 582; Nucleation phase of, 41–43; organization of armies among, 109; Pioneering phase of, 36–40; political dominance and, 255; records of, 184–85; religion of, 478–85; religion of ancient Near East and, 457–61; Retrenchment phase of, 54–56; ritual sacrifice and, 487–88; rivalry between Lamanites and, 429, 684–90; skin color of, 550–51, 691; social structure of, 260–61; syncretism in formation of, 563–66; in Valley of Guatemala, 547–48; wealth of, 259–60; writing of, 224–25
- New World Archaeological Foundation (NAAF), 594n50
- New York, Book of Mormon Codex in, 693–95
- Nibley, Hugh, 10
- Nichols, Johanna, 177
- Nicholson, Henry B., 149, 283–84, 479–80
- Nicholson, Irene, 241–42
- Noah: courtly staff of, 372; execution of, 191; reign of, 43, 577; taxes levied by, 195, 259, 260; tower built by, 570–71
- Noah, city of, 596
- nobility, 271, 371, 373–74
- Noguera, Eduardo, 341

- North Star, 124
 Nubia, 13n18, 64–65
 Nuñez de la Vega, Francisco, 166
 NWWAF (New World Archaeological Foundation), 594n50
- obsidian: green, 99–100; exchange of, 273; as industrial material, 329–30; “place of arms” and, 571; shortage of, in Chiapas, 607–8; weaponry and, 416–17
- Ocozocoautla as city of Noah, 596
oikoumene, 452
- Old Testament, 7–8, 705–6
- Olmeca-Xicalanca, 275–76, 281, 632
- Olmecs: archaeological studies of, 517; civilization of, 146, 501; correspondences between Jaredites and, 508–10, 519–22; decline of, 524–27; destruction of stone monuments, 237, 278, 368; during Early Pre-Classic period, 72–77; East Asian contact with, 511–12; factions and, 278; government of, 515–16; La Venta culture and, 533; Mesoamerican civilization and, 503, 504–5; during Middle Pre-Classic period, 77–80; warfare and, 423–24, 518–19; worship and symbolism and, 148; writing of, 218–19;
- Onidah, 416–17. *See also* “place of arms”
- On the Reliability of the Old Testament* (Kitchen), 8
- opposition, 463–64
- oracle stones, 484–85
- oratories, 489–90
- Ordoñez y Aguiar, Ramón de, 166
- origin history, 207
- oroche*, 339
- Ortíz Ceballos, Ponciano, 80, 508
- Pacumani, 370
- Pahoran, 228, 364, 370, 371
- palaces, 326, 374, 576–77
- Palestine, 11–12, 510n26
- Pánuco, 514, 711n4
- Panutla, 514. *See also* Pánuco
- Papaloapan River, 133, 628
- paper, 230, 231
- parallel couplets, 445–46, 461
- Pashash, 355
- Paso Nuevo, 130
- peace between 600 and 1 BC, 623–26
- pearls, 330–31
- peccaries, 320
- Petén, 670–71
- Peterson, H. Donl, 695
- Philistines, 510n26
- Piggott, Stuart, 351
- pigs, 320–21
- Piña Chan, Román, 236
- “place of arms,” 571–72
- plants: cultivation of, 544–45n47; as evidence of transoceanic voyages, 151–54, 156–57, 512, 543
- platforms, wheeled, 352–53
- plural marriage, 270
- Pochteca*, 275–76, 692
- Pohl, Mary, 467, 658
- Polaris, 124
- political economy, 255–64, 274–75, 363–65. *See also* government; political processes
- political histories, 189
- political legitimacy: through divine right, 282–84; lineage histories and, 198–200, 204–6, 208; of Nephites, 267
- political processes: administrative control and foreign relations and, 379–80; courtly staff and, 372; cultural rules governing kingship and, 366–71; factions and schisms and, 373–74; jurisprudence and, 375–78; overview of, 362–63; and palaces as symbols of kingship, 374. *See also* government; political economy
- Ponce, Fray, 318–19

- Popenoe de Hatch, Marion, 442, 545, 652n79
- Popocatepetl, 642, 649n67
- Popol Vuh: competing histories of, 210; endurance of ideology and, 113–14; Gulf Coast of Tabasco in, 140; highland Guatemala cultural history and, 704–5; language in, 213; purpose of, 106; as religious text, 704
- population: between 600 and 1 BC, 567–70; between AD 1 and 200, 656; demographic calculations of, 288; details of, variations, 291–95; during Early Classic period, 94, 97, 677–81; estimating, 285–87; ethnic amalgamation and, 288–91; internal settlement differentiation and, 300–301; of Jaredites, 29–30, 31, 709–11; of Lamanites, 39; of Mulekites, 38; of Nephites, 35–36; during Nucleation phase, 43; settlement patterns and, 295–300; of Valley of Guatemala, 552–53; of Zarahemla, 46
- pottery. *See* ceramics
- prayer, 489, 491–92
- priestcraft, 483
- priests: in Nephite church, 478–79, 483; power of, 263
- prisoners of war, 401, 422, 612, 686–87
- prisons, 378, 577
- private gardens, 298, 491–92
- property rights, 258–59, 262
- prophecies: of Abinadi, 557–58; *katun*, 193–94, 439–41, 537–38n26; in lineage histories, 207; records concerning, 191; time and, 464. *See also* divination
- prophets in Nephite church, 483–84
- Proskouriakoff, Tatiana, 79, 470, 528, 529–30, 535, 549
- prosperity: between 600 and 1 BC, 623–26; between AD 200 and 400, 682; of Jaredites, 30
- Proto-Huavean, 332
- Proto-Mayan, 178–79, 331–32
- Proto-Mixe-Zoquean, 332
- Proto-Mixtecan, 332
- Proto-Otomanguean, 331–32
- Providencia period: Kaminaljuyu during, 85–86, 552, 558–59, 563; Kaminaljuyu ethnicity during, 549–50; population growth during, 558–59; Valley of Guatemala figurines during, 240
- Pseudepigrapha, 702
- public works: at Kaminaljuyu, 559; knowledge systems correspondences and, 443–45; transportation and, 357–58, 360–61; at Valley of Guatemala, 554–56. *See also* buildings; canal systems
- punishments for crimes, 375–76, 378
- pure water, 132–33, 571–72
- purification, 460, 475, 486
- purple shellfish dye, 348–49
- Purrón Dam, 444–45
- Putnam, Read H., 701n18
- pyramids, 323–25, 443, 552, 560–61, 570, 571, 592–93. *See also* towers
- “quarters of the land,” 125
- Quetzalcoatl: conflict concerning, 671–72; cult of, 468–69, 474–75, 664; as deity, 475–78; Feathered Serpent and, 472–73; Jesus Christ and, 434, 665; rise and importance of, 657–59
- Quiché Maya: armies of, 397; attack Tzutujil, 398–99; Cakchiquel people and, 278; directions and, 557; expansion of, 163–64; government of, 377; inheritance of titles among, 369, 370; Lacandon Indians and, 164; language of, 316, 364; literary forms of, 445–46; measurements of, 442; metallurgy and, 343–44; migration of, 199–200; oracle stones of, 484–85; population of, 288–89; records of,

- 106; sacred beings and, 471–72; seers among, 484; Spanish conquest of, 394, 397; Toltec rivalry with, 392; wheeled vehicles in, 353
- rafts: balsa, 136–37, 170, 359, 630–31; Chinese, 170; nineteenth-century Ecuadorean, 359 fig. *See also* ship(s)
- Ramah. *See* Cumorah
- Rathje, William, 384n9
- records: bias in, 107–8, 207–12; form and destruction of, 230–32; keepers of, 203–4; in Mesoamerica, 185–87; of Nephites, 38; of Nephites and Lamanites, 184–85; purpose of, 106–7; types and uses of, 187–98. *See also* lineage histories
- reformed Egyptian, 215–18, 225–26
- religion: architecture and, 325–26; near beginning of Christian era, 472–78; beliefs in Mesoamerican, 463–70; between AD 1 and 200, 657–59; between AD 200 and 400, 671–72, 682–83; of Book of Mormon and ancient Near East, 456–61; of Book of Mormon and Mesoamerica, 462–63; cannibalism and, 493–94; correspondences concerning, 451–56; following AD 50, 649–51; following Christ's visit, 661; of Kaminaljuyu, 560–61; in land of Nephi, 561; magic and shamanism and, 494; in Mesoamerican cultures, 148–49; of Nephites, 478–85, 548–49; rituals in Israelite and Mesoamerican, 485–89; sacred beings in Mesoamerican, 470–72; Santa Clara-period changes in, 639–40; as social differentiator, 282–84; stelae and altars and, 492–93; warfare and, 387–89; worship and communion in Mesoamerican, 489–92
- remedies, natural, 197–98, 306, 448–50
- Reynolds, Noel B., 104–5, 204
- Ringle, William M., 468, 470
- Riplakish, 196, 515, 517
- Ripliancum, 133, 712–13
- rites and rituals, 464–65, 485–89
- roads, 356–57
- Roman figurine, 239
- Roys, Ralph L., 326, 419
- Ruhlen, Merritt, 174
- rulers: civic and military, 396, 401–2; foreign, 263–64, 281–82, 364; lineage histories and legitimacy of, 204–6; Mesoamerican, 362–63; records of, 189; stone thrones and, 577–78. *See also* kingship
- Sabloff, Jeremy A., 12
- sacrament, 490
- sacred beings. *See* deity
- sacred myths, 207
- sacred objects, 205, 484–85
- sacrifice: animal, 459, 487; communion and, 489–90; human, 60, 240, 460, 487–88, 686–87
- von Sadvoszky, Otto, 174–75, 249–50
- de Sahagún, Bernardino, 276, 356, 513–14
- salvation, 467–68, 475–76
- Samabaj, 134–35, 646–47
- Samayoa, Roberto, 133–34
- Samuel the Lamanite, 191–92, 432, 440–41
- San Antonio Frutal, 569
- San Antonio volcano, 641–42
- Sanders, William T., 107, 209, 516–17
- San Isidro as city of Aaron, 596–97
- San José Mogote, 76–77, 424, 523
- San Lorenzo A phase, 525
- San Lorenzo Tenochtitlán: during Early Pre-Classic period, 74–77; establishment of, 713; as great Jaredite city, 287, 519–20; during Middle Pre-Classic period, 77–78
- San Martín Jilotepeque, 417
- Sanskrit, 151, 156

- Santa Clara period, 91, 92, 638–39, 641, 646, 649–50, 652n79
- Santa María volcanic eruption, 645
- Santa Rosa: abandonment of, 674; as center of civilization, 602–3; construction projects in, 602, 623; correspondences concerning, 131; ecology of, 308–9; pottery of, 648; poverty of, 600–601; settlement differentiation in, 300–1; tombs in, 601; as Zarahemla, 22, 131, 585–94
- Santley, Robert S., 278, 503
- Savior, 475–76
- Schele, Linda, 236–37
- schisms, 373–74
- Schliemann, Heinrich, 7
- Schuhmacher, Wilfried, 177
- seasons, 437–38
- sea travel, 130–31, 136–38, 170, 358–60, 631. *See also* transoceanic voyages
- secret combinations: among Aztecs, 692; between AD 200 and 400, 683–84; during Conflict phase, 59; during Elaboration phase, 57; during Expansion phase, 53; among Jaredites, 587; social structure and, 274–77. *See also* Gadianton robbers
- Sedat, David W., 640
- seers, 483–84
- Sejourné, Laurette, 468, 475, 490
- Semitic foreigners, 532–33
- Semitic languages, 180, 181, 182, 566
- sepulchres, 572. *See also* tombs
- serpents, 460, 475–76, 521–22, 660–61, 664. *See also* Feathered Serpent
- seven-day week, 442
- shamanism, 494
- Shao, Paul, 512
- Sharer, Robert J., 200, 562, 640
- shellfish dye, 348
- Shemlon, 569–70
- Sherem, 567
- sheum, 304–5
- shields, 418–19
- Shilom, 360, 568, 569, 570–71
- shipping, coastal, 357–60, 630–31
- ship(s), 130–31, 136–37, 630–31. *See also* rafts; transoceanic voyages
- Shook, Edwin M., 571, 641, 646
- sickness, 158–61, 235–36, 448–49, 488. *See also* disease
- sid*, 598
- Sidom, Chiapa de Corzo as, 597–98
- Sidon basin, 19, 138–39, 294, 589–90, 619–22
- Sidon River: “borders by the east sea” and, 139–40, 616; city of Aaron and, 596; conditions by, 585; as Grijalva River, 22; location of, 202; “narrow strip of wilderness and,” 119, 140–41; Sidom and, 597–98
- sieges, 419, 421–22
- Sierra Madre de Chiapas, 620–21
- “Significance of an Apparent Relationship between the Ancient Near East and Mesoamerica, The” (Sorenson), 452–53
- silk, 346–47
- sin, confession of, 488
- Sino-Tibetan language family, 178–79
- Sisson, Edward B., 141
- skin color: as distinguishing feature, 233–34; ecological zones and, 293; of Guatemalan residents, 544; of Jaredites, 29; in Kaminaljuyu, 549–50; of Lamanites, 38–39, 550–51, 687; of Mesoamericans, 239–41; of Nephites, 550–51, 687, 691; social structure and, 279–80
- skull rack, 113, 415
- slavery, 271–72
- slings, 417
- Smith, Cyril S., 344
- Smith, Emma Hale, 697
- Smith, Joseph: as author of Book of Mormon, 696–97, 701–2; as Book of Mormon translator, 4, 6, 698–99;

- and knowledge of Indian civilizations, 144–45; on land of Nephites, 694–95
- social structure: class and, 271–74; ethnicity and, 279–80; factions and, 277–79; family and, 270; foreign rulers and, 280–82; lineage and house and, 265–70; political economy and, 260–64; religion and, 282–84; secret combinations and, 274–77
- solar calendar, 438–39
- Solís, Ruth Shady, 68
- Solomon, temple of, 327, 564–65
- solstices, 430–32
- sorcery, 494
- Spackman, Randall P., 192
- Spanish conquest, 209–10, 233–34
- spears, 415–16
- spies, 403–4
- standards, battle, 109–10, 421
- Stanford, Dennis, 169
- star, prophecy concerning new, 432
- Stark, Barbara L., 391–92, 508
- states, 363–65
- steel, 337–38
- Steffy, J. Richard, 171
- Stegobium paniceum*, 156
- Stela 3 monument: artist's reconstruction of, 530 fig.; ethnic diversity depicted on, 79, 237, 246, 528–30, 532–33; as excavated, 529 fig.; flying figures on, 471; foreign leaders and, 539, 540, 541, 586
- Stela 9 monument, 576n155
- Stela C monument, 626, 641
- stelae: with altars, 88–89, 492–93; as historic accounts, 532; as innovative art form, 78–79, 528, 535; at Kaminaljuyu, 559–60; in Late Venta culture, 528–33, 541; Phase IV, 541; purpose of, 559–60; at Samabaj, 134–35, 647; Stela 9 monument, 576n155; Stela C monument, 626, 641.
- Stendahl, Krister, 702–3
- Stephens, John Lloyd, 144–45, 694n99
- Stern, Ephraim, 651
- Stewart, Joe D., 112, 433
- stimulus diffusion, 111–12, 564–65
- Stocker, Terry, 11, 383
- Stone, Andrea, 209
- Stone, Doris, 341
- stone, records on, 231
- stoning, 378
- structures. *See* buildings
- Stuart, David, 281
- Stubbs, Brian, 181–83, 566
- Sugiyama, Saburo, 671–72
- sun, 430–32
- Swadesh, Morris, 175–76, 181
- sword of Laban, 338
- swords, 410–13
- syncretism, 52, 548, 563–66
- Tabasco, 140, 605, 609–11, 617
- Takalik Abaj, 93
- Tancah, 548n64
- tapirs, 319
- Tarascans, 289, 335, 339, 405
- Taschek, Jennifer T., 576n155
- taxes and tax lists, 195–96, 259, 260
- teachers in Nephite church, 478
- Teancum, 616–17
- Temple of Solomon, 327, 564–65
- temples: built by Nephi₁, 564–65; burned after battle, 422; definition and form of, 326–27; Jaredite, 507; in Nephite and ancient Near East religions, 458
- Tenochtitlán: judicial system at, 375; wall surrounding, 408
- tents, 322–23, 419–20
- Teotihuacán: between AD 1 and 200, 654; cannibalism and, 493; during Early Classic period, 98–102; garrison cities of, 405; Feathered Serpent cult in, 473; Quetzalcoatl and, 658–59; secret societies in, 276; transition in, 671–72
- Teotihuacán factor, 668–69, 679–80

- Terminal Late Pre-Classic period, 89–94
- Tetimpa, 642
- textiles, 345–50
- “thick clothing,” 418–19
- Thompson, J. Eric S., 446, 470, 703, 705n28
- thrones, 370–71, 577–78
- Tiamat*, 456
- Tikal: establishment of, 84; fortifications at, 98, 407, 613; Great Plaza-North Terrace in, 636; sociopolitical integration in, 365
- timber, 322, 514
- time, 464, 479. *See also* calendar(s) and calendar systems
- Timucuan, 177–78
- tin, 339
- Tlatilco, 72–74
- Tlatilco cylinder seal, 222–24, 523–24
- Tlaxcala and Tlaxcalans, 101, 109–10, 233, 402, 614, 654
- tobacco, 156
- Tollan, 575–77
- Toltecs: calendars of, 436; casualties of, 286; metallurgy and, 332–33; Popol Vuh and, 704–5; Quiché descent from, 392
- tombs, 572, 651–52
- Tonalá River, 539, 615
- tools, 329
- Torquemada, Juan de, 327
- Torres, Fray, 598, 621–22
- Totonac, 470
- towers, 27, 323–25, 491–92, 570–71. *See also* pyramids
- toys, 350–52
- trade: between 600 and 1 bc, 573–74; between AD 200 and 400, 682; in Book of Mormon, 273–74; at Chiapa de Corzo, 624; foreign rulers and, 263–64; Jaredite and Olmec, 520; prominence through, 272–73; as source of wealth, 259–60;
- translation, 471–72
- transoceanic voyages: diseases as evidence for, 158–61; East Asian contact and, 511–13, 543; evidence supporting, 150–51, 452–56; flora and fauna as evidence for, 151–58; Mesoamerican civilization and, 501–4; Mesoamerican traditions of, 161–72; morphological comparative studies and, 245–46; possibility of, 167–72, 513–14
- transportation, 350–62
- Tres Zapotes, 102, 630, 680–81
- tribalization, 54, 261–62, 268, 664
- tributes and tribute lists, 195–96, 259, 362, 389–90
- true arch, 327–28
- Tula, 164, 278, 317n60, 392
- Tulán, 165, 575–76
- Tultecas. *See* Quiché Maya
- tumbaga, 335, 340, 701n18
- Tuxtla eruption, 643, 644–45
- Tzeltal prayer, 489
- Tzutujil Maya: court personnel among, 377–78; laws of, 375; Quiché attack on, 398–99; warfare and, 570
- underworld, 465–66
- Urcid, Javier, 504
- Urim and Thummim. *See* oracle stones
- Uto-Aztecan language family, 180, 181–83, 566
- Valdés, Juan Antonio, 86, 559, 563
- Valley of Guatemala: Aurora period in, 670; city of Nephi and, 131–32, 569–70; civilization in, 545–49; construction projects in, 554–56; correlations between land of Nephi and, 556–58; culture history of, 561; during Early Classic period, 95; formation of Nephites and Lamanites and, 563–66; population sizes in, 552–53; pottery fragments in, 82–83; during Santa Clara

- period, 638; shared cultural traditions of, 562–63. *See also* Kaminaljuyu; Nephi, land of
 variety in Mesoamerican population, 236–47
 Vaux, Roland de, 324
 vehicles, wheeled, 352–56
 Venus, 434
 Veracruz: as active center, 87, 102; archaeological correspondences in, 508–9; deforestation of, 514; geography of, 605; as Jaredite lands, 712–14; sculptures in, 102
 Verbena period, 240, 552, 559, 652–53
 Vikings, 176, 249
 volcanic activity, 96, 639–40, 641–49
 volume, measurement by, 442–43
 von Winning, Hasso, 352–53
 von Wuthenau, Alexander, 237
 Vucub Caquix (Seven Macaw), 113–14, 115 fig.
 vultures, 320–21

 Waibel, Leo, 621
 Wallace, Douglas, 251
 wall(s): around Nephi and Shilom, 360; at Tenochtitlán, 324; at Valley of Guatemala, 85–86, 385–86, 554. *See also* fortifications
 warfare: archaeological problems of, 382–86; army size and, 286; astronomy and, 433–34; between AD 200 and 400, 672–82, 684–93; deity and, 481–82; depicted in stelae, 577–78; during Early Classic period, 98; factions and, 278–79; foreign relations and, 379; fortifications and, 405–10; health and, 450; historical aspects of, 423–25; intelligence resources in, 403–5; during Late Pre-Classic and Early Classic transition, 90–91; of Lehites and Mulekites, 36; logistics of, 419–23; as means of dispute settlement, 258; in Mesoamerica, 604–23; motivations for, 389–94; nature of, 388–90; of Olmecs and Jaredites, 518–19; organization for, 394–99; organization of armies in, 109–10, 401–2; overview of, 381–82; records of victories and defeats in, 189; rules of, 399–401; at Santa Rosa, 583–84; scheduled battles in, 194–95; season for, 386–87; shields and armor and, 418–19; standards in, 109–10; during Verbena period, 552; weapons and, 410–17
 Warren, Bruce W., 309, 589, 591, 621
 war trophies, 400–401
 washings, ritual, 486
 Watanabe, John M., 125
 water: at land of Helam, 132–33; in Nephite and ancient Near East religions, 458; pure, 572
 water-control systems, 95, 444–45
 Waters of Mormon, 133–35
 wealth: sources of, 259–60; through trade, 273–74
 weapons, 329–30, 382, 410–17. *See also* “arms, place of”
 Webster, David: on archaeological materials, 65, 382; on courtly staff, 372; on fortifications as material evidence of warfare, 384; on fortifications at Becán, 409–10, 611, 612; on Maya and warfare, 424; on political conditions in fifth century AD, 98; on warfare, 392, 672–73
 week, seven-day, 442
What Did the Biblical Writers Know & When Did They Know It? (Dever), 7–9
 wheat, 305–6
 wheel, 350–56
 Whitmer, David, 226, 228, 697, 700–701
 Wiercieński, Andrzej, 246
 wild animals, 320–21

- wilderness, 37, 119–20, 132, 138–39, 292–93. *See also* “narrow strip of wilderness”
- Willey, Gordon R., 332
- Williams, John J., 618
- Williams, Stephen, 698n6
- Williamson, Hugh, 516
- winds, 126, 557
- wine, 307–8
- Wiseman, Donald J., 11–12
- women, social status of, 270
- Woolley, Sir Leonard, 223
- worldviews, 427–31
- worship, 489–92. *See also* religion
- writing and writing systems: glyphic, 212; Jaredite, 522–24; of Kaminaljuyu, 559; in Mesoamerica, 185–87, 218–24; in Mesopotamia, 29; in Nephite and ancient Near East religions, 461; used to write Book of Mormon, 224–30. *See also* literary forms
- von Wuthenau, Alexander, 237
- Xochipala, 146
- Xu, H. Mike, 511–12
- Yamauchi, Edwin, 11–12
- year counts, 192–95
- Yeniseian, 174
- Yerman, Bruce H., 400–401
- Yucatán: baptism in, 486; blood drinking in, 422–23; class distinction in, 206–7; fabric from, 346–47; fortifications in, 385; lineage histories from, 185–86; nobility in, 373–74, 390, 395; political legitimacy in, 282; priestly hierarchy in, 479, 484; prophecy in, 193, 440–41; towers in, 491–92; traditions of transoceanic voyages in, 165–66
- Zactan*, 598
- Zarahemla: agriculture in, 308; between 600 and 1 bc, 599–602; “borders by the east sea” and, 139; burning of, 663; as center of civilization, 603–4; Chiapas as, 581–85; distance between city of Nephi and, 18, 121; fortification of, 607; geographic features of, 19; as heart of Nephite country, 142; Lamanite invasions of, 41–42, 50, 51–52; lineage histories and, 202–3; location of, 131, 137; Mosiah₁ flees to, 551, 568; “narrow strip of wilderness and,” 140; Nephite society at, 46–47; Nephites forced out of, 685–86; people of, 37, 41, 541; prosperity in, 624; Santa Rosa as, 22, 131, 585–94; sites in, 598–99; size of, 297; Zeniffites and, 42–43, 121–22
- Zeezrom, 488–89
- Zemnarihah, 191
- Zeniff, 43, 570
- Zeniffites: agriculture and, 303, 304; escape into wilderness, 132; government of, 259; rebellion of, 391; return to land of Nephi, 568–69; search for Zarahemla, 121–22; settle in Zarahemla, 42–43, 44
- Zerahemnah, 387–88
- Zevallos Menéndez, Carlos, 342
- Zevit, Ziony, 551
- ziff, 338–39
- ziggurats, 27n2, 323, 324
- Zoram, 404
- Zoramites, 211, 260, 283, 481, 483
- Zorita, Alonso de, 268–69
- zuhuyha*, 132
- Zuyva, language of, 214