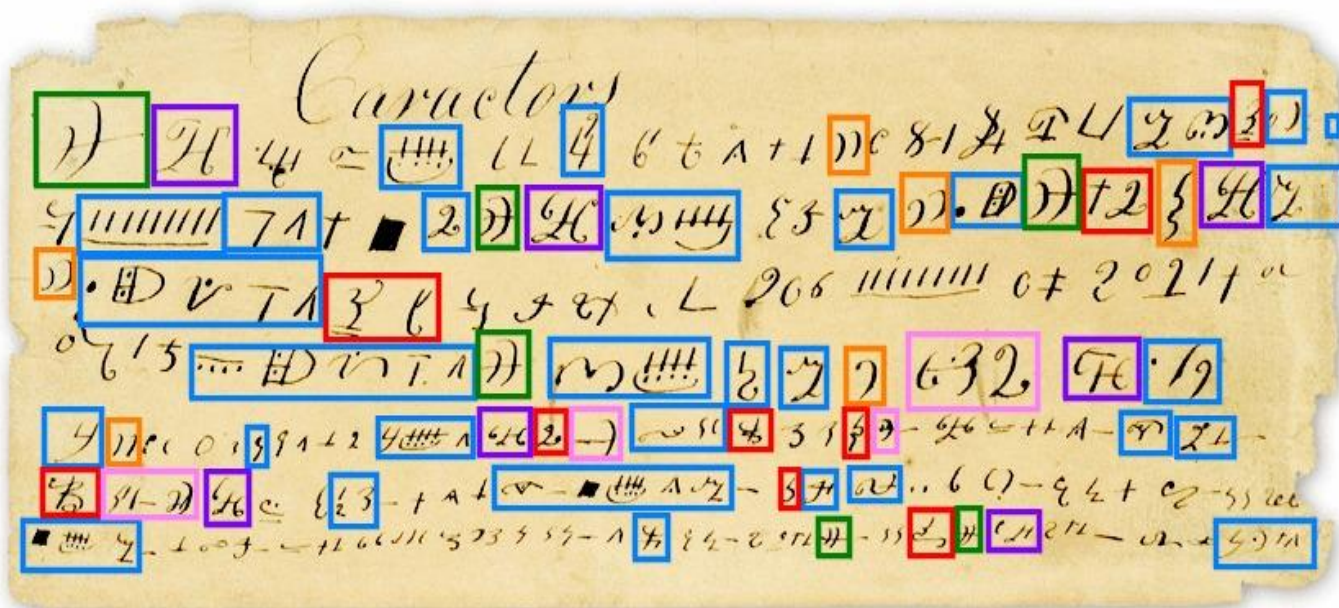


TRANSLATION OF THE "CARACTORS" DOCUMENT

REVISED AND UPDATED

Mormon's Chronological Summary of the Period from the 19th Regnal Year
of the Reign of Mosiah₁ to the Coming of the Limhites
and Mormon's Synopsis of the Book of Mormon Prophetic Calendar



Translation and Commentary by
Jerry D. Grover, Jr.

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Jerry D. Grover Jr., PE, PG

Jerry D. Grover Jr. is a licensed Professional Structural and Civil Engineer and a licensed Professional Geologist. He has an undergraduate degree in geological engineering from Brigham Young University and a master's degree in civil engineering from the University of Utah. He speaks Italian and Chinese and has worked as a freelance translator for the past 25 years. He has provided geotechnical and civil engineering design for many private and public works projects. He took a 12-year hiatus from the sciences and served as a Utah County Commissioner from 1995 to 2007. He is currently employed as the site engineer for the remediation and redevelopment of the 1,750-acre Geneva Steel site in Vineyard, Utah.

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On the front cover: The Book of Mormon Caractors Document with numeric and calendrical elements identified

On the back cover: Sumerian, Egyptian and Maya sources of some of the Book of Mormon Caractors

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Introduction

After publishing the *Translation of the “Caractors” Document* in 2015, I moved on to other Book of Mormon research projects. I thought perhaps that it might trigger a bit of interest, which it has. I also thought that it might trigger some follow-up published research, as I considered it the first attempt in the process of translation. To date, there has been no follow-up research that I am aware of.

When I moved on to other research, there was one area that nagged at me a bit; namely, there were a few numbers and calendrical glyphs for which I could not find very direct correlations in Egyptian. I also hoped there would be some follow-up research specifically looking at the possibilities of some potential examples of reformed Egyptian in Mesoamerica.

It just so happened that the next area of research I engaged in was looking at potential linguistic sources for the Jaredite names in the Book of Mormon. The obvious place to start was ancient Sumer, since one of the names found in the book of Ether is Kish, a known city in ancient Sumer. As I evaluated the Sumerian roots of these names, they pointed to a mid-third millennium BC departure date for the Jaredites. As I looked in the proto-cuneiform Sumerian from pre-2500 BC, I serendipitously ran across the numeral glyphs that matched the Caractors glyphs that I had not located in the Egyptian.

On a related but separate line of research, I started to research various issues related to the land northward (deforestation, early Jaredite geography). Also serendipitously, I ran across potential representations of some of the Caractors glyphs in Mesoamerican settings.

It seemed appropriate, since these are items directly related to the Caractors Document, to publish an updated translation of the Caractors Document with the new information found. Some of the information is identical to the first book, and this updated book is designed to serve as a replacement for the first book. An appendix has been added that shows a comparison in the reformed Egyptian glyphs from the Caractors Document and *The Prophet Broadside*. An additional appendix is included that identifies the time frame from which the form of the Egyptian glyphs matching each Caractors glyph originates.

I also did additional work in Egyptian on a few glyphs that I knew needed some additional research. The Egyptian dictionaries utilized are all standard Egyptian dictionaries used by Egyptologists. The dictionary by Budge was also used in some instances, but because some Egyptologists consider it outdated, corroboration with other, more modern dictionaries was utilized in almost all instances where Budge was consulted. Budge phonetics were not relied on in any fashion but are included as they are necessary to locate the word on the citation page in Budge.

This updated book was reviewed by an expert with advanced qualifications in the ancient Egyptian language and script with the following comment:

“I found the Egyptian identified was hieratic with a small amount of Demotic. The meanings associated with the glyphs are correct in the sense that the glyph meanings are all found in standard acceptable academic Egyptian sources.”

The previous Caractors book was reviewed by an expert in Mayawith advanced degrees in Mesoamerican studies with the following comments:

“...technically excellent linguistic approach”

“Interpretations are cautions and generally reasonable.”

“ . . . identified some legitimate patterns (relating to the Maya calendar) that had escaped everyone’s notice.”

Blind third party peer review of portions of this work relating to Sumerian was performed by Rubriq. Some comments from the third party peer review were:

“The manuscript attempts a technically excellent linguistic approach to the origins of a religious text.”

“Plenty of relevant data are presented, comparisons are clear, interpretations are cautious and generally reasonable.”

The additional research resulted in some small changes to the translation itself. I’m sure you will find this update interesting and thought provoking.

Chapter 1

Description of the Caractors

After obtaining the golden plates, Joseph Smith stated that once he moved to Harmony, Pennsylvania, in the winter of 1827, he “commenced copying the characters of [f] the plates.” He stated:

I copied a considerable number of them and by means of the Urim and Thummin I translated some of them which I did between the time I arrived at the house of my wife’s father in the month of December, and the February following. Some time in this month of February the aforementioned Mr Martin Harris came to our place, got the characters which I had drawn off of the plates and started with them to the City of New York. (J. Joseph Smith Papers, 2019)

Smith described a document or documents that included “a considerable number” of characters, which were likely more than just the seven lines dealt with in this book. He also stated that he included “some” translated characters.

One example that we have of the characters from the plates are those copied by John Whitmer (as evidenced by handwriting analysis) on what is known as the “Caractors” document (aka Caractors Document) (see figure 1). It is fairly certain that this document was copied from a portion of the characters that Joseph Smith had transcribed from the plates (MacKay et al. 2013) as John Whitmer created the copy sometime between June 1829 and January 1831. Though not supported by any documentation, because John Whitmer was one of the eight witnesses who directly handled the plates, he may have been able to copy characters from them.



Figure 1. Book of Mormon “Caractors” copied by John Whitmer © Community of Christ (The Joseph Smith Papers, 2018a)

The Caractors Document is currently in the possession of the Community of Christ, which was known from 1872 to 2001 as the Reorganized Church of Jesus Christ of Latter Day Saints (RLDS).

Techniques to Decipher an Ancient Unknown Text

According to Michael Coe in his book about the process of the lengthy decryption of the Maya text, the five fundamental pillars on which all successful decipherments of unknown texts have rested are:

2 Chapter 1

- (1) The database must be large enough, with many texts of adequate length.
- (2) The language must be known, or at least reconstructed, at a minimum. The linguistic family to which the language of the script belongs should be known.
- (3) There should be a bilingual inscription of some sort, one member of which is in a known writing system.
- (4) The cultural context of the script should be known; above all there should be traditions and histories giving place-names, royal names and titles, and so forth.
- (5) For logographic scripts, there should be pictorial references, either pictures to accompany the text or pictorially derived logographic signs. (Coe 1999, 43–44)

In the case of the Characters Document, there are only a handful of other characters, and there are no known pictorial references for the logographic text. We have information from the Book of Mormon that some portion of the text originated from Egyptian (Mormon 9:32–34):

32 And now, behold, we have written this record according to our knowledge, in the characters which are called among us the reformed Egyptian, being handed down and altered by us, according to our manner of speech.

33 And 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.

34 But the Lord knoweth the things which we have written, and also that none other people knoweth our language; and because that none other people knoweth our language, therefore he hath prepared means for the interpretation thereof.

So at least we do have somewhere to start, namely, the Egyptian that would have existed at the time of Lehi's departure. Since we know that there were other records (plates of brass, perhaps others) that Lehi took with him, there might be older forms of Egyptian that the Lehites may have had access to. However, as Mormon notes, whatever language they were using had been significantly changed ("reformed"). The use of the word *reformed* clearly implies a logographic or glyphic modification in the language, not just some pronunciation difference. The "manner of speech" change could be interpreted different ways, but the most likely change was in the syntax or sentence structure. Mormon also indicates in 3 Nephi 5:18 that "there are many things which, according to our language, we are not able to write." This is a clear indicator that the written language of the plates had some deficiencies of expression.

It is not apparent that Egyptian was actually spoken regularly by the Nephites as any form of *lingua franca*; it was probably a language that only the elite or highly educated class had knowledge of. After 1,000 years of assimilation in Mesoamerica, the Nephites were no doubt speaking some Mesoamerican languages that may have contained some elements of Hebrew and/or Egyptian. Brian Stubbs has shown with his extensive research the presence of Semitic languages and Egyptian in the Uto-Aztecan language family (Stubbs 2015).

With regards to the cultural context required by Coe, we do have some information from the Book of Mormon itself. Again, the derivation (although 1,000 years removed) from Egyptian and Hebrew gives us some platform to operate off of, with the understanding that Mesoamerican elements should also be present. Jaredite records were retained by the Nephites so we must leave open the possibility of some early Mesopotamian influences as well. We do have in the translated Book of Mormon text itself traditions and histories giving place-names, personal names, and titles for comparative purposes.

We do not have a bilingual text as contemplated by Coe, but we do have a text translated into English of another part of the text in the Book of Mormon.

Basic Structure of the Text

Part of the translation required an initial assumption on the direction of orientation of the characters and the direction in which they are read. Joseph Smith indicated (J. Smith 1830, 71) that the characters on the plates read from right to left, “running the same as all Hebrew writing in general,” which would also indicate the first line is the top line. This is consistent with the way the title is oriented. If incorrect, it would have been apparent once the translation was attempted.

It appears that there were two episodes of copying on the document, with the upper four lines being copied in larger script than the bottom three lines. It is not known if the upper or lower characters reflect the size of the characters from the gold plates; however, it is noteworthy that the spacing as a relation to size of character is relatively consistent through the whole document, which would seem to indicate that the character spacing as a percent of character size was reflective of the engraved characters on the golden plates.

Historically some observers thought that the writer was apparently running out of room and was forced to write smaller, but an early photograph of the document (probably before 1886) shows that it was originally part of a larger piece of parchment, so that doesn't seem as likely (MacKay et al. 2013; see figure 2). As a translator, it would be wise to consider that the bottom three lines may not be continuous in text and meaning in comparison to the upper portion. The bottom three lines contain fourteen or so periodic dashes (“-”), while none such are present in the upper section. There are common characters between the top four and the bottom three lines, but because there are no dashes in the top four lines this might also be an indicator that the bottom portion is something different.

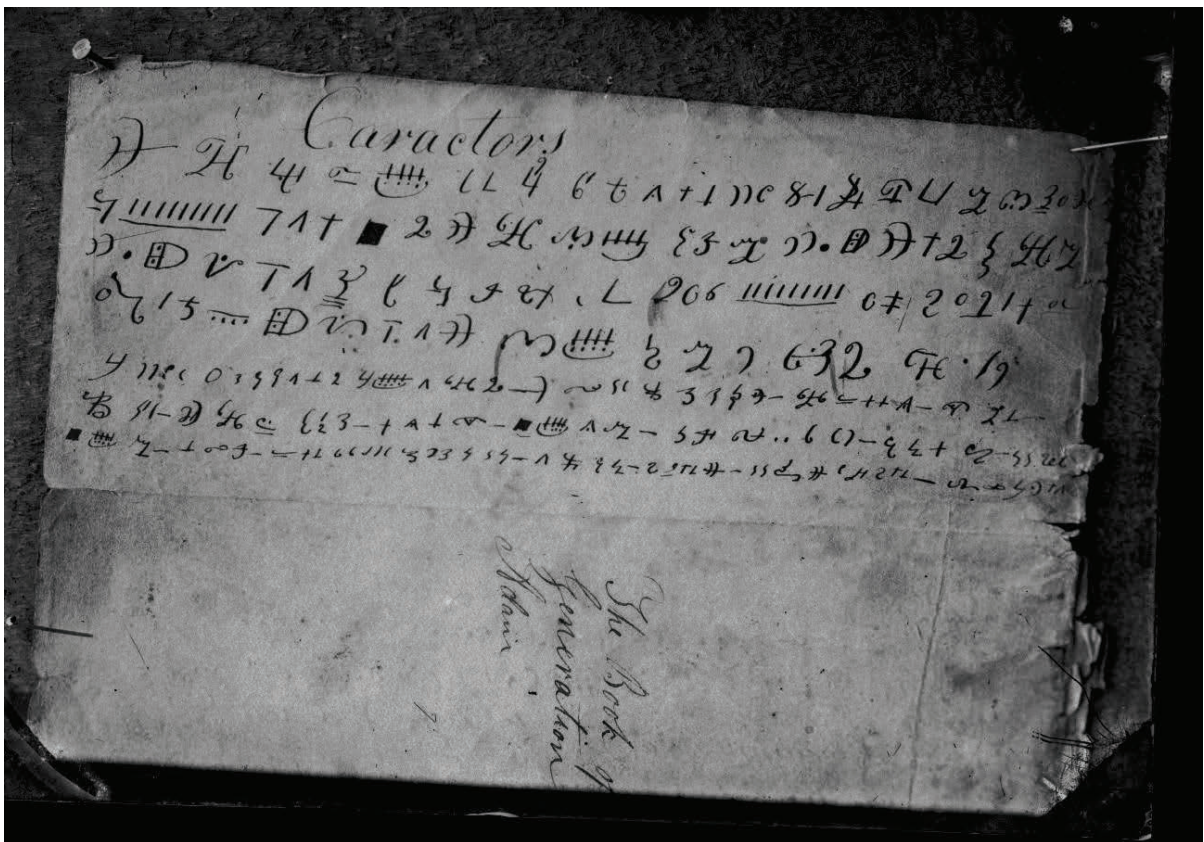


Figure 2. Photograph of the Caractors Document prior to early 1886 (Clay County Museum, 2009)

The Reformed Egyptian Is a Primarily Logographic Writing System

One way to determine the type of language that an unknown script might be is to determine the total number of individual characters in the script. This table shows the telltale characteristic for each type of writing system.

<u>Writing System</u>	<u>Number of Signs</u>
<i>Logographic</i>	
Sumerian	600 (+)
Egyptian	800
Hittite Hieroglyphic	497
Chinese	5,000 (+)
<i>“Pure” Syllabic</i>	
Persian	40
Linear B	87
Cypriot	56
Cherokee	85
<i>Alphabetical or Consonantal</i>	
English	26
Anglo-Saxon	31
Sanskrit	35
Etruscan	20
Russian	36
Hebrew	22
Arabic	28

(Coe 1999, 43)

The Caractors Document is definitely a very small sample of the language and has roughly a total of 222 characters (depending how one interprets a character), of which approximately 99 are clearly distinct, with possibly 20 variant forms (Crowley 1961). There are four other unique characters that we know about (MacKay et al. 2013), for a total of 103 distinct characters. Another document apparently containing copied reformed Egyptian characters attributed to Frederick G. Williams contains about 58 more unique characters (The Joseph Smith Papers 2018). It is very clear the “reformed Egyptian” is primarily a logographic language based only on the number of characters, as 160 unique characters even in this small text sample place it beyond the number found in syllabic languages.

This also seems apparent when Moroni wrote (Ether 12:23–25):

23 And I said unto him: Lord, the Gentiles will mock at these things, because of our weakness in writing; for Lord thou hast made us mighty in word by faith, but thou hast not made us mighty in writing; for thou hast made all this people that they could speak much, because of the Holy Ghost which thou hast given them;

24 And thou hast made us that we could write but little, because of the awkwardness of our hands. Behold, 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.

25 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; and I fear lest the Gentiles shall mock at our words.

It is indicated that they had weakness in writing because of the “awkwardness of our hands,” which also would tend to indicate a primarily logographic language where each character was different, as opposed to an alphabetic language of a limited number of characters that one needed to master in order to write. It is interesting that

Moroni indicated that there was difficulty in the “placing” of the words, indicating that the text may have different meanings based on the position or location of a particular glyph. They of course were engraving these words on metal plates, which would only serve to accentuate the problem. The statement that they stumbled “because of the placing of our words” also may indicate the difficulty with sentence structure or syntax, a sign that we may not necessarily expect to find traditional Egyptian or Hebrew syntax present in the text.

There is another statement in the Book of Mormon by Mormon that would indicate that the vocabulary and/or language type may be limited (3 Nephi 5:18):

And I know the record which I make to be a just and a true record; nevertheless there are many things which, according to our language, we are not able to write.

We may expect something of a simplified language, which is likely indicative that whatever is being written is not a *lingua franca* of the population and that perhaps the engraved script itself has some limitations.

Chapter 2

Approaching the Translation

Because we have the Book of Mormon translated into English, there are two parameters stemming from the text of the Book of Mormon that should be useful to us:

1. We would probably not expect many calendrical dates in the text to be beyond 609 years, which is the point where the Nephites changed from their primary calendar that was based on the departure of Lehi from Jerusalem.
2. We would expect to find a few of the common textual terms in the Book of Mormon such as “Nephite,” or other “-ites,” and “it came to pass.”

In addition, it should be possible to narrow the scope of inquiry somewhat with regards to sections of the Book of Mormon plate stack based on what is known about the generation of Joseph Smith’s copy of the characters.

Which Part of the Plates Do the Caractors Come From?

Preface found in the 116 lost pages

As has been mentioned, Joseph Smith stated that between December 1827 and February 1828, he copied some characters at least some of which were provided to Martin Harris and are later referred to as the Anthon transcript, since they were taken to Charles Anthon for analysis. It is clear that the Caractors Document was not the copy made for Harris, since recent handwriting analysis shows the penmanship to be that of John Whitmer (MacKay et

al. 2013). However, it would be reasonable to assume that the Whitmer Caractors could have originated from the same plate from which the Anthon transcript was taken and may even contain some of what was on the Anthon transcript. Notably, in 1834, in a letter (quoted in Howe 1834, 271–72) Anthon described what was on the Harris document as follows:

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 sideways, were arranged in perpendicular columns, and the whole ended in a rude delineation 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 reveal the source from which it was derived.

The Mexican calendar that Anthon was referring to was found in a book published in 1814 by explorer Alexander von Humboldt (Humboldt 1814). It is now commonly referred to as the Aztec Calendar Stone (see figure 3).

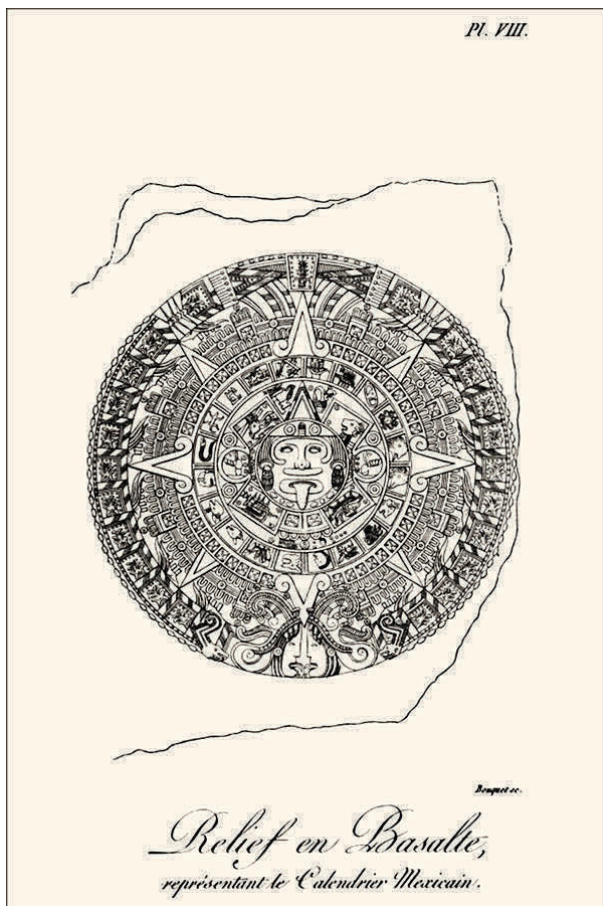


Figure 3. Humboldt’s Mexican calendar

8 Chapter 2

Later in an April 3, 1841, letter to Rev. T. W. Coit (quoted in Clark 1842), Charles Anthon stated:

The characters were arranged in columns like the Chinese mode of writing, and presented the most singular medley that I ever beheld. Greek, Hebrew, and all sort of letters, more or less distorted, either through unskilfulness or from actual designs, 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.

In an August 12, 1844 letter, Anthon described it as “one or two parallel columns” with “rude imitations of Hebrew and Greek characters together with various delineations of sun, moon, stars, etc.” (Jennings, 2012). Another source, many years later, quoted Joseph Smith Sr. as providing the following description of the plates (Lapham 1870):

In answer to our question, as to what it was that Joseph had thus obtained, he said it consisted of a set of gold plates, about six inches wide, and nine or ten inches long. They were in the form of a book, half an inch thick, but were not bound at the back, like our books, but were held together by several gold rings, in such a way that the plates could be opened similar to a book. Under the first plate, or lid, he found a pair of spectacles, about one and a half inches longer than those used at the present day, the eyes not of glass but of diamond. On the next page were representations of all the Masonic implements, as used by masons at the present day. The remaining pages were closely written over in characters of some unknown tongue, the last containing the alphabet of this unknown language.

This source is a second-hand source, quoted after many years had passed, but it indicates with regards to the first one or two plates that they were not part of the main text, and neither was the last page that contained what was thought to be some form of alphabet. The reference to Masonic representations is quite vague, but seems to be relatively consistent with Anthon’s description of half-moons and stars at least, which are common Masonic symbols.

Another accounting of a third-hand source who purports to have seen the manuscript recounts that on the Anthon transcript were concentric circles with writing between, above, and below (Littell 1851):

The Prophet Joseph, curtained from the world and them with his spectacles, read from the gold plates what they committed to paper. Harris exhibited to an informant of the author, the manuscript title page. On it were drawn, rudely and bunglingly, concentric circles, between, above and below, which were characters, with little resemblance to letters; apparently a miserable imitation of hieroglyphics the writer may somewhere have seen.

Lucy Mack Smith, Joseph Smith’s mother, recounted in 1845 (L. Smith 1845, 71, 75) that:

It soon became necessary to take some measures to accomplish the translation of the record into English but he was instructed to take off a facsimile of the alphabet Egyptian charecters Alphabetically and send them to all the learned men that he could find and ask them for the translation of the same. Joseph was very solicitous about the work but as yet no means had come into his hands of accomplishing the same. . . .

It was agreed that Martin Harris should follow him as soon as he should have sufficient time to transcribe the Egyptian alphabet which Mr. Harris was to take to the east and through the country in every direction to all who were professed linguists to give them an opertunity of showing their talents.

Joseph Smith indicated (J. Smith 1830, 71) that the Title Page (currently part of the Book of Mormon) was actually the last plate:

I wish to mention here that the title-page of the Book of Mormon is a literal translation, taken from the very last leaf, on the left hand side of the collection or book of plates, which contained the record which has been translated, the language of the whole running the same as all Hebrew writing in general [that is, from right to left]; and that said title page is not by any means a modern composition, either of mine or of any other man who has lived or does live in this generation.

If we take these descriptions at face value, we can surmise a few things. At least a portion of the last leaf (Title Page) was apparently initially perceived as containing the alphabet of the language, and portions of the page had characters copied from it. Since we now have this page translated into English, we can easily compare that text to see if it has any consistencies once we commence an attempt at translating the Caractors to see if, in fact, it is a portion of the Title Page. In addition, if one does not consider the words “the” or “of” on the English translation of the Title Page, it contains 216 words. Since there are 222 total characters in the Caractors Document, it is extremely unlikely that the Title Page is a candidate for translation of the Caractors Document, since it is a primarily logographic language.

The Caractors Document translation does not match any known portion of the Book of Mormon. If present in the lost 116 pages, it would likely be at the front of the text as a preface for the entire Book of Mormon and would be consistent with the context of Mesoamerican codices.

While theoretically any portion of the entire Book of Mormon is a candidate for the Caractors translation, the facts indicate that the other location from which a sufficient number of characters were extracted is the front plate face or two (which I will refer to as the “Front Plate”), which was clearly something different than the rest of the Book of Mormon plate stack.

Oliver Cowdery and Frederick G. Williams recorded 4 characters and their translations by Joseph Smith that were copied from the plates; one set of 2 characters were translated together as “The Book of Mormon,” and the other set of 2 characters was translated as “The interpreters of languages” (see figures 6 and 7). It would seem that both of these in some form could be found in the original script of the current Title Page of the Book of Mormon. It clearly includes “Book of Mormon,” mentions “interpretation,” and infers the language of the Book of Mormon. It is reasonable therefore to assume that these characters came from the Title Page. Incidentally, the translation of these characters is another indicator that we can expect that the reformed Egyptian is a heavily logographic language since there are no articles (“the”) or prepositions (“of”) in that example, and it is a single glyph per word.

The Front Plate

Based on the description provided by Joseph Smith Sr., it appears that the Front Plate was the principal source of the transcript taken to Charles Anthon. Since we don’t know that the Anthon transcript was an exact geometric copy of the characters, it should not be supposed that the configuration of the Mexican calendar and columns of characters reflect exactly what would have been on the Front Plate. While we also don’t know for a certainty what portion (if any) of the columns of characters presented to Anthon came from the Front Plate, we do know that there were characters around and within the circle emblem. Based on the descriptions suggesting such, the Front Plate may be the source of the Caractors Document.

Based on the descriptions, we could expect the following items on the Front Plate:

1. Characters arranged in perpendicular columns (Anthon description)
2. A circle divided into various compartments “decked” with strange marks, in appearance like the Mexican Calendar (Anthon description)
3. Designs of half-moons, stars, and other natural objects, which are outside of the Mexican Calendar (Anthon description)
4. Concentric circles with characters above and below them and also between them (Lapham description)

Since the description of concentric circles and the Mexican calendar come from different sources, it is logical to presume that the description is for the same item.

Since Anthon believed that this circular emblem was a crude copy of what we now call the Aztec Calendar Stone, or Sun Stone, it is a clear indication that the circular emblem is Mesoamerican in origin. While the exact purpose and meaning of the Sun Stone is still a subject of academic debate, it does exhibit a variety of calendrical signs. In its circular form with concentric depiction of glyphs, it is similar to what are referred to as certain “period-ending” depictions. These are depictions that occur at the end of the various calendrical periods that permeated virtually every element of Mesoamerican life.

The symbol of calendrical concentric circles is not unique to Mesoamerica, but the symbol is ancient to the area. The Maya created stelae (erect, flat stone monuments), circular altars, and other monuments to celebrate the ending of calendrical time periods, often *katuns*, which are 7,200 days (Taube 1988; Gutierrez 1993). The sculpting of these monuments spread throughout the Maya area during the Classic period (AD 250–900), and these pairings of sculpted stelae and circular altars are considered a hallmark of Classic Maya civilization (Miller 1999), the time period when Mormon or Moroni created the Front Plate. The altars typically recount events surrounding kings or other important events that occurred within the time period event.

Circular concentric wheels are associated not only with period ending events but also with Mesoamerican calendars as well. Diego de Landa, an early clergyman who documented Mesoamerican practices shortly following the conquest, documented a calendar wheel used by the Maya, which depicted the katun ending days (de Landa 1556; see figure 4).



Figure 4. De Landa's sketch of the Round of the Katuns

In all Mesoamerican cultures, many names and glyphs of days and months are drawn from natural phenomena such as moons, stars, suns, plants, animals, and weather (Rice 2007, 46). The description by Charles Anthon is perfectly consistent with Mesoamerican calendar features.

In addition to having monuments and altars, Mesoamerican cultures also had written texts, which are referred to as codices. Unfortunately most of them were destroyed at the time of the conquest. Shortly after the conquest in 1541, Franciscan Friar Motolinia (Toribio de Benavente) documented that the Aztec possessed books from which religious knowledge came:

[The ancient books which the natives had or possessed] were written in symbols and pictures. . . . These natives had five books which, as I said, were written in pictures and symbols. The first book dealt with years and calculations of time; the second, with the days and with the feasts which the Indians observed during the

year; the third, with dreams, illusions, superstitions and omens in which the Indians believed; the fourth, with baptism and with names that were bestowed upon the children; the fifth, with the rites, ceremonies and omens relating to marriage. (Motolinia 1951, 74)

Since a few religious codices have survived (Codex Borgia, Codex Borbonicus, and others), we know that these books are first and foremost about cycles of time and the spiritual meanings that adhere to time. They begin with almanacs and calendars that were used for divination (Boone 2007; see figure 5). It is clear that the Book of Mormon was not a codex of divination, but as a religious Mesoamerican codex, it would certainly be consistent to include calendrical and almanac type information at the beginning of the book. Mormon actually did comment about what type of prophetic material he wanted to include in the Book of Mormon when he added the small plates to the record (Words of Mormon 1:3–5):

3 I searched among the records which had been delivered into my hands, and I found these plates, which contained this small account of the prophets, from Jacob down to the reign of this king Benjamin, and also many of the words of Nephi.

4 And the things which are upon these plates pleasing me, because of the prophecies of the coming of Christ; and my fathers knowing that many of them have been fulfilled; yea, and I also know that as many things as have been prophesied concerning us down to this day have been fulfilled, and as many as go beyond this day must surely come to pass—

5 Wherefore, I chose these things, to finish my record upon them. . . .

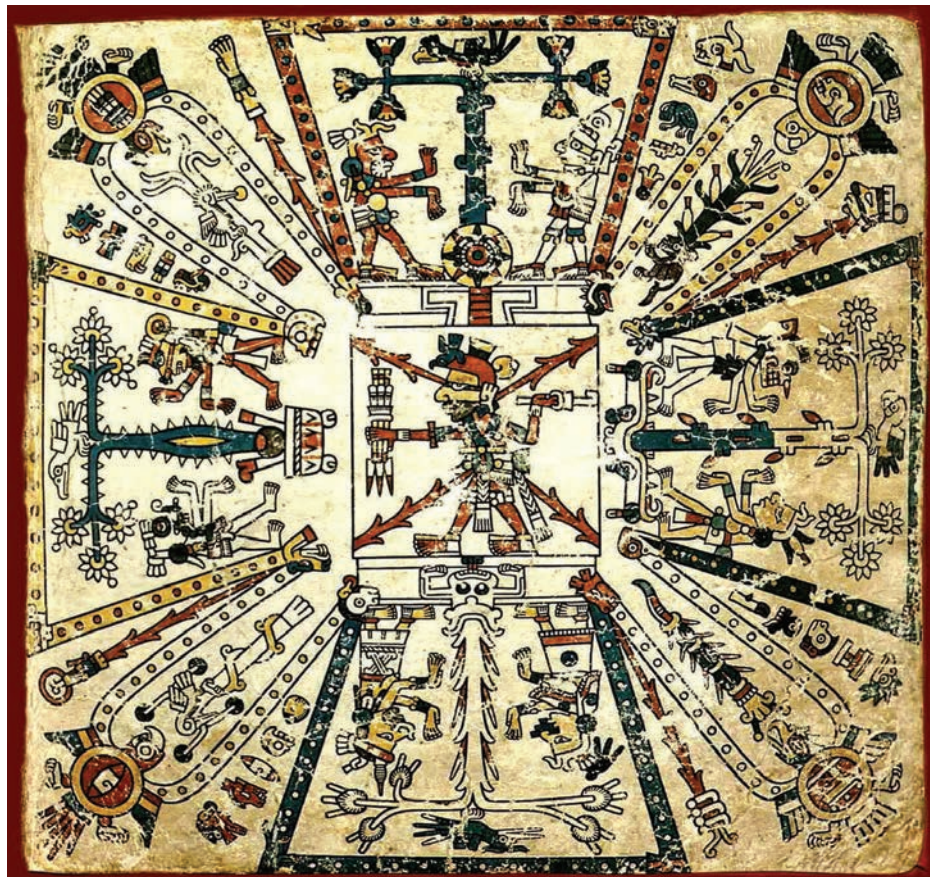


Figure 5. Codex Fejérváry-Mayer, the cross almanac (Wikipedia Commons 2015)

The Book of Moroni and the internal individual Book of Mormon lack a preface summary. Moroni provided one in the form of the Title Page at the back of the book, but not for his Book of Moroni (or for his abridgment of the Book of Ether). All of the rest of the books within the Book of Mormon have a summary or preface, excepting the mini one-chapter books of Jarom, Omni, the Words of Mormon, and also the Book of Mosiah. The Book of Mosiah

probably had one, but it is clear from Royal Skousen's (2001) work that we are lacking the very first portion of the Book of Mosiah as it was contained in the 116 lost pages. Even the Record of Zeniff, which is not a formal book, had a preface summary. It is certainly a reasonable expectation that the entire Book of Mormon itself had an introductory preface summary of some sort, which would reasonably be found on or immediately after the Front Plate and would probably have been written by Mormon.

Other Mesoamerican codices featured a recitation of the history of rulers, such as the Codex Mendoza, the Codex Aubin, the Codex Cozcatzin, and the Codex Bodley.

It is a reasonable possibility that the Caractors Document came from the Front Plate, since the translation actually rendered a significant number of chronological, calendrical, and numeral characters and notations in the Caractors text. In the first portion of the Caractors Document text, in addition to calendrical periods and notations, is a summary of the reigns of kings, consistent with Mesoamerican codex practice.

The remainder of Mormon's record

Since the Caractors Document script is not found anywhere in the current Book of Mormon, the only other possibilities are the lost 116 pages or a portion of the plates that were not translated. A likely location for at least the second section of the Caractors Document is the part of the untranslated portion of the remainder of Mormon's record. In Words of Mormon, Mormon initially indicates that he was at the point that he was about to deliver up the record that he had been making for his son Moroni (Words of Mormon 1:1–2). He also notes the point in time in the verse—namely, that he had already witnessed “almost all the destruction of my people, the Nephites.”

This point in time really could fit only two potential times: (1) the point in time just before the final battle, sometime between AD 380 and 384, or (2) the point in time after the final battle and prior to Mormon's death where there were a few Nephite survivors (Mormon 6:15; 8:2–3), sometime between AD 384 and 400 (Mormon 8:6). The second point in time is the most likely, since it better fits the description of “almost all the destruction of my people.” In addition, the Caractors Document includes the date of AD 384, so it would have to have been written post AD 384 if it was part of any record created by Mormon.

In Words of Mormon, Mormon then mentions that at the point in time that his abridgement reached “down to the reign of king Benjamin,” he then “searched among the records” “that had been delivered into his hands” and located a “small account of the prophets” and also “many of the words of Nephi” (Words of Mormon 1:3). It is clear that he did not use the “small account” in his abridgement. We know that Mormon obtained the large plates of Nephi when he was twenty-four years of age (Mormon 1:3) in approximately AD 335. He indicated that he did not get the rest of the records until sometime after AD 375 and before AD 379, based on allowing some time for intervening battles, it was likely AD 377 (Mormon 4:16, 23; 5:5). Thus, we can tell that Mormon completed his abridgement “down to king Benjamin” prior to AD 377. He could not have included any unique material from the “small account” (aka small plates) in his abridgement because he did not have the record up to that point in time. It also tells us that he completed the balance of the abridgement from Mosiah sometime during the period of AD 377 to AD 384.

Continuing in the Words of Mormon, after noting the small account contained the records of prophets and also words of Nephi, he indicates in the present tense that the plates were “pleasing” to him because of the “prophecies of the coming of Christ,” and of the prophecies concerning “us down to this day have been fulfilled, and as many as go beyond this day must surely come to pass” (Words of Mormon 1:3–4). The next set of verses indicate that Mormon is going to create a “remainder of my record” and place it with the small plates:

Words of Mormon 1: 5–6, 9

5 Wherefore, I chose these things, to finish my record upon them, which remainder of my record I shall take from the plates of Nephi; and I cannot write the hundredth part of the things of my people.

6 But behold, I shall take these plates, which contain these prophesyings and revelations, and put them with the remainder of my record, for they are choice unto me; and I know they will be choice unto my brethren.

9 And now I, Mormon, proceed to finish out my record, which I take from the plates of Nephi; and I make it according to the knowledge and the understanding which God has given me.

It is first necessary to look at the phrase “I chose these things, to finish my record upon them.” The 1981 version of the Book of Mormon has a footnote here that indicates “IE the things pleasing to him, mentioned in v. 4.” Others have interpreted this to mean that Mormon finished his record on some additional space available on the small plates or added additional plates (Ricks 1990). It is possible that both interpretations may be accommodated. It seems clear that the first interpretation of Mormon’s concentration on prophets and prophecy as the remainder of his record is textually present through the rest of the Words of Mormon, since verses 12–18 describe king Benjamin as a “holy man” who used the sacred relic sword of Laban invoking the “strength of the lord.” These few verses discuss false Christs and false prophets and “holy prophets” who assisted king Benjamin in preaching and establishing peace in the land.

Because the lost 116 pages of manuscript ended at the start of the Book of Mosiah, which follows the Words of Mormon, there have been various theories as to where verses 12–18 come from, since they seem to match nearly exactly chronologically and segue into the first verses in the Book of Mosiah, where one would not seem to expect a seamless transition. Lyon and Minson (2012) propose that these verses are, in fact, part of the Book of Mosiah and not the Words of Mormon, asserting that after the 116 pages were lost, these verses were not part of the 116 pages and were still retained by Joseph Smith. Their analysis relies primarily on the chapter notations provided by Oliver Cowdery in the Printer’s Manuscript and on Doctrine and Covenants section 10 where the Lord instructed Joseph that “You shall translate the engravings which are on the [small] plates of Nephi, down even till you come to the reign of king Benjamin, or until you come to that which you have translated, which you have retained.”

While this theory remains a possibility, the chapter notations have other reasonable constructions that do not support the necessity of this theory (Gardner 2013). In addition, while Lyon and Minson apparently ignore it and Gardner does not mention it, the reliance on the interpretation of Doctrine and Covenants section 10 as meaning that the portion which was translated and “retained” must refer to a residual portion of the lost 116 pages misses the most reasonable interpretation of section 10. Section 10 was received in May of 1829; the translation of the Book of Mormon had resumed April 7, 1829 (Bradley 2018). The most reasonable interpretation of section 10 is that the translation they were retaining is what they were currently working on and had completed. The language in Doctrine and Covenants section 10 does seem to imply that the small plates and the Words of Mormon had a text that went beyond king Benjamin; otherwise it would seem that it would have said to just translate everything instead of stopping at a certain point in time.

Unlike Lyon and Minson, Gardner’s position is that verses 12–18 (also verses 9–11) of the Words of Mormon are not from the original plates but is an inspired bridge from the actual Words of Mormon provided by inspiration by Joseph Smith, perhaps recognizing elements of the lost 116 pages.

In my view, this simply isn’t the way Mormon would have written this information. Mormon’s descriptions of events do not have this level of terseness until 4 Nephi, which I argue has a different structural intent than other writings, and one that does not apply to these verses. These verses describe nothing short of the crucial events that led up to Benjamin’s speech. They deal with an external war with the Lamanites, an internal civil war, and a religious crisis. Compare the treatment in this synopsis with similar topics in the book of Alma. These are things that Mormon cares about deeply. They are an important part of the story of the struggle of faith that he is building. I suggest that it is so completely incongruous for Mormon to have written this synopsis that we must look to another source. This is a synopsis of material that should have been in the missing text from the beginning of Mosiah. It is not the way Mormon wrote about those topics. It is not the way Mormon closed chapters. If we are looking at textual evidence, the evidence of how Mormon constructed his chapters argues against his authorship of these verses.

There is another possibility that seems to have been missed, and that is that the “remainder of Mormon’s record” is what he says it is, a concentrated and likely relatively brief recounting of prophetic and revelatory events. Mormon says that he is relying on the large plates of Nephi to write this remainder. He cannot be referring to the Book of Mormon abridgement that he had already completed and was turning over to Moroni, since that was already done. The Words of Mormon are this “remainder record” (or at least the first portion). Features supportive of this possibility are (1) it is concentrating on prophets or prophetic material as previously discussed; (2) Gardner points out that the Words of Mormon do not end the way that Mormon typically ends chapters (I would add that it certainly doesn’t end in the way that Book of Mormon books end); and (3) the language of D&C section 10 indicates they are to translate only to a certain point in the record.

This is the language used at the end of each book in the Book of Mormon:

1 Nephi: “And thus it is. Amen.”

2 Nephi: “For what I seal on earth, shall be brought against you at the judgment bar; for thus hath the Lord commanded me, and I must obey. Amen.”

Jacob: “Brethren, adieu.”

Enos: “Come unto me, ye blessed, there is a place prepared for you in the mansions of my Father. Amen.”

Jarom: “And I deliver these plates into the hands of my son Omni, that they may be kept according to the commandments of my fathers.”

Omni: “And I make an end of my speaking.”

Mosiah: “And thus ended the reign of the kings over the people of Nephi; and thus ended the days of Alma, who was the founder of their church.”

Alma: “And thus ended the account of Alma, and Helaman₁ his son, and also Shiblon, who was his son.”

Helaman: “And thus ended the book of Helaman, according to the record of Helaman and his sons.”

3 Nephi: “Turn, all ye Gentiles, from your wicked ways; and repent of your evil doings, of your lyings and deceivings, and of your whoredoms, and of your secret abominations, and your idolatries, and of your murders, and your priestcrafts, and your envyings, and your strifes, and from all your wickedness and abominations, and come unto me, and be baptized in my name, that ye may receive a remission of your sins, and be filled with the Holy Ghost, that ye may be numbered with my people who are of the house of Israel.”

4 Nephi: “And thus is the end of the record of Ammaron.”

Mormon: “And may the Lord Jesus Christ grant that their prayers may be answered according to their faith; and may God the Father remember the covenant which he hath made with the house of Israel; and may he bless them forever, through faith on the name of Jesus Christ. Amen.”

Ether: “Now the last words which are written by Ether are these: Whether the Lord will that I be translated, or that I suffer the will of the Lord in the flesh, it mattereth not, if it so be that I am saved in the kingdom of God. Amen.”

Moroni: “I soon go to rest in the paradise of God, until my spirit and body shall again reunite, and I am brought forth triumphant through the air, to meet you before the pleasing bar of the great Jehovah, the Eternal Judge of both quick and dead. Amen.”

Conversely, the Words of Mormon end with:

Wherefore, with the help of these, king Benjamin, by laboring with all the might of his body and the faculty of his whole soul, and also the prophets, did once more establish peace in the land.

All of the other books finish with some sort of a clear ending statement. 3rd Nephi is a bit different than the others but still ends with a final warning statement to the Gentiles. The end of the Words of Mormon is markedly textually different. Whether or not Gardner’s assertion that it doesn’t end as a chapter normally does can be established, it is fairly clear that the end of the Words of Mormon does not comport with any of the ending statements of the authors who wrote in the Book of Mormon, not only Mormon.

Gardner also argues that verses 12–18 were not written by Mormon since he would not have dealt with this material in the terse way were it part of a chapter of Mosiah, which is likely correct if one is dealing with a chapter in Mosiah. However, if Mormon had already dealt with this material in the lost 116 pages in his normal expansive way, and considering he was primarily interested in featuring some of the prophetic elements in a brief remainder record, as he stated in the Words of Mormon, this approach makes more sense. The Caractors Document material is organized in a fairly brief and structured pattern, so it actually is somewhat consistent with the nature of the text in verses 12–18.

Gardner (2011, 246) labels verses 9–18 as “bridging text” and hypothesizes that these verses represent a translation of information, but not a translation of text from the plates, and the information taken by Joseph Smith was from the first two missing chapters of Mosiah. Gardner indicates this “bridging text” allows the reader to understand the migration of the Nephites from Nephi to Zarahemla. However, under scrutiny, these verses are not a necessary bridging text. Bradley (2018) has indicated that these verses really don’t provide much in the way of bridging, since Amaleki in the Book of Omni already provides the information (and more) of the Nephite migration to Zarahemla and discusses the conflicts under king Benjamin. Verses 12–18 of the Words of Mormon discusses, from an historical standpoint, a war with the Lamanites led by king Benjamin and contentions among his own people. Omni 1:24 discusses the war against the Lamanites led by king Benjamin, and verses 27–28 of Omni give an example of a contention of one group of Nephites at the time of king Benjamin.

Mormon’s reason for including the small plates at the chronological end of his record, and to feature prophecy as the final contribution to his record, is completely consistent with the Mesoamerican practice of featuring prophecy and divination as the frontpieces of a codex. The second portion of the Caractors Document text also includes a recitation equivalent to a Mesoamerican prophetic calendrical text.

It is also notable that Mormon indicated that this “remainder record,” in addition to being taken from the plates of Nephi, was made “according to the knowledge and the understanding which God has given me” (Words of Mormon 1:9). Mormon’s statement is quite evidently reflected in the Caractors Document script as it involves complex glyph formation and placement, overall difficult organization of creative glyph structures, and sophisticated utilization of religious sacred numbers.

Since the Caractors Document is consistent with an untranslated continuation of the “remainder record” initiated as the Words of Mormon, the next question is where would the text have been located in the plate stack, in a likely location where it would have been copied. If attached to the small plates, provided the “remainder record” was relatively brief, it may have also been represented as one of the first plates (Front Plate) in the Book of Mormon stack, if the small plates were on the top of the stack. We do not know if the stack was translated sequentially, since for most of the translation the plates were covered, so the plate stack order was not dictating the order of translation, and so it would not have been required to be part of the 116 lost pages just because it was on top. Another possibility discussed by Neville (2016) is the possibility that the small plates were not in the original stack recovered by Joseph Smith but were provided later to him by divine delivery. In that case it may have served as the front portion of the individual small plate stack.

Preface to the Book of Mosiah

As has been noted, the current Book of Mosiah lacks a preface, which would have been part of the 116 lost pages. The first portion of the Caractors Document matches the existing known chronological time frame for the Book of Mosiah, since it includes all of the principal events in the Book of Mosiah. The form of the location of the glyphs at the beginning of the Caractors Document (especially as indicated in the Broadside) has the very first characters in a sort of dropped-flag format (see figure 6), which would seem to indicate that it may be a marker of sorts, which would be consistent with differentiation of something different, like a preface.

Based on Oliver Cowdery's changes in the initial chapter designation of the Book of Mosiah in the Printer's Manuscript, Skousen (1994) asserts that the current Mosiah chapter 1 is actually chapter 3, indicating that the first 2 chapters of the Book of Mosiah are missing. Gardner (2013, 110–15) has proposed an alternate theory that the error found in identifying chapter 3 was that Cowdery mistook the Words of Mormon to be Omni chapter 2 and the first chapter in Mosiah was mistaken as Omni chapter 3. Under Gardner's theory we do not know how many chapters may be missing in the Book of Mosiah.

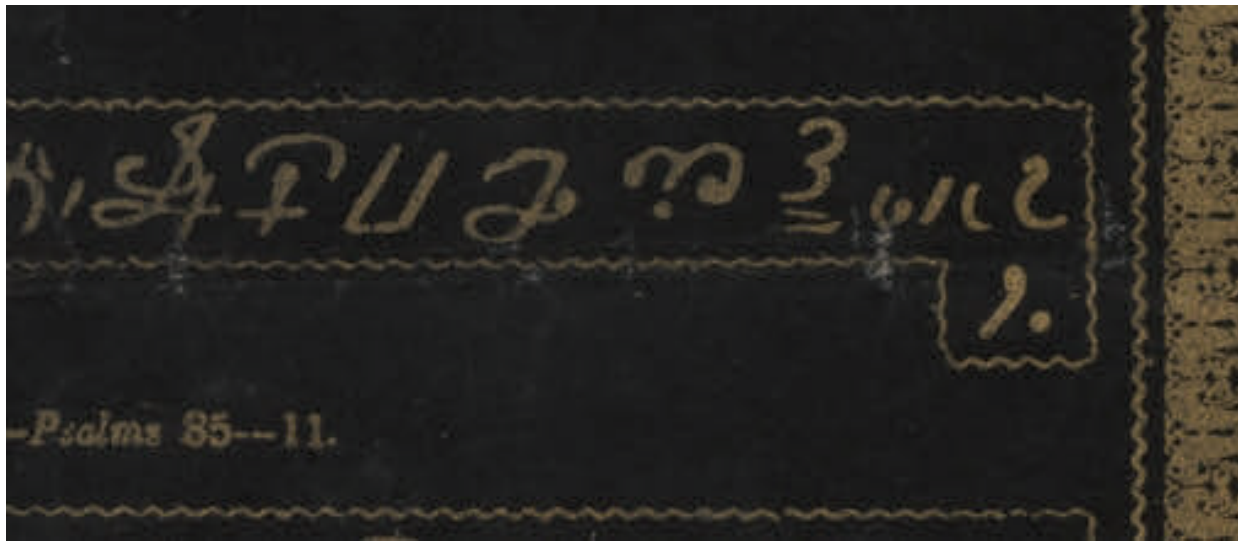


Figure 6. The initial “dropped-flag” configuration

Skousen proposed that the Book of Mosiah began with the reign of Mosiah₁, but the Caractors Document preface would indicate that the Book of Mosiah began with the departure of Mosiah₁ from the land of Nephi in his 19th regnal year, although the other prefaces penned by Mormon (Alma, Helaman, 3 Nephi, 4 Nephi) are not all that specific, so the Caractors Document preface to the Book of Mosiah might be inclusive of earlier events in the reign of Mosiah but not mention them. Other prefaces include some calendar information; however, the nature of the Caractors Document Book of Mosiah preface appears to have more specificity and detail in the inclusion of chronological dates. This might be explained by the divine translator opting to incorporate appropriate dates into the body of the Book of Mosiah from the preface. It also might be that the more detailed chronology was needed in the Book of Mosiah preface since there are really three concurrent stories occurring separately and simultaneously (Zarahemla, land of Nephi, and Alma's group). The first part of Caractors Document also includes chronological period endings and beginnings. The other prefaces penned by Mormon also include this information: the Alma preface includes an “account of the reign of the judges”; the book of Helaman preface references the commencement of the Coming of Christ Calendar including material “before the coming of Christ” “even down to the coming of Christ”; the 3rd Nephi preface references the beginning of a calendar period beginning when Lehi came out of Jerusalem and the commencement of the reign of Zedekiah. 4th Nephi does not have much of a preface, but the entire book appears to be the time period of the Fourth Generation prophecy (to be discussed later).

Further evidence that the first portion of the Caractors Document is a preface as previously discussed is that the right end of the first line of the Caractors Document (the beginning of the text), which is more evident on the Broadside, is the placement of a few glyphs under the line. This would seem to be an indicator for a new section of text. Textual breaks (chapters and or prefaces) do occur in the Original Manuscript, so we know that there was some kind of indicator on the plates designating these textual breaks. It was not likely a separate glyph that indicated this break, or one would have expected a word like “chapter” or “section” to be in the translation. This underlinear indicator glyph grouping (which may have also extended into a margin) could be considered something like a reverse indentation. The Caractors Document does exhibit this but includes some of the washed-out characters so isn't so obvious, but the newspaper Broadside version of the characters clearly demonstrates it.

This possibility as a Book of Mosiah preface was not something that occurred to me originally and was not in the prior book. I have also looked at the Book of Mormon chronology of events and have made some minor changes to the date of the Coriantumr₂ stone and dates of passage of small plates from record keeper to record keeper. The change to the record-keeper dates was based on Amaleki's description of the Nephite exodus to Zarahemla, where he consistently called the group "they," which would indicate he was not part of the exodus group but was born later in Zarahemla.

Chapter 3

Challenges of the Translation

A translation of the Caractors Document obviously presents a variety of challenges. The primary challenges are:

1. The document was copied by Joseph Smith and then apparently copied again by John Whitmer, introducing potential errors and inaccuracies.

Neither Joseph Smith nor John Whitmer had any knowledge of the Caractors language, so they would be unaware of what would be a critical detail for any particular character that would change the meaning or interpretation of a character. In addition, trying to write in a script with which you are unfamiliar is similar to someone who is right-handed trying to write with their left hand. The accuracy of form would be expected to suffer.

2. The source language material is completely or partially unknown.

As an unknown ancient script, the only information that we have is that the script was present from AD 300 to 400 in Mesoamerica, and that 1,000 years earlier it originated from some form or mixture of Egyptian. We do not know specifically what version of Egyptian was used. Moroni stated that it was “reformed Egyptian” (Mormon 9:32–34). The Oxford English Dictionary (2015) defines *reformed* as “altered in form or content, revised, amended,” so we can expect that any utilization of any form of ancient Egyptian will probably involve some interpolation. We would also expect that some of the reformed language has been further changed by the native language.

3. The spoken language information is unknown and is most likely nonexistent.

Unlike the element critical to the Maya decipherment, we do not have any absolute knowledge of the spoken language of the AD 400 Nephites. Traces of Egyptian and Semitic languages have been found in the Uto-Aztecan language family (Stubbs 2015), and some calendrical correlations to Egyptian have been noted in the Maya script (Compton 2010), so it may be useful to look for correlations there (Mormon 9:32–34).

4. The potential language sources to be utilized are themselves somewhat incomplete.

Ancient Egyptian was not a known language but had to be deciphered, and there is still some amount of ancient Egyptian text that is still unknown or in flux with regards to its interpretation and translation. The amount of script available is only what exists on ancient monuments, limited papyri texts, and pieces of urban detritus (i.e., pottery shards, etc.) that archaeologists have been able to unearth. The Mesoamerican language situation is even worse. The Pre-Classic and initial Early Classic Maya language (including Abaj Takalik and Kaminaljuyú scripts), which corresponds to Mormon’s time frame, remains largely undeciphered. The same is true for all of the other early Mesoamerican written languages (from whatever time frame), including the Aztec group, Olmec (including the Cascajal block), Epi-Olmec (Isthmian), and Zapotec. Epi-Olmec has some attempted translations, but there is no academic agreement. Some of these languages have only a handful of examples. For later Maya script, about 85 percent of the known glyphs have been translated to some degree. Even languages that have more script available are limited by the fact that most preserved examples are examples from a limited pool of sources, essentially monuments or stone engravings related to royalty.

5. Variability of language sources.

One must recognize that ancient Egyptian hieratic and Demotic were hardly “standardized” script and had variability based on region, time period, and the individual scribe. Each individual had his own cursive-type handwriting style and pattern; it would be similar to comparing the cursive writing of random Americans and then trying to compare a single individual’s script to all of those to see if it perfectly matches them all. It is difficult

enough just to read one individual's cursive writing (such as a doctor's prescription), let alone everyone scattered through a civilization.

6. Limited script.

There is essentially only one example of the Caractors script, with a handful of other individual characters.

Realistic Possibilities

So, was there any hope of a complete translation of this document? One advantage that this ancient script has versus others is that we have an English translation of the rest of the body of the script in the form of the translated Book of Mormon. It can provide linguistic structure and vocabulary patterns that might be comparatively useful to determine meaning from the document. In addition, the Caractors Document should contain content which has some level of parallel somewhere in the Book of Mormon, which might allow us to make some reasonable assumptions in narrowing possible vocabularies, definitions, and overall meaning.

We do know that the plates of brass taken at the time of Lehi's departure were in the "language of the Egyptians" (Mosiah 1:4). It is also clear from this verse that there is a good likelihood that Egyptian was not spoken or otherwise read except to a very limited class of rulers. There is no indication one way or another as to what language was being inscribed on the plates at that time; there may have been (and probably was) already some type or level of "reformed" Egyptian, as this verse takes place somewhere around 120 BC, 480 years after Lehi's group left Israel.

There is no attempt here of any "original" translation using Egyptian and Mayan, but I will rely upon standard, documented academic sources. This attempt is considered an initial translation, and like other first-time decipherments of unknown ancient scripts, it is not expected that all elements will hold up as new information and expertise comes to bear. I am an engineer and a scientist, so I do have a very good working knowledge of numeric systems.

It is important to realize that there is no comprehensive set of dictionaries for each particular time frame in either Egyptian or Mayan; knowledge of the ancient language script is dependent on what archeologists dig up. Often they can only place a general date range for the document or inscription. These languages themselves are still in the process of some decipherment. Historically, in order to decipher an unknown language, it was necessary to examine all forms of the language, no matter how removed in time it may be. The Rosetta Stone was discovered in 1798, but even with an exact Greek translation of the Egyptian hieroglyphs, it took until 1822 before too much progress was made, and even then Champollion had to partially rely on Coptic, which is far removed in time from the hieroglyphic Middle Egyptian. The same was true with the Mayan language; most of the progress in ancient Maya occurred utilizing the Landa Maya alphabet documented in 1566, even though many of the inscriptions were many hundreds of years older than the Mayan language of 1566.

As a result, it will not always be possible to compare Egyptian as it was exactly at the precise point in time Lehi left Jerusalem, nor Mayan in AD 400. In addition, the standard Egyptian sources used (dictionaries, etc.) do not always list examples of each glyph from all time frames, even though a glyph may have existed. That does not mean that the Caractors Document glyph did not exist in that time frame; it just means that the examples given did not cover all of the known glyphs in every time frame. The academic resource books are also only as good in this regard as the texts that have been discovered and translated. The corpus of early Demotic, which corresponds with the Lehi departure, is more limited than the later Demotic, so it does not contain as many examples in the Egyptian resource materials.

A compilation of the time periods for the example glyphs for each Caractors Document glyph given in the resource materials is included as Appendix B. Based on this compilation, there are 232 total glyphs evaluated. Twelve of those are determined to have primarily non-Egyptian sources (Mesoamerican and/or Sumerian) or are unknown. Of

the 220 remaining glyphs, 178, or 81 percent, match glyphs represented at the time of Lehi's departure time period. An additional 2 glyphs (1 percent) fall within the immediate 100 years prior to Lehi's departure time period. Thus 82 percent of the glyphs do have perfect correlation to Egyptian at the time of Lehi's departure as cited in the academic resources used. Eleven (5 percent) include examples from the time period when Egyptians had established administrative headquarters in three provinces in Palestine and built a number of garrisons throughout the region (ca. 1543–1292 BC). An additional 15 (7 percent) are those not yet located in the early Demotic but are found after 400 BC in Demotic, with an additional 3 (1 percent) Demotic examples after 200 BC. All the rest (6 percent) are found in Egyptian prior to Lehi's departure (some within 150 years), and these forms were likely available to the Lehites by virtue of the brass plates or other records they may have had. Thus there is very good correlation with the form of Egyptian present in the Caractors Document and Lehi's departure date around 587 BC. No doubt further research beyond these standard Egyptian academic resources would yield some further examples within the Lehi departure time frame for the remaining 18 percent.

For the Maya, most will have to be much later, since the early Book of Mormon era does not have many examples or much that has been figured out. One must recognize that there will always be some opinions and subjectivity to whatever is found and translated. After all, the translation of the Bible is still being debated today, and even the current Book of Mormon translation is under scrutiny against the Original Manuscript and the Printer's Manuscript. Of course, there are very few Egyptian hieratic and Demotic texts that Egyptologists agree on 100 percent, so at least this work may find good company.

In addition, since the source record for the translation is engraved on metal plates, whatever language is recorded there may look different than the same language displayed in other media. For example, most of the Egyptian hieratic and Demotic texts are ink on papyri, with some examples carved into stone or pressed or incised in hardened clay. The ink texts would be expected to have brush strokes wider and less exact than metal engravings, and much of the clay record does not appear to have sophisticated stroke development—much of it fits into the classification of “scrawls.” In addition, engraving of cursive style writing (such as some of the hieratic or Demotic Egyptian) is notably more difficult than individual characters, so it would be expected that some simplification of characters might be present because the characters are engraved in a non-cursive type format.

Caractors Set and Translation Organization

Before starting the actual translation task, it is necessary to organize the translation and identify individual characters. Besides the Caractors Document apparently copied by Whitmer, there was another example of the Caractors. A broadside entitled the “Stick of Joseph, Taken from the Hand of Ephraim” and an accompanying newspaper article was published in 1844 in an LDS Church–affiliated newspaper in New York called the *Prophet*. The Broadside and character representation in the newspaper are shown in figures 9 and 10. Even though the lines are virtually the same as the first three lines in the Caractors Document, it is unlikely that they were copied from the Caractors Document because John Whitmer left the Church in 1838, seemingly taking the Caractors Document with him (MacKay et al. 2013). The Broadside has some variation in comparison to the Caractors Document; the Broadside characters were not used unless necessary, as it is clear from a side-to-side comparison (see Appendix A) that the characters there were lacking detail and accuracy, and some characters were missing.

At least two other documents purporting to include Book of Mormon characters and their translations were created in the mid-1830s, by Oliver Cowdery and Frederick G. Williams (see figures 7 and 8). Additional characters from these documents will also be examined as part of the translation process.

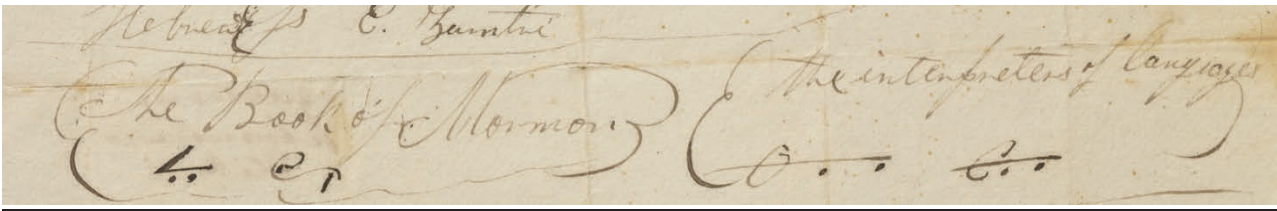


Figure 7. Book of Mormon characters copied by Oliver Cowdery, circa 1835–1836 (Joseph Smith Papers 2018b)

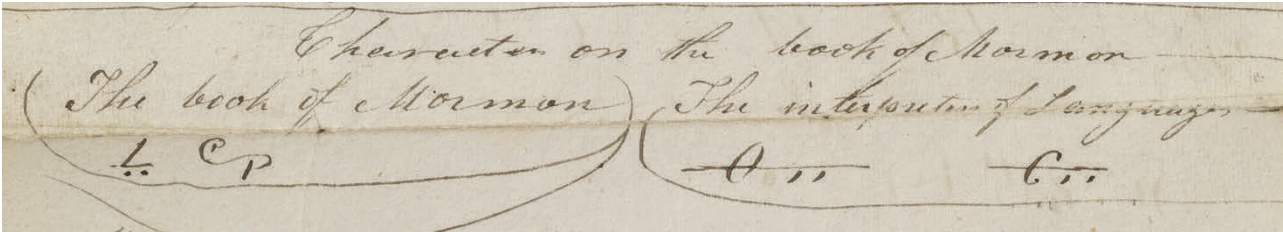


Figure 8. Close-up of the Book of Mormon characters copied by Frederick G. Williams, circa February 27, 1836 (Joseph Smith Papers 2018c)

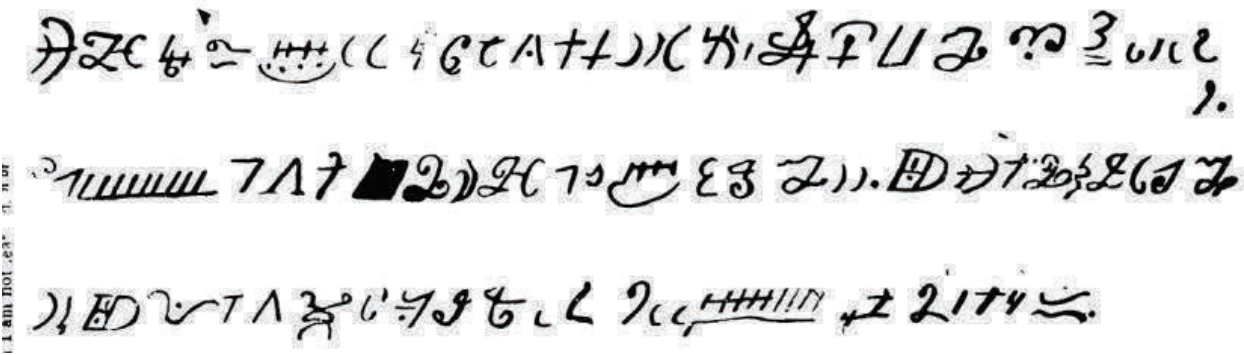


Figure 9. Book of Mormon characters as published in the *Prophet*, December 1844 (MacKay et al. 2013, 136)

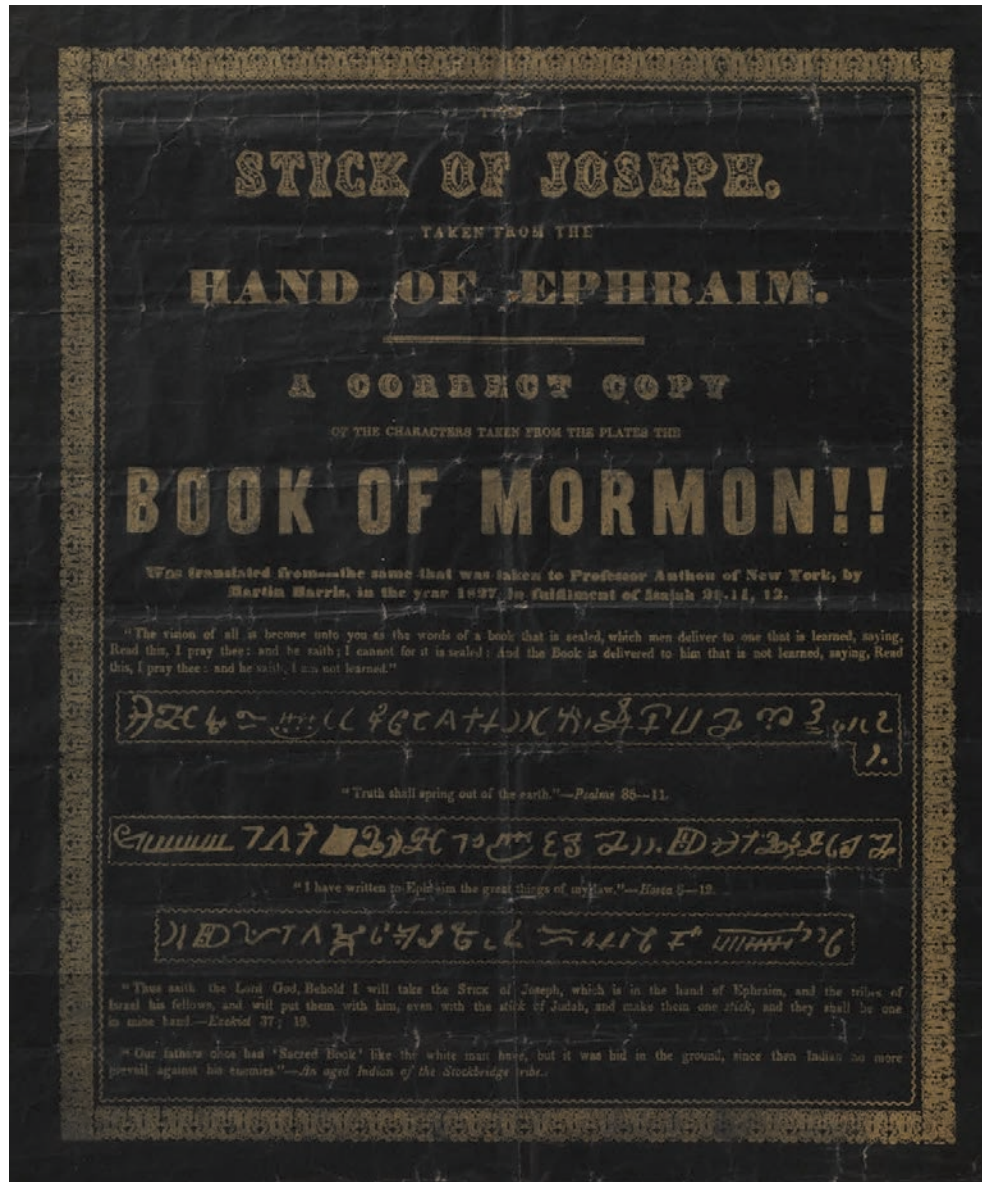


Figure 10. “Stick of Joseph, Taken from the Hand of Ephraim,” Broadside (New York: *Prophet*, 1844) (Joseph Smith Papers 2018d)

Previous Classifications and Analysis

Ariel L. Crowley

In the 1942 January, February, and March editions of the LDS magazine the *Improvement Era*, Ariel L. Crowley produced research related to the Caractors and potential Egyptian-language links. In Ariel L. Crowley’s 1961 book *About the Book of Mormon*, he reiterated much of the 1942 research and added some additional analysis. He dedicated the first five chapters to the Caractors Document. He did not attempt to translate the document, but he did search through Demotic and hieratic reference glossaries and texts to find characters identical or similar to the Caractors and provide some possible definitions or meanings based on these sources for some of the characters. He assumed (based on representations of the experts at the time) that the characters only represented actual Hebrew words written with Egyptian phonetic characters, with the Egyptian characters serving only the phonetic purpose. It would be similar to Chinese that is romanized, meaning the Chinese words are sounded out and written in the English language instead of the Chinese characters. His preparatory work was somewhat useful in translating non-numeric and non-calendrical text.

Crowley assigned numbers to each character, and that character numeration will be the reference used in this book. His designations are shown in figure 11. For whatever reason, he skipped numbers 97–99.

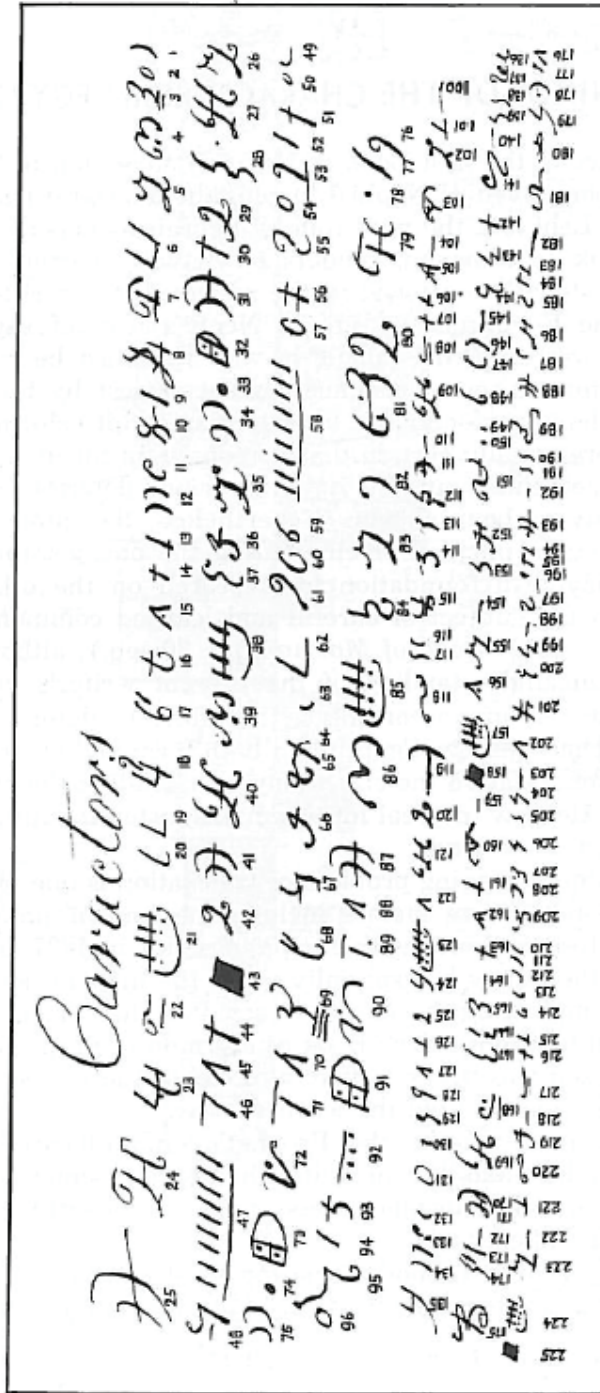


Figure 11. Crowley numeral designations for individual characters (Crowley 1961)

Paul Hanson

On June 4, 1956, Paul Hanson, a representative of the RLDS church, forwarded the Caractors Document to three Egyptologists who had been recommended to him by W. F. Albright. He received responses that included the following comments:

"I see no resemblance between the characters . . . and any form of Egyptian writing." —Alan H. Gardiner, Oxford (July 6, 1956)

". . . could conceivably been an inaccurate copy of an Egyptian account or something of the sort written in hieratic script. With some imagination the beginning of the inscription could be taken as a date, and many of the other groups look like hieratic numerals." —William C. Hayes, Egyptologist, Metropolitan Museum of Art, New York (June 8, 1956)

"One must recognize the words 'reformed Egyptian being handed down *and altered by us* according to our manner of speech' could be used to remove this context from the professional analysis of the Egyptologist." —John A. Wilson, professor of Egyptology, University of Chicago (June 7, 1956)

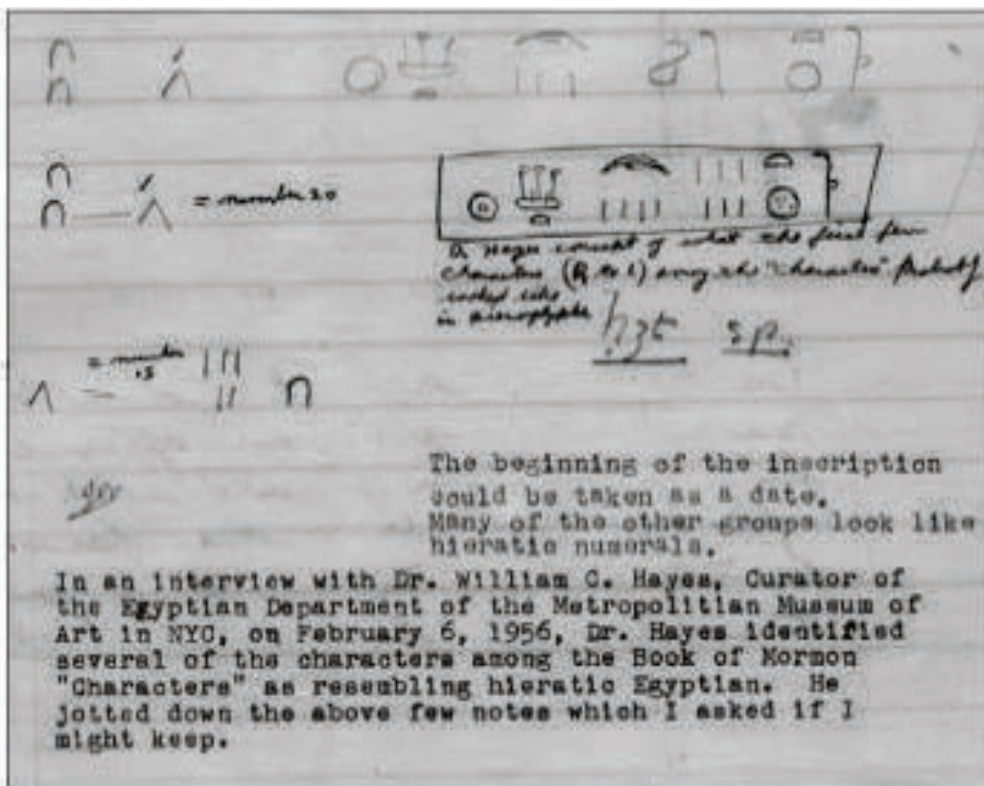
(Hanson 1956)

Stanley Kimball

Earlier that year, on February 6, 1956, Stanley Kimball was involved in a personal interview with William C. Hayes in which Kimball provided Hayes with a facsimile of the Caractors Document. Stanley Kimball recalls that after a few minutes of consultation,

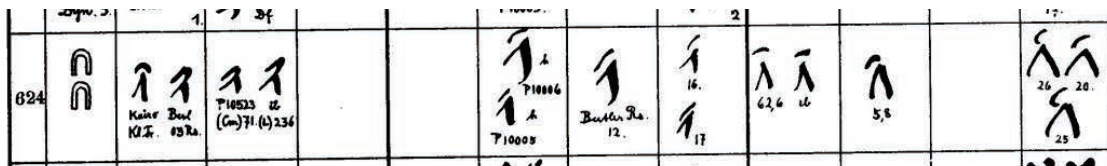
he studied the transcript for a while and scribbled a bit on a yellow legal size pad. His premise was that the transcript was in hieratic characters and, as is standard practice, he first transcribed the hieratic into hieroglyphics. He then concentrated on the first few characters (first line, right to left) and concluded that the beginning of the transcript might be a date and that other groups of characters in the transcript could also be taken as numerals. (Kimball 2002)

Kimball included the following "jottings" in his brief article in 2002:



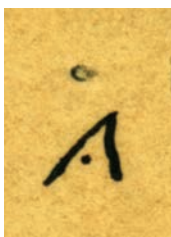
Jottings of Dr. William C. Hayes concerning the "Anthon Transcript" and notes of the meeting typed by Stanley B. Kimball

While not knowing the sources, if any, consulted by Dr. Hayes, it might be useful to see if a re-creation of what Hayes was seeing is possible. Starting with the notes on the top left side, the inverted V with the tick mark over it is a known hieratic form of the number 20.

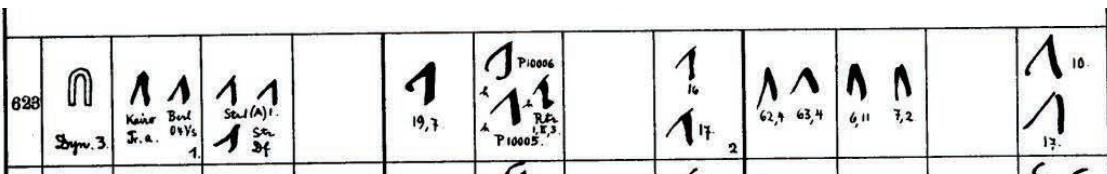


Möller Number 624, I-23-76, pg. I 623–631 (Möller 1965)

There is only one inverted V in the Caractors Document that might be interpreted as having the overhead tick mark, and it is found on the first line:



The second inverted V, on the notes further down on the left side, was noted (perhaps by Stanley Kimball?) as being a .5 or a 5; however, the number is a straightforward number 10 in hieratic:



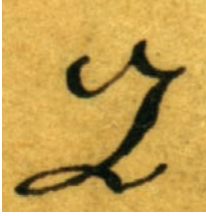
Möller Number 623, I-23-76, pg. I 623–631 (Möller 1965)

Since this is not an error Dr. Hayes would have likely made, the number 5 must be referring to the Egyptian number 5 that is present in the form of the five vertical lines to the right of the note, indicating the number 5 with the adjacent number 10. This sequence seems to be indicated by Hayes; there are 5 dash marks (which would mean 5 in Egyptian) together with the upside down U, which means 10 in Egyptian. This shorthand showing a 5 and a 10 likely refers to the number 5 in hieratic next to the number 10 in hieratic, which occurs in a few locations in the Caractors Document. There are multiple occurrences of a set of glyphs with 5 (although in a different form) adjacent to a 10, as well as what appear to be individual number 10s.

On the top right side of the note paper, there is a faintly written line of Egyptian hieroglyphs, and underneath is a boxed-in set of hieroglyphs that are slightly different, which may indicate that the first line was erased. Going from right to left, the first three glyphs in both series consist of the M-4, X-1, and O-50 (using the Gardiner number identifiers) Egyptian hieroglyphs, which together mean “regnal year.” This is clearly the determination made by Dr. Hayes, since beneath the box is the phonetically written Egyptian word *hʿ t sp*, which means “regnal year” (Dickson 2006). This is Dr. Hayes’s interpretation of the initial glyphs from the Caractors Document (top line, far right).



One of the other initial Caractors also likely had the standard form (non-date) of the number 6:



This substantially matches some of the standard form (non-date) hieratic of the number 6:

619	□□□ □□□	 Kaiser Fr. W.	 P10523 (M)212.	 21, 3.	 P10005 P10005 Kak 17, 8	 Bauer (2) 136	 32.	 30, 1, 24.	 149 64 56, 3 19. Zim. Multi- plicator 64, 16.	 56 85, 16
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Möller Number 619, I-23-76, pg. I 614–622 (Möller 1965)

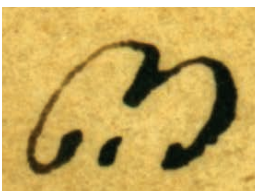
619	□□□ □□□ Schn. 18.	 39, 1, 9, 3 27, 2 37, 4 2, 5.	 P9785, 6 P9784, 8	 209, 1, 4 205 c	 Ka. 16, 12.	 II S 3, 1	 14 6 16	 35 6 9 X. 52 6 13 m	 3, 11.	 Mm R p 12.
-----	-------------------------	--	-----------------------------	------------------------	-----------------	---------------	-------------	-------------------------------	------------	----------------

Möller Number 661, II-31-74-Taf, pg. II 658–656 (Möller 1965)

619	□□□ □□□ Schn. 26.	 P3065, 16, 7. P3048, 3 Ka.	 sic. 131 (3)	 23, 8 20, 12	 44.	 III	 3, 3, 7 I, 3, 11 II, 1, 1	 64 64 1, 19
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Möller Number 619, III-32-72, pg. III 614–622 (Möller 1965)

The next Hayes glyph is similar in the faded and the boxed-in series, with the difference being that one has three vertical lines while the other has four. The last set of Hayes’s three characters is identical in both lines. In looking at the hieratic numerals, it would seem that Dr. Hayes is giving two possibilities for the same Caractor glyph, which is:



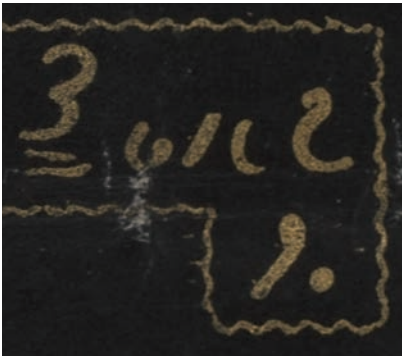
Hayes’s first glyphs with the three and four vertical lines look to be the glyphs for the fractions 1/3 and 1/4, respectively:

 211 Ra c 4.	 680 B	 211 4 21	 34 4 2 Xc.
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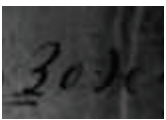
Möller Number 680, II-31-74-Taf, pg. II 667–690 (Möller 1965)

Additional Characters from the Broadside

There are additional characters at the beginning of lines (on the right side) on the Broadside that are not on the Whitmer Caractors Document. These characters—keeping with the numerical convention of Crowley and assigning each the same initial number as the Whitmer Caractor immediately to the left—are assigned the designations B1a, B1b, B1c, and B1d for those on the first line (see figure 12). The appearance of these additional characters might seem to indicate a discrepancy in transcription; however, it appears that there is some wear and perhaps water damage on the edge of the Whitmer Caractors Document, apparently washing out the missing characters on all three upper lines. A very close examination of the first line at the edge of the Caractors Document seems to verify a partial trace of some of the missing characters, and the 1886 photograph of the Caractors Document shows one of the additional characters that has been worn or faded away.



Location of extra characters in the Broadside



1886 photograph of Caractors Document



Character B1a



Character B1b



Character B1c



Character B1d

Figure 12. Additional characters and numeration from the Broadside

Similarly, the second line also appears to have a character missing on the right edge, consistent with the first line. A comparison of this section of the Broadside with the Caractors Document is shown in figures 13 and 14.

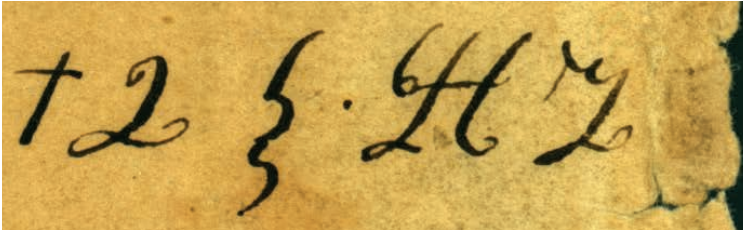


Figure 13. Caractors Document characters, start of second line

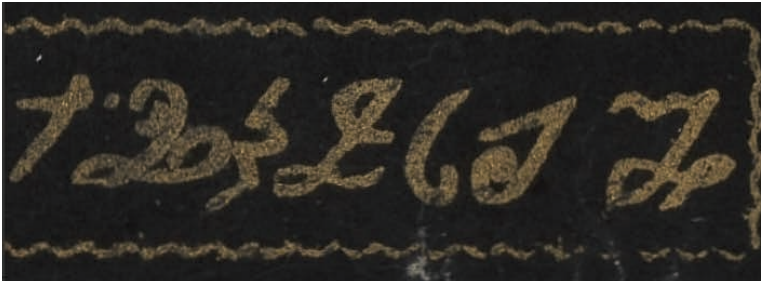


Figure 14. Broadside characters, start of second line

There appears to be a copying error in the Broadside since the end character of both lines is similar; the second character on the end of the Broadside is apparently the extra character. Based on other inaccuracies in the Broadside by comparison, it is assumed that the Broadside transposed the two end characters. Thus the character that was faded out on the Caractors Document is the second character in from the end. These two characters, keeping with the numerical convention of Crowley, are the same number as the Caractors Document immediately to the left, and are numbered B26a and B26b. B26b is considered the missing character in the Caractors Document.



Character B26a



This apparent faded character appears to match Broadside character B26b.



Character B26b

It is also noticeable that the right portion of the third line of the Broadside does not match the Caractors Document; however, it is apparent that the printer put this portion into the document upside down and reversed (see figure 15). The newspaper story (see figure 9) had the identical version in the *Prophet* without this section being upside down and reversed.



Figure 15. Upside down Broadside section

By correcting that section in the third line (see figure 16), just as in the first and second line, there is another character that appears to be missing from the edge of the Whitmer Caractors Document. This character, again keeping with the numerical convention of Crowley and assigning it the same number as the Whitmer Caractor immediately to the left, is numbered B49a.

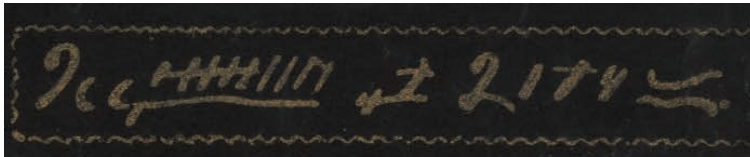
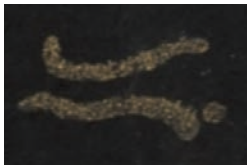


Figure 16. The upside-down section of the Broadside, reversed and flipped to right side up

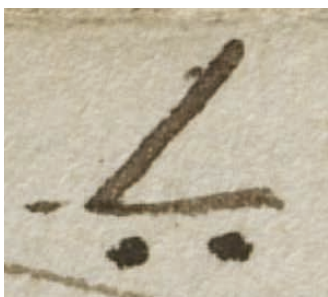


Broadside character B49a

The Broadside document does not include any lines beyond the top three of the Caractors Document, so it is possible there are other missing characters, especially on the sixth and seventh lines, which extend to the very edge of the paper.

Oliver Cowdery/Frederick Williams Characters

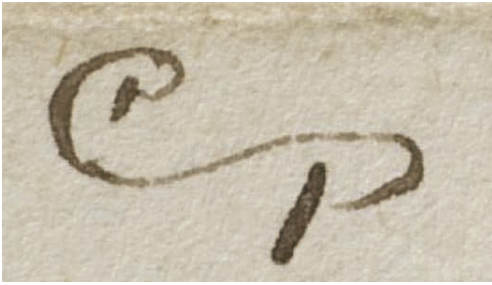
As mentioned previously, there are some characters that Joseph Smith copied from the plates, which were then translated. Although not directly part of the Caractors Document, these characters appear to be similar and so will be designated here as OF1–OF4 for the Frederick G. Williams version and OF5–OF8 for the Oliver Cowdery version.



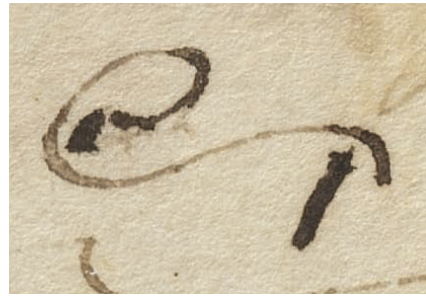
OF1



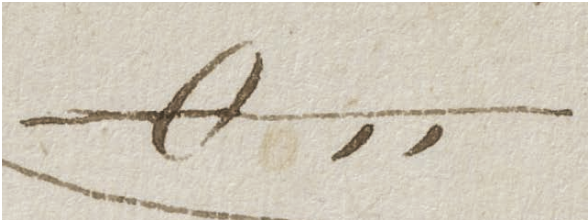
OF5



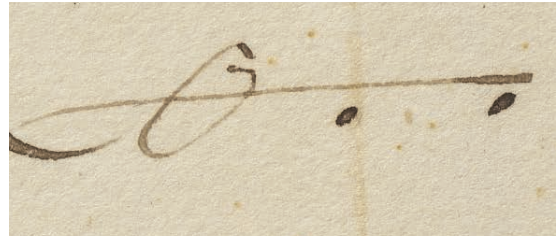
OF2



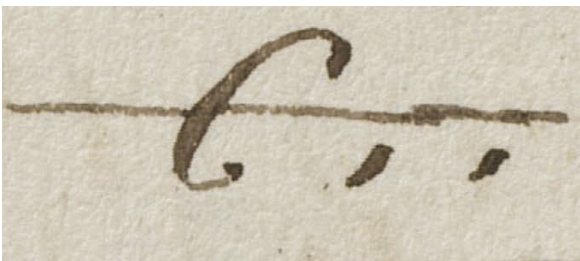
OF6



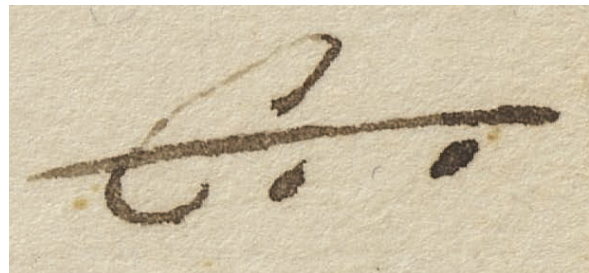
OF3



OF7



OF4



OF8

There are some slight differences, and it is not known whether Frederick G. Williams was copying off an original copy for Joseph Smith; it is possible that he was copying from the Oliver Cowdery copy. Frederick G. Williams copied dots on OF1 and tick marks on OF3 and OF4, while Oliver Cowdery copied them all as dots. This would seem to indicate that the two copies were independent of each other. Since the Frederick G. Williams version appears to be more specific, his version is utilized for purposes of the rest of this book.

Chapter 4

Starting from Zero—Translating the Numbers

The first progress made when deciphering the Mayan language involved recognizing the numbers and then the calendrical information. That seems like a good approach to take as well with the Caractors Document.

The following steps will be taken to evaluate numerals and numeral sequences in the document:

1. Identify numerals that have fairly straightforward identification from Palestinian hieratic.
2. Identify numerals that have fairly straightforward identification from Mesoamerican sources.
3. Identify numerals that have fairly straightforward identification from Egyptian hieratic or Demotic.
4. Evaluate characters that have forms similar to Mesoamerican or Egyptian hieratic or Demotic (variants).
5. Evaluate possibilities of Sumerian proto-cuneiform sources.
6. Evaluate unknown numeral characters within a numeral sequence.
7. Evaluate characters on the ends of number sequences.
8. Throughout the process, where possible, evaluate other linguistic primers that relate to the Book of Mormon text that might indicate or place constraints on numerals, numeric notation, and numeric sequences.

Numeric Sequences and Analysis against Egyptian, Hebrew, and Mesoamerican Languages

For a discussion of numeric sequences found in the Caractors Document, it is necessary to discuss each of the potentially contributing numeric systems.

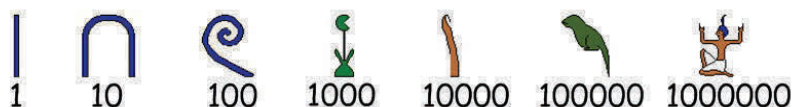
1. Egyptian Systems

Early Egyptian

First, it is important to note that Egyptian hieroglyphs could be written in both directions (and even vertically). The most common direction was right to left. When the direction was reversed, many of the signs would also reverse, with the sign basically forming a mirror image of itself. The Mayan language is the same as Egyptian in this regard.

The system of ancient Egyptian numerals was used in Ancient Egypt from around 3000 BC until the early first millennium AD. It was a system of numeration based on the scale of 10, often rounded to the higher power, written in hieroglyphs, but there was no concept of a place-valued system like the decimal system. The system is “cumulative additive”—all the signs were added together to arrive at the final number. This means there are no specific “places” for 10s, 100s, or 1,000s as in our current numerical system. The Ancient Egyptian system used bases of 10, meaning that the maximum of each symbol that would be shown would be 9. The numbers would be ordered with the highest rank first.

The following example (shown from left to right to be more familiar to modern readers) illustrates how the system works:



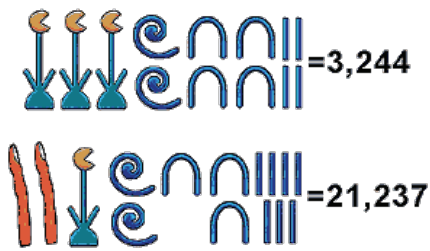


Figure 17. Egyptian hieroglyph numbers and system

To make the number 1 an ordinal number (1st, 2nd, 3rd, etc.), the normally vertical line would be turned horizontally like . For ordinals 2nd on up, it was the same—all the lines would be turned horizontally (Gardiner 1957, 191–199). There are a few variant archaic shapes for writing some of the numbers, shown in figure 20. It should also be noted that, as can be seen in the above example, in order to aid reading long numeral phrases, five or more identical numerical signs were usually grouped in sets of three or four rather than placed in a single line; thus 5 is written as a row of three signs above a row of two signs, 6 as a row of three above a row of three, 7 as a row of four above a row of three, 8 as a row of four above a row of four, and finally 9 as a row of five above a row of four (Chrisomalis 2010). The Egyptian numbers also represent particular items, and some of the numbers form a phonetic rebus. Some linguists believe that the 1 symbol is a fairly simple line, so there are many possibilities, with some being just an abstract stroke. The number 10 is a phonetic rebus and corresponds to the hook or handle; the pronunciation for 10 mimics the word for hook. The number for 100 is probably a coiled length of rope; 1,000 is a lotus plant; 10,000 is an extended finger; and 100,000 is a tadpole.

The sign for 1,000,000 could also mean “multitude” or “a countless quantity” (Chrisomalis 2010, 37). After the Early Dynastic Period (circa 2700 BC), this nonspecific interpretation of 1,000,000 was the primary one. In some older instances in which the 1,000 sign occurs, rather than grouping the signs in clusters of three to five, multiple lotus plants are shown as coming from a single bush (see archaic shapes in figure 20). The number signs, as well as the overall structure of the Egyptian system, remained stable throughout their history, and other than the number for 1,000,000, the Predynastic hieroglyphic numerals would have been completely intelligible to Late Period scribes (712–332 BC) (Chrisomalis 2010).

By 1740 BC, the Egyptians had a symbol for 0 in accounting texts. The symbol *nfr*, meaning beautiful, was also used to indicate the base level in drawings of tombs and pyramids, and distances were measured relative to the baseline, as being above or below this line (Joseph 2011, 86).

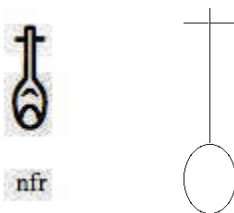


Figure 18. Egyptian zero

There were a few exceptions to this notation; larger numbers (100, 1,000, and 100,000) also had a multiplicative element, which was accomplished by placing a larger sign over a small sign, indicating multiplication. For example, if the sign for 27 had the sign for 100 placed above it, the resultant number for that part of the sequence would be 2,700 (Chrisomalis 2010, 41). This notation is seen in the hieroglyphics but mostly occurs in the hieratic.

The second exception to this general system is an interesting one and regarded measurements of weights and volumes in hieratic, which will be discussed below.

Egyptian Hieratic and Demotic

The hieratic script was first noted and developed by scribes around 2600 BC as a type of cursive shorthand for the hieroglyphic texts (Loprenio 1995). Unlike the hieroglyphic text, hieratic was always written linearly, from right to left. Hieratic writing varied greatly by period, location, and the idiosyncrasies of the scribe’s handwriting. The hieratic numerals, like the hieratic script itself, changed significantly over the system’s extensive history. However, each of the numerals did show some continuity over time, and they are for the most part distinguishable from each other no matter what the time period. The early Israelites used a minor variant of hieratic numbers, referred to as Palestinian hieratic, starting in the tenth century BC. By the eighth century BC, the hieratic of Upper Egypt (“abnormal hieratic”) was no longer mutually legible with that of Lower Egypt, which is now known as “Demotic.” The hieratic form of numerals stressed an exact finite series notation and is considered a ciphered-additive system; in other words, since hieratic was a more shorthand version of Egyptian, they did not want to write each of the 1s, 10s, 100s, and so forth, so they just shortened each number into one character symbol as shown below:

Egyptian Hieratic Numerals

1		10	^	100	—	1000	𐀀
2		20	λ	200	—	2000	𐀁
3		30	x	300	—	3000	𐀂
4		40	𐀄	400	—	4000	𐀃
5	𐀅	50	𐀆	500	—	5000	𐀄
6	𐀇	60	𐀈	600	—	6000	𐀅
7	𐀉	70	𐀊	700	—	7000	𐀆
8	𐀋	80	𐀌	800	—	8000	𐀇
9	𐀍	90	𐀎	900	—	9000	𐀈

So, e.g, 1328 = 𐀋λ𐀃𐀀

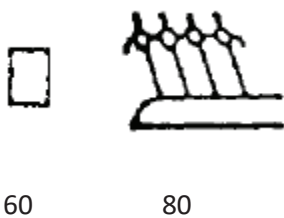
Figure 19. Some forms of Egyptian hieratic numerals

The Demotic numbers are identical to the hieratic system, just that their forms, in general, have been further simplified (see figure 20).

	Hieroglyphic	Hieratic	Demotic	Meroitic		Hieroglyphic	Hieratic	Demotic	Meroitic
1	𐀀	Ⲁ	Ⲁ	Ⲁ	100	𐀀	Ⲁ	Ⲁ	Ⲁ
2	𐀁	ⲁ	ⲁ	𐀁	200	𐀁	ⲁ	ⲁ	𐀁
3	𐀂	Ⲃ	Ⲃ	𐀂	300	𐀂	Ⲃ	Ⲃ	𐀂
4	𐀃	ⲃ	ⲃ	𐀃	400	𐀃	ⲃ	ⲃ	𐀃
5	𐀄	Ⲅ	Ⲅ	𐀄	500	𐀄	Ⲅ	Ⲅ	𐀄
6	𐀅	ⲅ	ⲅ	𐀅	600	𐀅	ⲅ	ⲅ	𐀅
7	𐀆	Ⲇ	Ⲇ	𐀆	700	𐀆	Ⲇ	Ⲇ	𐀆
8	𐀇	ⲇ	ⲇ	𐀇	800	𐀇	ⲇ	ⲇ	𐀇
9	𐀈	Ⲉ	Ⲉ	𐀈	900	𐀈	Ⲉ	Ⲉ	𐀈
10	𐀉	ⲉ	ⲉ	𐀉	1000	𐀉	ⲉ	ⲉ	𐀉
20	𐀊	Ⲋ	Ⲋ	𐀊	2000	𐀊	Ⲋ	Ⲋ	𐀊
30	𐀋	ⲋ	ⲋ	𐀋	3000	𐀋	ⲋ	ⲋ	𐀋
40	𐀌	Ⲍ	Ⲍ	𐀌	4000	𐀌	Ⲍ	Ⲍ	𐀌
50	𐀍	ⲍ	ⲍ	𐀍	5000	𐀍	ⲍ	ⲍ	𐀍
60	𐀎	Ⲏ	Ⲏ	𐀎	6000	𐀎	Ⲏ	Ⲏ	𐀎
70	𐀏	ⲏ	ⲏ	𐀏	7000	𐀏	ⲏ	ⲏ	𐀏
80	𐀐	Ⲑ	Ⲑ	𐀐	8000	𐀐	Ⲑ	Ⲑ	𐀐
90	𐀑	ⲑ	ⲑ	𐀑	9000	𐀑	ⲑ	ⲑ	𐀑
Archaic shapes:					Large Numbers:				
2000	𐀊			10,000	𐀉	1			
3000	𐀋			100,000	𐀊	𐀉			
4000	𐀌			1,000,000	𐀋				
				10,000,000	𐀌				

Figure 20. Ancient Egyptian numeric scripts

In addition to the hieratic numeral forms shown above, there are two variants for 60 and 80 found in the Edfu Donation texts that were inscribed on the outer wall of the temple of Horus in Edfu during the first century BC, during the Ptolemaic Period (Fairman 1963; see figure 21).



60

80

Figure 21. Hieratic symbols for 60 and 80 from the Edfu Donation texts

When used to express days of the month, hieratic numerals, like hieroglyphic numerals, were often rotated ninety degrees counterclockwise to reflect their function. These forms exist in numbers up to 30 (reflecting the days of the Egyptian calendar). Fractions were written by placing a small glyph or mark above the numerator to indicate the appropriate unit fraction ($1/x$). For larger numbers, multiplication was indicated by placing a larger number over a smaller number.

Weights and Measures in Hieratic Numbers

In hieratic, multiples of the single unit of volume measurement, the *hekat*, were notated differently. The *hekat* or *heqat* was an ancient Egyptian volume unit used to measure grain, bread, and beer. It equals 4.8 liters in today's measurements. When dealing with hekats, the single numbers 1–9 were drawn in the normal vertical form, but when they were in front of the hekat glyph, it meant that they were multiplied by 100. For example, the number 2 in the form of two vertical lines in front of the hekat glyph would mean 200 hekats, the number 3 represented by three vertical lines would be 300 hekats, and so on. If the numbers 1–9 followed the hekat symbol, then they were multiplied by 10 instead of 100. A notation like “2 hekat 3” would be 230 hekats, for example. Since the normal vertical lines for the numbers now indicated a multiple, the regular numbers were represented by dots instead of vertical lines and would follow the hekat glyph. So a notation like “hekat . . .” would mean 3 hekats.

2. Palestinian/Hebrew Hieratic Systems

In the ninth century BC, the Egyptian scribal tradition was adopted by the ancient Israelites, including the hieratic script and numerals. The Israelites incorporated a great deal of Egyptian learning into their own thought (Chrisomalis 2010, 50), which is consistent with Nephi's statement that his record was made “in the language of my father, which consists of the learning of the Jews and the language of the Egyptians” (1 Nephi 1:2). Like the hieratic, the ancient Hebrew number system was cumulative additive, with a multiplication element for the larger numbers. The sequence was also right to left, with larger numbers to the right proceeding to smaller numbers on the left (Wimmer 2008, 196). The use of hieratic numbers continued until the Babylonian exile (which Lehi escaped); when the Israelites returned, they adopted a totally different system of numerals based on the letters of the Hebrew alphabet.

Sumerian Numeric System Comparison

Since at least the Nephite gold/silver metrological measurement system and many Book of Mormon names are derived from pre-2500 BC Sumerian, the presence of Sumerian proto-cuneiform numbers and/or symbols in the Caractors Document is not surprising (Grover 2017). One might wonder whether Sumerian proto-cuneiform from that early time horizon could really survive and be incorporated in a recognizable form in the Nephite script more than 2,000 years later. Numerals and number systems do have a way of exhibiting some continuity over long time spans, and since Mesoamerica does appear to have had a much more limited exchange with other cultures than those in the Middle East, the survival of some portion of the system or glyphs is possible.

Another likely source of the Sumerian in the Nephite script is the plates of the brother of Jared. Late in Nephite history, Moroni refers to the plates of the brother of Jared, indicating that he will need to “hide them up again in the earth,” suggesting that the plates had been previously buried or otherwise “in the earth” (Ether 4:3). The Lord indicated to the brother of Jared the timing of the burial as just prior to his death, that “when ye shall come unto me, ye shall write them and shall seal them up” (Ether 3:22). The plates were likely discovered at the time of Mosiah₁ (Grover 2018) but obviously no later than when Christ came in the flesh, since an interpretation of the original brother of Jared plates was made available to the Nephites after Christ came (Arts 2002). Therefore, in addition to the Twenty-Four plates in which some early Sumerian may have been preserved, the plates of the brother of Jared no doubt consisted of the very early Jaredite script.

Summary of the Early Sumerian Number System

Numerical notation first developed in Mesopotamia around 3500 BC. However, Mesopotamian numeration has been described as a “dead end,” since the numerals did not spread geographically far beyond their point of origin and did not survive when placed under pressure from numerical notation systems of later inhabitants of the region. As discussed earlier, the Sumerian proto-cuneiform consists of multiple numeric systems, and some identical signs appear to have different values in different systems (Chrisomalis 2010). All of the Sumerian systems do appear to be cumulative additive, although some individual signs are formed multiplicatively (i.e., 600 = 60 x 10) (see figure 22).

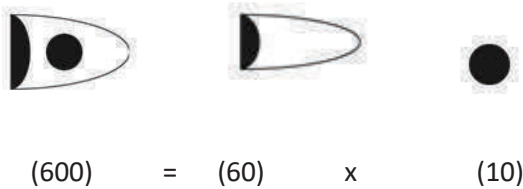


Figure 22. Example of a numeric sign formed multiplicatively in Sumerian proto-cuneiform

Cumulative additive means that there are many signs per power of the base and that the sum of those values is taken to obtain the total value. An example of this type of system would be classical roman numerals: CCCXXIII means 100 + 100 + 100 + 10 + 10 + 1 + 1 + 1 + 1, or 324 in our system. The recovered proto-cuneiform texts are primarily accounting documents. While some of the proto-cuneiform systems don't have systematic classifications, there are sexagesimal systems (consisting of numeric signs that alternate between factors of 6 and 10); bisexagesimal systems (consisting of numeric signs that alternate between factors of 6 and 10 but have some intermediates between these signs arrived at by using a factor of 2); systems to calculate area; and the U₄ system, which was used to record time and calendrical units.

The number system of Elam, the area adjacent to Sumer, was represented by Proto-Elamite number signs and was similar to the Sumerian proto-cuneiform system.

In addition to examining the written number system, it is important to look at the verbal number system to determine the utilization of base or sub-bases of a system. While we don't know with any certainty the verbal nomenclature of the early Sumerian proto-cuneiform number systems, looking at what we know of the verbal names for Sumerian numbers, verbal Sumerian numeric notation consisted of different bases depending on where one is in the number system. Above the number 60, it can be described as decimal sexagesimal, having elements of a sub-base 10 and a base 60. Below 60, the system is quinary vigesimal with traces of decimal counting, meaning it is a sub-base 5 and a base 20, with some traces of counting by 10s (Seidenberg 1965). More precisely it is a cross between an auinary-vigesimal system and a decimal system, with the vigesimal dominating up to the base 60.

At the beginning of the Early Dynastic Period (2900 to 2350 BC), significant changes were made to the script in the region. The older ideographic proto-cuneiform system slowly transformed into a writing system that used wedge-shaped (cuneiform) signs. However, despite the change to the script, the proto-cuneiform numeral signs remained identical to the archaic proto-cuneiform symbols. Around the twenty-seventh century BC, the numerals, along with the rest of the script, were rotated and written horizontally.

Summary of Sumerian Grain Measurement System and Other Numerical Systems

Approximately 1,200 different signs and sign variants have been isolated in the Sumerian archaic proto-cuneiform texts. Approximately 60 of them have been identified as numeric signs (see figure 23). The Sumerians had a complex assortment of incompatible archaic number systems, and each city had its own local way of writing

numerals. Around 3200 BC, or slightly before, in the city of Uruk, there were more than 15 different numeric systems (see figure 23). In this city, there were separate number systems for counting discrete objects (such as animals, tools, and containers), cheese and grain products, volumes of grain (including fractions), beer ingredients, weights, land areas, and time and calendar units. Furthermore, these systems changed over time; for instance, numbers for counting volumes of grain changed when the size of the baskets changed.

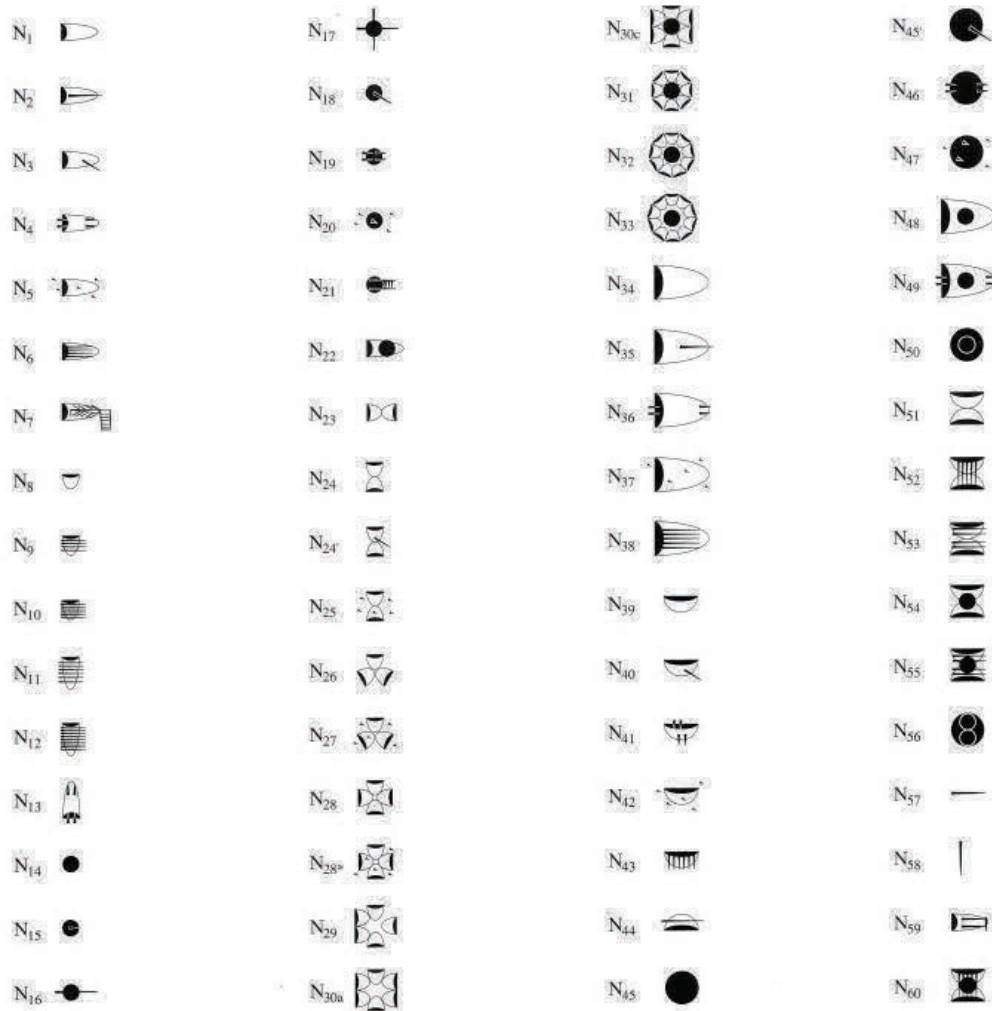
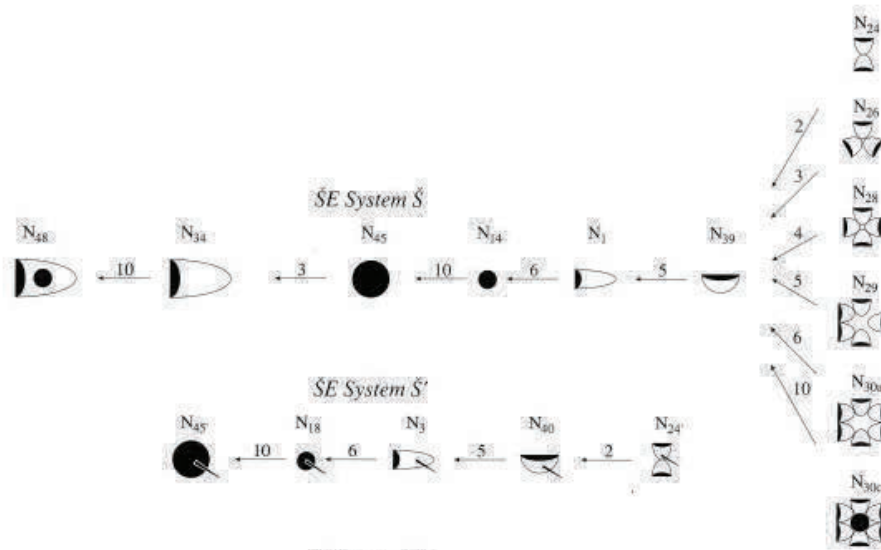
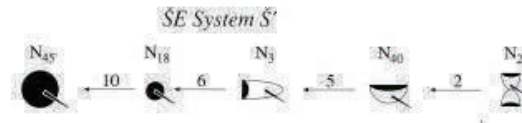


Figure 23. The numerical signs of the proto-cuneiform texts from Uruk (Nissen et al. 1993, 26)

System used to note capacity measures of grain, in particular barley; the small units also used to designate bisexagesimally counted cereal products



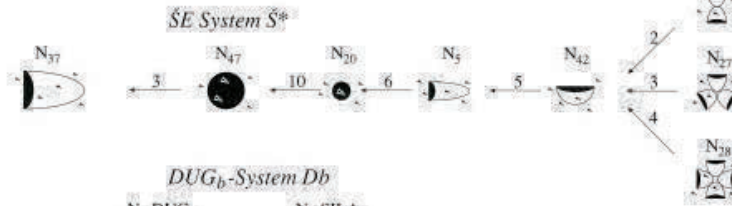
System used to note capacity measures of a certain grain, probably germinated barley (malt) used in beer brewing



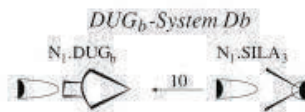
System used to note capacity measures of a certain grain, probably various kinds of emmer



System used to note capacity measures of grain, probably barley groats used to make certain grain products



System used to note capacity measures of certain products, in particular a milk product, probably dairy fats



System used to note capacity measures of certain products, probably dairy fats



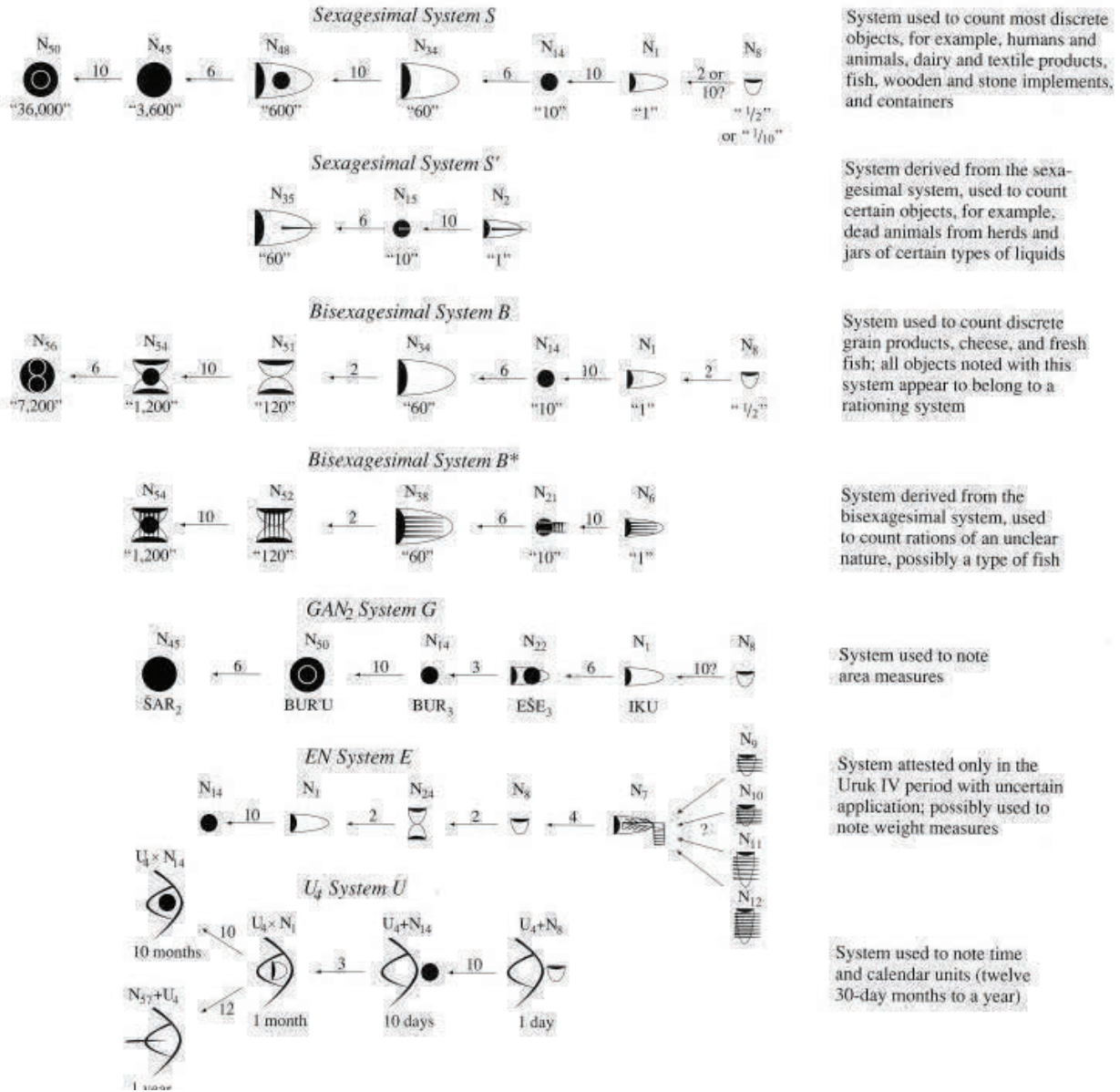


Figure 24. The numerical sign systems of the proto-cuneiform texts from Uruk (Nissen et al. 1993, 28–29)

The state adjacent to Sumer, Elam, also had a system of glyphs. Although most of the Elamite glyphs are different, the sequence of basic signs in the Proto-Elamite numerical notations correspond to that of the Sumerian proto-cuneiform notations (Damerow 1989, 21).

It has not yet been determined what the actual Sumerian grain volume unit measurement was (meaning we don't know how many cubic inches a grain "measure" was). All that is known is the ratio among the different units in the system, which is all we really know of the Nephite gold/silver system as well. As has been discussed, the Nephite gold/silver system implemented by Mosiah₂ has consistency with the Israelite weight-system ratios.

A positional number system was adopted in Mesopotamia; the earliest assertion so far is the development of the system in the Early Dynastic IIIb Period as part of a metrological (measurement) text (2500–2350 BC) (Whiting 1984). The system had a zero concept, but essentially used a blank space for zero instead of a specific character.

3. Mesoamerican Systems

Mesoamerican number systems can be somewhat complex in their expressions. Mesoamerican language in general can consist of three different forms—writing, notation, and iconography (see figure 25). In Mesoamerica individual numbers may be expressed as notation, writing, iconography, or a combination of these.

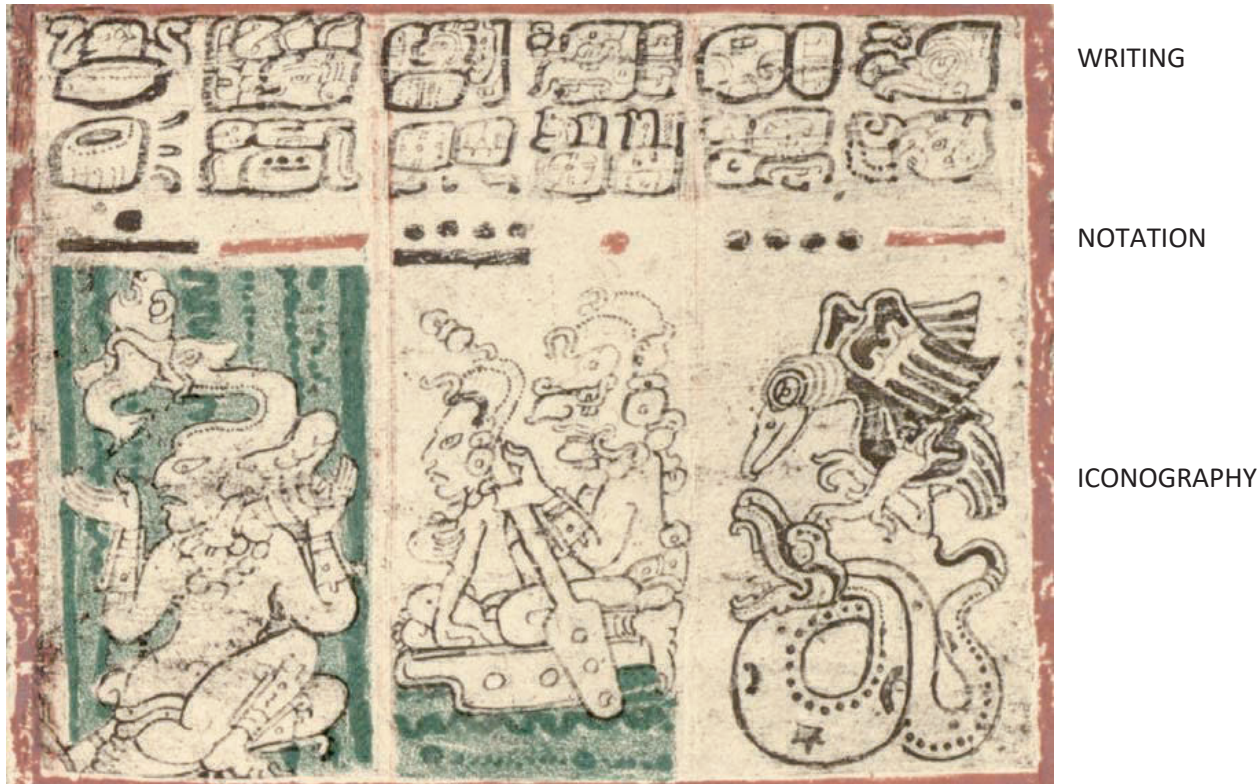


Figure 25. Combined systems: the Maya Codex Dresden, p. 36 (Förstemann 1880)

Bar-and-Dot System

The bar-and-dot numerals were the most commonly used system in lowland Mesoamerica both on stone monuments and in the four surviving Maya bark-paper codices. The numbers from 1 to 19 are written by combining a dot sign for 1 and a bar sign for 5 additively. When the bars are vertical, as is most common on stone inscriptions, they are usually placed to the right of the dots, but they are placed below the dots when the bars are horizontal, as in the codices and a few monumental inscriptions, particularly early ones.


A sign for 0 also accompanied the bar-and-dot numerals. There is a high degree of variability for the signs for 20.

Base-20 System

Generally speaking, the base-20 system is the prevalent system used in Mesoamerica. The vigesimal (also known as base-20) numeral system is based on 20 (in the same way our modern decimal numeral system is based on 10). The common base numbers in the base-10 system (our current system) are 10, 100, 1,000, and so on. In the vigesimal system, they would be 20, 400, and 8,000, increasing by factors of 20. The Maya used the base-20 system in their calendar and used “places” going vertically, just like we use places for 10s, 100s, and 1,000s in our number system going horizontally. Examples of how to convert from the Maya base-20 system in the calendar for a few numbers are demonstrated in figure 26.



Example:

$$28 = (1 \times 20) + 8 =$$



$$433 = (1 \times 400) + (1 \times 20) + 13 =$$


Figure 26. Sample of bar-and-dot numbers in the base-20 vigesimal Maya calendar system and conversion

The Maya used a place system for their calendar, but the vigesimal system can also include number systems that do not use places (bases). In those simpler number systems, counting is done in 20s with significant numbers being those that are exponential factors involving 20, such as 20 (1 x 20), 400 (20 x 20), and 8,000 (20 x 20 x 20).

Maya Number System

The most sophisticated of the Mesoamerican numerical systems discovered so far is the Maya, and it includes a system of spoken numeration and a system of written numeration. The number system is intricately tied to their calendrical system. Much of the numeric notation that we have is based on calendrical numbers on royal monuments. There are a large number of Mayan dialects, so an evaluation of the spoken use of numbers can include large numbers of Maya cultural groups. In the study of Maya hieroglyphic writing, it is customary to use Yucatec terms for number words and calendar names.

Spoken Numeration. In spoken Mayan, the numbers 1–12 do not have any indication of base but are essentially words unrelated to each other. A base-10 stratum is seen in the numbers 13–20 where the word for 10 is used like “teen” in English:

- 1 *hun*
- 2 *caa, ca, c-*
- 3 *ox*
- 4 *can*
- 5 *hoo, ho*
- 6 *uac*
- 7 *uuc*
- 8 *uaxac*
- 9 *bolon*
- 10 *lahun*
- 11 *buluc*
- 12 *lahca*
- 13 *oxlahun*
- 14 *canlahun*
- 15 *hoolahun, hoolhun*
- 16 *uaclahun*
- 17 *uuclahun*
- 18 *uaxaclahun*

19 *bolonlahun*

20 *hun kal*

The word for 20, or score, is *kal*, *may*, *uinic*, or forms cognate to one or another of these. Multiples of 20 follow a regular vigesimal pattern up to 380 as follows:

20 *hun kal*

40 *caa kal* (2 x 20, or 2 score)

60 *ox kal* (3 x 20, or 3 score)

80 *ca kal* (4 x 20, or 4 score)

**** (pattern continues)

380 *bolonlahun kal* (19 x 20, or 19 score)

The powers of 20 are as follows:

20¹ *kal*

20² *bak*

20³ *pic*

20⁴ *calab*

20⁵ *kinchil*

20⁶ *alau*

The Cakchiquel (another Maya dialect) equivalent of Yucatec *pic*, (8,000), is *chuwi*, which is also a word for “sack.”

There were two different methods in spoken Mayan of naming the numbers that occur between any of the multiples of the power of 20.

First System in Spoken Mayan

The first system in spoken Mayan, prevalent today, takes the structure of placing the number within the power of 20 of which it is a part; for example, the number 51 would be “eleven in the third score” or *buluc tu yox cal*. When one of the powers of 20 was reached—for example 400—the number of scores, instead of saying “twenty scores,” would be replaced by “one 400” for 400 or “second 400” for 800. Uniquely, just for the number 400, for the numbers from 381 to 399, the number was expressed using the numbers from 1 to 19 in advance of the number 400, so for example, 399 would be expressed as “nineteen in the first 400.” Another systematic exception was, for numbers between higher powers of 20, simple numerals stood for multiples of the next lower power. For example “five in the third 400” stood for “five SCORE in the third 400.” For example, using a similar expression as above, “nineteen in the second 400” is not 799 as the system would seem to indicate, but is actually “nineteen score in the second 400,” or 780.

A second type of systematic exception was to drop the word for “2” or “second” and replace it with “its” in relation to the units of 400. So where one would normally say, “five score in the second 400” (equaling 500), the “second” is replaced by “its,” leaving “five score in its 400.”

A third type of systematic exception that exists could not occur in the same number expression as the second type, as it was a modification of the second type of exception. It was curious in that it was used exclusively in relation to

the numbers 10 and 15 in a number sequence, and only for the preceding word (in Mayan, not in the English example) to the numbers 10 or 15. It amounted to a further numeric abbreviation, where 30 was “ten two score,” meaning “ten in its two (that is second) score”; similarly 600 was “ten two 400,” meaning “ten in its two (second) 400” (Lounsbury 1978).

Second System in Spoken Mayan

The second system in spoken Mayan is similar to what we now do, which is to tack on the number that is less than 20 to the last score identified using a conjunction like “and” (*catac*); for example, the number 51 would be “two score and eleven,” or *ca kal catac buluc* (Closs 1986).

Written Numeric Numeration System. The Maya utilized the bar-and-dot system, which consists of a vigesimal-based system, with a sub-base 5 system below and between the base-20 values. In the Maya calendar, it typically uses a vertical place notation system, with 20s in second place, 400s in third place, 8,000s in fourth place, and so on (see figure 27). However, this place system is not seen outside of the calendar, and no Mesoamerican texts use “positional” bar-and-dot numerals to count non-calendrical amounts (Chrisomalis 2010, 293).

0	1	2	3	4
	•	••	•••	••••
5	6	7	8	9
—	• —	•• —	••• —	•••• —
10	11	12	13	14
==	• ==	•• ==	••• ==	•••• ==
15	16	17	18	19
===	• ===	•• ===	••• ===	•••• ===
20	21	22	23	24
• 	• •	• ••	• •••	• ••••
25	26	27	28	29
• —	• • —	• •• —	• ••• —	• •••• —
Mayan positional number system				

Figure 27. Maya positional number system

There were other symbols for 20. In contexts where place notation was not employed, the number 20 was often represented by the hieroglyphic sign that in other contexts refers to the moon or to the lunar month (see figure 28).

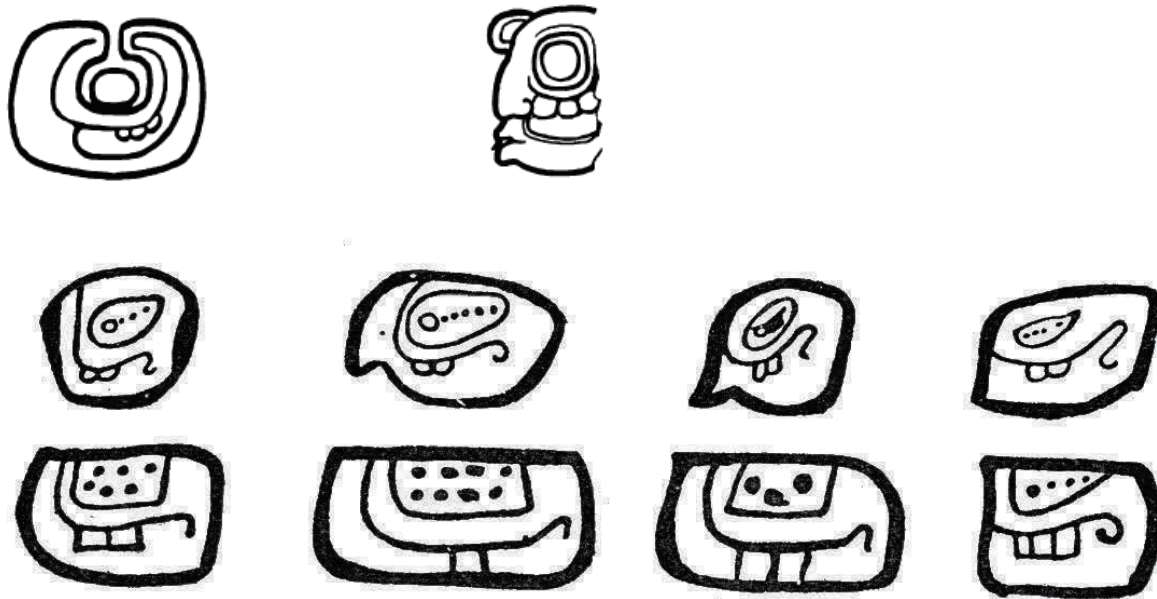


Figure 28. Different signs for 20 in the Maya codices (Morley 1915, 92)

The Maya/Mesoamerican Long Count calendar required the use of zero as a placeholder within its vigesimal positional numeral system. A shell glyph was used as a zero symbol for these Long Count dates. See figures 29 and 30.

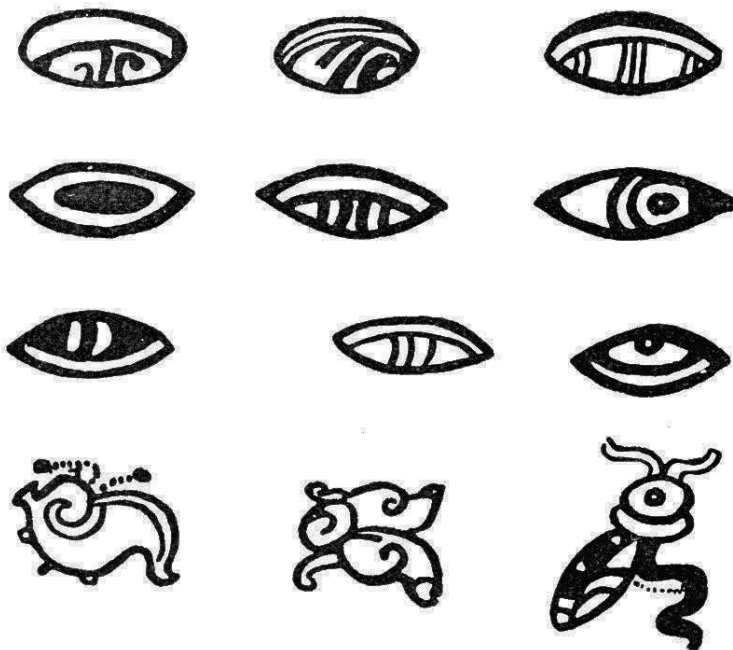


Figure 29. Zero value shell glyphs from Maya codices (Morley 1915, 92)

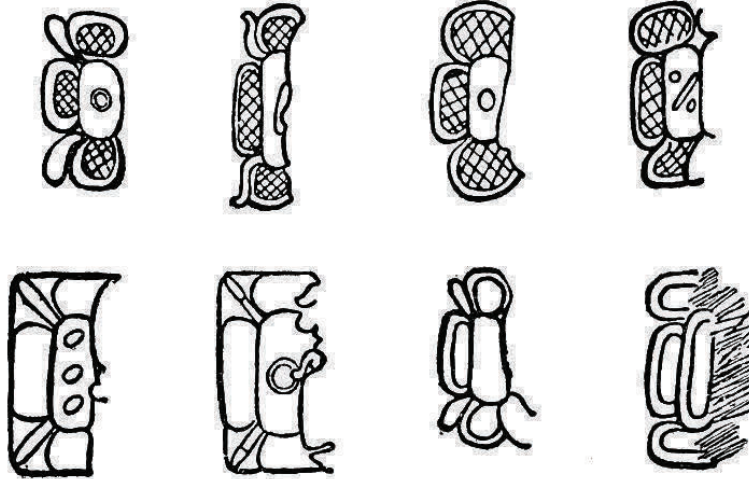


Figure 30. Zero value shell glyphs from Maya inscriptions (Morley 1915, 93)

As is apparent, there is a significant variation in the zero sign. In fact, it was not really used as a zero in the Western sense; normally it served as a placeholder within dates, with the rough meaning of “completion of a given cycle of time.” The Aztecs also used some form of the shell glyph for the number 20.

In the Maya Long Count calendar, there are period glyphs that correspond to certain periods of time.

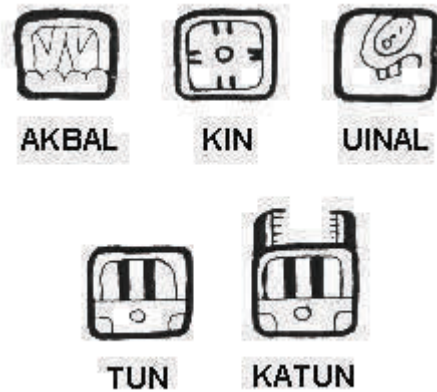


Figure 31. Maya calendar period glyphs

Aztec Number System

The Aztec possessed a vigesimal-numerical notation system, with multiple signs for the same numeral (see figures 32 to 35). The signs were combined in a cumulative-additive system, written in horizontal rows with the highest powers on the left. Unlike the Maya, the Aztecs did not always use a separate sign for 5 but would instead make groups of identical signs into groups of 5.

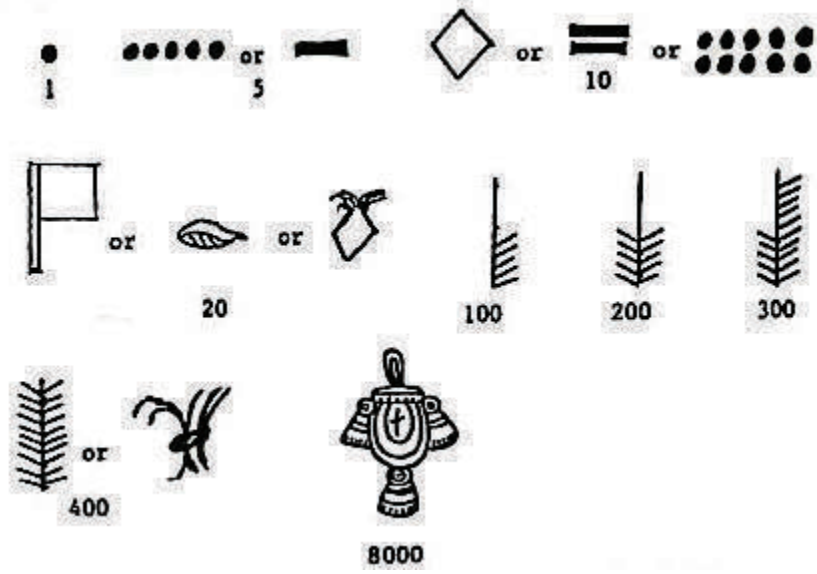


Figure 32. Aztec numbers set 1 (Ortiz-Franco 2002, 239)

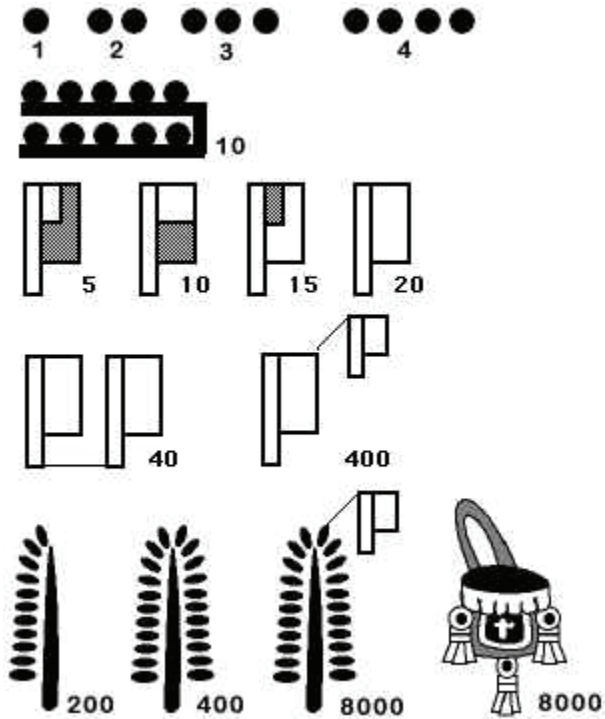


Figure 33. Aztec numbers set 2 (Learning Connection 2015)



Figure 34. Aztec number glyphs set 3: a) symbols for the number 10; b) symbols for the number 20; c) symbol for the number 80; d) symbols for the number 400; e) symbol for the number 8,000 (Aguilar-Moreno 2006, 313)

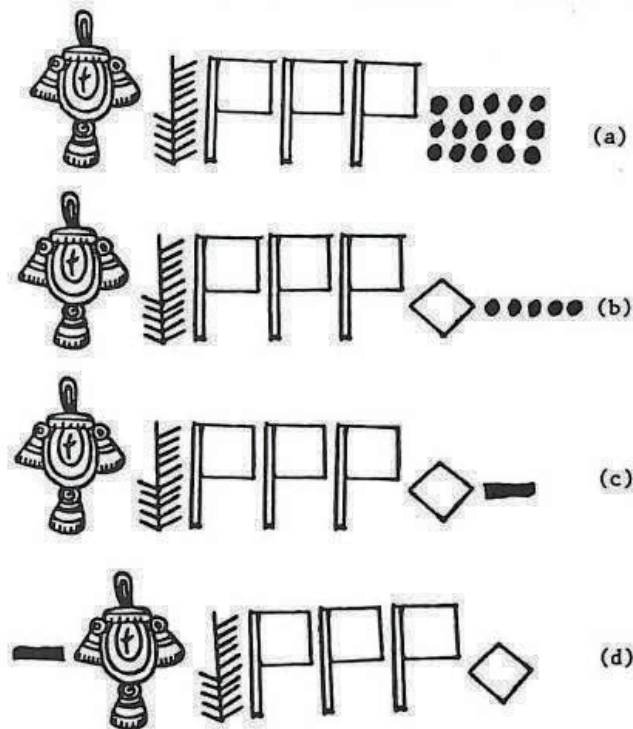


Figure 35. Four ways of writing 8,375 with Aztec number symbols (Ortiz-Franco 2002, 241)

In addition to the Aztec script, it is also useful to note how the Aztecs identified their numbers in the spoken language (Nahuatl). Since there are still Nahuatl speakers today, this is a useful comparative tool. While a bit lengthy, when looking at the spoken words in Nahuatl, it is useful to look at all the numbers up to 100. As can be seen, the system operates verbally as a base-20 system operates, with a sub-base of 10 and 5. From 20 to 100 it is base 20, with a 5 sub-base between the factors of 20, with separate stratum steps (words) using the words for 5, 10, and 15. The number for 400 is *tzontil*, which means “hair” or “growth of garden herbs” (Closs 1986). For numbers above 400, the word for 400 is used adding whatever number is needed in the form of 20s (a score). For example, 500 is “400 on top of 5 score.” Curiously, the way this was worded was to use the word *ipan*, which means “on top of,” which in this sense is the equivalent of “plus.” The number for 8,000 is *xiquipilli*, which refers to a “bag” or “sack” containing cacao beans.

Number	Reading	Meaning
0	?	-
1	cē	1
2	ōme	2
3	ēyi	3
4	nāhui	4
5	mācuilli	5
6	chicuacē	$5^{\dagger} + 1$
7	chicōme	$5^{\dagger} + 2$
8	chicuēyi	$5^{\dagger} + 3$
9	chiucnāhui	$5^{\dagger} + 4$
10	mahtlactli	10
11	mahtlactli-on-cē	10 and 1
12	mahtlactli-om-ōme	10 and 2
13	mahtlactli-om-ēyi	10 and 3
14	mahtlactli-on-nāhui	10 and 4
15	caxtōlli	15
16	caxtōlli-on-cē	15 and 1
17	caxtōlli-om-ōme	15 and 2
18	caxtōlli-om-ēyi	15 and 3
19	caxtōlli-on-nāhui	15 and 4
20	cem-pōhualli	$1^* \times 20$
21	cem-pōhualli-on-cē	$(1^* \times 20)$ and 1
22	cem-pōhualli-om-ōme	$(1^* \times 20)$ and 2
23	cem-pōhualli-om-ēyi	$(1^* \times 20)$ and 3
24	cem-pōhualli-on-nāhui	$(1^* \times 20)$ and 4
25	cem-pōhualli-om-mācuilli	$(1^* \times 20)$ and 5
26	cem-pōhualli-on-chicuacē	$(1^* \times 20)$ and $(5^{\dagger} + 1)$
27	cem-pōhualli-on-chicōme	$(1^* \times 20)$ and $(5^{\dagger} + 2)$
28	cem-pōhualli-on-chicuēyi	$(1^* \times 20)$ and $(5^{\dagger} + 3)$

29	cem-pöhualli-on-chiucnähui	$(1^* \times 20)$ and $(5^+ + 4)$
30	cem-pöhualli-om-mahtlactli	$(1^* \times 20)$ and 10
31	cem-pöhualli-om-mahtlactli-on-cë	$(1^* \times 20)$ and 10 and 1
32	cem-pöhualli-om-mahtlactli-om-öme	$(1^* \times 20)$ and 10 and 2
33	cem-pöhualli-om-mahtlactli-om-ëyi	$(1^* \times 20)$ and 10 and 3
34	cem-pöhualli-om-mahtlactli-on-nähui	$(1^* \times 20)$ and 10 and 4
35	cem-pöhualli-on-caxtölli	$(1^* \times 20)$ and 15
36	cem-pöhualli-on-caxtölli-on-cë	$(1^* \times 20)$ and 15 and 1
37	cem-pöhualli-on-caxtölli-om-öme	$(1^* \times 20)$ and 15 and 2
38	cem-pöhualli-on-caxtölli-om-ëyi	$(1^* \times 20)$ and 15 and 3
39	cem-pöhualli-on-caxtölli-on-nähui	$(1^* \times 20)$ and 15 and 4
40	öm-pöhualli	$(2^* \times 20)$
41	öm-pöhualli-on-cë	$(2^* \times 20)$ and 1
42	öm-pöhualli-om-öme	$(2^* \times 20)$ and 2
43	öm-pöhualli-om-ëyi	$(2^* \times 20)$ and 3
44	öm-pöhualli-on-nähui	$(2^* \times 20)$ and 4
45	öm-pöhualli-om-mäcuïlli	$(2^* \times 20)$ and 5
46	öm-pöhualli-on-chicuacë	$(2^* \times 20)$ and $(5^+ + 1)$
47	öm-pöhualli-on-chicöme	$(2^* \times 20)$ and $(5^+ + 2)$
48	öm-pöhualli-on-chicuëyi	$(2^* \times 20)$ and $(5^+ + 3)$
49	öm-pöhualli-on-chiucnähui	$(2^* \times 20)$ and $(5^+ + 4)$
50	öm-pöhualli-om-mahtlactli	$(2^* \times 20)$ and 10
51	öm-pöhualli-om-mahtlactli-on-cë	$(2^* \times 20)$ and 10 and 1
52	öm-pöhualli-om-mahtlactli-om-öme	$(2^* \times 20)$ and 10 and 2
53	öm-pöhualli-om-mahtlactli-om-ëyi	$(2^* \times 20)$ and 10 and 3
54	öm-pöhualli-om-mahtlactli-on-nähui	$(2^* \times 20)$ and 10 and 4
55	öm-pöhualli-on-caxtölli	$(2^* \times 20)$ and 15
56	öm-pöhualli-on-caxtölli-on-cë	$(2^* \times 20)$ and 15 and 1
57	öm-pöhualli-on-caxtölli-om-öme	$(2^* \times 20)$ and 15 and 2
58	öm-pöhualli-on-caxtölli-om-ëyi	$(2^* \times 20)$ and 15 and 3
59	öm-pöhualli-on-caxtölli-on-nähui	$(2^* \times 20)$ and 15 and 4
60	yë-pöhualli	$3^* \times 20$
61	yë-pöhualli-on-cë	$(3^* \times 20)$ and 1
62	yë-pöhualli-om-öme	$(3^* \times 20)$ and 2
63	yë-pöhualli-om-ëyi	$(3^* \times 20)$ and 3
64	yë-pöhualli-on-nähui	$(3^* \times 20)$ and 4
65	yë-pöhualli-om-mäcuïlli	$(3^* \times 20)$ and 5
66	yë-pöhualli-on-chicuacë	$(3^* \times 20)$ and $(5^+ + 1)$

67	yë-pöhualli-on-chicöme	$(3^* \times 20)$ and $(5^\dagger + 2)$
68	yë-pöhualli-on-chicuëyi	$(3^* \times 20)$ and $(5^\dagger + 3)$
69	yë-pöhualli-on-chiucnähui	$(3^* \times 20)$ and $(5^\dagger + 4)$
70	yë-pöhualli-om-mahtlactli	$(3^* \times 20)$ and 10
71	yë-pöhualli-om-mahtlactli-on-cë	$(3^* \times 20)$ and 10 and 1
72	yë-pöhualli-om-mahtlactli-om-öme	$(3^* \times 20)$ and 10 and 2
73	yë-pöhualli-om-mahtlactli-om-ëyi	$(3^* \times 20)$ and 10 and 3
74	yë-pöhualli-om-mahtlactli-on-nähui	$(3^* \times 20)$ and 10 and 4
75	yë-pöhualli-on-caxtölli	$(3^* \times 20)$ and 15
76	yë-pöhualli-on-caxtölli-on-cë	$(3^* \times 20)$ and 15 and 1
77	yë-pöhualli-on-caxtölli-om-öme	$(3^* \times 20)$ and 15 and 2
78	yë-pöhualli-on-caxtölli-om-ëyi	$(3^* \times 20)$ and 15 and 3
79	yë-pöhualli-on-caxtölli-on-nähui	$(3^* \times 20)$ and 15 and 4
80	näh-pöhualli	$4^* \times 20$
81	näh-pöhualli-on-cë	$(4^* \times 20)$ and 1
82	näh-pöhualli-om-öme	$(4^* \times 20)$ and 2
83	näh-pöhualli-om-ëyi	$(4^* \times 20)$ and 3
84	näh-pöhualli-on-nähui	$(4^* \times 20)$ and 4
85	näh-pöhualli-om-mäcuïlli	$(4^* \times 20)$ and 5
86	näh-pöhualli-on-chicuacë	$(4^* \times 20)$ and $(5^\dagger + 1)$
87	näh-pöhualli-on-chicöme	$(4^* \times 20)$ and $(5^\dagger + 2)$
88	näh-pöhualli-on-chicuëyi	$(4^* \times 20)$ and $(5^\dagger + 3)$
89	näh-pöhualli-on-chiucnähui	$(4^* \times 20)$ and $(5^\dagger + 4)$
90	näh-pöhualli-om-mahtlactli	$(4^* \times 20)$ and 10
91	näh-pöhualli-om-mahtlactli-on-cë	$(4^* \times 20)$ and 10 and 1
92	näh-pöhualli-om-mahtlactli-om-öme	$(4^* \times 20)$ and 10 and 2
93	näh-pöhualli-om-mahtlactli-om-ëyi	$(4^* \times 20)$ and 10 and 3
94	näh-pöhualli-om-mahtlactli-on-nähui	$(4^* \times 20)$ and 10 and 4
95	näh-pöhualli-on-caxtölli	$(4^* \times 20)$ and 15
96	näh-pöhualli-on-caxtölli-on-cë	$(4^* \times 20)$ and 15 and 1
97	näh-pöhualli-on-caxtölli-om-öme	$(4^* \times 20)$ and 15 and 2
98	näh-pöhualli-on-caxtölli-om-ëyi	$(4^* \times 20)$ and 15 and 3
99	näh-pöhualli-on-caxtölli-on-nähui	$(4^* \times 20)$ and 15 and 4
100	mäcuïl-pöhualli	$5^* \times 20$

* Different form

† Different word

Note:

$$\text{cem-pöhualli} = 20^1 = 20$$

$$\text{cen-tzontli} = 20^2 = 400$$

$$\text{cen-xiquipilli} = 20^3 = 8,000$$

$$\text{cen-pöhual-xiquipilli} = 20^4 = 160,000$$

$$\text{cen-tzon-xiquipilli} = 20^5 = 3,200,000$$

For example, the number 1,976 is read as follows:

$$\begin{aligned} &\text{näuh} - \text{tzontli} \quad \text{caxtölli} - \text{om} - \text{ëyi} - \text{pöhualli} \quad \text{caxtölli} - \text{on} - \text{cë} \\ &4 \times 400 + ((15 \text{ and } 3) \times 20) + (15 \text{ and } 1) \end{aligned}$$

Texcocan Line-and-Dot System

The city of Texcoco in the province of Tepetlaoztoc was located in the Valley of Mexico. It was a regional power before and after the conquest. Documents from the city indicate a number system that was a base 20 with a sub-base of 5. The sign for 5 was a comb-like symbol with 5 lines. A grouping of a set of 5 dots was sometimes used to make 100 (see figure 36). It was a cumulative-additive system. Numeral phrases were written in a variety of directions but were always arranged from the highest to lowest sign (Harvey 1982, 191; see figure 37). Higher numbers used the Aztec type symbols such as “bag” or “sack” for 8,000 and the bush or tree for 400.

1	5	20	100
		•	•••••

Figure 36. Texcocan line-and-dot numerals (Chrisomalis 2010, 304)

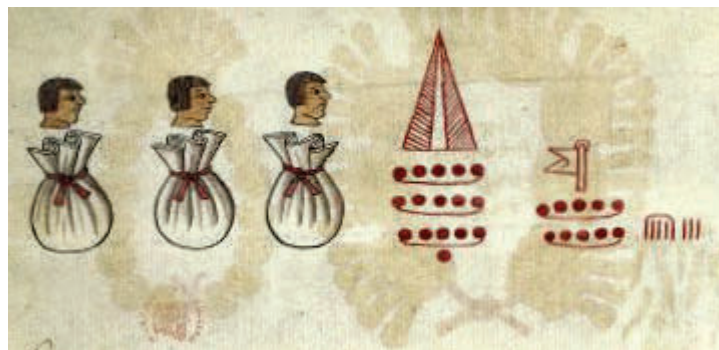


Figure 37. Numerical phrase from the Codex Kingsborough, circa AD 1550, enumerating the population of Tepetlaoztoc at 27,765 ($3 \times 8,000 + 9 \times 400 + 8 \times 20 + 5$) (Chrisomalis 2010, 305)

There were various modifications of this system found. The Códice de Santa María Asunción contains this number system and expresses the numbers positionally rather than additively, meaning the number value is changed based on its position. These different positions were made relative to a land registry. In this system, in one position, dots and lines were used to indicate numbers up to 19. In a second lower position, units and groups of five indicated multiples of 20 units, but no dots were used in this position. When dots were found, they occurred above the base second position; this upper position also counted multiples of 20, and in this upper position a line is equal to 20 and a dot is equal to 400.

In this system, the position of the dot changes the value. This system also has a zero-type glyph called the *cintli* (corn) glyph.

Translation of the Caractors Numbers

As previously mentioned, the approach to translation was to start with the apparent numeral sequences, augmented as needed with other text definitions that might provide some parameters to assist in the number sequences. As not all characters were initially known to be numbers, it was not certain where each side of a number sequence might end, thus requiring the translation of other text characters to assist in determining that parameter.

At this point, it is probably best to display the overall individual numerals that the translation identified in the text with a generic reference as to the source. A discussion of each numeral and numeric sequence is then discussed.

The translation of numerals consisted of the following processes:

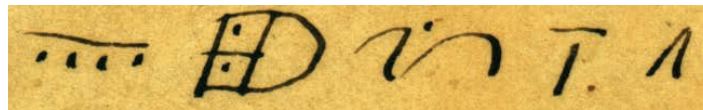
- (1) Identifying and placing the straightforward Egyptian hieratic/Demotic numbers from the text. This consisted of numbers 1, 2, 3, 4, 5, 6, 7, 10, 12, 50, 1,000, 20,000, 1/2, 1/3, and 1/7, and 1 ordinal (first).
- (2) Identifying and placing the straightforward Mesoamerican numbers from the text. This consisted of the numbers 1 and 9.
- (3) Identifying the Egyptian and Mesoamerican numbers that were reasonable variants (close in form) to Egyptian hieratic/Demotic and Mesoamerican numbers, recognizing that the presence of a dot was going to either act as an addition of 1, addition of 10, or multiplication by 10 or 100. Numbers determined at this phase of the process consisted of 1 ordinal (dot), 11, 13, 20, 60, 80, and 400.
- (4) Identifying Sumerian/Elamite proto-cuneiform numbers. Numbers determined to be from this source were 1 (dot), 20, 30, and 300.

Knowing that I was looking for a date of some sort, there were two number sequences that stood out:

C-74, C-73, C-72, C-71, C-70



C-92, C-91, C-90, C-89, C-88



I was able to determine the ends of these number sequences because the left side of the sequence contained the single digit numbers, typically the end of the number. On the right side I had a leading 15, which from the spoken Mayan numeric system would indicate the beginning of the number. In addition, the character preceding the second number (character 87), based on its occurrence and frequency in the text, appeared to be a numeric modifier or calendrical identifier and not a number itself. The first of the two characters (C-68) preceding the first number sequence I had identified as a straightforward “2 months” from the Palestinian hieratic (discussed later). C-69 had similarities to the Maya Introductory Series Glyph (to be discussed later), so I was fairly certain I had identified all of the numbers in the sequence.

It was clear that neither date I was looking at could be a Maya Long Count date, because in order to be a Long Count date, it had to have a leading number of 6, 7, or 8 (the only leading dates that occur within Book of Mormon time frames), which did not occur on either side of either sequence. Calculating the first date was very straightforward utilizing the standard Hebrew (and Aztec) number system (cumulative additive) arriving at $1 + 20 + 400 + 5 + 10 = 436$. The second date had an additional dot between the 5 and the 10 in the 15, which seemed to indicate that there was a potential multiplicative element, which can occur in some of the number systems, including Hebrew, so that number sequence came out to be $9 + 20 + 400 + (5 \times 10) = 479$.

Since both of these dates were too large to be from the latter part of the Book of Mormon (the maximum date is 420, in Moroni 10:1), they could only be from the first part of the Book of Mormon. Unfortunately, the 436 date would have occurred before the Book of Mosiah, so it was part of the 116 pages of the translation that were lost by Martin Harris. Even though the small plates up through Omni “replaced” this portion of the Book of Mormon, my thinking was that any chronology on the Front Plate or elsewhere would have been written considering the original Book of Mormon, not the dates enumerated in the small plates. However, the 479 date put me into the existing Book of Mosiah. Mosiah 6:4–5 indicates that Mosiah began his reign 476 years after leaving Jerusalem, and king Benjamin died three years later. The fact that my preliminary research into the Egyptian meaning of the characters following this date sequence meant something like “foreign land of eternity” confirmed that this was probably a death date.

For the second portion of the Caractors Document (the bottom three lines), the lead sequence was 60 and 1/2, plus the Egyptian word for “month.” Having a passion for the eclectic study of the Book of Mormon calendar systems, it was fairly clear to me that I was looking at the five-year prophecy of Samuel the Lamanite.

From that point, it was just a matter of trying to piece together the chronology, with major breakthroughs on the calendrical and time character/glyphs, the “tribe” recognitions, and plowing through a lot of Egyptian hieratic and Demotic reference materials, all the while using the Book of Mormon itself as the chronological template (which wasn’t completely available for events that occurred in the Book of Omni).

Individual Numbers

The following are the translated numbers from the Caractors Document. Many have similar forms in the hieratic and Demotic; the best example of either hieratic or Demotic matching the specific character is included.

1 (Mesoamerican bar and dot, calendar) Characters 33, 74, and 78



Discussion: The dot for the number 1 is well known in Mesoamerica and was previously discussed. In some examples of the Palestinian hieratic, the standard Egyptian vertical line for 1 is reduced to a glyph close to a dot. Sumerian proto-cuneiform also uses a dot as 1.



14.1
(oder
9. Jh.)



14.2
(oder
9. Jh.)



14.3
(oder
9. Jh.)

(Wimmer 2008)

1 ordinal for dates [preceding base bar] (Egyptian base-position horizontal line, shorter than for 5)
Character 159



C-159

Discussion: This is a well-known Egyptian form and previously discussed in the general description of Egyptian numbers.

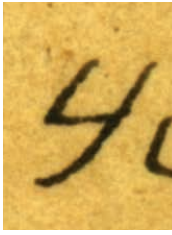
1 ordinal for persons [preceding base-position dot] (Mesoamerican and Egyptian) Character B1a



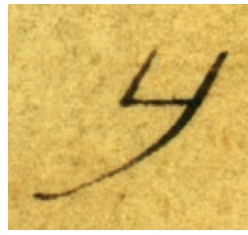
B1a

Discussion: This ordinal follows the Egyptian placement of a base-position character that precedes the person/object and uses the Mesoamerican number for 1. The spoken Aztec language also places the ordinal number preceding the person/object.

2 (Egyptian hieratic/Demotic) Characters 124 and 135



C-124



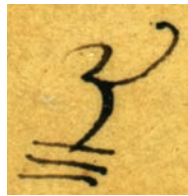
C-135

Discussion: This is an established, known form of the number 2 in Egyptian hieratic/Demotic.



Demotische Glossar (Erichsen 1954, 694)

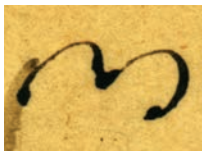
3 (Hieratic, other Egyptian as a horizontal instead of a vertical line for multiplications, found only in base of an Introductory calendrical glyph) portion of Character 69



C-69 (base only)

Discussion: Since this is a calendrical glyph that incorporates numerals, it will be discussed later in the section on calendrical related characters.

3 (Egyptian hieratic/Demotic) -- Character 86



C-86

Discussion: This is a form of the numeral 3 found in hieratic/Demotic.

Examples:



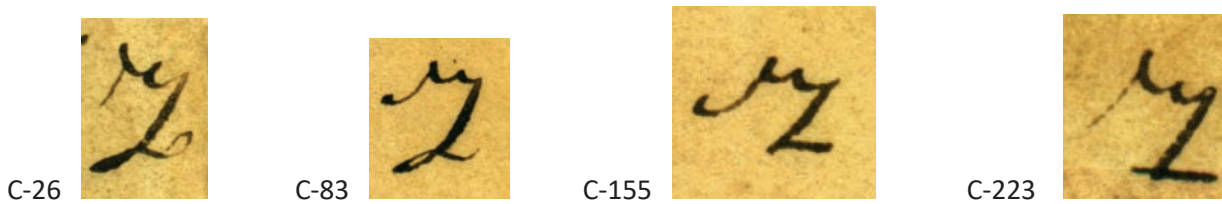
Louvre Museum, Paris; E 3228d, Papyri Reference: RevEg 7 (1892–1896), p. 135 no. 3228 F descr. (Revillout, Eugène); Thebes, dated 675–676 BC



Tsenhor Papyri, Thebes, 556–487 BC, (Pestman 1994)

(Wimmer 2008)

4 (Egyptian hieratic/Demotic) Characters 26, 83, 155, and 223



Discussion: This is a form of the numeral 4 or 4th found in hieratic/Demotic.

Example:



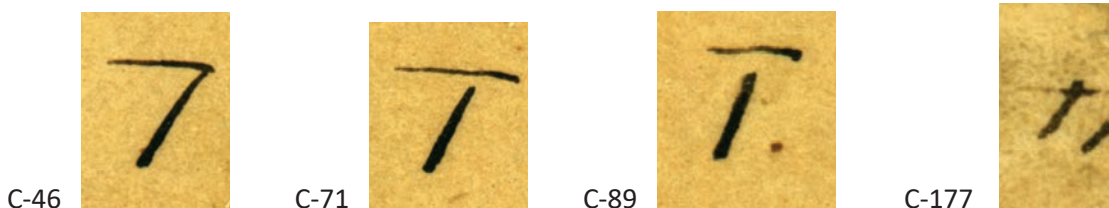
(Wimmer 2008, 203)



[Fourth]

Ptolemaic Stela - Ashmoleum Museum, Oxford, England 1971/18, 7; CDD Numbers (14:1), 28 (*Chicago Demotic Dictionary* 2014)

5 (Palestinian hieratic) Characters 46, 71, and 89 (exclude base dot)



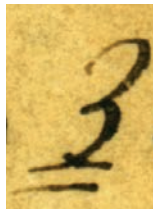
Discussion: This is a standard form of the hieratic numeral 5, also found in Palestine.

Example:



Ostraca Arad 36, 7th Century BC, Negev, Palestine (Wimmer 2008, 46–47)

5 (Mesoamerican horizontal bar, shorter than Character 3 horizontal bars, found in Introductory Calendrical Glyph only) Character 3



C-3 (base only)

Discussion: Since this is a calendrical glyph that incorporates numerals, it will be discussed later in the section on calendrical related characters.

6 (Palestinian hieratic) Character 5



C-5

Discussion: This is similar to a variant form of the numeral 6 found in hieratic/Demotic in Palestine

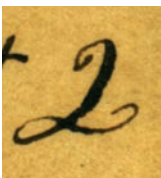
Example:



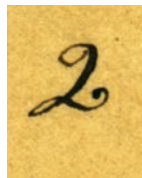
Ostraca Arad 34, 7th Century BC, Negev, Palestine (Wimmer 2008, 42–43)

7

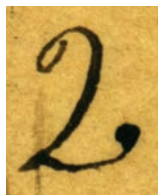
There are actually two versions of the number 7 found in the Caractors Document. The first is the form that is used in the formal Book of Mormon names of persons and names of the calendrical periods or end of calendrical periods. (Palestinian hieratic) (Characters 29, 42, 80, 120, and 171)



C-29



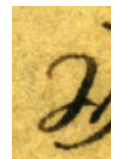
C-42



C-80



C-120



C-171

Discussion: This is a modified variant of the standard hieratic number 7, also found in Palestine.

Example:



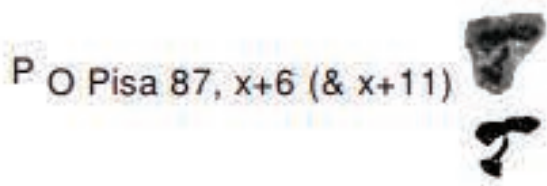
Ostraca Arad 112, 6–7th Century BC, Negev, Palestine (Wimmer 2008, 58–59)

The second is the feminine form of the number 7, referred to in Egyptian grammar as 7.t. There is only one character of this sort, and it is the additional glyph that would be present that is found on the second line of the Caractors Document, but it is only represented on the Broadside document.



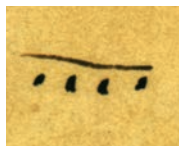
B26b

Example:



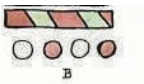
CDD Numbers (14:1), p. 41 (*Chicago Demotic Dictionary* 2014)

9 (Mesoamerican bar and dot, calendar) Character 92



C-92

Discussion: This is a well-known Mesoamerican bar-and-dot numeral. The form found in the Caractors Document is not typical of the Maya form (which has the dots on the top or is vertically oriented) but matches the form found in Teotihuacan or at coastal Chiapas on the southern Isthmus of Tehuantepec:



Teotihuacan AD 100–500 (Caso 1967, 147)



Los Horcones, Southern Isthmus AD 100–500 (Taube 2000, 42)

This form of number is also known in the number system in the Sumerian region with glyph forms that are found in the Elamite proto-cuneiform documented from the Proto-Elamite Period (ca. 3100–2900 BC):

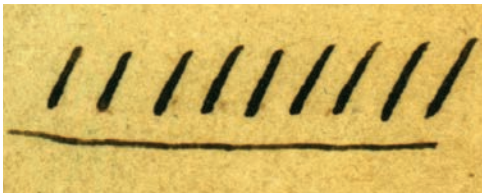


M001+M379~c

M001+M379~d

J. Dahl's working Elamite sign list (2006), Proto-Elamite Period (ca. 3100–2900 BC)

9 (Maya form and Egyptian) Character 47



C-47

Discussion: The Egyptian and Maya elements of this character will be discussed in a later section. This number is also consistent with the Texcoco number system form, as previously discussed.

This form of number is also known in the number system in the Sumerian region with glyph forms that are found in the Elamite proto-cuneiform documented from the Proto-Elamite Period (ca. 3100–2900 BC):



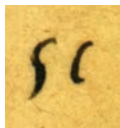
M001+M379~d MO41

M041~c

M041~d

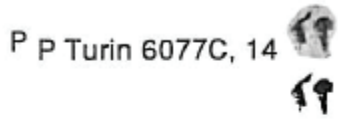
J. Dahl's working Elamite sign list (2006), Proto-Elamite Period (ca. 3100–2900 BC)

9 (Egyptian hieratic/Demotic) Characters 116 and 117



C-117, C-116

Discussion: This is the determinative number 9 found in hieratic/Demotic. It may be translated as an ordinal number in the Caractors Document. It appears to be mirrored from the Egyptian examples. In Egyptian, determinatives are semantic symbols specifying meaning placed adjacent to a word. They are generally not spoken but serve to clarify the meaning when written, especially with words that have more than one meaning. If a similar procedure existed in English, words with the same spelling would be followed by an indicator, which would not be read but which would fine-tune the meaning: “retort [chemistry]” and “retort [rhetoric]” would thus be distinguished.



CDD Numbers (14:1), pp. 45–46 (*Chicago Demotic Dictionary* 2014)

10 (Palestinian hieratic) Characters 45, 70, 88, 122, 176, and 202



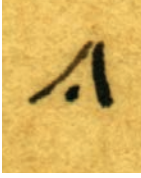
Discussion: This is a well-known standard hieratic form of the number 10, also found in Palestine.

Example:



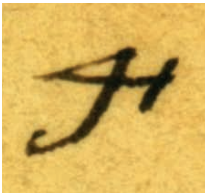
Ostraca Samaria 61, 8th Century BC, Samaria (Wimmer 2008, 125)

Note: A slightly different but nearly identical character to the number 10 also appears in the non-numeric Caractors text, so care must be taken in looking at surrounding context as to whether this is a numeral or not.

11 (Palestinian hieratic, dot adds one) Character 156

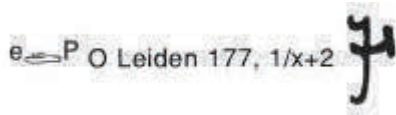
C-156

Discussion: This is a Mesoamerican and Egyptian hieratic hybrid with a straightforward hieratic 10 (see above), with the addition of a base dot indicating the addition of 1.

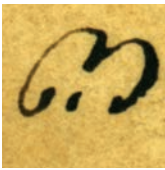
12 (Egyptian hieratic/Demotic, serves as an ordinal in the calendar) Character 152

C-152

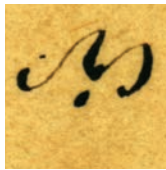
Discussion: This is a known number 12 in the Egyptian Demotic.



CDD Numbers (14:1), p. 54 (*Chicago Demotic Dictionary* 2014)

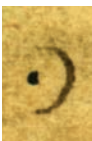
13 (Egyptian hieratic/Demotic, consistent with dot concept inside glyph +10) Characters 4 and 39

C-4



C-39

Discussion: This is a Mesoamerican and Egyptian hieratic hybrid of the hieratic 3 (see above) with the addition of a base dot, indicating a number in the teens.

19 (Egyptian hieratic with Mesoamerican dot modification, also calculated in context) Character 178

C-178

Discussion: This is a modified Mesoamerican and Egyptian hieratic/Demotic hybrid (see 13 above) with the addition of a dot to the number 9, indicating a number in the teens. The following is the number for 9 in Egyptian Demotic.



(Erichsen 1954, 699)

The glyph is part of the date sequence of Christ ascending to heaven in the thirty-fourth year and is a glyph that has a dual meaning as the ideogram for sun, day, or god of the sun in Egyptian (Gardiner 1957, 485). The Gardiner designation for the Egyptian glyph is N-5:



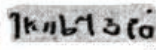
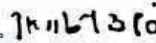
Versions of this glyph in hieratic (Möller Number 303) matching C-178 are:





Möller Number 303, I-23-76, pg. I 300–309 (Möller 1965)



In Demotic, versions nearly identical but in reverse to C-178 are found in various forms of R the Sun God:

R^c-m³-ḥrw "Re, the triumphant"

R P Serpot, 6/x+26 
e₂ 



R^c-Ḥr "Re-Horus"

P O Ḥor 18, 1 


P O Ḥor 18, 4 



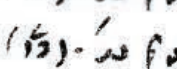
var.

R^c n Ḥr

P O Ḥor 18, 2 (& 3) 


w. epithets

R^c-Ḥr n ḫtm "Re-Ḥor, i.e., (the) disk"

P O Ḥor 18, 1 


Ray, *Hor* (1976), read *R^c-Ḥr ḫtm* "Ra-Horus, (the) disk"

- *wbn* "—, shining one" (P O Hor 18, 3)
- *n pr n mhy* "—, who goes forth in honor" (P O Hor 18, 1)
- *mḥz(?) n itm* "—, offspring(?) of the disk" (P O Hor 18, 5; so Ray, *Hor* [1976], w. ?)
- *nb p(.t)* "—, lord of heaven" (P O Hor 18, 1)
- *nḥt ḥwnw* "—, strong in Heliopolis" (P O Hor 18, 5; so Ray, *Hor* [1976])
- *nt ḥt(=f)* "Ra-Ḥor, avenger of (his) father" (P O Hor 18, 4; so Ray, *Hor* [1976]; or? read *m itm* "in the disk")
- *n Hr-ty* "— of Cynopolis" (P O Hor 18, 4)
- *ḥq ḥwnw* "—, ruler of Heliopolis" (P O Hor 18, 4)
- *(n) shm (n n3 ntr.w)* "—, (the) power (of the gods)" (P O Hor 18, 3; so Ray, *Hor* [1976])
- *tp wt=f* "—, who is upon his papyrus column" (P O Hor 18, 2)

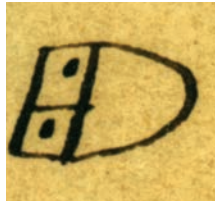
Chicago Demotic Dictionary 2014, R (29 June 2001): 01.1 CDD R (01.1), pp. 19–20

Skousen (2014, 3501–3502) indicates that the original text of 3 Nephi 25:2 (and 2 Nephi 26:9) likely read “the Sun of Righteousness,” matching Skousen’s version of the original text in 2 Nephi 26:9 and 3 Nephi 25:2 and is an alternate name for the Savior, quoting Malachi 3–4. Thus the inclusion of the number 19 in the date that Christ physically came to the Nephites also reflects the scriptural reference to both the Savior and the Sun of Righteousness.

20 (Mesoamerican glyph, Sumerian proto-cuneiform glyph used for calendar years, consistent with dot concept 0 + 10 + 10) Characters 32, 73, and 91



C-32



C-73

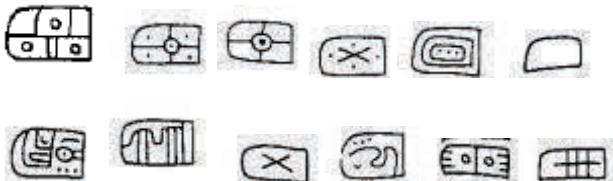


C-91

Discussion: This is a Mesoamerican glyph, which appears to be a variant of the “shell” glyph, which has a value of 20 in the Aztec number system. Examples of the shell glyph in the Maya and Aztec script were discussed and demonstrated previously. It also features two dots internal to the glyph with a value of 10 each, which would be consistent with a Maya shell glyph base starting with zero, with the addition of 20 in the form of two dots, which would also be consistent with the concept of completion in the Maya number system.

The external form of the glyph itself, as well as the style of the glyph seems to match the Epi-Olmec Tuxtla or Isthmus text, which is still not considered to be a settled translated text. Although it is not certain, it is believed that the reading of the Tuxtla script reads from left to right and up to down, similar to Maya. Like Egyptian, the hieroglyphs face different directions depending on the direction they are read.

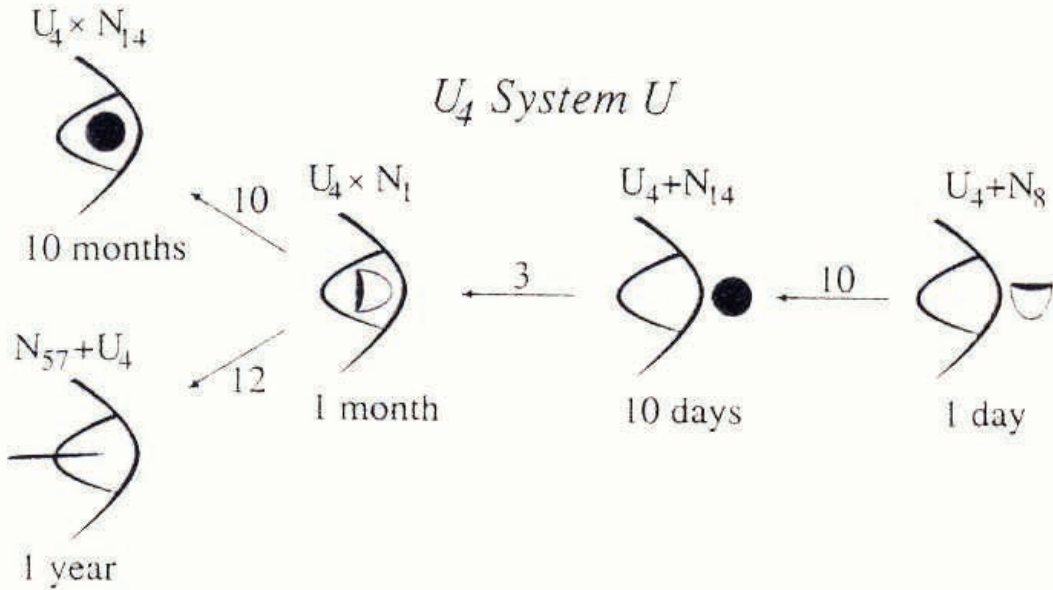
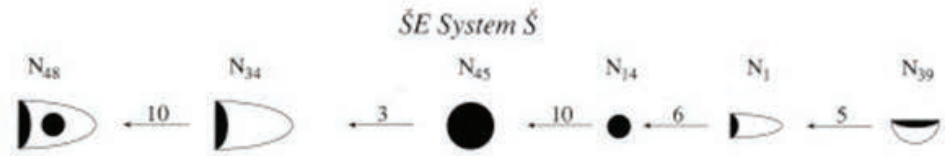
Examples from Epi-Olmec:



(Kaufmann et al. 2001)

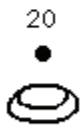
The number 20 in this form is also found in the Sumerian proto-cuneiform. This “Twenty Shell” concept is consistent with the Sumerian ŠE grain system number glyphs and the calendar glyphs (U₄) that would incorporate a dot into the shell of the glyph, changing the number by a factor of 10:

System used to note capacity measures of grain, in particular barley; the small units also used to designate bisexagesimally counted cereal products



The Caractors Document 20 glyph takes this one step further by incorporating two dots into the shell glyph, each representing the number 10.

One form of the Maya number 20 previously mentioned consists of a shell glyph with a dot above it:



30 (Sumerian proto-cuneiform, also form of Egyptian hieratic/Demotic) Character 158 (Also utilized in the name of Limhi, Character 43)



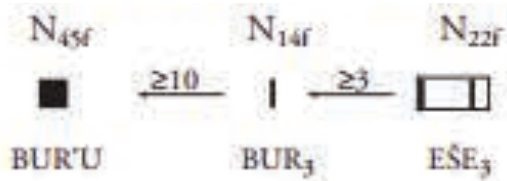
C-158

The squarish-shaped number (30 and 300 in the Caractors Document) was proposed by Burrows (1935) in Sumerian proto-cuneiform as a form of the number 10 and was also tentatively identified as 600 when positionally elevated, so it is indicative of two values based on position (as occurs in the Caractors Document), although not directly matching the numeric values in the Caractors Document.

C	●	<p>I, ■ <u>ten</u>, passim. [In 225 apparently units precede tens. Cf. also 51 rev.?] <u>b</u>(2), theoretic analogue to <u>a</u>, is rare: supplied from 185(gur).</p>
G	■	<p>88 ii 4: following traces of eight or more sixties. Probably <u>six hundred</u>. If so, the same tablet contains both a longer and a shorter writing of six hundred. Cf. longer and shorter writings of ten bur in System III (10bur = sign III-H and also sign III-G repeated 10 times).</p>

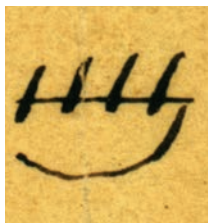
Early Dynastic I period (ca. 2800–2700 BC). E. Burrows, *Archaic Texts* (JET 2; London 1935)

More recent further analysis of this square-shaped number as part of the rectangular Sumerian (Ur) system has been completed by Chambon (2003), showing that the mathematical relationship in what he identifies as the “Area 3” system of rectangular signs for this square sign (*BUR’U*) fits with the numeric value 30, assuming that the N_{22f} sign is equivalent to the value of 1 in a theoretical Jaredite system:



Discussion: Since this character also serves as the name for Limhi, the source of this character will be discussed further in a later section.

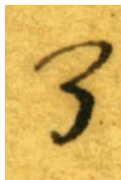
40 (Egyptian hieratic/Demotic form, a systematic number 80) Character 38



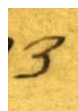
C-38

Discussion: See the discussion for the number 80.

50 (Palestinian hieratic) Characters 165 and 207

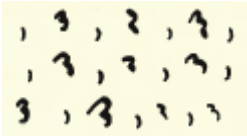


C-165



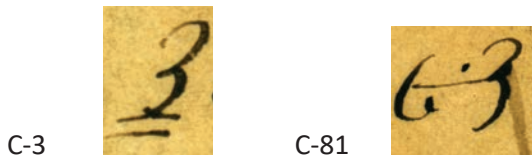
C-207

Discussion: This is a well-known standard hieratic form of the number 50, also found in Palestine (ignore the commas in the example; they are just separating the different versions of 50).



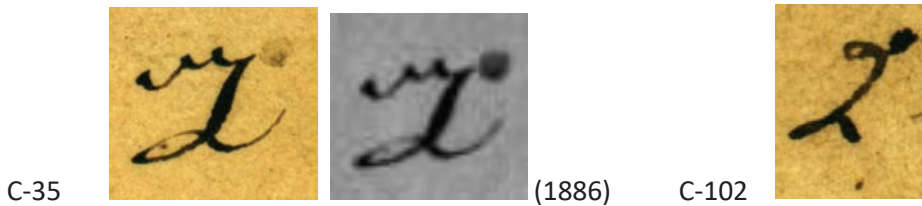
Demotische Glossar (Erichsen, , 1954, 701)

50 (Palestinian hieratic) used as part of Introductory Glyph and Period Ending Glyph, Character 3 and the right side of Character 81



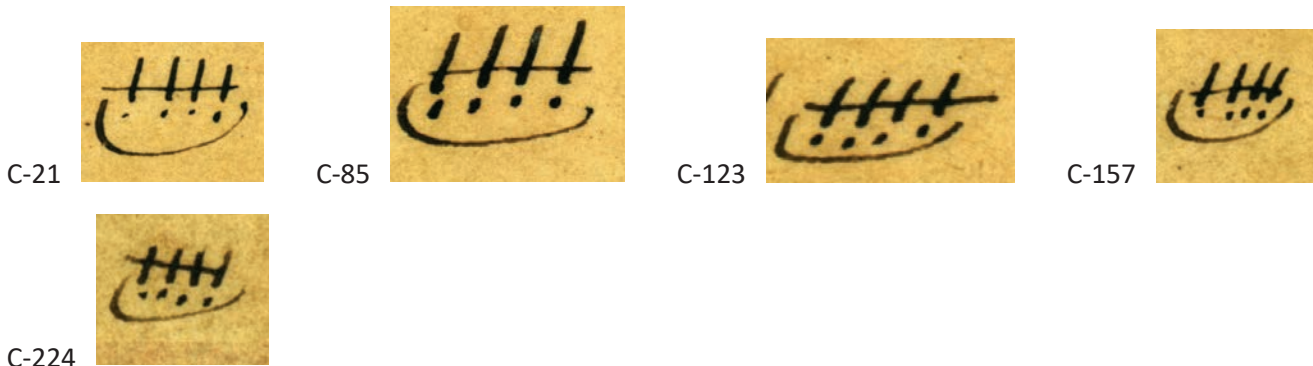
Discussion: Since these are calendrical glyphs that incorporate numerals, they will be discussed later in the section on calendrical-related characters.

60 (Palestinian hieratic with dot modification) (6 x 10) Characters 35 and 102



Discussion: See the discussion above for the number 6; the addition of the dot multiplied the number by 10 to 60.

80 (Palestinian hieratic with dot modifications) Characters 21, 85, 123, 157, and 224



Discussion: The number for 80 consists of the Caractors number 40 with the addition of another 40 based on four dots internal to the glyph. In a significant modification to the hieratic, the base glyph (lacking the dots) is the number 40. The number 40 usually only consists of the base line with one check tick.

Examples of 80 in hieratic:



SH1 – Takelothis Papyri, Thebes, 830–880 BC (Wimmer 2008, 226)

D1- (Wimmer 2008, 226)

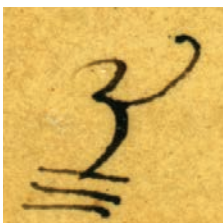
There are similar examples of this glyph in 7th Century Qudeirat in the Sinai, but the quality of the reproduction is not very good (Wimmer 2008).

As discussed in the section on Egyptian numeric notation, dots are not unknown in Egyptian, and in this case appear in a variant hieratic glyph for 80 mentioned in the discussion of the Egyptian number system.



In Mesoamerica, this number and the number 40 are consistent with the form found in the Texcoco number system, the main differences being that a dot equals 10 instead of 20, and a tally mark also equals 10.

200 (Egyptian, double rope symbol in lotus flower style, only in older Egyptian, only in Introductory Glyph) Part of Character 69



C-69

Discussion: Since this is a calendrical glyph that incorporates numerals, it will be discussed later in the section on calendrical-related characters.

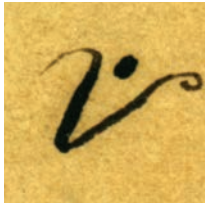
300 (See description of 30, raised by power with anticipated dot modification) Character 225



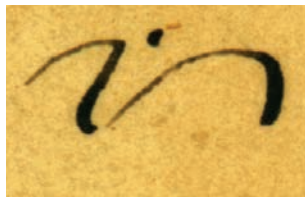
C-225

Discussion: See the number 30 for the reference to discussion of the base number. This character appears to be elevated in the document as compared to the glyph for the number 30, and it is underlain by a dot, indicating it may be raised by a factor by its elevated position or because it is above a dot. The dot is small and is difficult to differentiate from paper blemish marks.

400 (Egyptian hieratic/Demotic with dot modification, Aztec) Characters 72 and 90



C-72



C-90

Discussion: This character is similar to the Aztec glyph for 400 and is also found as a variant form of the Egyptian 4 (without the overhead dot) in Demotic. This would be consistent with a center overhead dot multiplying the number by 100. It would also appear that it may have been a precursor form to the Aztec number, but the Aztec number also is indicative of a bundle of grain, or some have suggested hair.

Example:



Aztec glyph for 400



Demotische Grammatik (Spiegelberg 1975, par. 82)

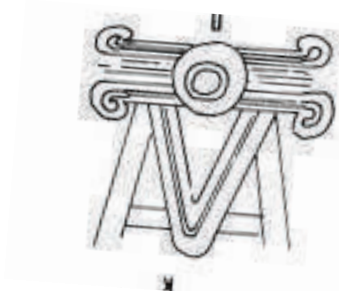


Demotische Glossar (Erichsen, 1954, 696)



Ptolemaic Papyrus, Turin 6084, 4; CDD Numbers (14:1), p. 28
(*Chicago Demotic Dictionary* 2014)

This glyph is also very recognizable in Mesoamerica and is commonly referred to as the Mexican Year sign:



Teotihuacan (100–500) (Von Winning 1987, 27-2.n)



CODEX SELDEN, 1550 AD, p. 2 (www.famsi.org 2018)



Aztec Calendar or Sun Stone, AD 1510 (Villela and Miller 2010, 151)



El Tajin North Column, Structure of the Columns AD 650–900 (Koontz 2009, 75)

According to Edmonson (1985) and Miles (1965), the 365-day Mesoamerican year “almost certainly” originated as a period of 400 days (Rice 2007). In Nahuatl (language of the Aztec), *xihuitl* is defined as either “solar year, comet, turquoise or grass” (Izeki 2008). One of the known Aztec glyphs for 400 is a bundle of grass as shown above. Glyph forms from Teotihuacan indicate that the Mexican year sign derives from a bound grass bundle.

In some instances, the Aztec year sign appears with grass bundles, probably a reference to *xihuitl*. Among the Classic Maya, the year sign also appears with tufts of grass. (Miller and Taube 2007)

Xihuitl (šiwī-tl) has also been found to have a semitic derivation:

Two forms of the stem—Semitic *šyḥ* and *šyx* ‘grow (plants, vegetation)’—emerge as Ugaritic has ḥ and Akkadian has x; Akkadian *šiaaxum*, *šaaxu* ‘to grow in size or age’; Ugaritic *šḥt* ‘bush(es), shrub(bery)’; also both Arabic *šiiḥ* ‘shrub, bush’ and Arabic *šiix* ‘to age, grow old’; Hebrew *šiiḥ* / *šiyaḥ* ‘shrub, bush’, pl: *šiiḥ-iim*; Syriac *šiiḥ-aa* ‘mugwort (plant)’; MHebrew *šiiḥ* / *šiyaḥ* ‘growth’; the root—Hebrew *šiiḥ* / *šyḥ*—would have an unattested impfv: **ya-šyḥ* or **ya-šiiḥ* / **ya-šiyaḥ* ‘to grow (plant growth)’:

UACV-2604 *yasayawa ‘year’: Hp *yàasanw* ‘year’; TO *ahīdag* ‘year’, Tb *šuwaa-l* ‘his years’; Tbr *asa-k*; the 2nd syllable of Yq *wasúktia* ‘year’ and My *wasuk-tiria/tiriam* ‘year’ in Cah **wa-su(k)* may tie in also, with a different fossilized prefix, though a reconstruction and explanation are difficult. CN *šiwī-tl* ‘year, grass, turquoise’ may also belong. Note Hp *aa-a* < **aa-i* like Mšḥ. [idddua] [NUA: Hp, Tb; SUA: Tep, TrC] (Stubbs 2015, 251)

1,000 (Egyptian hieratic/Demotic) Character 153



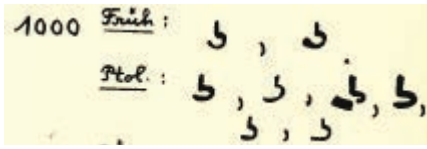
C-153

Discussion: This is the well-known Egyptian hieratic and Demotic for the number 1,000. In the context of its use in the Caractors Document, it is referring to the “1,000 Year Calendar.”

Examples from Palestinian hieratic (Wimmer 2008, 237)



Examples from Demotic



Demotische Glossar (Erichsen 1954, 702)

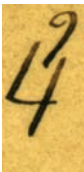
1,000 (Egyptian hieratic/Demotic) -- used as part of an Introductory Glyph, Character 112



C-112

Discussion: As this is a calendrical glyph that incorporates a numeral, it will be discussed later in the section on calendrical related characters.

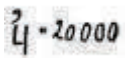
20,000 (Egyptian hieratic/Demotic) Character 18



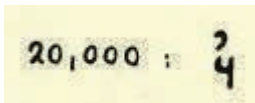
C-18

Discussion: This is a straightforward Demotic character for the number 20,000.

Examples:



Demotische Grammatik (Spiegelberg 1975, par. 82)

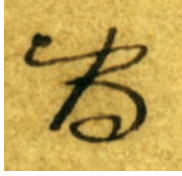


Demotische Glossar (Erichsen, 1954, 703)



Ptolemaic Papyrus, Oxford Griffith Institute 48, 11; CDD Numbers (14:1), p. 263
(*Chicago Demotic Dictionary* 2014)

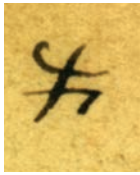
1,000,000, multitude, or “a countless quantity” (Egyptian hieratic) used as part of the Introductory Glyph (Character C-175)



C-175

Discussion: Since this is a calendrical glyph that incorporates a numeral, it will be discussed later in the section on calendrical-related characters.

1,000,000, multitude, or “a countless quantity” (Egyptian hieratic and Demotic) Character 201

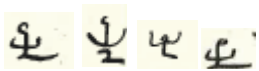


C-201

Discussion: This is a stylized version of the number variant in hieratic; the form was slightly stylized for the incorporation of the Lamanite glyph (to be discussed later) to which it is referring (as discussed, Egyptian glyphs are often reversed). The word for this character, meaning “multitude” in Egyptian, is *ḥḥ* (*Chicago Demotic Dictionary* 2014, CDD H [09:1], 248). The hieratic form and derivation are discussed later in the section on calendrical-related characters.



1000000



Demotische Glossar (Erichsen 1954, 328)

1/2 (Palestinian hieratic) Character 101



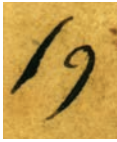
C-101

Discussion: This is a straightforward variant for 1/2 in the Palestinian hieratic involving *hekat* measurements.

Example:



Ostraca Arad 34, 7th Century BC, Negev, Palestine (Wimmer 2008, 42–46)

1/3 (Egyptian hieratic/Demotic) Combined characters 76 and 77

C-77, C-76

Discussion: This is a well-known number in hieratic.

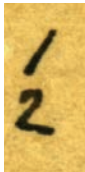
Examples:



Ptolemaic Papyrus - Ashmoleum Museum, Oxford, England 1, 3; CDD Numbers (14:1), p. 270
(*Chicago Demotic Dictionary* 2014)



Demotische Grammatik (Spiegelberg 1975, par. 93)

1/7 (Egyptian hieratic/Demotic) Character 166

C-166

Discussion: This is a well-known type for the fraction 1/7 in hieratic; however, 1/7 is not a common fraction in the ancient texts so there are not many examples. In context, this appears to be representing the word “week,” and as the Egyptian calendar did not have weeks, it is not technically translated as a number.



(Möller *Paleograph* 1, 1965, Number 673, Math., p. 65)



Ptolemaic/Roman Papyrus, Griffith Institute, Oxford, 7, 14; CDD Numbers (14:1), p. 279
(*Chicago Demotic Dictionary* 2014)

Limhi and the Number 30

In the Caractors Document, the number 30 and a portion of the name *Limhi* are represented by the same symbol, a solid, slightly distorted square. The full name of *Limhi* is discussed here as opposed to the later chapter pertaining to names since the name consists of the dual use of number glyphs as a name.

The recent determination that many of the Book of Mormon names are derived from Sumerian words in compound form is important in updating the translation of the name *Limhi* in the Caractors Document.

Limhi was a son of the evil king Noah₃, who ended up being a righteous king over a branch of Nephites who had returned to reinherit the land of Nephi. He essentially was a king in servitude until he and his people escaped and returned to join the main body of Nephites at Zarahemla (Mosiah 7–9). Also mentioned in the Book of Mormon is a set of records presumably made by Zeniff and subsequently kept by *Limhi* which he ultimately provided to Mosiah, referred to as “plates.” It is also of note that the reformed Egyptian glyph for *Limhi* also has the form of a tablet or plate, which is also consistent with this meaning. The Sumerian etymological units which would not involve numbers for which the name *Limhi* appears to be derived are:

li: branch

li: to press (oil)

i: oil; container for oil (indicating priestly/royal authority)

*i*₃-*am*₃ (form of *i*)

im: tablet

im-a, *im-ma*, *im-e* (form of *im*)

hi: to mix (up); alloy

Constructed Compound Word: **Limhi**

The use of Sumerian to derive the names of the Book of Mormon generates groupings in which a common Sumerian element (root, prefix, or suffix) can be seen to identify a characteristic or role of the person bearing a name. The Sumerian suffix “-hi,” meaning “to alloy,” appears to mark the bearer of the name (e.g., Nephi, *Limhi*) as having a connection to plates or records.

The glyph form of the name also includes the number 30 (or perhaps 300 depending on copying accuracy) and the number 7. The derivation of the numeric form of the word is found at least partially in the Sumerian number system. A *limnah* in the Nephite metrological and value system described for gold, silver, and grain includes the term “*limnah*,” which equates to 7 measures of grain (see table below). The Sumerian etymological derivation for the word is very straightforward and essentially means “7 measures”:

la: to weigh

imin: seven

imin-na (form of *imin*)

Constructed Compound Word: L(a)**imin-na**



Thus, the Caractors Document name for *Limhi* containing a glyph for the number 7 is exactly what is to be expected. The second solid glyph consisting of the number 30 would also be consistent with a number representing the number of Limhite plates ($30 + 7 = 37$). This would be consistent with the construction of the name for the Twenty-Four plates glyphs that follow the Limhite glyphs. The number 7 in the Limhi glyph is another example in the Caractors Document of a dual-use glyph (to be discussed later) in that it also is indicative of a number of years as it follows DNIG and PDI calendar glyphs (to be discussed later).

The Sumerian source for the second Limhi glyph consisting of the solid tilted square has been previously discussed with regards to the number 30. In addition to Sumerian, there are Old World correspondences related to Egyptian with regards to this glyph.

In Akkadian, *lim/limu* means “1,000” (Book of Mormon Onomasticon 2015). The Babylonian (Akkadian) root to the word may help us determine where the number 30 may have derived from. The weight measures and the volume measurement system of ancient Israel was based on the Babylonian system, which has a different base, so the primary weight system consisted of multiples of 4 and 8.

The Book of Mormon identifies how values of gold and silver were arrived at setting the value of a “measure of barley, and also for a measure of every kind of grain” to be a “limnah” (Alma 11:5), which is an obvious variant of the word “Limhi.” This reference is also consistent with the root “lim” having some relation with a number.

In this part of the Book of Mormon, “limnah” is discussed as part of an overall delineation of silver and gold values that are set by the standard of a measure of grain, the grain being the basis of the exchange system. The system is laid out there as represented in the following table:

Table 1

Measures of grain	Amount of gold	Amount of silver
7	limnah	onti
4	shum	ezrum
2	seon	amnor
1.5	antion	
1	senine	senum
.5	—	shiblon
.25	—	shilum
.125	—	leah

It is important to note here that the Book of Mormon made no specific mention of coins here, nor did it make any specific mention of weight; it referred to “pieces,” which could certainly be interpreted as a volumetric measurement, especially considering that the raw gold and silver in this era in Mesoamerica were native gold and silver, the gold probably being primarily from placer-type deposits that generate small pieces or flakes of gold. Based on the four measurements from the two systems that are correlated (senine/senum and antion/three shiblons) a comparable system of both weight and volume is not possible, since the density of gold is 19.3 g/cm^3 and the density of silver is close to half of that at 10.5 g/cm^3 . The system must be either weight based or volumetric based. Since different types of grain also vary in density, and a senine/senum is equal to a measure of barley and for a “measure of every other kind of grain” (Alma 11:7) a volumetric based system is the most practical as the measure of each grain appears to be equivalent based on that language, and grains have some variation in density as well. Many of those who have previously analyzed this section of the Book of Mormon have jumped to the erroneous conclusion that the marketplaces of the Nephites must have been full of scales brimming with gold and silver, with all of the people pulling gold and silver out of their pockets when, in fact, the very opposite language is contained here (Alma 11:4–5):

4 Now these are the names of the different pieces of their gold, and of their silver, according to their value. And the names are given by the Nephites, for they did not reckon after the manner of the Jews who were at Jerusalem; neither did they measure 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, until the reign of the judges, they having been established by king Mosiah.

5 Now the reckoning is thus—a senine of gold, a seon of gold, a shum of gold, and a limnah of gold.

It is clear that there is no measurement being made for the gold or silver, just the “reckoning” of their value; the only measurement relates to the grain, which is a known standard of exchange for trade in Mesoamerica. There certainly may have been exchange of gold and silver going on when available in some of the marketplaces, but it would be no different than any other commodity sold there. Mormon has warned anyone bothering to read this section that the Nephites did not reckon or measure after the manner of the Jews.

One question that sometimes arises with regards to this grain-standardized barter system is the use of the term *money* found in the Book of Mormon (Alma 11:20). However, in a historical context, the utilization of this term is appropriate.

With growth in communication, and the increasing importance of trade, barter became increasingly inconvenient, depending as it does on the whims of individuals or on interminable negotiations.

The need grew, therefore, for a stable system of equivalences of value. This would be defined (much as numbers are expressed in terms of a base) in terms of certain fixed units or standards of exchange. In pre-Hellenic Greece, the earliest unit of exchange that we find is an ox. According to Homer’s *Iliad*, ... a “woman of good for a thousand tasks” was worth four oxen, the bronze armour of Glaucos was worth nine, and that of Diomedes (in gold) was worth 100. ... The Latin word *pecunia* (money), from which we get “pecuniary,” comes from *pecus*, meaning “cattle”; ... The Latin *capita* (“head”) has given us “capital.” In Hebrew, *keseph* means both “sheep” and “money”; and the root-word made of the letters GML stands for both “camel” and “wages.” (Ifra 2000, 72)

As of yet there is no Mesoamerican archeological evidence of any sort of scale measurements using gold or silver (or any other weights for that matter). Even in Israel, most modern persons have the misconception that shekels there are some sort of money or coinage, when, in fact, it is just a weight system, and the unit weights used in exchange were made of limestone, not metals. Raz Kletter (1999, 93–94) notes:

During the Iron Age period [1200–550 BC], coins were not yet known in Judah, and there was no monetary economy in its modern sense. There was no word for “money.” . . . Weight defined the value (i.e., the price) of expensive commodities, mainly gold and silver (most other commodities were measured by volume). . . . The Old Testament mentions the weighing of different metals, usually gold and silver, rarely copper (1 Kgs 7:47; 2 Kgs 25:16; 1 Chron. 22:13-16). Most of these references concern transactions, taxes and booty at national and international levels, and not trade between individuals. It is not clear to what extent such transactions involved real weighing, even when the Old Testament expresses “price” in weight units. Local trade and day-to-day transactions in small communities were most probably made by exchange (barter), which did not necessitate formal weighing and actual exchange of precious metals.

Others have also made much about the apparent superiority of efficiency of the Nephite system of gold- and silver-based “weights,” indicating the ability to easily combine units of 1/8, 1/4, 1/2, 1, 1 1/2, 2, 4, and 7 into varying totals (Welch 1999). However, the uniform system of units that they are describing is the uniform system of volumetric grain measurements (which does not vary across grain type), not the separate and distinct gold and silver systems. The description of the precious metals classifications is not of a uniform system; it is only uniform within the specific commodity (gold or silver). It can be reasonably assumed that the units of equivalent value between gold and silver were not of equivalent measurement (limnah-onti, etc.) either by weight or volume. Each system has different names, even for the ones of the same value, which is a sure sign that the measurements within each class of metal are consistent only within that particular class of metal. There are no smaller units for gold, indicating that ounce per ounce it was more valuable than silver, as smaller amounts of gold were too small in

volume or weight to be used (or possibly even reliably measured). Native gold is also not a good standard weight medium, as the silver content can vary from 5 to 30 percent. Since silver density is much less than gold, this can cause large swings in density in this class of metals. The technology to separate gold from silver is not simple and did not exist in the Old World at the time Lehi left and was not known in Mesoamerica until well after Nephite times, so until one can control the purity of these two metals, they don't make for a good medium in a uniform weight system.

In 1519 Cortez noted that the Aztec used a volume-based trading system in their marketplaces (Cortez 1519). Another source reports (unfortunately secondhand without original sources [Guerra 1960]) that the Aztec used a wooden box, called a *quauhchiaquihuitl*, to measure corn and other dry goods; this box was divided until the smallest unit was a twelfth part of the whole (see figure 38). The description given was a box that was first divided in half and then again arriving at a measure amounting to one twelfth of the box, the smallest unit called a *tlatamachihualoni*. Graded sizes of jars served to measure liquid. They also had special cups to measure out gold tribute payments by volume to the Spanish in units roughly equivalent to our ounces (Guerra 1960). *Quauhchiaquihuitl* in the Aztec Nahuatl language is a combination of the words “basket” and “tables,” and *tlatamachihualoni* is “measurement scale.”



Figure 38. Quauhchiaquihuitl volume measurement box from the sixteenth-century Códice Xochimilco Plano de Varias Propiedades (www.amoxcalli.org.mx, 2015)

In relation to the name *Limhi*, some of the names for the gold and silver units were used as personal names elsewhere in the Book of Mormon (i.e., Amnor, Shiblón), so there is clearly precedent that the name *Limhi* could be derived from a numeric measurement of some type.

As noted, the Israelite weight system (shekels) was based on the Babylonian numeric system; however, the Israelites still used the Egyptian hieratic base-10 system for all of their numbers. In an apparent effort to match the Egyptian weight system, the Israelites used the hieratic base-10 numbers for shekels but changed their effective numeric meaning to match the Babylonian base-system sequences (Kletter 1998). For example, the shekel weight for 8 in the Babylonian (Israelite) base was labelled with a hieratic 10. The following table shows the relationship of the differing values. Although we don't really know what the equivalent weights or volumes were of the Nephite gold or silver system, the sequence pattern is consistent with the Babylonian sequence as shown in the following table:

Table 3

Egyptian Hieratic 1	2	5	10	20	30	40	50	60	70
Israelite Weights 1 (Shekels)	2	4	8	16	24	32	40	48	56
Nephite Silver	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	1	2	4			7
Nephite Gold			1	$1\frac{1}{2}$	2	4			7
Israelite Dry Vol (log-mina)	1	4			24				

Also shown in the table is the Israelite dry volume measurement sequence, which also follows the Babylonian pattern. The Israelite name for the 24 log dry measure unit is called a “seah,” which seems to be linguistically similar to some of the Nephite silver and gold units (“leah,” “seon”). The dry measure system uses as a base measure the “mina,” a Babylonian word, which is equivalent to the “log” in the Israelite system. One of the potential etymologies of the Nephite gold measurement “limnah” is based on derivation from “mina.” The tilted-square glyph in the name *Limhi* could reasonably have been reflective of the names of one of the measurements that may have had a unit value of 24 in the Israelite system but was written as 30 in the hieratic system, or it may have actually had a unit value of 30 in either system.

Mosiah₂ indicated that he had abandoned much of the previous Israelite system (Alma 11:4), which given the Mesoamerican setting, would indicate the shift from the shekel system to the volumetric Mesoamerican system. The name *Limhi* long predates this change, so it also may be derived from part of the system that was abandoned (likely a residual Jaredite name given its Sumerian etymology). The Israelites still were familiar with and utilized the Egyptian dry-measurement system with the principal unit being the *hekat*, which was discussed previously. The Egyptian royal cubed cubit consisted of 30 hekat, another potential source for the utilization of a hieratic glyph for the number 30. The mark for one hekat in Demotic is a rough match for the Limhi character glyph:



Ptolemaic Papyrus, Berlin Museum, 23652=, 4/14; CDD Numbers (14:1), p. 314 (*Chicago Demotic Dictionary* 2014)

Although not directly related to the question of Limhi and the character for 30, the fact that throughout Mesoamerica the number for 8,000 was referenced as a “bag” or “sack” may have some relation to the next Egyptian volumetric unit larger than the hekat, the *khar* or “sack,” should not be ignored.

Another possible explanation for the character for 30 is as a modification of the Egyptian glyph for 60. As mentioned previously, one of the variant forms of 60 in the hieratic is an empty square, so perhaps the blackening in of the square reflects a notation to divide 60 in half, resulting in the number 30.



The filled-in square Caractors glyph has been identified in Egyptian in one occasion as being incorporated as part of the number 3,000 when talking about a monetary value (the other character shown below that is to the right of the solid rectangle and is the number 3,000 [Erichsen, 1954, 703]), so it appears to be a numeral of some sort or a numeral notation found in the Egyptian measurement system:

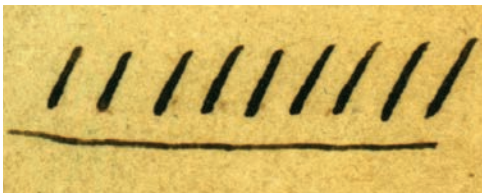


(Brugsch 1898; Vol. 4, p. 1498; [www://digi.ub.uni-heidelberg.de/diglit/brugsch1868bd4/0362](http://digi.ub.uni-heidelberg.de/diglit/brugsch1868bd4/0362))

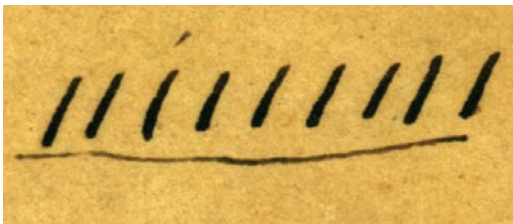
Another possible correlation for the number 30 character is that its form may be derived from a Mesoamerican source and relates to some type of measurement as the character has the form of a filled box, consistent with the Mesoamerican volumetric measurement system as reflected in the Aztec quauhchiaquihuitl.

The Number 9 and the 24 Plates Rebus

The character seen in C-47 and C-58 is interesting. Character 47 is preceded by the number 15, but Character 58 is not adjacent to any numbers. The character is a numeric form and is similar to the bar-and-dot structure but with dashes instead of dots; however, the bar-and-dot system can only have a maximum of 4 dots. The intuitively apparent number is 9, in that this character has 9 dashes; however, Character 58 is not part of a number sequence, while Character 47 is.



C-47



C-58

In context, it clearly does have the numeric value of 9, as the addition of the preceding number 15 gives a total number of 24. Immediately preceding C-58 (C-55 and C-56) are the hieratic/Demotic words “good or pure” and “gold.” The term “pure gold” is only used three times in the Book of Mormon: one for Laban’s sword (1 Nephi 4:9), second to ornament the seats of king Noah’s high priests (Mosiah 11:11), and the third refers to the twenty-four Jaredite plates recovered by a group sent by Limhi (Mosiah 8:9). It is clear this glyph can have the meaning “9” or “plates,” or both at the same time, a practice we will discover is not uncommon in other Characters glyphs.

A correspondence in glyph form exists for this character in the Maya language. Below are a few of the Maya glyphs for “scribe,” “he of writing,” and “someone who writes.” While for these two Maya glyphs this part of the glyph has been interpreted as the “someone” or “he of” in relation to the scribe, when that glyph appears separately, at least one instance of it has exactly eight gaps, identical to the Characters glyph (see below; all images and definitions are taken from the John Montgomery Dictionary of Maya Hieroglyphs, 2007):

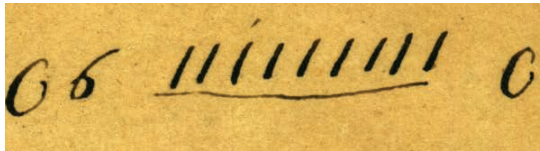


AJ tz'i-b'a (aj tz'ib') (T12.nn:501:314) > prep. phr. “he of the writing” or “scribe”; artist's title; designates the occupation of scribe, painter, or artist in general

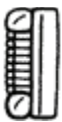


AJ tz'i-b'a (aj tz'ib') (T12.248:501) > prep. phr. "he of the writing" or "scribe"; artist's title

(CH) > u-tz'i-b'a-la (utz'i[h]b'al) u-tz'ihb'-al ~ 3SE-i. v. -nom. "the painting/writing of" forms part of the "surface treatment" section of dedicatory expressions; alternatively may introduce painted scribal signatures.



8 gaps



8 gaps

a/AJ (a/aj) (T12) 1> vowel a 2> masc. agentive pro > n. meaning "he" 3> agentive pref. "he of _____"; associates individuals with locations or qualities

The Maya character is somewhat random in the number of gaps dependent on the scribe, so nothing should be attributed to the number of gaps, other than that the glyph form is similar. In addition, the Maya glyph is used in many types of instances unrelated to scribes, so no meaning should be inferred; however, the fact that the hand of the scribe is actually writing on the glyph, which is similar to the Caractors glyph for *plates*, is of interest.

Finally, in Egyptian, this glyph is a clear shorthand version of the Egyptian hieroglyph *Mn* or *Men*, which means "to remain, to abide, to continue, to be permanent, to be stable, fixed, abiding, stablished" (Budge 1920, 1:296). In conjunction with other glyphs it can mean "everlasting inscriptions."

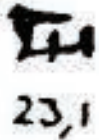


Figure 39. Hieroglyph for *Mn* on the Temple of Karnak (upper left center in red)

The hieratic also maintains the same form:



Möller No. 540, I-23-76, I 534–540B (Möller 1965)



Möller No. 540, III-32-72-Taf, III 536–541 (Möller 1965)

The hieroglyph for *Mn* is derived from its depiction of the Egyptian religious ritualistic game called *senet*. At least 4,000 years ago, the Egyptian *senet* game came to be associated with the notions about migration of the soul (*ba*) and the Egyptian funerary cycle of life, death, and spiritual renewal. In the First and Second Dynasties, *senet* boards were deposited inside tombs with other furnishings for use by the deceased in the next life. Egyptians later represented *senet* boards artistically on the walls of Old Kingdom tombs, in offering lists and wall paintings, and as part of the mortuary equipment.

During the Sixth Dynasty in the depiction of certain Hathoric celebrations, the deceased was depicted playing against a living person. The *senet* board is a physical bridge stretching from the space of the living into the space of the dead, permitting direct physical contact and a conduit of communication between the two, which motif is quite rare in Old Kingdom reliefs. Before the end of the Twelfth Dynasty, notions about the passage of *ba* via the *senet* game were applied to the Coffin Text Spell 335 (CT 335) and later to the Book of the Dead, chapter 17 (BD 17). In the *senet* ritual of the Twentieth Dynasty, the game re-created the nocturnal journey of the sun god through the Netherworld, the *senet* board became the Netherworld, and the moving players became the passage of the player/deceased through the realm of the dead.

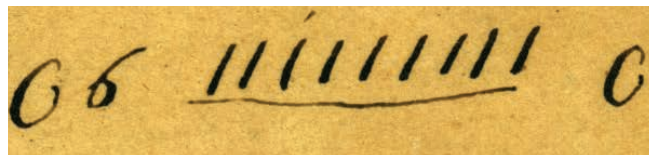
A good number of *senet* boards have been found inside tombs, where they were carved as graffiti in the floors. Given the nature and location of the *senet* ritual, these boards could have been used by visitors to communicate with the dead or to perform some version of the ritual (Piccione 2007).

The games came to be incised into flat slabs of stone, wood, or faience. One of these completely inscribed and surely religious boards was found buried in the courtyard of the Eighteenth Dynasty tomb of Kenamun at Thebes. But the board, now in the British Museum, dates to the Twentieth Dynasty and was thus interred more than 300 years after Kenamun was buried. The ritual importance of this board is implied not because it was a later burial addition, but because it was interred by itself without any associated corpse. The roots of this character in the Egyptian hieroglyphs is consistent with its use as a description of engraved metal plates from the Jaredites, which may have been recovered from an underground tomb of some sort.

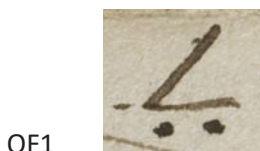
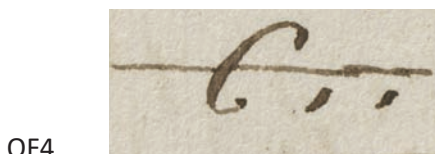
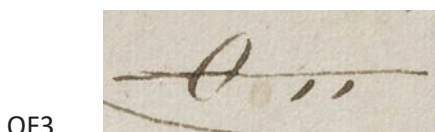


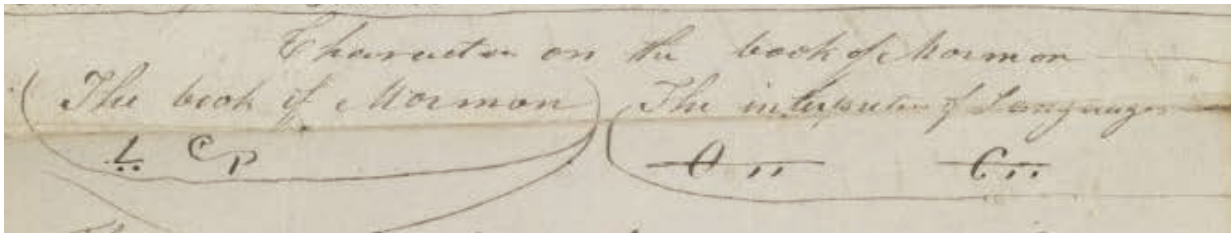
Figure 40. Senet game interred in a ritual burial (Piccione 1980)

A couple of the characters that were actually translated by Joseph Smith (not part of the Caractors Document) were also useful in translating the set of characters involved with the second instance of the “plates” character. The meaning given to two of the characters (OF3 and OF4) together was “the interpreters of languages.” It was also worth noting that the word for “book” that was also translated (OF1) had two dots under the glyph just like “the interpreters of languages.” Since the character looked like an open book, it was reasonable to assume that the two dots were referring to some sort of language, and the other two “c” or “o” looking characters must reflect the “interpreters” part of the glyph. Since nearly identical “c” or “o” characters were located on both sides of the “plates,” the intended meaning becomes fairly obvious, which is that the Twenty-Four plates were translated or interpreted. Also present is Character 59, which looks like a curly 6. It occurs in various other parts of the Caractors Document and will be looked at separately, but it represents the power of God.



C-60, C-59, C-58, C-57

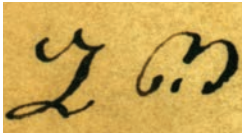





The translation of the OF1 through OF4 characters will be addressed later in the name and general translation sections in chapter 11.

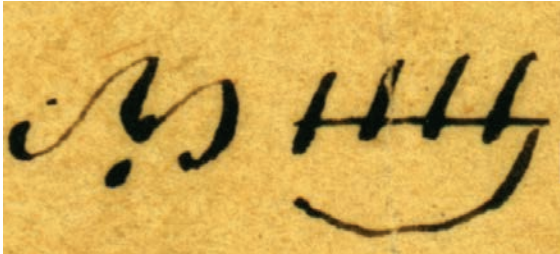
Summary of the Numeric Sequences (Those Containing Multiple Consecutive Numerals) Present in the Caractors Document

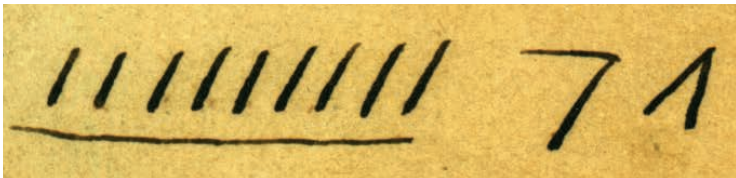
With the individual numerals established, the translation of the number sequences is as follows:

C-5, C-4  $6 + 13 = 19$

C-26, B26b  $4 + 7 = 11$

C-33, C-32  $1 + 20 = 21$

C-39, C-38  $13 + 40 = 53$

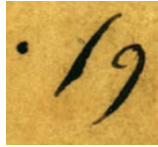
C-47, C-46, C-45,  $9 + 5 + 10 = 24$

C-74, C-73, C-72, C-71, C-70



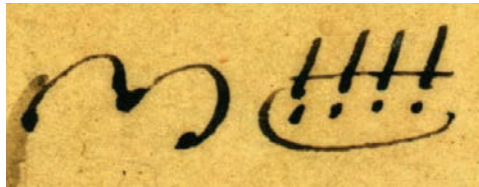
$$1 + 20 + 400 + 5 + 10 = 436$$

C-78, C-77, C-76



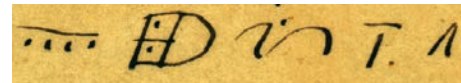
$$1 + 1/3 = 1 \frac{1}{3}$$

C-86, C-85



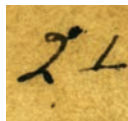
$$3 + 80 = 83$$

C-92, C-91, C-90, C-89, C-88



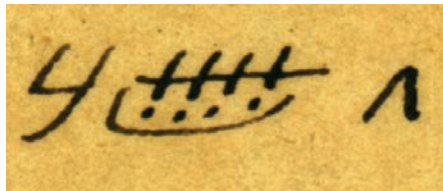
$$9 + 20 + 400 + (5 \times 10) = 479$$

C-102, C-101



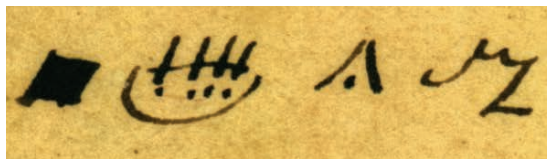
$$60 + 1/2 = 60 \frac{1}{2}$$

C-124, C-123, C-122

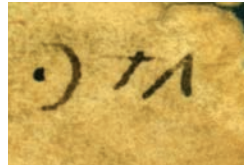


$$2 + 80 + 10 = 92$$

C-158, C-157, C-156, C-155

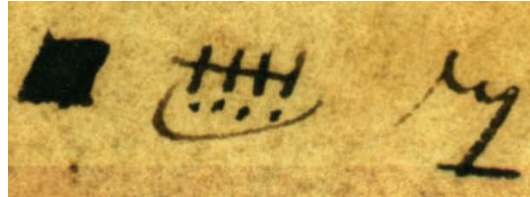


$$30 + 80 + 11 + 4 = 125$$



C-178, C-177, C-176

$$19+5+10 = 34$$



C-225, C-224, C-223




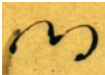

$$300 + 80 + 4 = 384$$

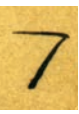
Nephite Numeric System


In my first look at the Nephite number system, it appeared to be primarily a vigesimal-number system. Since the numeric system is not positional, determining the base is not always obvious. However, with the determination that the numeric notation has a principal driving factor of preference for sacred numbers, the system is better characterized as a base-10 or decimal system. Because the base-20 numbers are themselves sacred numbers, certain numerals cause them to take on a base-20 appearance. For example, the number 53 consists of the number 40 and the number 13, which has the appearance of a base-20 system. If this was a base-10 system, one would expect the number 50 and the number 3. Because the number 53 has as its first rule of construction the requirement to prefer sacred numbers, the 40 and the 13 meet this requirement. This gives the appearance of a base-20 construction, when in fact the base was not the primary rule in its construction.


The Nephite number system is a ciphered-additive system with some multiplicative elements. A ciphered system means that there is one symbol for each number instead of a series of the same symbols for a number, with Roman numerals being an example of a system that is not ciphered. An additive system means that the position of the numerals don't matter, since the individual numbers are all added together (with a few multiplicative elements). Roman numerals are an example of this system.

If the system were completely base 20, one would expect that there would be different individual numerals up to the number 20. In evaluating the system, calendrical signs incorporating numbers are excluded. The Nephite number system also has numerals that are used to double with a textual meaning, so they are utilized in a way that can cause an exception to the numeric system. The numbers up to and including 20 are:

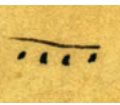
- 1  Ordinal 1 
- 2 
- 3 
- 4 

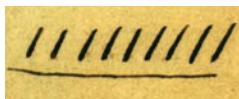
5 

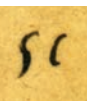
6 


7 

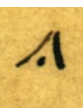
8 ?

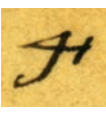
9 

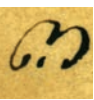


Ordinal 9 

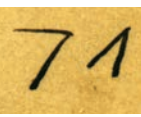
10 

11 

12 ? Ordinal 12 

13 


14 ?

15 

16 ?

17 ?


18 ?

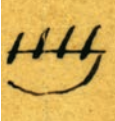
19 

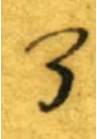
20 

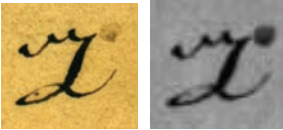
Unfortunately we do not have the benefit of the spoken language to help determine the base, so we are left to glyph interpretation. For the numbers up to 20, the base appears to be 10. There are discrete individual numbers up to the number 10. From 10 to 20, with the exception of 19, the numbers consist of one of the discrete numerals from 1 to 10, plus the number 10. The number 10 in the sequence from 10 to 20 is represented either by the inverted V number 10 or a dot representing the number 10. The number 19 is only an exception because it includes a different number for 9, with the number 10 still consistent as a dot. This construction for the number 19 was precipitated from the only use of the number 19 in the Caractors Document also having a textual meaning. From the few examples of ordinal numbers, we see that they may be ciphered up to 20, since the ordinal 12 does not appear to incorporate the number 10 in either the dot form or the inverted V form, which would be more consistent with a base-20 system for ordinal numbers.

Next, we should look at the numerals larger than 20. In a pure ciphered-additive vegesimal system, one would expect discrete ciphers in multiples of 20 up to a certain point, with the numbers 1–19 being added to make the final number. For example, one would expect 39 to consist of 20 + 19, or 74 to consist of 60 + 14. With that in mind, the higher numerals can be evaluated. First, the individual numerals will be evaluated.

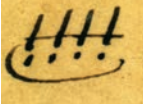
30 

40 

50 

60 

70 ?

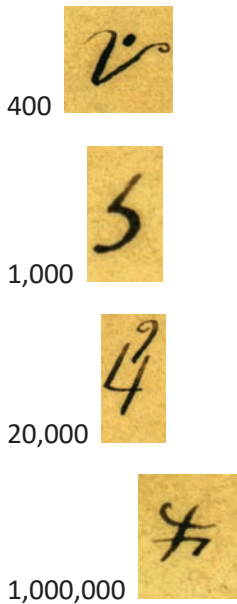
80 

90 ?

100 ?

200 ?

300 



As mentioned, if the system was a true base 20, one would not expect discrete numerals for 30 or 50. One would also not expect discrete numbers for 300 or 1,000 either, although these are less critical. In a base-10 system, one would expect all of these discrete numerals. The function and value of dots in the system (to be discussed later) also support a base-10 system because they represent additive values of 10 (except for the number 1) or multiplicative values of 10 or 100. This is consistent with a base-10 system.

All of the numeric sequences listed previously are all consistent with a ciphered-additive, base-10 system except for the number 53, which consists of $40 + 13$. This is actually not a base-20 number, but it is constructed based on the sacred-number rule of primacy for the system, since 40 and 13 are sacred numbers. This is consistent where the base-10 system is overridden where the number 19 in a regnal-year designation is represented as $6 + 13$, with the purpose to avoid using the sacred number 19, which was apparently reserved for references to Christ or the Coming of Christ Calendar, to be discussed later. It still uses a sacred number (13) in the construction of the number. Similarly, the number 11 is constructed as $4 + 7$ in a year count, which avoids the use of the inverted V and dot form of the number 11, which is used in the date for when Christ was born. This number 11 still utilizes a sacred number (7).

The system is primarily based on Egyptian characters, but it has some Mesoamerican and Sumerian/Elamite characters as well. There is one rebus number (9), which is consistent with both Egyptian and Mesoamerican language practices. There are calendrical notations or indicators that are not technically numbers but that have incorporated numbers into the character/glyph. Some calendrical numbers show a different variation than non-calendrical ones. While modifications have been made to the original Egyptian hieratic system, at its core the Nephite system is still equivalent in that like hieratic, it is a base-10, ciphered-additive system. Like the original Egyptian hieratic, the Nephite system lacks any apparent sub-base of 5. Also like Egyptian hieratic, there are some multiplicative forms (Chrisomalis 2010, 41).

Function of Dots

The use of Sumerian or Mesoamerican numeric dots has been blended with the Egyptian hieratic numbers. A dot within or adjacent to a number character/glyph signifies the addition of the number 10 for each dot to the base glyph form, except for 11, where it has a value of 1. For example, the number 20 glyph is a modified shell glyph. In the Maya system, it is a 0; in the Aztec, it can be 20. In this case, the two dots would make the 0 glyph a 20 ($10 + 10$). In the glyph for 40, there are no dots (there are 4 marks, also indicating 10s in this case), but the 80 glyph is nearly identical in form to 40 with the addition of 4 dots ($10 + 10 + 10 + 10$).

A dot above and to the right of the number multiplies the number by 10. In the instance of 400, a dot directly above indicates the number is multiplied by a factor of 100. In the instance of 300, a dot directly below indicates the number is multiplied by a factor of 10. The multiplication by factors of 10 and 100 caused by the superscript placement of a dot is a logical result of a Mesoamerican feature (such as in Maya), which uses a vertical positional placement of dots or bars for increasing powers. It is also not inconsistent with the Egyptian numerical system with regard to volumetric notation, where leading numbers can cause multiplication by a factor of 10 and trailing numbers can cause multiplication by a factor 100. In addition, for higher numbers multiplicative notation was used by placing one number above another. For example, the sign for 60,000 is written by placing the sign for 6 below the sign for 10,000 (Chrisomalis 2010, 46). Historically, other languages have utilized marks in a fashion similar to the dots in the Nephite numeric system. During the fifth century BC, in Greek, a *hasta* (a small diagonal line usually to the left and below a numeral) could be added to indicate that the numeral's value should be multiplied by 1,000. Roman numerals during the Republican period had distinct signs for each power of 10 up to 100,000, including a horizontal bar above a numeral (Chrisomalis 2012, 243).

For ordinal numbers, the Egyptian system is used, except in the case of a reference to an individual person when there is a preceding base dot as opposed to a base dash (at least for 1st, which is the only discreet non-calendrical, non-determinative ordinal related to a dot in the document). Calendrical ordinal numbers occur (1, 3, and 12) and an ordinal based on an Egyptian determinative (9) is also present.

The incorporation of Sumerian/Elamite proto-cuneiform occurs in the numbers 20, 30, and 300. The use of the dots as values of 1 and 10 were also incorporated from the Sumerian/Elamite system.

Nephite Numeric Sequence Order

Like other number systems, the Nephite system follows the nearly universal practice of all numerical notation systems of ordering the numerals to read from the highest to lowest numeral, with exceptions made for lexical purposes (Chrisomalis 2010, 364). The order of numerals in the Nephite system goes from largest to smallest except in the case of the leading 10 or 15 or unless a lexical or glyphic manipulation for textual meaning is applicable. The leading 15 is formed by a 10 and a 5. In that context the order still follows largest to smallest, with one instance of an 11 and a 4 for lexical purposes. The final number of 384 for the date of the final Nephite destruction and the date of destruction when Christ came is an example of glyphic manipulation of the order of the numbers to provide parallel glyphic structure in the order of the numerals.

Nephite Numeric System Classification

A numerical notation system is a visual, relatively permanent, and primarily non-phonetic structured system for representing numbers. Although there are ties between numeral words and numeral notation, a lexical numeral system, or the sequence of numeral words in a language (whether written or spoken), has a language-specific phonetic component. Every language has a lexical or spoken numeral system of some sort, but not all have numerical notation. The Nephite spoken number system, with the corresponding phonetics, is considered unknown. Even though the Book of Mormon refers to a Hebrew language (Mormon 9:33), it is extremely likely that the original Nephite Hebrew was highly altered by the time that Mormon and Moroni wrote in the reformed Egyptian, as Moroni indicates that the Hebrew was “altered.”

The Nephite system is classified as ciphered additive, with only one known instance of multiplication of separate numerals (as opposed to numerals that incorporate dots as part of the numeral), occurring between the 10 and the 5 in a leading 15. In the calendar numerals, some are written or altered to have a lexical meaning independent of the numeric meaning coinciding with the event related to the date. This unique phenomenon is not unexpected in Mesoamerica, where in many Mayan languages the verbs *to count* and *to read* are identical, and the Classic Maya grapheme for 4, consisting of four dots, can also be used as a homonym rebus meaning “sky” (Chrisomalis 2012, 233, 235–36).

Numerical Borrowing

All of the known numerals in the Nephite system are Egyptian hieratic or modified Egyptian hieratic with the following exceptions:

2: Egyptian Demotic

9 (bar/dot): Sumerian/Elamite proto-cuneiform or Mesoamerica

9 (tally rebus): Sumerian/Elamite proto-cuneiform or Mesoamerica

19: Egyptian Demotic

20: Sumerian/Elamite proto-cuneiform or Mesoamerica

30: Sumerian/Elamite proto-cuneiform

50: Egyptian Demotic

300: Sumerian/Elamite proto-cuneiform

Ordinal 12: Egyptian Demotic

All of the known fractions ($1/2$, $1/3$, and $1/7$) are in Egyptian hieratic. Given that the only example of the Nephite numeric system is from a text from AD 384, it is difficult to know when this borrowing of non-Egyptian hieratic numerals occurred. The Egyptian Demotic may have already occurred prior to or at departure in 587 BC, or it could have occurred later, originating from Demotic knowledge or texts that came with the Lehite party. There is no Mesoamerican borrowing that doesn't have a Sumerian/Elamite form close or identical to the Mesoamerican form, so it is hard to tell for those numerals whether the source borrowed from is Sumerian/Elamite or a Mesoamerican language.

The Sumerian/Elamite borrowing of numerals is quite interesting, as it seems the borrowing occurred after thousands of years, since the Sumerian/Elamite would have been introduced at the time of the Jaredite migration around 2500 BC. That being the case, the borrowing by the Nephites, at the earliest, would have had to have been after 1900 years of use in Mesoamerica. There are many numeric systems that have lasted that long (Egyptian hieroglyphic [3,650 years], Egyptian hieratic [2,800 years], Greek alphabet [2575 years], Roman [classical, 2,400 years], Chinese [traditional, 2,250 years], Assyro-Babylonian [2,100 years], Hebrew alphabetic [2,100 years], Babylonian positional [2,000 years], Maya [bar-and-dot, 2,000 years], Chinese [1,900 years]) (Chrisomalis 2010, 416). However, the Sumerian/Elamite forms seem to be relatively unchanged. One might expect some modification to these forms after existing in Mesoamerica for that period of time prior to the earliest possible borrowing by the Nephites. In addition, they seem not to have experienced very much modification up to AD 384.

A more likely source of the numerals would be the plates of the brother of Jared (Ether 3:22), which were sealed up and hidden in the earth (Ether 4:3) prior to his death around 2500 BC, and they were not to be shown to the world until after Christ came and showed himself to his people (Ether 4:1). The plates of the brother of Jared were likely discovered along with the interpreter stones of Jared, which Mosiah₁ presumably had in order to interpret the meaning of the Coriantumr stelae (Omni 1:20–21) around 200 BC. So the original Sumerian/Elamite would have been available perhaps to the individual prophets for about 585 years, or if after they were “shown to the world” in 30 AD after Christ came, then they would have been available for around 350 years. Of course, the plates would have had to have been translated or interpreted in order for the Sumerian numerals understood to be in order to incorporate them into the Nephite number system. Chrisomalis (2010, 26) notes:

An extinct system might conceivably be revived and modified by a later society (for instance on the basis of old inscriptions).

Numeric System Borrowing

Any numeric analysis involving the Caractors Document, by the very nature of the source of the text, will require one to look at the issue of system borrowing. The time frame for Book of Mormon text development is from circa 600 BC to circa AD 400, with (according to the Sorenson model [Sorenson 2013]) the portion up through 200 BC taking place primarily in highland Guatemala in the neighborhood of the Valley of Guatemala. Around 200 BC there was a migration to the west, to the neighborhood of highland Chiapas, with the incorporation of a separate population. From 200 BC there was expansion generally, but significantly west and northwest, perhaps up into the neighborhood of Veracruz.

Based on the early New World geographic location, it would be expected that there was interaction with the Maya culture, and later with perhaps some elements of the Epi-Olmec culture. There probably were influences from other, smaller culture groups that cannot be identified from this early period because we know nothing about them.

Upon their removal to highland Chiapas, the Nephites' known contact was with a group that had existed for 400 years during the last of the Olmec period and coexisted (or possibly were part of) the Epi-Olmec. It is not expected that there was much contact with the Zapotecs or other Oaxaca cultures, although it is not totally out of the question. The later Aztec and other southern Mexico groups that came in later years may have incorporated groups that derived somewhat from Nephite ancestors (various migrations to the north are mentioned in the Book of Mormon) or may have derived from earlier groups that had contact with the Nephites prior to AD 400.

As discussed previously, the spoken Mayan numbers contain a form of the leading 10 and the leading 15. It is not known how far back that existed in the Mayan, so it cannot be determined from chronology that borrowing has occurred. However, based on the sacred number status of the numbers 10 and 5, discussed below, this numerical construction is certainly unique to the Nephite system, so if a residual is present in Mayan, then it almost certainly originated from the Nephite system.

Although there are dots present in certain original hieratic glyphs, it does not appear that the use of dots originated primarily from the Egyptian system. As previously mentioned, the Sumerian/Elamite is the most likely source, with the possibility of borrowing from Mesoamerican systems, since dots are found in those systems as well.

Religiosity of Numeric Notation in the Caractors Document and in the Book of Mormon

The Nephite numeric notation system is partially structured based on the religious significance of various numbers from the two main cultures from which the numbers arose, Hebrew and Mesoamerica. Since Sumerian/Elamite proto-cuneiform numbers are also found, there is a potential for some numbers of religious significance to Mesopotamia that may be preferred. The peculiar combinations of numbers in the Caractors Document makes perfect sense when one considers this aspect of the system.

Biblical Hebrew

From the Hebrew standpoint, the numbers 5, 7, and 10 are well established as having biblical religious significance.

The significance and use of 5 is found in the Pentateuch, the five primary offerings, and various features found in the tabernacle in the wilderness, including the tabernacle itself. The five offerings are Burnt Offering (Leviticus 1; 8:18–21; 16:24), Sin (Leviticus 4; 16:3–22), Trespass (Leviticus 5:14–19; 6:1–7; 7:1–6), Grain (Leviticus 2); and Peace Offering (Leviticus 3; 7:11–34). The tabernacle, the design for which was given directly by God, contained five curtains (Exodus 26:3), five bars (Exodus 26:26–27), five pillars, and five sockets (Exodus 26:37) and a wooden altar that was five-cubits long and five-cubits wide (Exodus 27:1). The height of the court within the tabernacle was five cubits (Exodus 27:18). The holy anointing oil (Exodus 30:23–25), the ingredients of which were given directly from

God, was used to consecrate the furniture of the tabernacle. The oil comprised five parts. The proportion of spices used in making the oil were a multiple of five, which then had a hin of olive oil added to it.

The significance and use of the number 7 is found extensively in the Bible, including the seven days of creation, the seventh Sabbatical year, the seven steps to Solomon's Temple (whose construction lasted seven years), Noah's dove staying away for seven days, the flood preparing its arrival for seven days, and the seven brooks dividing the Euphrates. Recompenses and punishments are repeated seven times, and seven blessings are part of the marriage ceremony, which lasts seven days. During the sacrificial expiation, blood was sprinkled seven times, and as most feasts lasted for seven days, a seven-day sacrifice was made when Solomon's temple was inaugurated. Also featuring 7 are Joseph's prophecy of seven years of plenty followed by seven years of famine, the Israelites taking of Jericho by circling the city seven times on the seventh day, Namaan washing himself seven times in the Jordan River to be cured of his leprosy (2 Kings 5:10, 140), and the sevenfold sneezing of a person revived from death (2 Kings 4:35). Proverbs praises the seven pillars of wisdom (9:1), and Zechariah speaks of the seven eyes of the Lord (4:10). In the seventh generation after Adam appears Lamech, who lives for 777 years and should be avenged seventy-seven fold (Genesis 4:24), and Cain's murder will be avenged seven times (Genesis 4:15) (Schummer 1993, 131–133). The text of the Book of Mormon itself features the number 7, beginning with the number of Lehi's tribes, with other examples present (Volluz 2014).

The significance and use of 10 is also found extensively in the Bible, starting with the Ten Commandments. Also featuring 10 are the ten words of the priestly decalogue, the law of tithing, which involves a tenth (this concept of 10 in tithing is also found in Egyptian and Mesopotamia), and the ten plagues of Egypt, among other examples (Welch 2003).

As the sum of 5 and 10, 15 is a religious Hebrew number, and the Old Testament counts the generations of Israel between Abraham and Solomon as 15, and from Solomon to Zedekiah again as 15 (Schummer 1993, 213–214).

As a multiple of 5 and 10, 50 is also a significant religious Hebrew number, as the number of years of the Jubilee festival cycle. The Jubilee is evidenced in the Book of Mormon, and the Jubilee glyph is found in the Caractors Document and is discussed in more detail later.

Mesoamerica

With a base-20 system, the numbers 20 and 400 are naturally significant numbers in Mesoamerica, and 20 is also the basis of a month (20 days) in Mesoamerican calendars. The Maya connected 20 with the solar deity (Schummer 1993, 226). Among the Aztec the number 400 was given special significance in Aztec mythology and is incorporated into deity names and is incorporated into the title of the Mexican gods of pulque (Payne and Closs 1986, 218–221). The astrological significance of the number 20 is directly linked linguistically in Mesoamerica to the lunar month. The other symbolically significant numbers in addition to 20 in Mesoamerica are 13, 7, and 9, all of which are based on the average segments of lunations:

The moon is visible for a period of twenty days: waxing for thirteen days (*the trecena*) from first visible crescent to full moon, then waning for seven days to the third quarter moon (cumulatively, *the veintena*). Then over the next nine days the moon becomes invisible before reappearing in the west as the thin crescent of the new cycle. This explanation accounts for the Maya belief in thirteen levels and gods of the celestial world and nine lords of the Underworld. (Rice 2007, 38)

This same concept is reflected in the Aztec mythology with the Thirteen Lords of the Day and the Nine Lords of the Night, with the whole cosmos divided into nine layers in the netherworld and thirteen heavenly layers; thus the number 9 became a symbol of the netherworld (Schummer 1993, 169). In the ancient Maya religion:

In one variant of the 19 numbers plus zero, called the "headed" variant, 13 numbers are distinguished by the sign of 13 different headed deities. The 20 signs for the days of a month were combined with the numbers from 1 to 13, and

thus a special calendar was devised for use in prognostication. Time was divided into periods of 52 (=4 x 13) solar years of 365 days each; these in turn were summed up in 72 holy years, each of which consisted of 52 weeks with 5 days each (260 = 20 x 13). (Schummer 1993, 206)

The number 7 was sacred in Mesoamerica, as the Maya believed in a seven-layered sky and considered 7 to be the number of orientation in space (Schimmel 1993).

The number 19 is also considered to be a number of special significance in Mesoamerica, based on the astrological significance of the Metonic cycle:

Doubtless, the coincidence of lunar and solar cycles every nineteen years did not go unnoticed, because a full moon occurring, say, on the summer solstice would be seen again on the solstice nineteen years later (Milbrath 1999:106), a phenomenon known as the Metonic cycle. Similarly, the recording and tracking of eclipses and their correlation with lunar cycles might go back to the Late Preclassic period (Justeson 1989:87–88). (Rice 2007, 38)

Since 19 consists of the sum of a Hebrew sacred number (10) and another Mesoamerican sacred number (9), one might expect this number to have even more importance. As already discussed, the Egyptian glyph for 19 also means “the sun,” “day,” and “god of the Sun,” so the correlation of the solar cycle with the number 19 is obvious.

Like in Hebrew, 5 is also an important calendrical number in Mesoamerica. The Maya Haab calendar comprises eighteen months of twenty days each, plus an additional period of five days (“nameless days”) at the end of the year, known as the Uayeb (Wayeb’ under current orthography), although in contrast the Uayeb are generally considered important for being unlucky. The number 5 is also a key number for the Maya, who consider it to be at the center of the four cardinal directions. There are Maya deities who are fivefold in form and consist of the five colors red, white, black, yellow, and bluish green, with all of these connected with the cardinal points. Even today the number 5 is found in place-names in the Yucatan (Schimmel 1993).

Since the Nephites were also their own unique culture, certain religiously symbolic numbers may have been unique to them. The number 24 would appear to be a good candidate. The Twenty-Four plates feature the number. The Twenty-Four plates correspond with the number of Jaredite rulers capable of record keeping. There are six individuals (Heth₂, Aaron, Amnigaddah, Coriantum, Seth, and Coriantor) mentioned in the lineage from Jared to Ether, in addition to the twenty-four that constituted the Jaredite record, but they were born in captivity and dwelt all their days in captivity, so they would not have generated any record. There are some other unidentified persons that were descendants of Riplakish and ancestors of Morianton, but they were “driven out of the land” (Ether 10:8) so would have left no record either.

Taking from the Jaredite “type,” the number 24 was included by Mormon and Moroni as a civilization founding and destruction theme in the Book of Mormon. The initial number of the founding group of the Jaredites was twenty-four (Jared, the brother of Jared, and twenty-two friends) (Ether 6:16). The first king, Orihah, had twenty-four sons (Ether 7:2–3). The destruction of the Jaredites is represented in the Twenty-Four plates, which were hidden by Ether.

For the destruction of the Nephites, at the final battle of the Nephites on the last day before the remainder of the Nephite army was hunted down and wiped out (Mormon 8:7), Mormon calls out that there were only twenty-four survivors (Mormon 6:11, 15). It is also interesting that there were only twenty-three Nephite final battle groups, but the twenty-fourth may have been the group that escaped to the south (all of the other twenty-three groups were killed in the final battle) (Mormon 6:15; 8:2). For the founding of the Nephites, the initial number of the followers of Nephi₁ that broke off from Laman₁ and Lemuel have been calculated to be twenty-four people (Sorenson 1992a), and while we don’t have the 116 lost pages, I would presume that Mormon included at some point a summary of that number.

The founding number of Amulonites, which consisted of the priests of Noah³, was twenty-four (assuming they each married one of the Lamanite daughters who they carried away [Mosiah 20:5]). The Amulonites were eventually hunted, driven, and slain (Alma 25:4). Another interesting use of 24 with the beginning and ending theme was Hearthom's reign of twenty-four years, after which he lost his kingdom (Ether 10:30).

It is also interesting that Mormon was first approached by Ammaron to be responsible for the sacred records at "about ten years of age" (Mormon 1:2); at fifteen years of age he was "visited of the Lord" (Mormon 1:15), and then he received the sacred records at twenty-four years of age (Mormon 1:3–4), reflecting the numbers 10, 15, and 24—all part of the Twenty-Four plate glyph.

Mesopotamia

In regard to the importance of Mesoamerican numbers related to the moon, the same is also found in Mesopotamia. Sin (Akkadian) or Nanna (Sumerian) was the god of the moon in the Mesopotamian mythology of Akkad, Assyria, and Babylonia. Nanna is a Sumerian deity, the son of Enlil and Ninlil, and became identified with the Semitic Sin. The two chief seats of Nanna's/Sin's worship were Ur in the south of Mesopotamia and Harran in the north.

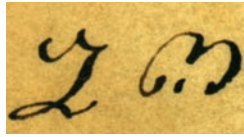
The Semitic moon god /Sin is in origin a separate deity from the Sumerian Nanna, but from the Akkadian Empire period, the two underwent syncretization. The occasional Assyrian spelling of *DNANNA-ar DSu'en-e* is due to association with the Akkadian *na-an-na-ru*, "illuminator, lamp," an epitheton of the moon god. The name of the Assyrian moon god Su'en/Sîn is usually spelled *DEN.ZU*, or simply with the numeral 30 (www.wikipedia.org 2018; Ebeling et al 1997, 360). The earliest attestation of this name dates back to the very beginning of written documentations.

The number 7 is also known for its mystical importance in Mesopotamia, which is the location of origin of the Jaredites, so their scriptures may have also reflected its importance, reinforcing the importance of the number in biblical Hebrew (Muroi 2014). The ancient Mesopotamian *ziggurat* (likely a tower from which the Jaredites fled) were step pyramids with seven stories. The Mesopotamian Tree of Life, although not currently dated back to the Jaredite departure date of around 2500 BC, is represented with seven branches, each branch having seven leaves (Schimmel 1993, 130).

Egypt

Though one would not expect the Nephites to incorporate the symbolic use of numbers from cultures from which they did not derive, it is at least useful to identify any significant Egyptian numbers, given that Egyptian is the principal source language of the Nephite script. In ancient Egypt certain numbers were considered sacred, holy, or magical, particularly 2, 3, 4, 7, and 10 and their multiples and sums (Wilkinson 1999, 126–138). While present, the numbers unique to Egyptian outside of biblical Hebrew, Mesoamerican, or Mesopotamian are 2, 3, and 4, and there is no definitive evidence in the Caractors Document that these numbers were used with any priority.

With this in mind, an analysis of each of the number sequences can be accomplished. Unlike the factor (or multiple numbers), the final value of the number is typically fixed, since it represents a number of years or persons, so a particular number would not be preferentially used except perhaps when the author (Mormon) decided to feature a particular event. While the knowledge of other religiously symbolic numbers may be unknown, the analysis here will identify the symbolic sacred numbers, with any other number being classified as "residual."



C-5, C-4

$$6 + 13 = 19$$

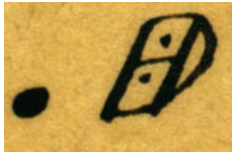
This number features the symbolic Mesoamerican number 13 with 6 as a residual. The final number is 19, which also is a Mesoamerican symbolic number.



C-26, B26b

$$4 + 7 = 11$$

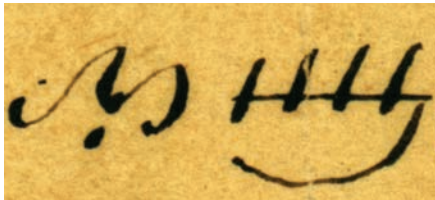
This number features the symbolic and sacred Mesoamerican, Hebrew, Mesopotamian, and Egyptian number 7 with 4 as a residual, which is also a symbolic Egyptian number.



C-33, C-32

$$1 + 20 = 21$$

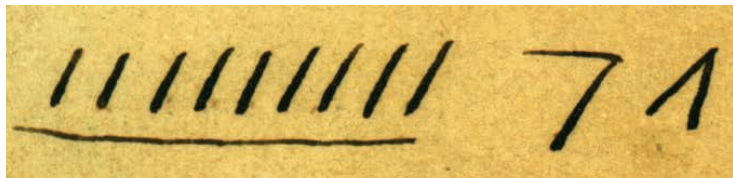
This number features the symbolic Mesoamerican number 20 with 1 as a residual.



C-39, C-38

$$13 + 40 = 53$$

This number features the symbolic Mesoamerican numbers 13 with 40 as a residual. As a multiple of 20, the number 40 likely has Mesoamerican importance as a symbolic number.



C-47, C-46, C-45

$$9 + 5 + 10 = 24$$

This number features the symbolic Mesoamerican number 9 with the Hebrew symbolic numbers 10 and 5. The number 24 is also a Nephite symbolic number.



C-74, C-73, C-72, C-70, C-72, C-71, C-72

$$1 + 20 + 400 + 5 + 10 = 436$$

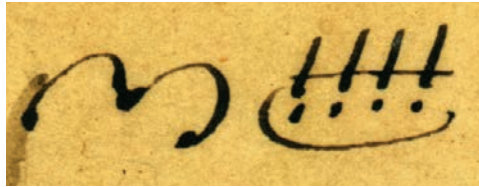
This number features the symbolic Mesoamerican numbers 20 and 400, with the symbolic Hebrew numbers 10 and 5, and with 1 as a residual.



C-78, C-77, C-76

$$1 + 1/3 = 1 \frac{1}{3}$$

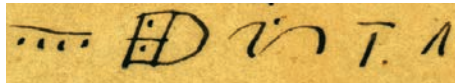
The number 3 is a symbolic Egyptian number.



C-86, C-85

$$3 + 80 = 83$$

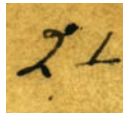
As a multiple of 20, the number 80 likely has Mesoamerican significance as a symbolic number. The number 3 is a residual and is a symbolic Egyptian number.



C-92, C-91, C-90, C-89, C-88

$$9 + 20 + 400 + (5 \times 10) = 479$$

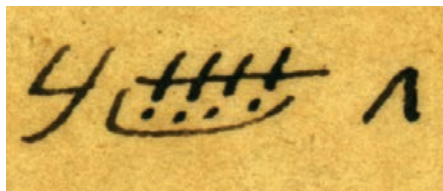
This number features the symbolic Mesoamerican numbers 9, 20, and 400, with the Hebrew symbolic numbers 10 and 5.



C-102, C-101

$$60 + 1/2 = 60 \frac{1}{2}$$

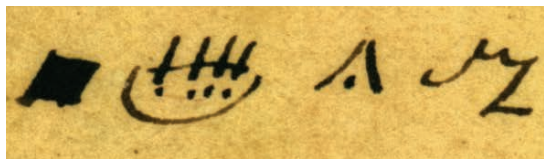
As a multiple of both 20 and 30, the number 60 may also have Mesoamerican and Mesopotamian derived significance as a symbolic number because Mesopotamian number systems are a base-60 system. The fraction 1/2 is the residual, and 2 is a symbolic Egyptian number.



C-124, C-123, C-122

$$2 + 80 + 10 = 92$$

The number 10 is a symbolic Hebrew number. As a multiple of 20, the number 80 likely is a symbolic Mesoamerican number. The number 2 is a residual and is also a symbolic Egyptian number.

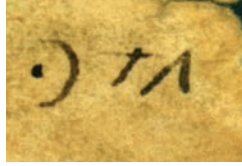


C-158, C-157, C-156, C-155

$$30 + 80 + 11 + 4 = 125$$

As a multiple of 20, the number 80 may also have Mesoamerican significance as a symbolic number. The number 30 is a symbolic Mesopotamian number. The number 4 is a residual and is also a symbolic Egyptian number. The number 11 as expressed in this particular number set is actually evidenced here as a symbolic number likely unique to the Nephites, not because of its numeric value, but because the number is found in the calendar date of Christ's appearance to the Nephites. It is significant because the non-numeric meaning of the glyph is "to descend or to

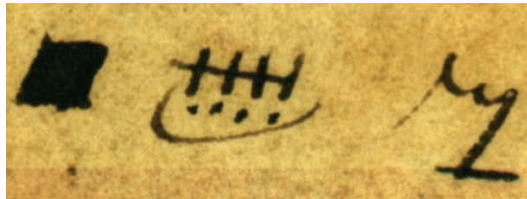
come.” It also incorporated in its form the number 10, a symbolic Hebrew number. Notably, the sum of the 11 and the 4 is 15, which duplicates the leading 15 (10 and 5) pattern seen on the other dates and therefore does not violate the established sequence of the numbers running from larger to smaller except in the case of the leading 10s and 15s.



C-176, C-177, C-178

$$19 + 5 + 10 = 34$$

The numbers 10 and 5 are symbolic Hebrew numbers. Number 19 is a symbolic Mesoamerican number. As noted elsewhere, the 19 here also forms the word *R*, meaning “sun,” “day,” and also “god of the Sun.” The date here is the year that Christ visited the Nephites and then ascended to heaven, so the number 19, as in other dates, has a dual meaning.



C-223, C-224, C-225

$$300 + 80 + 4 = 384$$

As a multiple of 20, the number 80 likely has Mesoamerican significance as a symbolic number. The number 300, as a multiple of 30 (with the other multiple being the sacred number 10) and in form identical to the number 30 (excepting in vertical position), is a symbolic Mesopotamian number. The number 4 is a residual and also a symbolic Egyptian number. This number sequence is the calendar date for the last Nephite battle where the Nephites and Lamanites have been overcome by Satan. The sequence looks to clearly be mirroring the date of the appearance of Christ, as the same number forms are there with the exception of the 11 (which served a unique double-meaning purpose in that number set). Also of interest symbolically is that this is the only number sequence that violates the rule of the numbers running from largest to smallest, as this date goes from the smallest to the largest, which is likely a representative message related to the reversal and final destruction of the Nephite nation.

Individual Numbers

The numbers used as individual glyphs that qualify as symbolic or sacred numbers or their multiples are 7, 9, 50, 60, 80, 1,000, 20,000, and 1,000,000.

Individual calendrical marker numbers and combinations

As noted under the individual number section and to be discussed in more detail later, the calendrical markers also incorporate numbers into the glyph. These also contain sacred numbers or are of themselves sacred and symbolic numbers. They are as follows:

Reign of the Kings Calendar marker—consists of $50 + 5 = 55$

The number 5 is a Hebrew symbolic number, and 50 is a multiple of 10 and 5, both Hebrew symbolic numbers.

Seven Tribes Calendar marker—consists of the number 7, a symbolic number

Lehi Departure Calendar marker—consists of $200 \times 3 = 600$

The numbers 200 and 600 are multiples of symbolic numbers (10×20 , 20×30), and 5 and 10 are factors.

Reign of Judges Calendar marker—consists of the number 7, a symbolic number

Coming of Christ Calendar marker

The number 1,000,000 is a multiple of 5, 10, 20, and 400.

1,000 Year Calendar marker

The number 1,000 is a multiple of 5, 10, and 20.

Number 9 is the number of death with 13 as a corollary

As discussed above, the number 9 in Mesoamerica correlates to death and the Underworld with the Nine Lords of the Night, drawing from the time span that the moon is not visible in the sky. Its use in the Caractors Documents is exclusively in dates associated with death.

The Twenty-Four plates glyph contains the number 9 and is the prototypical example of death in the Book of Mormon as those plates contain the record of a people whose entire civilization was killed off. The number 9 glyph appears in the death date of king Benjamin. The number 9 glyph represents the number of years that the Nephite calendar was retroactively corrected, and it is correlated directly in the text with the date at which the Nephites concluded that Nephi₂'s earlier disappearance was final, and he was likely assumed dead (3 Nephi 2:9).

The number 9 is also found associated with the death of Coriantumr₂. At the end of his life he was discovered by the people of Zarahemla and was with them for “nine moons” (Omni 1:21) before being buried by them (Ether 13:21).

The number 13, although not specifically associated with daytime as in Mesoamerican thought, does appear to be found in dates associated with Exodus-type events in the Book of Mormon, as it is found in the number sequence of the departure of Mosiah₁ and also the number of individuals who accompanied Zeniff.

As previously discussed, the number 19 in the Caractors Document is another name for day, sun, or the god of the Sun in the Egyptian hieratic.

4th Nephi number sequence

In looking for evidence of the sacred number calendar system in the Book of Mormon, we obviously do not have the underlying glyph numbers outside of the Caractors Document. For the most part, the dates in the Book of Mormon are dictated by specific events, so one would not expect the ability to extrapolate the sacred number sets except by their specific reference to specific items (such as the Twenty-Four plates), names, or number of event occurrences. However, 4th Nephi contains a curious pattern and sequence of years, starting with year 39 and ending with year 79, which is not dictated by specific events:

3 And they had all things common among them; therefore there were not rich and poor, bond and free, but they were all made free, and partakers of the heavenly gift.

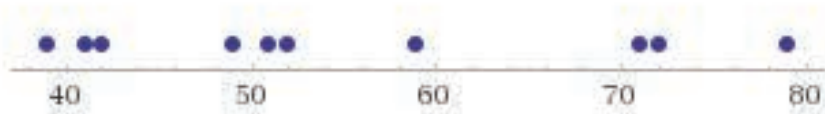
4 And it came to pass that the thirty and seventh year passed away also, and there still continued to be peace in the land.

5 And there were great and marvelous works wrought by the disciples of Jesus, insomuch that they did heal the sick, and raise the dead, and cause the lame to walk, and the blind to receive their sight, and the deaf to hear; and all manner of miracles did they work among the children of men; and in nothing did they work miracles save it were in the name of Jesus.

6 And thus did the thirty and eighth year pass away, and also the thirty and ninth, and forty and first, and the forty and second, yea, even until forty and nine years had passed away, and also the fifty and first, and the fifty and second; yea, and even until fifty and nine years had passed away.

14 And it came to pass that the seventy and first year passed away, and also the seventy and second year, yea, and in fine, till the seventy and ninth year had passed away; yea, even an hundred years had passed away, and the disciples of Jesus, whom he had chosen, had all gone to the paradise of God, save it were the three who should tarry; and there were other disciples ordained in their stead; and also many of that generation had passed away. (4 Nephi 1:3–6, 14)

The pattern generated by the years that would be listed without regard to an event are:



This number set reflects in great complexity the sacred number system, especially considering that the sequence is during the time of greatest happiness after the coming of Christ and falls under the Coming of Christ Calendar period. Since the year 34 under this calendar in the Caractors Document contains the number 19, representing Christ, it is reasonable to assume that the following years, in the underlying reformed Egyptian glyphs, are required to accommodate the 19 glyph. As it happens, all of these years can be *exclusively* and *exactly* constructed in the reformed Egyptian number system using only the sacred numbers, with the requirement that 19 must be used.

A few additional rules apparent in the Caractor numeric notation also apply—namely:

1. A number set does not use the same number twice.
2. The number 5 appears only adjacent to the number 10, never by itself.
3. Though 24 may be a sacred number, it is not used to construct any Caractor Document number sets as an individual number.

Considering that each number must include the number 19, and also following these rules, the sacred number sets for all the years are as follows (some have more than one possibility).

39	$19 + 20$ or $19 + 13 + 7$
41	$19 + 5 + 10 + 7$
42	$19 + 13 + 10$
49	$19 + 20 + 10$ or $19 + 30$
51	$19 + 10 + 9 + 13$ or $19 + 19 + 13$
52	$19 + 20 + 13$
59	$19 + 30 + 10$
71	$19 + 30 + 10 + 5 + 7$
72	$19 + 30 + 13 + 10$
79	$19 + 30 + 13 + 10 + 7$

It is noteworthy that in all of the number sequences, the number of death, 9, cannot be accommodated with the exception of 51, in which case, if one allows a double 19 (which might be considered more sacred), then it need not be used. Thus exclusion of the number 9 seems to be a feature of the years listed.

The next question that arises is whether these years are exclusive, meaning, whether the years that are omitted cannot be constructed following this set of rules and utilizing 19. Of the omitted numbers, the numbers 40, 43, 44, 45, 48, 50, 53, 55, 57, 58, 60, 63, 65, 68, 70, 73, 74, 75, and 78 cannot be constructed in this system. However, some of the omitted numbers can be constructed, including 46, 47, 54, 56, 61, 62, 64, 66, 67, 69, 76, and 77. This is an indication that there may be another numeric characteristic necessary to the sequence that is being applied to feature the particular sequence of 4th Nephi numbers.

In 2009 Brant Gardner noted this sequence and also noted the threefold repetition of a seven-year gap of time in this sequence:

Nevertheless, what is interesting isn't the empty information but the empty years. Mormon has marked empty years before, but never so many in sequence. What is most fascinating is that these sets of empty years repeat the very same numerical sequence of noninformation.

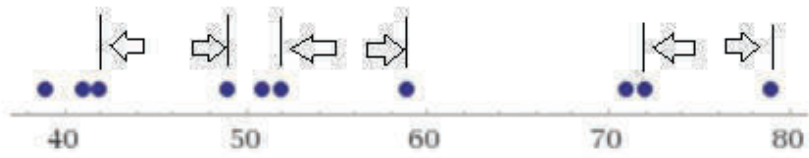
This repeating pattern occurs three times in 4 Nephi and never anywhere else in the Book of Mormon. The triple repetition confirms that it is not random and not associated with Mormon's source text. Mormon is telling us something. Actually, he is telling us nothing. Intentionally and markedly. I hypothesize that he names years for which there are no events to signal that these empty years are placeholders in a pattern. He has moved from "real time" into "symbolic time," or from history into story. The repetition of seven-year gaps (42–49, 52–59, 72–79) suggests that he is deliberately using the spacing symbolically, likely to mark a "week of years."

While Gardner was onto something, the underlying reformed Egyptian whose symbolic meaning didn't make it through the translation is significantly more than nothing. Calendar intervals that form a highly patterned sequence are found in the Maya Dresden Codex, so the inclusion of calendar year count intervals by Mormon is consistent with Mesoamerican practice (Bricker and Aveni 2014). The Maya had a preoccupation with intervals in calendrical notation. The manner in which Maya daykeepers of the Maya codices sequenced the intervals followed well-defined patterns. This involved the need to arrive at lucky days (often by calculation) and to avoid unlucky days. In the Maya realm of timekeeping, the duration between ritual events mattered as much as the actual time of an event (Aveni 2011, 187, 190).

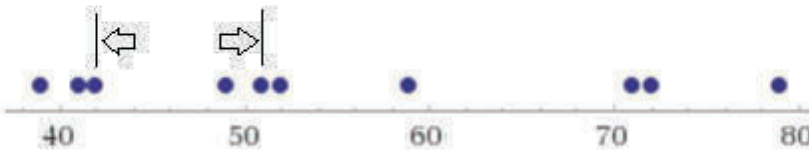
The Maya preoccupation with intervals in calendrical notation incorporates the notion that the beginning of a cycle is as important as the end, with these points in time precisely noted and connected. Within the Maya sequences are also found intervallic mirror sequences. It is wondered whether the events determined the intervals in the Maya almanacs or whether the intervals fixed the events. The Maya interval sequences were likely designed to arrive at or avoid a particular date (Aveni 2011, 210–11).

Gardner's observation of the seven-year interval as a "week of years" is not exactly correct; it is actually an interval of the sacred number 7. In fact, more than the number 7 interval is found—all of the sacred numbers less than 40 (with the exception of 5, which does not occur alone) are found as point or gap intervals in the sequence (gap intervals being defined as the interval between the sequential year numbers):

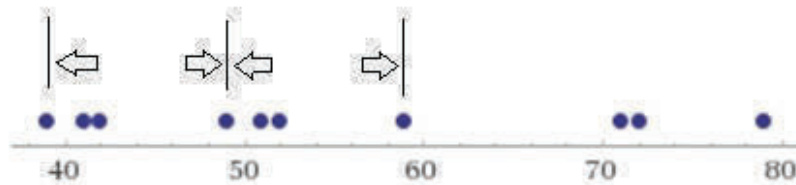
Intervals of 7



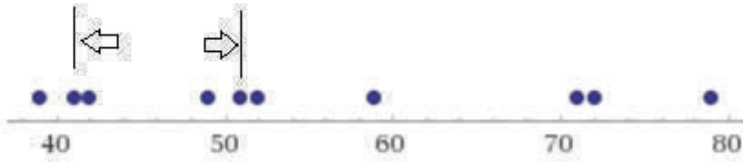
Interval of 9



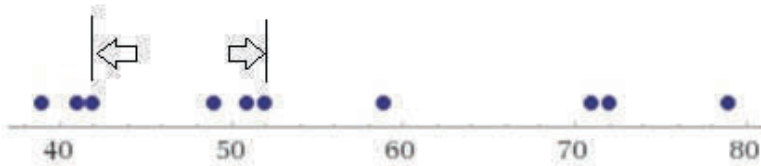
First Intervals of 10



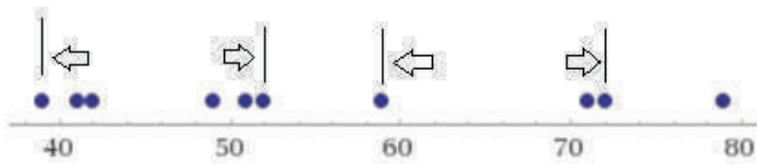
Second Interval of 10



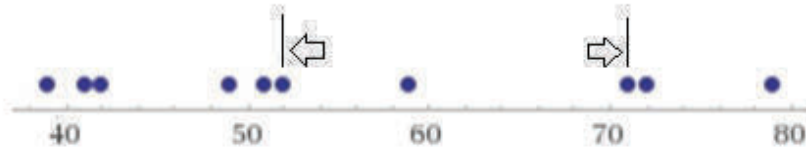
Third Interval of 10



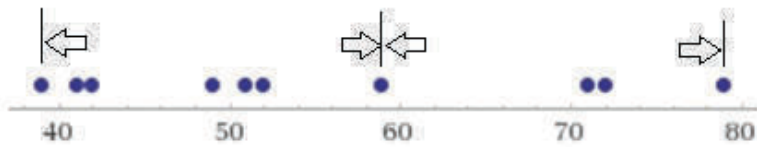
Intervals of 13



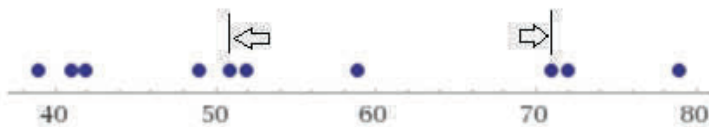
Interval of 19



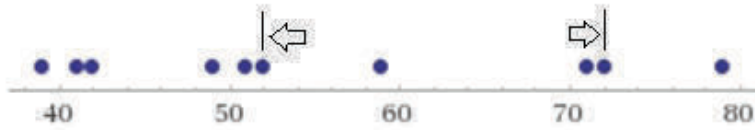
First Intervals of 20



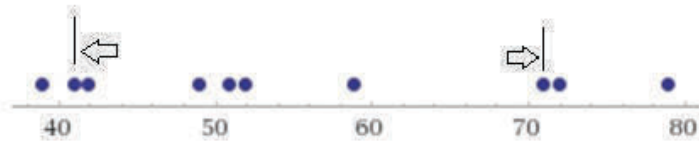
Second Interval of 20



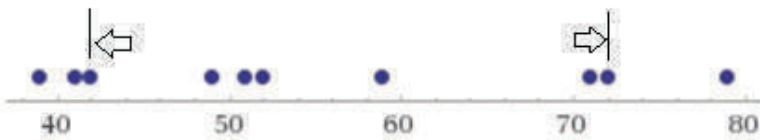
Third Interval of 20



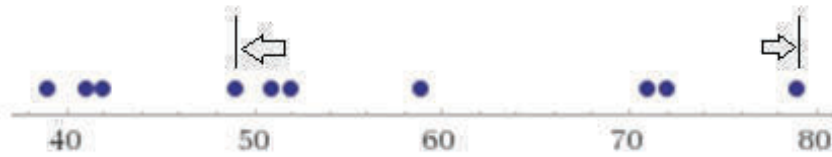
First Interval of 30



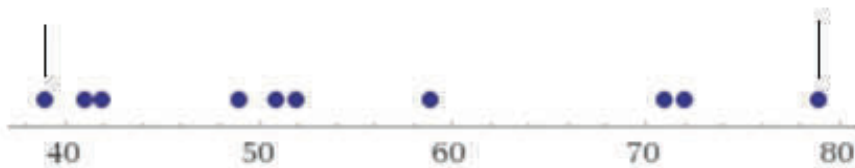
Second Interval of 30



Third Interval of 30



Interval of 40



With this graphical representation of the intervals present in the first portion of 4th Nephi, all of the intervals in 4th Nephi are all evaluated (non-graphically).

Gap intervals and year analysis of 4th Nephi

The year gap intervals for all the years identified in 4th Nephi after Christ's ascension at the end of the thirty-fourth year are shown in table 1.

Table 3

<u>Year</u>	<u>Gap Interval</u>
35	1
36	1
37	1
38	1
39	1
41	2

42	1
49	7
51	2
52	1
59	7
71	12
72	1
79	7
100	21
110	10
194	84
200	6
201	1
210	9
231	21
244	13
250	6
260	10
300	40
305	5
320	15

The following sacred numbers are observed individually in the sequence: 7, 7, 7, 10, 9, 13, 10, and 5.

The following individual numbers in the sequence can be formed additively from the sacred numbers:

$$5 + 7 = 12$$

$$7 + 7 + 7 = 21$$

$$7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 = 84$$

$$7 + 7 + 7 = 21$$

$$10 + 10 + 10 + 10 = 40$$

$$5 + 5 + 5 = 15 \text{ or } 5 + 10 = 15$$

Looking at just the gap intervals in light of the sacred numbers, the additive sequences present in order of occurrence (some of which were noted in the previous section) are as follows:

$$1 + 1 + 1 + 1 + 1 = 5$$

$$1 + 1 + 1 + 1 + 1 + 2 = 7$$

$$1 + 1 + 1 + 1 + 2 + 1 = 7$$

$$1 + 1 + 1 + 2 = 5$$

$$1 + 1 + 1 + 2 + 1 + 7 = 13$$

$$1 + 1 + 2 + 1 = 5$$

$$1 + 2 + 1 + 7 + 2 = 13$$

$$2 + 1 + 7 = 10$$

$$2 + 1 + 7 + 2 + 1 = 13$$

$$2 + 1 + 7 + 2 + 1 + 7 = 20$$

$$2 + 1 + 7 + 2 + 1 + 7 + 12 + 1 + 7 = 40$$

$$1 + 7 + 2 = 10$$

$$1 + 7 + 2 + 1 + 7 + 12 = 30$$

$$7 + 2 = 9$$

$$7 + 2 + 1 = 10$$

$$7 + 2 + 1 + 7 + 12 + 1 = 30$$

$$2 + 1 + 7 = 10$$

$$2 + 1 + 7 + 12 + 1 + 7 = 30$$

$$1 + 7 + 12 = 20$$

$$7 + 12 = 19$$

$$7 + 12 + 1 = 20$$

$$12 + 1 = 13$$

$$12 + 1 + 7 = 20$$

$$9 + 21 = 30$$

$$6 + 1 = 7$$

$$1 + 9 = 10$$

$$13 + 6 = 19$$

$$5 + 15 = 20$$

Thus every gap interval in 4th Nephi is either a sacred number, a number that is additively formed from sacred numbers, or is part of an additive sequence to form a sacred number. Other additional additive sequences can also form sums of sacred numbers. In addition, repeating patterns or mirror patterns exist or can be additively formed within the sequence:

2, 1, 7 and 2, 1, 7

21, 10, $90(84 + 6)$, $10(9 + 1)$, 21

$21(1 + 7 + 12 + 1)$, 7, 21

It is also useful to see if there are any correlations between the number of sequential years when compared to the gaps. For 4th Nephi the consecutive year sequences versus the gaps is as follows:

<u>Sequences</u>	<u>Gaps</u>
5	
	2
2	
	7
2	
	7
1	
	12
2	
	7
1	
	21
1	
	10
1	
	84
1	
	6
2	
	9
1	
	21
1	
	13
1	

6

1

10

1

40

1

5

1

15

Multiple-year sequencing in 4th Nephi results in extensive sequencing and gap additive combinations relate to the sacred numbers:

$$5 + 2 = 7$$

$$5 + 2 + 2 = 9$$

$$5 + 2 + 2 + 7 + 2 + 7 + 1 + 12 + 2 = 40$$

$$2 + 2 + 7 + 2 = 13$$

$$2 + 2 + 7 + 2 + 7 = 20$$

$$2 + 7 = 9$$

$$2 + 7 + 2 + 7 + 1 = 19$$

$$2 + 7 + 2 + 7 + 1 + 12 = 30$$

$$2 + 7 + 2 + 7 + 1 + 12 + 2 + 7 + 1 = 40$$

$$7 + 2 = 9$$

$$2 + 7 = 9$$

$$2 + 7 + 1 = 10$$

$$7 + 1 + 12 = 20$$

$$7 + 1 + 12 + 2 + 7 + 1 = 30$$

$$1 + 12 = 13$$

$$2 + 7 = 9$$

$$2 + 7 + 1 = 10$$

$$7 + 1 + 21 + 1 = 30$$

$$7 + 1 + 21 + 1 + 10 = 40$$

$$1 + 6 = 7$$

363	1
364	1
366	2
367	1
379	12
380	1
384	4
400	16
420	20

The following sacred numbers are observed individually in the sequence: 10 and 20.

The following individual numbers in the sequence can be formed additively from the sacred numbers:

$$5 + 5 + 5 = 15 \text{ or } 5 + 10 = 15$$

$$7 + 7 = 14$$

$$7 + 5 = 12$$

$$9 + 7 = 16$$

Looking at just the gap intervals in light of the sacred numbers, the additive sequences present in order of occurrence:

$$5 + 15 + 6 + 1 + 3 = 30$$

$$15 + 6 + 1 + 3 + 14 + 1 = 40$$

$$6 + 1 = 7$$

$$6 + 1 + 3 = 10$$

$$6 + 1 + 3 + 14 + 1 + 1 + 3 + 1 = 30$$

$$6 + 1 + 3 + 14 + 1 + 1 + 3 + 1 + 10 = 40$$

$$1 + 3 + 14 + 1 = 19$$

$$1 + 3 + 14 + 1 + 1 = 20$$

$$1 + 3 + 14 + 1 + 1 + 3 + 1 + 10 + 1 + 1 + 1 + 1 + 2 = 40$$

$$3 + 14 + 1 + 1 = 19$$

$$3 + 14 + 1 + 1 + 3 + 1 + 10 + 1 + 1 + 1 + 1 + 2 + 1 = 40$$

$$14 + 1 + 1 + 3 = 19$$

$$14 + 1 + 1 + 3 + 1 = 20$$

$$14 + 1 + 1 + 3 + 1 + 10 = 30$$

$$1 + 1 + 3 = 5$$

$$1 + 1 + 3 + 1 + 10 + 1 + 1 + 1 = 19$$

$$1 + 1 + 3 + 1 + 10 + 1 + 1 + 1 + 1 = 20$$

$$1 + 1 + 3 + 1 + 10 + 1 + 1 + 1 + 1 + 2 + 1 + 12 + 1 + 4 = 40$$

$$1 + 3 + 1 = 5$$

$$1 + 3 + 1 + 10 + 1 + 1 + 1 + 1 = 19$$

$$3 + 1 + 10 + 1 + 1 + 1 + 1 + 2 = 20$$

$$1 + 10 + 1 + 1 = 13$$

$$1 + 10 + 1 + 1 + 1 + 1 + 2 + 1 + 12 = 30$$

$$10 + 1 + 1 + 1 = 13$$

$$1 + 1 + 1 + 1 + 2 + 1 = 7$$

$$1 + 1 + 1 + 1 + 2 + 1 + 12 = 19$$

$$1 + 1 + 1 + 1 + 2 + 1 + 12 + 1 = 20$$

$$1 + 1 + 1 + 1 + 2 + 1 + 12 + 1 + 4 + 16 = 40$$

$$1 + 1 + 1 + 2 = 5$$

$$1 + 1 + 1 + 2 + 1 + 12 + 1 = 19$$

$$1 + 1 + 2 + 1 = 5$$

$$2 + 1 + 12 + 1 + 4 = 20$$

$$1 + 12 = 13$$

$$12 + 1 = 13$$

$$1 + 4 = 5$$

$$4 + 16 = 20$$

$$4 + 16 + 20 = 40$$

Just like in 4th Nephi, the evaluation of multiple year sequencing in Mormon's book results in extensive sequencing and gap additive combinations related to the sacred numbers. The sequencing and correlating gaps for Mormon's book and Moroni as well are:

Sequences

Gaps

5 (overlap in 4th Nephi)

1 (overlap in 4th Nephi)

15 (overlap in 4th Nephi)

1

	6
2	
	3
1	
	14
3	
	3
2	
	10
5	
	2
1	
	12
2	
	14
1	
	16
1	
	20
1	

Multiple-year sequencing in Mormon's book results in extensive sequencing and gap additive combinations related to the sacred numbers:

$$5 + 1 + 15 + 1 + 6 + 2 = 30$$

$$1 + 6 = 7$$

$$1 + 6 + 2 = 9$$

$$1 + 6 + 2 + 3 + 1 = 13$$

$$1 + 6 + 2 + 3 + 1 + 14 + 3 = 30$$

$$2 + 3 = 5$$

$$2 + 3 + 1 + 14 = 20$$

$$1 + 14 + 3 + 3 + 2 + 10 + 5 + 2 = 40$$

$$14 + 3 + 3 = 20$$

$$3 + 3 + 2 + 10 + 5 + 2 + 10 + 5 = 40$$

$$3 + 2 = 5$$

$$3 + 2 + 10 + 5 = 20$$

$$2 + 10 + 5 + 2 = 19$$

$$2 + 10 + 5 + 2 + 1 = 20$$

$$10 + 5 + 2 + 1 + 12 + 2 = 30$$

$$5 + 2 = 7$$

$$5 + 2 + 1 + 12 = 20$$

$$1 + 12 = 13$$

$$1 + 12 + 2 + 14 + 1 = 30$$

In summary, it is very clear that the year sequences in 4th Nephi, Mormon's book, and Moroni were constructed based on the presence of sacred numbers as gaps, additive gaps that arrive at sacred numbers, and additive sequences and gaps that also arrive at sacred numbers. These are all part of the Coming of Christ Calendar, after Christ appeared to the Nephites. To complete the look of this calendar, it is necessary to look at the year sequences and gaps in the beginning of this calendar as found in 3rd Nephi.

3rd Nephi calendar sequences and intervals in Coming of Christ Calendar prior to Christ's Ascension

The Coming of Christ Calendar only has year counts from year 9 on, since up to that point in the Book of Mormon, the count was still following the Reign of the Judges Calendar (3 Nephi 2:8). There are only two gaps of three years each, so nearly all of the 3rd Nephi gap series consists of 1s, which doesn't differentiate the use of sacred numbers much since any number can be generated from a long series of 1s. However the analysis of the additive sequences and gaps is indicative of the use of sacred numbers:

<u>Sequences</u>	<u>Gaps</u>
2	
	3
6	
	3
26	(includes the sequence of 21 that extends 5 more years into 4 th Nephi)
	2 (in 4 th Nephi)
2	(in 4 th Nephi)
	7 (in 4 th Nephi)
1	(in 4 th Nephi)
	2 (in 4 th Nephi)
2	(in 4 th Nephi)

Multiple-year sequencing in 3rd Nephi results in sequencing and gap additive combinations related to sacred numbers:

$$3 + 2 = 5$$

$$2 + 26 + 2 = 30$$

$$2 + 26 + 2 + 7 + 1 + 2 = 40$$

$$26 + 2 + 2 = 30$$

$$26 + 2 + 7 + 1 + 2 + 2 = 40$$

So it is very clear that year counts in the entire Coming of Christ Calendar are premised on Mesoamerican style interval and gap arithmetic designed around the Nephite sacred number system. The other year counts in the other calendars will now be looked at.

Reign of the Judges Calendar sequences and intervals

The unique feature that anyone would notice reading the books of Alma and Helaman, and the first portion of 3rd Nephi is that virtually all of the sequential years running from 1 to 100 are named. In the case of this calendar, the sacred number representations come from a combination of the sequences and the few gap intervals. The years in sequence versus the gaps is as follows:

<u>Sequences</u>	<u>Gaps</u>
------------------	-------------

17	
----	--

	3
--	---

19	
----	--

	2
--	---

13	
----	--

	3
--	---

19 (to Christ's birth)

9 (from Christ's birth to the change of the calendar)

This calendar sequence contains the sacred numbers 19, 13, 19, and 9. Also, the number 17 is the sum of 10 and 7. By adding each sequence to the subsequent gap, one arrives at the addition following sacred number sums:

$$2 + 3 = 5$$

$$6 + 3 = 9$$

$$17 + 3 = 20$$

$$19 + 2 = 21 \text{ (which can consist of } 7 + 7 + 7)$$

$$13 + 3 = 16 \text{ (which can consist of } 9 + 7)$$

The total run of years up until Christ was born was 91 years, and until the calendar is replaced by the Coming of Christ Calendar (to be discussed later), the run of years is 100.

The total year run of 100 is the sum of $10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10$ and could also consist of $5 + 5$. The total year run up to Christ's birth is 91 years, being the sum of $13 + 13 + 13 + 13 + 13 + 13 + 13$ or $7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7 + 7$. The sequence of 19 just prior to the birth of Christ is no coincidence, since this number, as previously mentioned, also relates directly to Christ.

The Lehi Departure Calendar in the small plates

One would not expect to find the Mesoamerican practice of intervals relating to divination much in the small plates, since they were authored early in the history of the Nephites. There are only a few references to the year counts under this calendar. The years identified and the associated gaps are as follows:

<u>Years</u>	<u>Gaps</u>
30	(30)
40	10
55	15
200	145
276	76
282	6
320	8

As expected, there is no evidence of any Mesoamerican sacred numbers until late in the small plates. There does seem to be some representation of the Hebrew sacred numbers of 5 and 10 and possibly the Sumerian number 30. The number 10 is present as a gap. The other sacred numbers are only indicated by additive method to reach the gap number.

$10 + 10 + 10 = 30$ (other possibilities involve the use of 5 and/or 10)

$5 + 5 + 5 = 15$ or $10 + 5 + 15$

$10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 14 + 5 = 145$ (other possibilities involve the use of 5 and/or 10)

The addition of sequential gap numbers does indicate the presence of some sacred number constructs.

$30 + 10 = 40$, which is divisible by the sacred numbers 10, 5, or 20

$30 + 10 + 15 = 55$, which is divisible by the sacred number 5

$30 + 10 + 15 + 145 = 200$, which is divisible by the sacred numbers 10, 5, 20, or 40

$10 + 15 = 25$, which is divisible by the sacred number 5

$10 + 15 + 145 = 170$, which is divisible by the sacred numbers 10 and 5

$10 + 15 + 145 + 76 + 6 = 252$, which is divisible by the sacred number 9

$10 + 15 + 145 + 76 + 6 + 8 = 260$, which is divisible by the sacred numbers 5, 10, 13, and 20

$15 + 145 = 160$, which is divisible by the sacred numbers 5, 10, 20, and 40

Lengths of time in the Book of Ether

There was no year count calendar in the Book of Ether, likely because the original Jaredite record had none. However, in the Book of Ether, Moroni identifies throughout the book a few lengths of reigns and ages of individuals. There is no apparent textual reason for why this only occurs with a few individuals, which may indicate that something about the reign and age numbers themselves are significant. These numbers are evaluated using the sacred number numeric system, with the rules that (1) the number 5 cannot stand alone, and (2) no number repeats itself, except in the case of 19 on special occasion:

Hearthom Ether 10:30	24 years of reign	$5 + 10 + 9$
Corihor Ether 7:4	32 years of age at rebellion	$10 + 13 + 9$ or $13 + 19 = 32$
Riplakish Ether 10:8	42 years of reign	$5 + 10 + 20 + 7$ or $10 + 20 + 13 + 9$
Levi Ether 10:15	42 years of reign	$5 + 10 + 20 + 7$ or $10 + 20 + 13 + 9$
Com ₂ Ether 10:32	42 years of reign	$5 + 10 + 20 + 7$ or $10 + 20 + 13 + 9$
Com ₁ Ether 9:25	49 years of reign	$10 + 20 + 19$ or $10 + 19 + 13 + 7$ or $40 + 9$ or $30 + 19$
Emer Ether 9:16	62 years of reign	$5 + 10 + 40 + 7$ or $10 + 20 + 19 + 13$ or $10 + 5 + 19 + 19 + 9$ or $10 + 30 + 13 + 9$ or $30 + 13 + 19$
Coriantum's wife Ether 9:24	102 years old at death	$5 + 10 + 80 + 7$ or $13 + 80 + 9$ or $10 + 30 + 40 + 13 + 9$ or $30 + 40 + 13 + 19$ or $5 + 10 + 20 + 60 + 7$ or $10 + 20 + 60 + 13 + 9$
Coriantum Ether 9:25	142 years old at death	$5 + 10 + 80 + 40 + 7$ or $10 + 80 + 20 + 13 + 19$ or $80 + 30 + 13 + 19$ or $10 + 80 + 30 + 13 + 9$ or $5 + 10 + 20 + 40 + 60 + 7$ or $20 + 40 + 60 + 13 + 9$ or $5 + 10 + 20 + 100 + 7$ or $20 + 100 + 13 + 9$

The numbered years identified in Ether do verify the use of the Nephite sacred number system within the Book of Mormon. All of these year numbers can be created by using exclusively the sacred numbers without residuals. Also of interest, all those whose death is related to the years listed (Riplakish, Com₁, Emer, Coriantum's wife, and Coriantum) have a numeric sequence that can include the number 9, considered the number of death. In the case of Hearthom, his date must necessarily include the number 9. His date did not include his death but rather the number of years he reigned before having the kingdom taken from him and being forced to serve in captivity, so perhaps the number 9 may also be used to refer to the death of a king's reign as opposed to his actual death.

The number 19 is also of interest. In the case of Corihor, his date involves his age at the time he rebelled, so one would not expect a sequence utilizing the number 9 to be used since it did not involve his death or the end of his reign. The only other numeric sequence involves the use of the number 19, which is reserved for indicating righteousness. Corihor is noteworthy because he was one of the only Jaredite kings who is noted to have repented (Ether 7:13).

In the case of Emer, there is a number sequence that contains a double 19 and the number 9, satisfying the description of his great righteousness and his death. Knowing that the Caractors Document glyph for 19 also means “the sun” or “the god of the sun” in Egyptian, the verse Ether 9:22 becomes quite interesting. In the current version of the Book of Mormon, this verse indicates that Emer “even saw the Son of Righteousness.” Skousen (2014, 3801) indicates that the original text likely read “the Sun of Righteousness,” matching Skousen’s version of the original text in 2 Nephi 26:9 and 3 Nephi 25:2. The Sun of Righteousness is an alternate name for the Savior, quoting Malachi 3–4. Thus the inclusion of the double 19 in the Emer date also satisfies the scriptural reference in Ether to both the Savior and the Sun of Righteousness.

Numeric System Modifications

The system that existed initially is assumed to be an Egyptian system adapted somewhat to Hebrew, referred to here as Palestinian hieratic. Numeric notation systems, like scripts, regularly transform as a result of social and paleographic pressures (Chrisomalis 2012, 230). There is no ideal numerical notation system; rather, each system is shaped by a set of goals that its users and inventors seek to attain and that they can achieve only by compromising other factors (Chrisomalis 2010, 19). The Nephite system is no different in this regard; the standardization of numbers and notation is compromised in favor of religious significance and the creation of other non-numeric meanings in the numeral glyphs. The incorporation of some of the numerals from Jaredite and other Mesoamerican systems is actually to be expected, since when a numerical notation system diffuses into a region, the incorporation of indigenous numeral signs is common (Chrisomalis 2010, 408).

From a glyphic standpoint, most of the Egyptian hieratic numerals are still close to the same form. Egyptian hieratic as written on papyri is a cursive type script, but the nature of the media upon which a script is written and the writing instruments used (in this case metal plates) typically modifies the form of the numerals (Chrisomalis 2010, 412–13). There has been what I would characterize as a standardization of numerals by utilizing dots for the numbers 40 and 80 from the original hieratic. The number 40 features four tally marks of 10, indicating 40. The number 80 is nearly the same as the number 40, but with the addition of four dots, each having a value of 10,

adding an additional 40, for a total of 80. The numeral 20 follows the standard of a dot having a value of 10, with 2 dots within the glyph shell indicating 20. For numbers in the teens (with the exception of 11), where a dot is featured, it has a value of 10. For the number 60, the dot indicates a multiplication with 10. For the number 300, the dot below also indicates a multiplication with 10. For the number 400, the dot occurring directly above indicates a multiplication with 100. As previously discussed, this incorporation of dots within a numeral is likely an import or modification stimulated by the Sumerian proto-cuneiform.

It is not unusual for numerals to change over time. Numeral signs are graphemes that undergo paleographic change over time, just as phonographic signs do (Chrisomalis 2010, 19). The current Western numerals have a history of evolution from the Brahmin numerals of 300 BC (see figure 41).

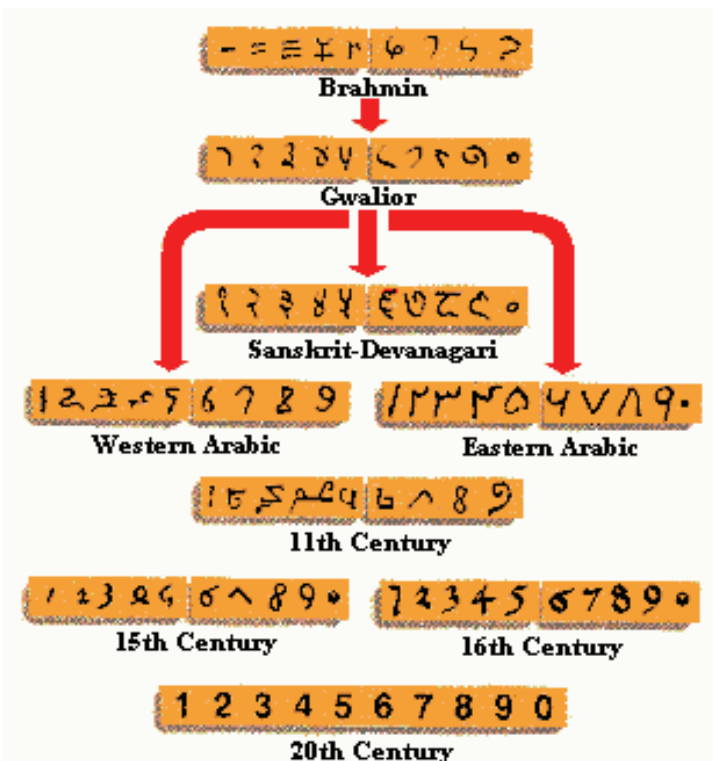


Figure 41. Evolution of western numerals (www.geocities.ws 2018)

In addition to modification of the standardization of numerals, there are a few differences between the actual numeric system and the original hieratic. As previously discussed, the leading 10 and 15 are modifications to the Egyptian hieratic. While multiplication was known in Egyptian hieratic, its application within numerals and the use of a dot in the leading 15 to signify multiplication and the number 50 are additions.

Another modification is that the numeric system is also incorporated to some extent into the broader language, as some numerals also double as words with completely separate non-numeric meanings. As previously discussed, the preferential utilization of the sacred numbers is a significant modification to the original hieratic system.

When evaluating connections between neighboring or ancestral systems, Stephen Christomalis (2010) proposed the following criteria for borrowing to differentiate those that may have been independently invented versus those that have borrowed or significantly utilized other systems:

1. Use of the two systems at the same point in time
2. Similarity in structural features
3. Similarity of forms and values of numeral signs
4. Known cultural contact between the regions where the two systems are used
5. Use of ancestor and descendant systems in similar contexts
6. Geographic proximity of the regions where two systems were used

In evaluating whether the translation of numeric and calendrical sequences in the Caractors Document is accurate, it is useful to apply these criteria. As discussed above, the geographic proximity and cultural contact are present for the Nephite system. Since it is not certain exactly how the Nephite system may have continued in some descendant fashion, each of these criteria is best evaluated through the evidence of numeric residuals in known descendant systems.

Numerical notation in relation to expected related systems

As described above, the numeric system and notation is a blend of Hebrew, Egyptian, and Mesoamerican number systems, occasionally utilizing proto-cuneiform Sumerian/Elamite, which is what would be expected given the Book of Mormon setting. Numeric notation is not the numbers themselves but the positions and method of how the number system is put together.

Numeric notation shown in the Caractors Document principally follows Egyptian and Hebrew notation in that all individual numbers are additive or rarely multiplicative if so identified. Hebrew notation was additive, with numbers to be multiplied when preceding other numbers. Hebrew has larger numbers to the right, smaller numbers to the left. From a strict numeric system classification standpoint, the system is principally cipher additive, meaning that one glyph is used for a particular number; however, there are exceptions (the dots in the bar-dot number for example).

Notation reflects some Egyptian notation in that earlier Egyptian used multipliers of 10 and 100, depending on their placement around the number. The numerals themselves are primarily Egyptian hieratic or derivatives thereof. Many of the Egyptian numerals are related specifically to the Palestinian hieratic, and of those, sometimes to numbers involving volumetric measurement, which would also indicate a Mesoamerican bias since volumetric measurement was the only known system of commerce in Mesoamerica.

Maya notation is significantly reflected in the unique ellipse of a preceding number 10 or 15 and also in the concept that a centered superscript vertical dot position reflects a higher level of power. The yet to be discussed adjacent numerically related calendrical glyphs (ISIG, DNIG, ADI, PDI, and PE) are found in the Caractors Document, and similar Caractors glyphs are incorporated into all Maya glyphs of this type. Like Mesoamerican number systems, the Caractors system has incorporated some elements of the vigesimal system in the form of sacred Mesoamerican

numbers. The Maya system had various symbols and variants for the same number; the Caractors system has multiple forms of the same number (i.e., the number 9).

Some borrowed glyphs from Sumerian/Elamite occur in the forms of the numbers 20, 30, and 300. Mesoamerican influence is clear in the formation Caractors for the number 20, which appear to have occurred with the Epi-Olmec script based on form and increased glyph complexity. However, at this stage, there does not appear to be an obvious Sumerian/Elamite numeric notation in the system.

Notation is reflected in traces with Aztec in that, like Hebrew, it is a combination of additive and multiplicative, with smaller numbers to the left and larger numbers to the right. However, the Aztec system also often does not always follow the sequencing from larger to smaller. Like the Maya, the Aztec system had various symbols and variants for numbers; the Caractors system has the same for the numbers above 20.

Notation is reflected in the number 9 plate rebus in the Texcocan line-and-dot system in that the number 5 has a similar comb-like form. The Texcocan system also used dots as multipliers based on position, with similarities to the Caractors system.

The transformation of the dots and multiplicative forms is an expected historical transformation of a numerical system, where multiplier signs (such as the dot) are introduced (Chrisomalis 2012, 242–43).

The Nephite number system in the script is complex because it has been blended and substituted in some instances with other language elements, such as calendar indicators and formal names, and in at least one instance, a number glyph in a numeric sequence also has a double meaning with a non-numeric word.

Comparison of the Nephite system with synchronic regularities of historic systems

Chrisomalis (2010, 362) has established a list of features and structures common to all historical number systems that have few if any exceptions, which he calls “synchronistic regularities.” A comparison of these features with the Nephite system is found in table 4.

Table 4

Features	Nephite System
Axiom 1—All numerical notation systems can represent natural numbers.	Yes
Axiom 2—All numerical notation systems have a base.	Yes
Axiom 3—All numerical notation systems are visual and primarily nonphonetic representation.	Yes
Axiom 4—All numerical notation systems are structured both intraexponentially and interexponentially.	Yes
General Regularity 1—Any system that can represent $N+1$ can also represent N , where N is a natural number.	Yes
General Regularity 2—All systems use a base of 10 or a multiple of 10 for representing natural numbers.	Yes
General Regularity 3—All systems form numeral phrases through addition.	Yes
General Regularity 4—No system forms numeral phrases through division.	Yes

General Regularity 5—All numerical notation systems are ordered and read from the highest to the lowest power of the base.	Yes, with the exception where dictated by use of sacred numbers or lexical meaning. Greek, Glagolitic, and Cyrillic also have exceptions to this principle.
General Regularity 6—No system uses signs for the arithmetical operations used to derive the value of a numeral phrase.	Yes
General Regularity 7—The only visual features used to determine the numerical value of figures in numerical notation systems are shape, quantity, and position.	Yes
General Regularity 8—There is never complete correspondence between the numeral signs of a system and the lexical numerals of the language of the society where the system was invented.	Likely, but unknown as the Nephite language is not known
General Regularity 9—There is always some correspondence between the numeral signs of a system and the lexical numerals of the language of the society where the system was invented.	Likely, but unknown as the Nephite language is not known
General Regularity 10—No system uses an identical representation for two different numbers.	Yes
Implication Regularity 1—If a system has a sub-base, the sub-base will be a divisor of the primary base.	Yes (no sub-base)
Implication Regularity 2—No ciphered system has a sub-base.	Yes
Implication Regularity 3—If a system is cumulative, it will group intraexponential signs in groups of between three to five signs.	Yes
Implication Regularity 4— <i>Not included, applicable only to multiplicative-additive systems for power of its base</i>	
Implication Regularity 5—Whenever the multiplicative principle is used in a system, the unit sign or signs (multiplier) will precede the power sign (multiplicand).	The multiplicative principle is only found in one occurrence between the leading 5 and the 10. In this occurrence, a diacritic mark (dot) is used, similar to Greek, Coptic, and Cyrillic systems, which are also an exception to this regularity.
Implication Regularity 6—No multiplicative system uses 1 as a power sign.	Yes
Implication Regularity 7—All multiplicative expressions involve only bases or their powers as multiplicands.	The multiplicative principle is only found in one occurrence between the

leading 5 and the 10. This exception to the rule is based on the sacred number preference found in the Nephite system.

Implication Regularity 8—All composite multiplicands are strictly multiplicative.

No composite multiplicands

Replacement of Systems 1—*Not included, applicable only to positional systems*

Replacement of Systems 2—Noncumulative systems are not replaced by cumulative systems.

Yes

Thus, the Nephite system as found in the Caractors Document is a true historical system and complies with standards found in those systems.

Practice and utilization of the Nephite number system

After looking at the reformed Egyptian number system, a valid question arises—namely, could this number system be practically used in day-to-day Nephite economic practices. The answer is likely not, since it is clearly a number system that is significantly constructed and dependent on religion and religious symbolism and meaning (which should not be a surprise to anyone given its Hebrew and Mesoamerican genesis). The number sequences, similar to some Mesoamerican systems, are positioned based on “glyphnastics” such as mirroring and parallelism, which positioning likely also has some underlying meaning. This is why Mormon had difficulty in “placing” his words—they were very positional specific. Specific number sequences appear to have as a primary rule to display and describe elements of the underlying event while still maintaining the general numerical notation rules (a cipher additive, with numbers going from larger to smaller).

The system is steeped in religion and was likely a system that was utilized among the religious priest class. This type of specialized script is not without precedent, since this occurred with Babylonian and Assyrian divination texts (Veldhuis 2012, 7). Given the unlikelihood that the Nephites erected monumental kingly stelae and temples glorifying them, archaeological examples of the script would be expected to be rare if existent at all. Many societies retain older systems for limited purposes (Chrisomalis 2010, 407, 410), which can include prestige or literary purposes. For example, the Roman numeral system is currently retained for use in the front matter of books, volume numbers, etc. In addition, numeric systems are known to have systemic transformation from factors relating to the symbolic, religious, or metaphysical conventions of the society in which it is used (Chrisomalis 2010, 414).

Menninger (1969, 86) perhaps said it best:

A people’s number sequence is not a system created fresh out of the pure workings of the mind; it is rooted in the same soil as the people. Like culture itself, it grows up slowly over the millennia, and even in its mature form it reveals the history of its people through the successive deposits of the passing years.

The fact that the Nephite system has yet to be found in Mesoamerica should be no surprise since the culture was effectively wiped out by AD 400. The outright replacement of numerical notation systems worldwide has been relatively common. Currently, with over one hundred historical numerical notation systems previously used, only a few are used frequently today.

As part of a front piece of a Mesoamerican codex, the Caractors Document is definitely an interesting mix of culture, since it combines divinatory elements (sacred Mesoamerican numbers based on lunar periods, a prophetic calendar, reference to other sacred records, and a recitation of the king/priest lineage) with Hebrew/Egyptian scripts and meanings. Just as the Dresden Codex eclipse tables would not be expected to be comprehensible except by the ultra-elite Maya class, it is consistent, based on the complexity of the reformed Egyptian script, that the script was likely only understood by a limited elite class and only able to be crafted and written by an even more limited group.

The nature of a script that involves overlapping glyphs, combination glyphs, dual meanings of script and phonetic words, mirroring of glyphs, and changes in numbers based on the positional placement of the glyph I consider absolutely amazing. It is ironic that Moroni wrote (including Mormon), “when we write we behold our weakness, and stumble because of the placing of our words; and I fear lest the Gentiles shall mock at our words.” Ironically, what to him appears to be stumbling, to me appears to be absolute linguistic and numeric genius.

Chapter 5

Calendrical Series Related Glyphs

As I deciphered the Nephite numbers and numerical system, I did notice at least one pair of characters that had similarities to the Maya and Epi-Olmec calendar or time-measuring glyphs. As a result, it seemed like a good starting place to decipher any calendar signs that might be present. After translating and analyzing the glyphs, I determined that the Caractors glyphs serve almost exactly the same function as the corresponding glyphs in the Mayan language. Importantly, the Caractors glyphs are clearly found either embedded in the corresponding Maya calendar glyphs or are basically identical to the Maya calendar glyphs.

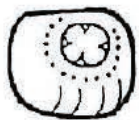
Specifically, some Maya glyphs are formed by the combination of two existing signs. These are called combined glyphs. For example the glyph *kin* has been placed inside of the glyph *imix* to form a combined glyph (meaning currently unknown):



kin



imix



Place-name glyph from Brussels Panel from the Usumacinta area after drawing by A. Safronov (Lacadena 2005, 32)

Thus the borrowing and incorporation of a reformed Egyptian glyph is not outside the norm for the formation of Maya glyphs.

Caveat Emptor

What is being contemplated here in relation to Maya is borrowing, not linguistic origination. The borrowing could have been from the Reformed Egyptian to the Maya, or from the Maya to the Reformed Egyptian. What that means is that there may be no complex association of meaning or phonetics between the Caractors Document calendar glyphs and the Maya calendar glyphs.

No matter what the links between the languages are, I would strongly assert the following:

1. Whatever the links may or may not be linguistically or iconographically between Maya and the calendrical characters, the *function* in the Caractors Document is similar to the Maya.
2. The Caractors Document contains what I call stripped-down Egyptian, meaning that sometimes a character consists only of a determinative glyph, which would not normally be a freestanding word. Sometimes you have to read the Caractors glyph forward and backward to derive all of the meaning. Sometimes the

Caractors glyph consists of multiple Egyptian glyphs morphed together. The same is probably true for any Mesoamerican elements in the Caractors Document.

For example, in the Maya calendrical glyphs, there may be objections to the fact that only the affixes are being utilized in the Caractors Document instead of the entire set of glyphs that actually make up the full Mayan word. This will be considered doubly so since the Maya glyphs operate in tandem to form a phonetic word from which they often derive their Maya meaning. This is evidence that the meaning was borrowed with only partial or no incorporation of the phonetics from the borrowed language. This type of borrowing is known linguistically as a *calque*.

Objection may be taken to the potential Egyptian origination and correspondence with the Maya glyphs. Again, this is borrowing, and it may even have been borrowing from a chain of previous borrowers. I am not asserting that the Maya or other Mesoamerican groups actually read or even understood *any* of the potential Egyptian origination. They have clearly added their own elements and style to anything that may have originated in the Egyptian. Not only is that not strange, it would be expected after hundreds or thousands of years.

Calendrical Associations

The Book of Mormon has two types of calendars counted in the text: prophetic calendars and political calendars. The prophetic calendars include the 600-year count to Christ's birth, the 400-year prophecy by Alma of the extinction of the Nephites, the 5-year count to Christ's birth by Samuel the Lamanite, and his 400-year prophecy to the final battle of the Nephites. The time count since the coming of Christ was initiated retroactively nine years after the actual coming of Christ, and it served as a political calendar as well. The political calendars were the Reign of the Kings (with subcalendars for the reign of each king) and the Reign of the Judges, with these political calendars overlapping and running concurrent with the prophetic calendars.

The Maya calendar and time-measuring system is a bit complex and also has multiple calendars. Without going through the whole history of the decipherment of the various types of Maya calendars, a brief summary of the Long Count calendar and its notation is relevant to understanding what is going on in the Caractors Document. Naturally, the calendars are not exactly the same, since the Nephite calendar system would have originated before the Maya (the earliest projected Maya calendar is the Tikal calendar, initiated in 236 BC [Edmonson 1988, 23]). One must also keep in mind that the comparative Maya glyphs presented here are at the latter part of Book of Mormon times, so it is most likely that any borrowing that took place probably went from the Nephite system to the Maya system, or they at least shared a mutual, more ancient source.

Long Count

The Long Count is a linear calendar with a (mythological) starting point in year 3114 BC in the Gregorian calendar. The Long Count calendar resembles our linear calendar with the exception that in the Christian calendar, time is computed in years, whereas in the Maya Long Count calendar, time is reckoned in days. In the date count itself, there are no references to names of months or years; at least some of these are included in the sequence ancillary to the numeric count itself. Many of the earliest Long Count dates are not found in the Maya but were found within the Olmec heartland, probably part of the Epi-Olmec culture. These early dates lacked most or all of the extra glyphs, although most feature an Introductory Series Glyph.

Initial Series

The Initial Series (IS) is a standard calendrical notation, and on an archetypal Maya monument, it comprises the opening segment of a text. This part of a text is introduced by the Initial Series Introductory Glyph (ISIG), the Long Count (LC), and another Mesoamerican system called the Calendar Round (CR). Besides recording the point in time of the first event in the text, the Initial Series also serves as an anchor date for later dates in the monument (recorded thereafter by Distance Numbers [DN]). The Calendar Round would no doubt be familiar to the Nephites, but it does not appear to be manifest anywhere in the Book of Mormon or the Caractors Document.

Supplementary Series

A set of usually six or seven glyphs is repeatedly incorporated between the Tzolk'in (260-day year) and the Haab (365-day year) calendars in lengthy monumental Maya texts with Initial Series. This group of hieroglyphs is known as the Supplementary Series and consists of various day- and lunar-cycle glyphs. This series is not manifest in the Caractors Document, so it is not discussed further.

Distance Numbers

Distance Numbers (DN) are the intervals between dates in the Maya inscriptions. Distance Numbers are often initially marked by a Distance Number Introductory Glyph (DNIG), which has been interpreted as simply a notice that a Distance Number is to follow.

Posterior and Anterior Date Indicators

The DNIG is usually followed by either Anterior Date Indicators (ADI) or Posterior Date Indicators (PDI), since they precede an earlier date and a later date, respectively. Now that these signs can be read phonetically, their temporal attributes can be understood in semantic terms based on assessments of their respective grammatical affixes. The PDI has a few translations, one of them being "then it came to pass." The ADI has a few translations, one of them being "it came to pass" (Stuart 1990). These glyphs are time indicators that help clarify and link the distance numbers.

So a simplistic example in a modern sentence would be:

"Ronald Reagan was the president in 1982; then it came to pass after four years he was reelected."

The initial series date would be 1982. The Maya would then have a DNIG (which we don't use), "then it came to pass" would be a PDI glyph, and the DN would be "four years." Of course this is very basic; the Maya system would often go back or forth in time, with multiple iterations of these units. This chain-link method of tracking events in time is also found in Sumerian time reckoning (Aveni 2011, 193).

Period-Ending Glyphs

The Maya marked in the calendar/date glyphs the completion of the religious calendar units (katun, baktun, etc.) and reigns of kings using Period-Ending (PE) glyphs that can be interpreted as indicating that the time period is completed or "end of." These glyphs were most often affixed to the time period that they were referring to.

The Maya Time-System Notation and the Caractors Document Time-System Notation



Figure 42. Calendar and number system in the Caractors Document

Red—Calendar Initial Series Introductory glyphs

Blue—Numbers and Numerical Date Sequences (includes indicators such as year and month glyphs)

Purple—Distance Number Indicator glyphs

Green—Posterior Date Indicator glyphs

Orange—Anterior Date Indicator glyphs

Pink—Period-Ending or Transition glyphs

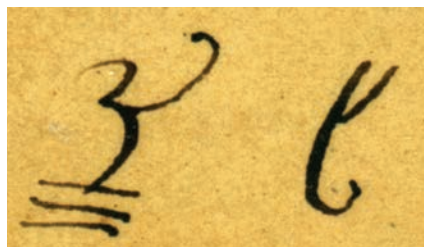
Initial Series Introductory Glyphs within the Caractors Document

Long Count dates written in the Epi-Olmec and Maya systems use what is called the Introductory Glyph, also referred to as the ISIG. These always appear above or in front of the start of the count. Premier Mayanist David Stuart has stated that scientists “have little idea about the direct meaning of introducing glyphs, and the internal elements are hard to decipher as word elements” (Stuart 2011, 176). One variable element to the glyph is a month glyph, but as Stuart says, the “significance remains unclear” for these patron months. Also occurring in the Introductory Glyph is a sign that resembles a tun glyph (which in the Maya Long Count is equal to 18 winal cycles, or 360 days). Stuart states:

I assume that they are historically connected in some way to Isthmian writing, where the 365-day station of a given date appears inside its version of the introducing glyph, never as a separate block as in Maya. Perhaps if the Maya borrowed features of the Long Count calendar and its format, they retained this original format while also developing their own glyphs for the months, ones reflecting Mayan names and pronunciation. (Stuart 2011, 177)

Various Caractors glyphs are located in front of corresponding date sequences that functionally serve as Introductory Glyphs as known in the Maya, but they also provide the function of a Calendar Identifying glyph of the corresponding Nephite calendar or subcalendar.

1. Lehi Departure Calendar Introductory Glyph



C-69, C-68

The Lehi Departure Calendar Introductory Glyph (LDCIG) consists of C-69; however, an analysis of the preceding glyph, C-68, is also necessary because the Maya Introductory Glyph is considered a combination glyph. The LDCIG precedes a numeric date of 436 years, so by sheer default of the range of date limits imposed by the Book of Mormon text, this glyph had to denote the Lehi Departure Calendar. In addition, the glyph itself is numerically based, since the base consists of the ordinal number 3, while the top portion, which has been stylized into the form of a tree, also depicts a stylized archaic number 200 in Egyptian. As previously mentioned, the Egyptian number 100 is depicted by a coiled rope hieroglyph:



At the bottom of figure 20 can be seen the archaic form of the number 2,000, where the individual lotus flowers that each represented the individual number 1,000 are depicted as both having a common stem. While not a known form for 100 in Egyptian, it is apparent that this calendar glyph was symbolically constructed in this archaic lotus flower format. The numeric rationale is clear, since the product of the numeric symbols is 3 x 200, or 600, which matches the 600-year calendar. The basis for use of the tree form is fairly straightforward in that the Book of Mormon account of Lehi’s principal contribution to the book involved a revelatory and prophetic dream of which the centerpiece was the Tree of Life (1 Nephi 8:10–35). This form is also consistent with some of the Maya World Tree forms and Cross forms that have the “shepherd crook” forms at the ends of branches or cross ends, so it would be consistent with Mesoamerican iconography. This is not to imply that the LDCIG is the source of the Maya form, but just that it is consistent with it. It would be expected that the engraved character may be simplified and that the Lehi Calendar glyph may have been more elaborate if it had been created in a different format, such as writing on stone monuments.



Figure 43. Reproduction carving from the Palenque Temple of the Cross (www.tierramayaimports.com 2015)

Character C-68 is known in the Palestinian hieratic and is either the term 2 months, as found in the Gezer calendar (circa 925 BC), or the Paleo-Hebrew letter waw (to be discussed later).

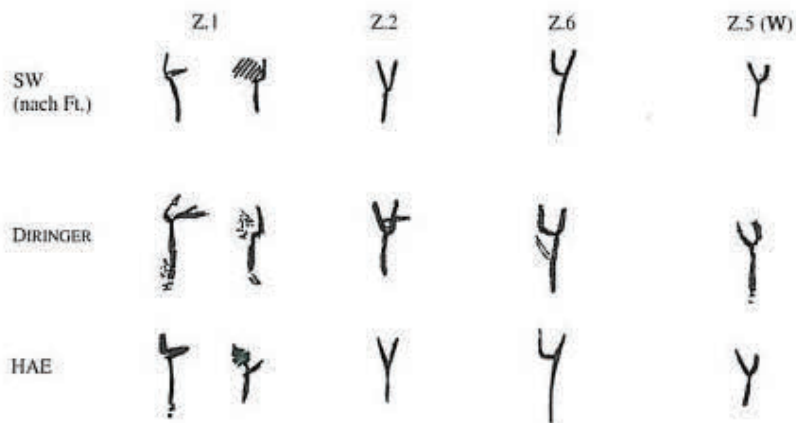


Figure 44. Examples of some “2 month” glyphs from Palestinian hieratic (Wimmer 2008, 144)

The interpretation is that *waw* was designated a specific month in the calendar, as opposed to a period of time, and is part of the Caractors date sequence. It was thought possible that it may be an integral part of the glyph itself, identifying the time that Lehi left Jerusalem. Although the glyph means “2 months” in the Gezer calendar, it should not be interpreted to mean the second month of the year because the Gezer calendar uses the term *2 months* as a time period, not as a specific delineated month. This is the translation of the Gezer calendar:

Two months of harvest
Two months of planting
Two months are late planting
One month of hoeing
One month of barley-harvest
One month of harvest and festival
Two months of grape harvesting
One month of summer fruit
Abijah

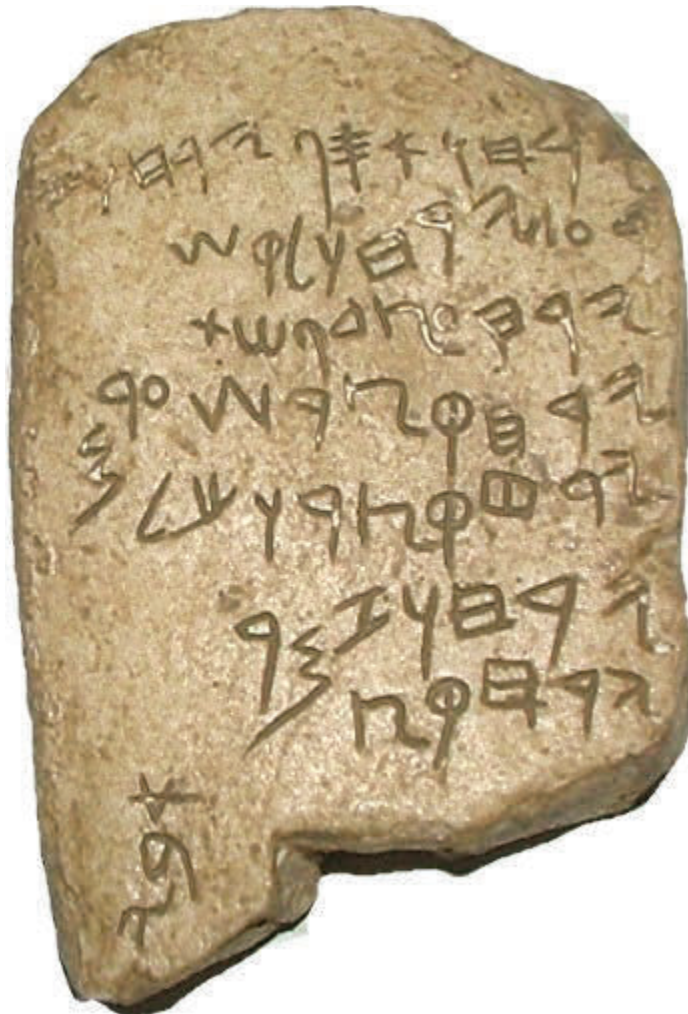


Figure 45. Gezer calendar (www.bible-archaeology.info/agriculture.htm 2015)

However, since we are not sure which month is being designated, we might at least explore the possibility of it being the second month when Lehi left, since this interpretation is potentially consistent with when Lehi left Jerusalem (the Hebrew second month is called *Iyyar*, and in 587 BC it ran from April 29 to May 27). This is the correct time frame, since the Babylonian army lifted the siege of Jerusalem on January 1, 587 BC, and returned to

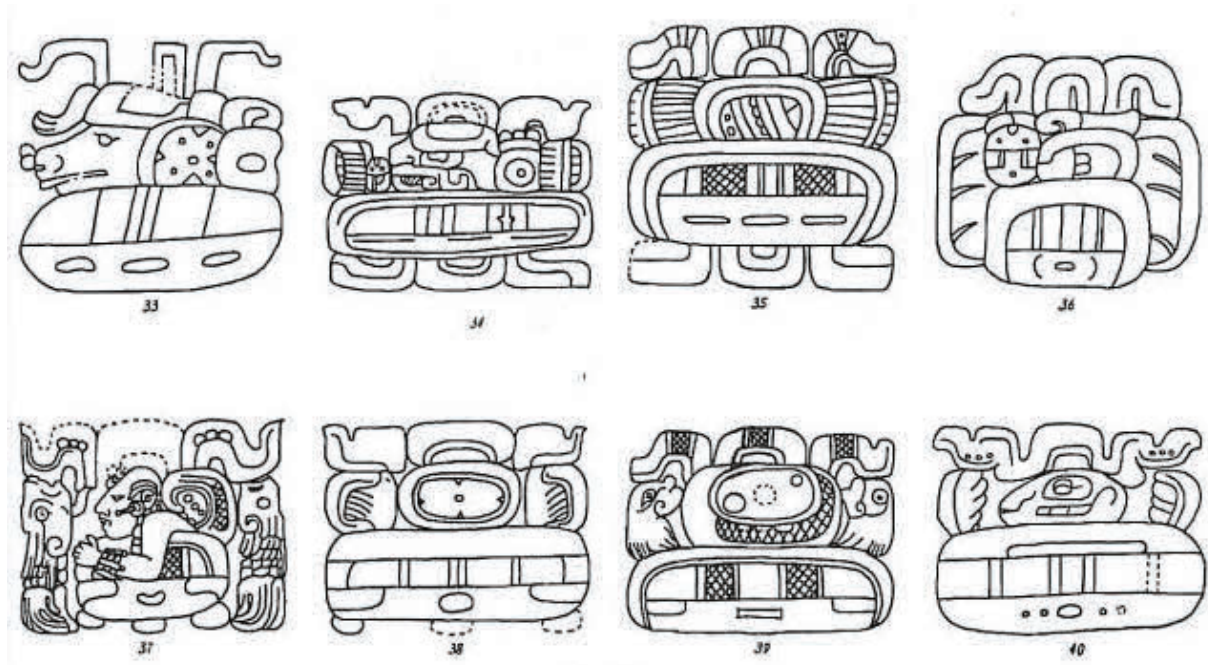
Jerusalem on June 15, 587 BC, with the Babylonian army breaching the walls of Jerusalem on July 12, 587 BC (Spackman 1993, 11–12). However, further date information provided in the Caractors Document indicates that the departure of Lehi was around January of that year. As a result, it is more likely that the 2 month glyph is probably part of the date sequence or the 436-year date and that it indicates a particular month of the year. As discussed below, the Mesoamerican ISIG glyph, like the Caractors Document glyph, often features a month glyph that is not yet understood.

Maya Calendar Introductory Glyph

The Mesoamerican ISIG begins to appear in the Late Preclassic period (400 BC–AD 100). The ISIG in Maya is an oversize glyph that appears in front of the Long Count date. It typically has four components: a trefoil element atop a month glyph atop a tun sign atop a three-element glyph (which may be considered attached to or part of the tun sign). A tun sign is a 360-day year. In some early Long Count inscriptions on the Pacific slopes, dates begin with an inverted ISIG that consists of trefoil style element, containing three hollow dots, a changeable patron month glyph, and a base with legs.

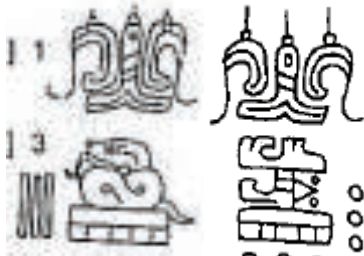


Typical Maya ISIG: a) top trefoil element; b) variable patron month sign; and c) the tun with three-element base (Rice 2007, 174)



Examples of Maya ISIGs 33. Yaxkin, Leiden Plaque; 34. Pax, Oxkin L 1; 35. Zec’ Cop, 21; 36. Pax’ Pal, stucco in Madrid; 37. Ch’en Cp. D; 38. Yaxkin, Cop HS, Date 26; 39. Ch’en P.N.L. 3; 40. Ch’en Sacchana 2. (Thompson 1950, figure 23)

Elsewhere on the Pacific piedmont and in the Epi-Olmec script, the ISIG starts with the dual or trefoil appearing with three curl elements, which also are stylized as fronds or a fleur-de-lis–like design. These are followed by a month element, but they do not contain a tun sign element. They instead have a base of two horizontal bars in the case of a three-curl upper glyph, or they have three horizontal bars in the case where there is a two-curl upper glyph. Some of the Epi-Olmec glyphs have three bars or three hollow dots to one side:



Introductory Glyphs from the Epi-Olmec La Mojarra Stela 1 Inscription AD 143 to 156, Veracruz, Mexico (Méluzin 1995, 38–39)



ISIG Epi-Olmec—Tres Zapotes Stela C 32 BC (Rice 2007, 136)

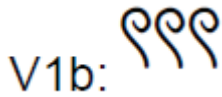
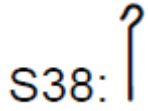


ISIG Epi-Olmec—Tuxtla Statue AD 162 (Rice 2007, 136)

The similarities between the Caractors Lehi Calendar Introductory glyph and the Mesoamerican Introductory Glyphs are striking. Both feature similar upper and lower elements and involve a month glyph. Mathematically, the Mesoamerican glyphs generally have a similar 3 x 200 or 2 x 300 element (if interpreted the same as the Caractors Document). Interestingly, the Tuxtla Statue contains three Egyptian hundred characters as the upper element (although the design is featured elsewhere in other Epi-Olmec glyphs of unknown interpretation).

The Maya Introductory Glyphs would be anticipated to have been borrowed (like the rest of their calendar) and culturally stylized; however, the Epi-Olmec glyphs seem to be closer in form to the Caractors glyph and therefore may represent earlier borrowings (or possibly actual Nephite glyphs). We now know from the Caractors Document (discussed later) that the Lehi Calendar was the prophetic calendar of the Nephites and continued to run after the coming of Christ, so Mesoamerican borrowing of the glyph could have occurred in the first few centuries AD as it was probably still present.

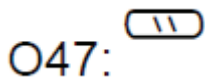
The Introductory Glyph found on the Tuxtla Statue is very interesting when looking at potential Egyptian influence, especially in consideration of kings, and it seems to be following the general double meaning and wordplay that is found in many of the Caractors glyphs (as will be discussed below). The “coiled rope” elements on the top correspond with the Egyptian hieroglyphs classified with Gardiner Numbers S-38 and V-1b.



S-38 is the hieroglyph representing the Egyptian king’s scepter (Gardiner 1957, 508). As previously mentioned, V-1b means 300, but the coiled rope is also an Egyptian determinative for the Egyptian crown, representing the bent appendage of metal found on the front of the king’s crown (Gardiner 1957, 508):



The base of the Tuxtla ISIG Long Count glyph also has a curious correlation. The central portion and the layers of the base are variant forms of the Egyptian hieroglyph identified as Gardiner Number O-47. O-47 is the Egyptian hieroglyph representing Nekhen (Hieraconpolis), the Egyptian predynastic capitol and capitol at the start of the First Dynasty in Upper Egypt, where the very first Pharaoh/King of Egypt came to power.



The Egyptian hieratic for O-47 has the diagonals reversed, which matches the Tuxtla ISIG:



Möller Number 586, Bd. III-32-72-Taf, pg. III 578–587 (Möller 1965)

In 2013 British archaeologists led by Dr. Michael Dee from the University of Oxford were able for the first time to set a robust timeline for the first eight kings of ancient Egypt. They used radiocarbon dating and Bayesian statistical modelling to determine within a 68 percent confidence range that the First Dynasty was founded from 3111 to 3045 BC with the ascension of Aha, the First King of the First Dynasty (Dee 2013).

This First King of the First Dynasty in Egypt is known by various names (Men, Aha, etc.) and was the first king to unite the predynastic Upper and Lower Kingdoms of Egypt. In a later chapter on directional glyphs, it will become clear that the Nephites used directionality along rivers based on the concept of an upper and lower area, using the Egyptian system, so it would not be surprising if the creation of the Tuxtla form of the ISIG had something to do with the combination of kingdoms or political units.

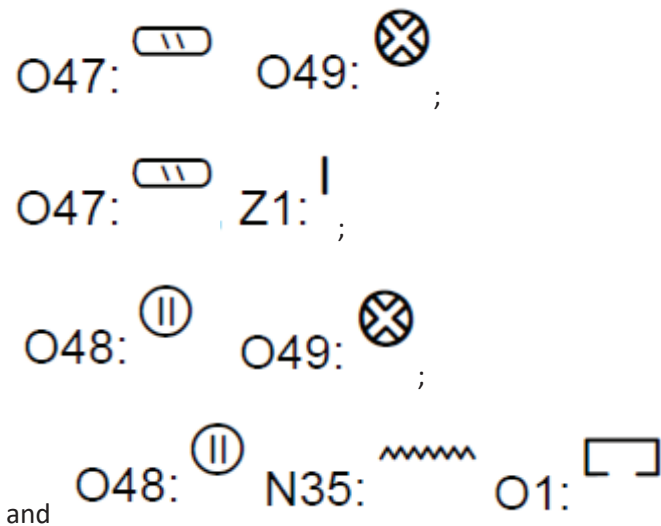
When one considers that the calculated base date of the Mesoamerican Long Count is August 11, 3114 BC, and considering the confidence level of the sampling and modelling for the start of the First Egyptian Dynasty that could place that date as coinciding with the First King of the First Dynasty, in conjunction with the Egyptian hieroglyphic components of the Tuxtla Statue IGIS, one can hardly reach any conclusion other than that whoever initiated the Mesoamerican Long Count incorporated consistent Egyptian elements, whether knowingly or not.

Nekhen was the religious and political capital of Upper Egypt at the end of the Predynastic Period (ca. 3200–3100 BC) and also during the Early Dynastic Period (ca. 3100–2686 BC). Nekhen was the center of the cult of a bird deity, Horus of Nekhen, which raised in that city one of the most ancient temples in Egypt. The city retained its importance as the cult center of this divine patron of the kings long after it had otherwise declined.

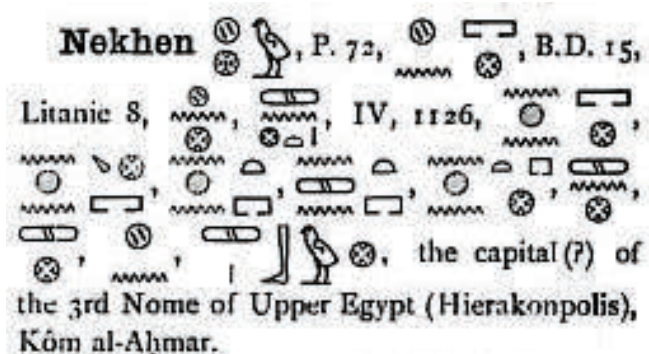
There are some later tombs at Nekhen dating to the Middle Kingdom, the Second Intermediate Period, and New Kingdom. Because it had a strong association with Egyptians’ religious ideas about kingship, the temple of Horus at Nekhen was used as late as Ptolemaic times.

The Book of Mormon place and individual name *Nehor* means “of Horus” and has been correlated with various elements of Mesoamerican religious elements involving the Principal Bird Deity (Grover 2017a).

Other common hieroglyphic sequences for the name *Nekhen* (Scribd 2010) are:



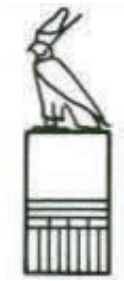
In the Budge dictionary, the hieroglyphic sequences involving the name *Nekhen* (Budge 1920, 2:1007) are:



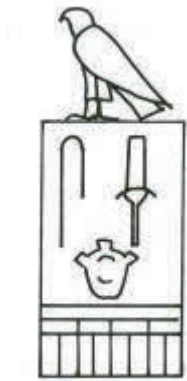
The Vygus Dictionary (2018) shows the same symbols for *Nekhen*. Some of these symbols or their derivatives are also found in Mesoamerica (i.e., Kan-cross). The correspondence of this Initial Series calendar glyph may or may not

have originated from a Book of Mormon–related source, as one should not assume that the only possibility of cross-cultural contact in Mesoamerica are with groups identified in the Book of Mormon.

The form of the Epi-Olmec ISIG is also similar in many ways to the earliest forms of display of royal names that predated the well-known cartouche. This form that was used in the First Dynasty is called a *serekh*. It typically features the Horus name of the king, with the Horus Falcon placed on top, which was used for the royal, third-person singular pronoun *he* or *his* when referring to the king. Sometimes the Horus Falcon was replaced with the mythical Seth beast, or sometimes glyphs included both. The royal name was then written inside of the rectangle. The base vertical bars represent the paneled façade of the king’s palace, while the upper open space is the plan of the inner courtyard (Wilson 1993) or possibly the king’s tomb (Gardiner 1957, 72):

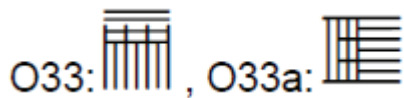


Generic serekh



Serekh of the Horus Name for the King Sekhemib of the Second Dynasty (reproduction)

Elements of this are found in the hieroglyphic script as Gardiner Numbers O-33 and O-33a:



The Epi-Olmec forms of the ISIG have the horizontal bar features below the area housing the interchangeable glyph for the king’s name. The Maya system apparently uses an interchangeable patron month as opposed to a king’s name; however, the Epi-Olmec may be something different. Some Epi-Olmec ISIGs also feature the vertical elements to the side of the horizontal bars (see previous). The bars in the Epi-Olmec have been translated as the numeric portion of day names, so the comparison is related to form only.

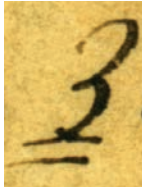
The fleur-de-lis symbol that tops the Mesoamerican ISIG glyph is not a unique symbol to Mesoamerica. Recent comparisons of the symbol and usage in Mesoamerica and iconography and usage in the Old World are indicative of a compelling link at some point in the Olmec time frame (de Borhegyi 2012). It has been generally held, at least for the form of the fleur-de-lis derived from a lily-form found in ancient Egypt, that it is related to Horus (the sons of

Horus were born in a water lily). Substitution of the Horus symbol with a fleur-de-lis symbol would not be inconsistent with the current understanding of Horus.

This ancient Egyptian style is also reflected in the lower horizontal bars of the Lehi Departure Introductory Glyph and the lower bar (the number 50 with a stylistic bar attached) of the Reign of the Kings Calendar Introductory Glyph. It is interesting that only these first two Nephite Introductory glyphs contain the bars, but this makes perfect sense when one considers these glyphs were only utilized when there were actually kings among the Nephites prior to the Reign of the Judges.

2. Reign of the Kings Calendar Introductory Glyph

The Reign of the Kings Calendar Introductory Glyph occurs in one instance in the Caractors Document before the regnal year count for king Mosiah₁.



C-3

The count in that instance is a limited count within the overall Reign of the Kings period, pertaining only to the regnal period of that particular king, which is exactly consistent with the practice in the Book of Mormon text:

Jacob 1:11

Wherefore, the people were desirous to retain in remembrance his name. And whoso should reign in his stead 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 name they would.

Jacob 3:13

And a hundredth part of the proceedings of this people, which now began to be numerous, cannot be written upon these plates; but many of their proceedings are written upon the larger plates, and their wars, and their contentions, and the reigns of their kings.

Mosiah 29:46

And it came to pass that Mosiah died also, in the thirty and third year of his reign, being sixty and three years old; making in the whole, five hundred and nine years from the time Lehi left Jerusalem.

As explained in a previous section, character C-3 consists of slightly stylized Egyptian hieratic number 50 on a base, underlain by a Mesoamerican number 5, so by addition the character is the number 55. The source of the numerics of this glyph is quite obvious as found in the Book of Mormon:

Jacob 1:1

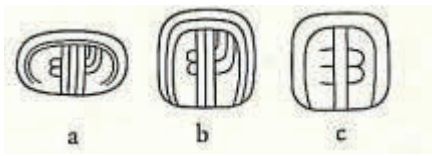
For behold, it came to pass that fifty and five years had passed away from the time that Lehi left Jerusalem; wherefore, Nephi gave me, Jacob, a commandment concerning the small plates, upon which these things are engraven.

Jacob 1:9

Now Nephi began to be old, and he saw that he must soon die; wherefore, he anointed a man to be a king and a ruler over his people now, according to the reigns of the kings.

In addition, as will be discussed later, the reverse of the hieratic number 50 is also one of the glyphs for *Nephi*. This is in complete conformity with the fact that all of the kings following Nephi₁ were named Nephi, as indicated by Jacob. Also, the reverse glyph is consistent with the explanation that the title for the book of 2nd Nephi is actually a different glyph form of *Nephi*. In the Original Manuscript, there is no 1st Nephi or 2nd Nephi; both of these books are just titled the Book of Nephi. The most logical conclusion is that the glyph form for the title of 2nd Nephi is the same form as found in the Reign of the Kings Calendar marker glyph. The first three chapters of 2nd Nephi are Lehi's instructions to his sons and Zoram, given when Lehi is close to death, instructing all of them to follow Nephi₁ (2 Nephi 1:24–32; 2:3; 3:22; 4:11). In chapters 4 and 5 of 2nd Nephi, Lehi dies and Laman₁ and Lemuel and their followers threaten Nephi₁, so he flees with his followers to a new location. In chapter 6 Jacob speaks and indicates that Nephi₁ is currently now considered the “king or a protector” (2 Nephi 6:2).

A form of the Reign of the Kings Calendar glyph appears to be abstractly found and incorporated most prominently in the “c” classification of the Muluc (sometimes spelled Muloc) forms of the Maya glyph for the word *king*:



King Glyphs, Glyph 518 (Muluc variants) (Thompson 1962, 119)



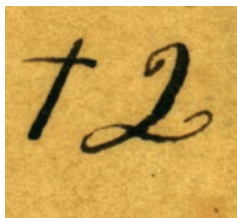
AJAW-wa TE' (*ajaw te'*) (T168:518:130) > n. “tree lord”; royal title. King Glyph (Montgomery 2014)

A Muluc glyph form is generally a side view of a fish form—in this case the number for 50 doubling as the normal side fin form. In 1962, Thompson documented this glyph as occurring in Copan, Palenque, and Yalloch.

Inclusion of specific elements of kingship into glyphs is a known practice of the Maya. The Maya kings were often considered the patrons of specific time periods, and their visages or representations thereof were inserted into the center of the Period-Ending day glyph. In the Mayan Yucatek language, the Period-Ending day glyph was named *Ahaw* and is the same word used in the ancient texts for “lord, noble” (Stuart 2012, 256, 257). These glyphs have been described as an “anthropomorphized temporal concept” (Pharo 2014).

3. “Seven Tribes” Introductory Glyph

Characters 29 and 30 constitute a previously unknown calendrical period known as the “Seven Tribes.”



C-30, C-29

The number 7 was previously discussed in the numbers section. The character for *tribe* is a fairly well-known Egyptian hieratic/Demotic character for the Egyptian word *sꜣ*, which means “phyle” or “troop”:



Bibliothèque National, Papyrus 217, 5(bis) (*Chicago Demotic Dictionary* 2014, S [13:1], 23)

The definition of *phyle* is a “tribe” or “clan” (www.dictionary.com, 2015). The “Seven Tribes” appears as a defined period, but it does not appear as a base point for counting in the date sequence in the Caractors Document. The period of the “Seven Tribes” started 399 years after the departure of Lehi and ended 475 years after the departure of Lehi. The starting of the period was ten years after the Nephite’s arrival in Zarahemla and encounter with the people of Zarahemla, hinting that the start of the calendar period probably had a political genesis and ended when Benjamin renamed the Nephites and left the throne to Mosiah₂.

The Period-Ending glyph (to be discussed later) seems to indicate that it was a secondary calendar period subject to the overall Reign of the Kings Calendar period. There are a group of seven tribes identified in the Book of Mormon at the commencement of the Reign of the Kings, fifty-five years after the departure of Lehi from Jerusalem (Jacob 1:12–14):

12 And it came to pass that Nephi died.

13 Now the people which were not Lamanites were Nephites; nevertheless, they were called Nephites, Jacobites, Josephites, Zoramites, Lamanites, Lemuelites, and Ishmaelites.

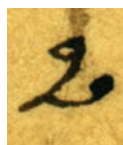
14 But I, Jacob, shall not hereafter distinguish them by these names, but I shall call them Lamanites that seek to destroy the people of Nephi, and those who are friendly to Nephi I shall call Nephites, or the people of Nephi, according to the reigns of the kings.

It would seem strange that the tribes associated with the Lamanites would be part of the organization of the “Seven Tribes,” but it is possible since Mosiah₁ fled out of the land of Nephi with “as many as would hearken unto the voice of the Lord,” which certainly could have included some righteous Lamanites. These seven tribes are enumerated at later points in the Book of Mormon (4 Nephi 1:38; Mormon 1:8), so there appears to be a consistent political structure throughout the Book of Mormon. The Period-Ending glyph for the period of the “Seven Tribes” also contains the element from the Reign of the Kings Calendar glyph, indicating that the period was a subset of the Reign of the Kings. The Seven Tribes period does seem to coincide roughly with Mosiah₁ coming to power, so the period likely included a shift in the succession of the series of kings required to be named Nephi as indicated in Jacob 1:11. Further discussion of the Seven Tribes period will be discussed later in the book.

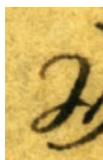
I have been unable to locate any Mesoamerican references to the Seven Tribes Calendar glyph.

4. Reign of the Judges Introductory Glyph

Similar to the Seven Tribes period, the Reign of the Judges Introductory Glyph consists simply of the number 7, which translation was previously discussed and which consists of the following characters:



C-120



C-171

Like the Seven Tribes it also has a Period-Ending glyph (to be discussed later). Just as the Reign of the Judges in the Book of Mormon, it is a period for which there is a year count, and it starts 509 years after Lehi's departure. Because the second part of the Caractors Document is not continuous with the first, there is a chronological gap. The Caractors Document does not have text present for the start of the time period, but it does contain text running from roughly the eighty-first year until the end of the period, with a gap in between.

Based on the fact that the calendar glyph for the Reign of the Judges featured the number 7, it would be reasonable to assume that there were seven judges. This is also consistent with the indication that just prior to the Reign of the Judges, there were seven churches under one head church, indicating that the church was organized along seven tribal lines (Mosiah 25:21–24):

21 Therefore they did assemble themselves together in different bodies, being called churches; every church having their priests and their teachers, and every priest preaching the word according as it was delivered to him by the mouth of Alma.

22 And thus, notwithstanding there being many churches they were all one church, yea, even the church of God; for there was nothing preached in all the churches except it were repentance and faith in God.

23 And now there were seven churches in the land of Zarahemla. And it came to pass that whosoever were desirous to take upon them the name of Christ, or of God, they did join the churches of God;

24 And they were called the people of God. And the Lord did pour out his Spirit upon them, and they were blessed, and prospered in the land.

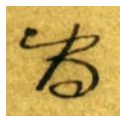
A rational number for a group of judges would be seven—one for each tribe. That number would also avoid tie votes (if that is actually how it worked).

I have been unable to locate any Mesoamerican references to the Reign of the Judges Calendar glyph.

5. Coming of Christ Introductory Glyph

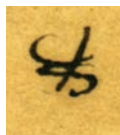
The Coming of Christ Calendar features an Introductory Glyph that precedes a numeric date sequence, and it also contains a less stylized reference glyph, meaning that it was used when discussing the calendar but not when posting a date.

The Coming of Christ Introductory Glyph consists of the following character:



C-175

The Coming of Christ Calendar reference glyph is:

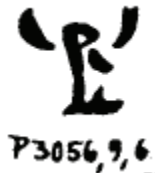


C-115

This period corresponds to the calendar used in the Book of Mormon wherein the years were counted from the coming or birth of Christ. It is first used after the Reign of the Judges came to an end at the departure of the resurrected Christ from the Nephites. There is an overlap between the Reign of the Judges Calendar and the Coming of Christ Calendar.

The Coming of Christ Calendar Introductory Glyph, like all the other introductory Glyphs, has a numeric element and is a stylized version of an Egyptian hieratic glyph that numerically means “million,” “many,” or “a countless

quantity.” The Egyptian word for this term is *hh*. In Ancient Egyptian the term also derives from and represents the god Heh, which was the deification of “infinity” or “eternity,” his name itself meaning “endlessness” (Gardiner 1957, 449):



Takelothis Papyri, 3056, 9.6; Aegyptisches Museum and Papyrussammlung, Berlin (Möller Number 37, Bd. III-1-31, pg. III 35a-47) (derived from Gardiner Number C-11) (Möller, 1965)

It also might be inclusive or reflective of the Egyptian hieratic glyphs that are determinatives for “dance,” “joy,” or “jubilation” (Gardiner 1957, 443, 445):



Takelothis Papyri, 3050, 6, 7; Aegyptisches Museum and Papyrussammlung, Berlin (Möller Number 6, Bd. III-1-31, pg. III 1-10) (derived from Gardiner Number A-32) (Möller 1965)



Takelothis Papyri, 3048, 9; Aegyptisches Museum and Papyrussammlung, Berlin (Möller Number 36, Bd. III-1-31, pg. III 35a-47) (derived from Gardiner Number A-8) (Möller, 1965)

The matching of the meanings of these glyphs and the coming of Christ to the Nephites does not need any explanation; it is of course a perfect match. The Coming of Christ reference glyph appears as part of the Caractors Document that deals with the implementation of the Coming of Christ Calendar nine years after the Coming of Christ. This event is referenced in the Book of Mormon (3 Nephi 2:6-8):

6 And six hundred and nine years had passed away since Lehi left Jerusalem.

7 And nine years had passed away from the time when the sign was given, which was spoken of by the prophets, that Christ should come into the world.

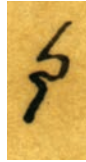
8 Now the Nephites began to reckon their time from this period when the sign was given, or from the coming of Christ; therefore, nine years had passed away.

The second use of the Coming of Christ Introductory Glyph is preceded by the title “Most (of First) High” and occurs in conjunction with Christ’s ascension. It also occurs in conjunction with the period ending of the Reign of the Judges calendrical period, so it is not clear whether the “Most High” adjective has calendar implications or is merely a title of Christ reflected in the name.

I have been unable to locate any Mesoamerican references to the Coming of Christ Calendar glyph.

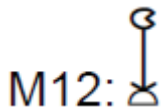
6. The “1,000 Year Calendar” Reference Glyph

The “1,000 Year Calendar” Glyph occurs in one instance in the Caractors Document in the section that deals with the implementation of the Coming of Christ Calendar nine years after the Coming of Christ.



C-112

The “1,000 Year” glyph is the Egyptian hieratic glyph for the lotus plant hieroglyph and represents the number 1,000 as discussed in a previous chapter. This glyph has a Gardiner Number of M-12:



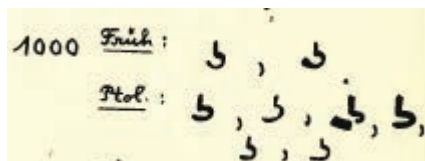
It is found in the hieratic and Demotic in a slightly modified form:

	Mierogl.	Takelothis	Graffito	P. Rylands	Leinwand	P. Bremner	Isis-N.	Ritual	Leiden I.32	Tanis	P. Rhind	P. 3030.
277												
	Syn. 25	P. 1056, V. 11			1, 16	6, 13 5 21 Kph 18	19	5, 6 2, 6	5, 18	1784, 2, 1 6 Tanus 7, 1	1, 5, 2 3, 5	5, 6 9, 8

Möller Number 277, Bd. III 1-31, pg. III 277-287 (Möller 1965)

641												
	Syn. 18.	3, 7 16, 8			209 Ru 11, 8	14, 1	159, 7.	14, 6.	37-13 X.			But 13, 7.

Möller Number 641, Bd. II 31-74-Taf, pg. II 641-679 (Möller 1965)



Demotische Glossar (Ericksen 1954, 702)

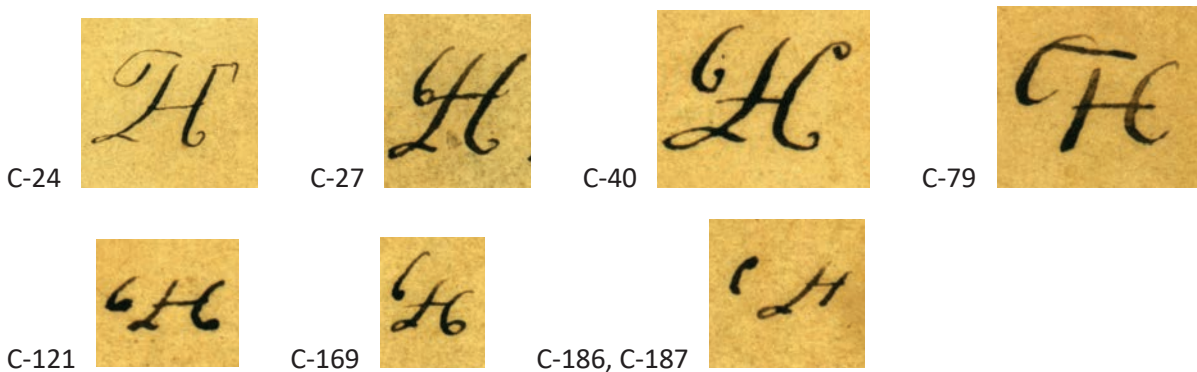
The 1,000 Year Calendar is not mentioned in the Book of Mormon, but it is in fact considered the overall prophetic calendar consisting of the time from when Lehi left Jerusalem to the destructive battle of the Nephites described late in the Book of Mormon, which consisted of the combination of 600 years and 400 years. It is referenced in chapter 14, evaluating the prophecies as the 12-moon Common Lunar Calendar.

I have been unable to locate any Mesoamerican references to the 1,000 Year Calendar glyph.

Distance Number Introductory Glyph (DNIG)

The glyphs known as the Anterior Date Indicator (ADI) and Posterior Date Indicator (PDI) have very important roles in the structure and composition of Maya inscriptions. Most Maya monumental texts mention certain dates and associated actions or episodes. Elapsed time between different dates and events is almost always expressed by Distance Numbers (Thompson 1950, 157–180), and these time intervals can be reckoned forward from one date to a later date or backward to an earlier date. Located directly before Distance Numbers is the DNIG; the ADI and PDI glyphs generally occur before or after the Distance Number, but some variation in orders have been noted (Stuart 1990). The ADI and PDI glyphs have long been recognized as signals for the “direction” of the count. As their names suggest, the Anterior Date Indicator glyph has been thought to signify a backward (anterior) count, and the Posterior Date Indicator a forward (posterior) count.

The Caractors Document features all of these Maya elements, functions, and corresponding glyphs. The Caractors DNIG is found as Characters 24, 27, 40, 79, 121, 169, and 186–187:



The function of the Caractors DNIG appears to be much more than the Maya DNIG (at least as far as Mayanists have been able to tell) as it varies in form based primarily on the orientation of what I call the curly 6, which is located on the left side of the character. C-24 and C-29 have the curly 6 horizontally oriented on the top of the character; C-27, C-40, C-121, and C-169 have the orientation vertically to the side, and C-186 and C-187 has it to the side but upside down as compared to the others. There may also be something more than style involving the ‘legs’ of the character, as C-79 has a left leg that ends in a stub, C-186 and C-187 have a right leg that ends in a stub, while the right legs of C-121 and C-169 seem to have incorporated a curly 6 into the leg.

C-24 and C-40 occur in front of the Caractors PDI glyph, which is followed by a number. C-27 occurs in front of a variant ADI glyph, which is followed by a Calendar Introductory/Identifying Glyph. C-79 occurs in front of a Period-Ending glyph and follows an ADI glyph and a number. C-121 is preceded by a Period-Ending Glyph and a Calendar Introductory/Identifying Glyph and is followed by a number. C-169 is preceded by a directional glyph and is followed by a Period-Ending Glyph. C-186 and C-187 is followed by a PDI and a Calendar Introductory/Identifying Glyph.

The only two that appear to have the same sequential position are C-24 and C-40, but their curly 6s are in different orientations. At this point, it seems apparent that the different types are not based merely on position but have some sort of function or association with a calendar, date, sequence, or even individual. Without more examples, it may be difficult to tell. Further analysis of this is discussed later.

The Caractors DNIG is found incorporated as a glyph infix in the associated Maya DNIGs. In Egyptian the orientation of a hieroglyph can be reversed depending on the direction it is read. In the case of the Caractors, they are read from right to left, whereas Maya is read from left to right and then top to bottom. As a result, it is necessary to also consider the reversed versions of the Caractors DNIGs when evaluating the Maya glyphs:



A stylized Caractors DNIG is found incorporated and embedded in nearly all of the Maya DNIGs, including what have been referred to as the Succession Glyphs, which mark political transitions. The glyph is quite obvious (although significantly and artistically stylized) in the various Maya DNIG glyphs shown in figures 41 through 44.



Figure 46. DNIG general catalogue form (Macri et al. 2003, 211)



Figure 47. DNIG glyphs— 9. Yax L 25 J.; 10. Cop. I C6B; 11. Pusil. D, C8; 12. Cop. HS (Gordon, pl. 12), J3; 13. Cop. HS, Step P1; 14. Cop. A, B11A; 15. Quir. Str I, K' (Thompson 1950, figure 30)

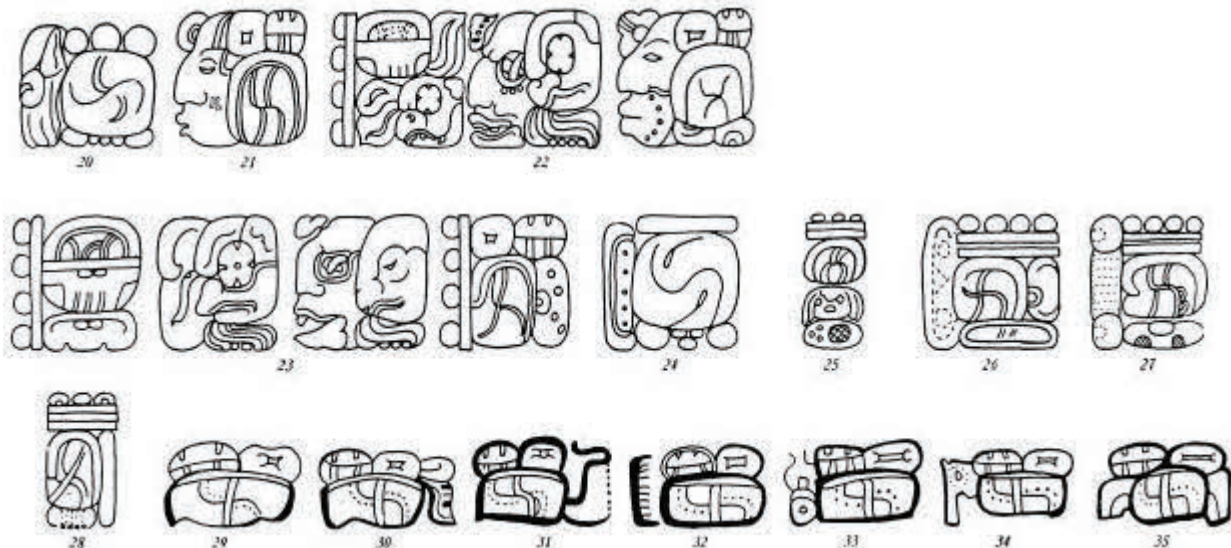


Figure 48. Succession glyphs—20. Count of 3 “hel.” Pal. Cross, O8; 21. 1 or 3 “hel.” Pal Inscr. (W), R5; 22. The 9-16-9 “hel” count. Pal. Inscr. (E), S6-S7; 23. The 9-16-9 “hel” count. Pal. Inscr. (M), G10-J1; 24. 5 “hel.” Pal. Sun, Q7; 25. 13 “hel.” Cop. B,

Bl1a; 26. 14 “hel.” Quir J, C16; 27. 14 “hel.” Cop. N, pedestal, D5; 28. 16 “hel.” Quir. I, B9a; 29. Dresden 10b; 30. Dresden 5a; 31. Dresden 25b; 32. Madrid 70a; 33. Madrid 66b; 34. Madrid 68a; 35. Madrid 72a (Thompson 1950, figure 30)



Figure 49. DNIG—Kuná-Lacanhá, Lintel 1, J5 (Closs 1986, 357)

The curly 6s also seem to appear in some of the Maya DNIG glyphs, notably figure 47, number 15, and most markedly in figure 48, number 24. The curly 6 glyph has been determined to be a “numeral qualifier” in Maya (see figure 50).

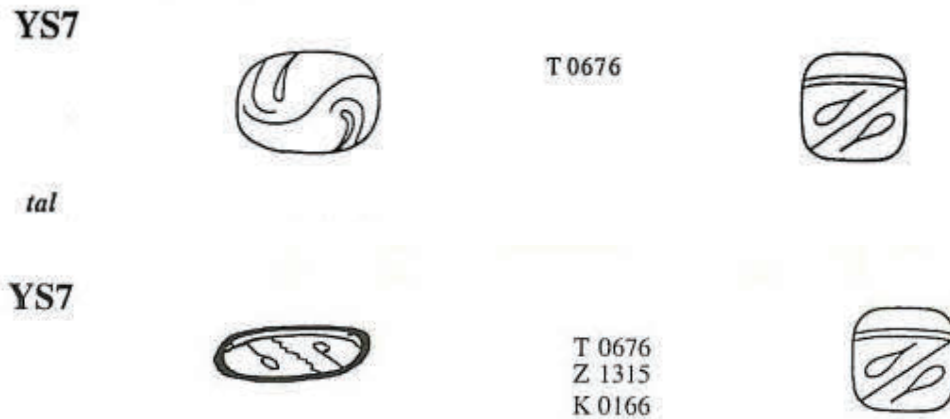


Figure 50. Numeral qualifier general catalogue form (Macri et al. 2003, 211; Macri et al. 2009, 162)

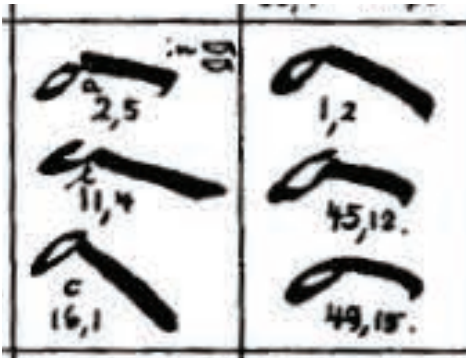
Various Mayanists have indicated the Maya DNIG indicates “succession,” “exchange,” “change,” and “follow”; and the curly 6 glyph indicates “succession” or “ordinalizer” (Macri et al. 2003). The pronunciation of the Maya DNIG glyph is *tz’akaj* and is defined as “was put in order” and “was counted, increased” (Montgomery 2007).

The DNIG in the Caractors Document is found in the Egyptian with a similar definition to “increase” as found in the Maya. The Egyptian word *k* or *ky* (*ki* under Budge phonetics) means “another” (Dickson 2007, 269) and “also” (Budge 1920, 2:782, 792) and consists of the Gardiner V-31 and the double M-17a glyphs:

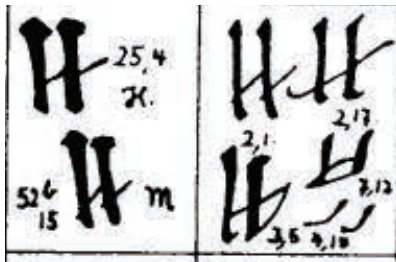
V31:

M17a:

The hieratic for these glyphs consist of Möller Numbers 511 and 283:

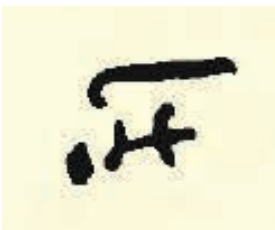


Möller Number 511, Bd. I-23-76, page I 504-512



Möller Number 283, Bd. II-1-30, page II 283-293

These glyphs have the form matching the Caractors DNIG. In Egyptian Demotic the word *k* means “another” (*Chicago Demotic Dictionary* 2014, K [29 June 2001], 01:1) and in addition to the Egyptian hieratic a Demotic glyph for *k* matching the Caractors Document glyph is found in early Demotic:



(Erichsen 1954, 557)

Phonetically, the Maya pronunciation of the DNIG glyph T573 as *tz'ak* is also a match in Egyptian. The Maya definition of “to put in order” and “increase” matches the combination of the Egyptian words *ts*, which means “to order,” and *k*, which means “another.” Stubbs also noticed a portion of this correspondence of Egyptian to Uto-Aztec (Stubbs 2015, 134).

A form of this glyph also appears at Teotihuacan. In the Burial Site 5 complex (dated to AD 350) excavated at the Moon Pyramid at Teotihuacan, three individuals of high political status were unearthed. With two of the individuals, two rectangular pectorals were found. The form of the two pectorals is completely unfamiliar to Teotihuacan art and ornamentation, but several centuries later, these pectorals were frequently depicted as worn by Late Classic Maya rulers as a symbol of political authority (Sugiyama and Lujan 2007, 135). The larger pectoral specimen is decorated with an incised motif bearing some resemblance with the Maya pop sign, but it also has significant differences. It is composed of two bands crossing another pair of bands to form a sort of X and a rectangular panel with a trapeze on both sides (see figure 51).

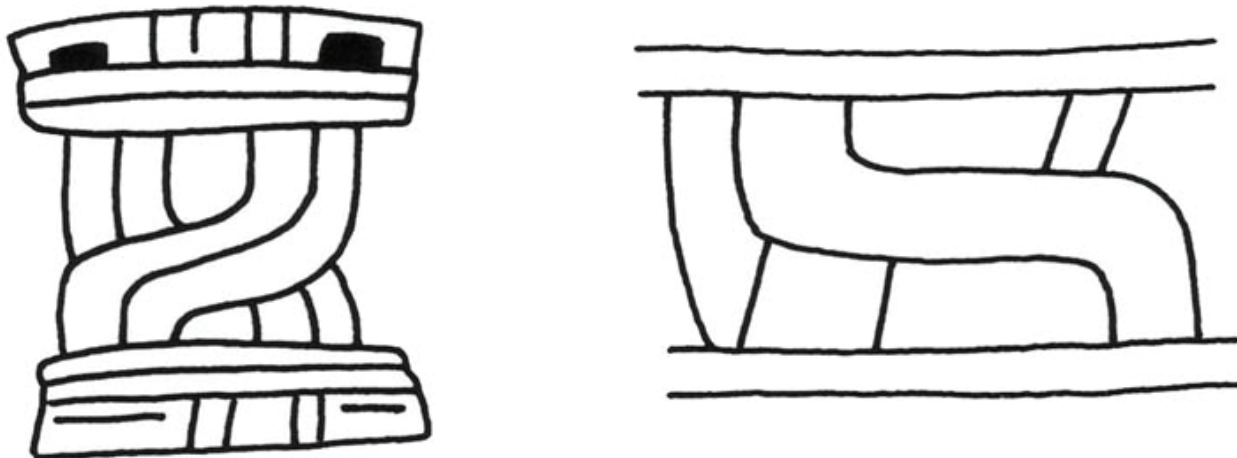


Figure 51. Representations of the “bundle C” sign (Langley 1986, 239)

James Langley (1986, 238–239; 1992) classified this sign as “bundle C.” Following Hasso von Winning (1979), Langley identified this sign as the central Mexican year bundle, or *xihmolpilli*, the symbol of the 52-year cycle and the New Fire ceremony. The appearance of a similar glyph as a calendrical indicator in the Caractors Document is indicative that the reformed Egyptian may have been the source in other Mesoamerican cultures.

Since it has been demonstrated that the reformed Egyptian in its number system and elsewhere in its calendar system is steeped with religious integration into the script, a construction from different Egyptian glyphs than the obvious ones identified above for the Caractors Document DNIG is also a possibility for one of the Caractors DNIG and an adjacent glyph with an attached religious meaning.

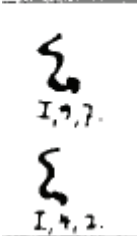
Egyptian contacts with Palestine occurred in predynastic times and are well documented from the Old and Middle Kingdom periods. In the New Kingdom, with the growth in Egypt’s imperialism, the contacts with Semitic-speaking peoples were considerably intensified. In the Eighteenth Dynasty (ca. 1543–1292 BC), the Egyptians established administrative headquarters in three provinces and built a number of garrisons throughout the region. Large numbers of Semitic speakers were in Egypt as slaves or laborers, and there was significant commercial trade contact. As a result a variety of Semitic words are found in Egyptian. The word for the Hebrew God *El* is found in a few places in Egyptian as well. From a name list of slaves from the Eighteenth Dynasty (ca. 1543–1292 BC) is found the name for *El* in Egyptian (Steindorff 1900). Similar forms of the name are documented in inscriptions or writings through the Twenty-Second Dynasty (945–715 BC) (Hoch 1994, 27). The standardized hieroglyphic forms that made up the name *El* are:

H6:  A2:  E23: 

The hieratic form of this word can be derived by looking at hieratic glyphs for each of these glyphs in order—H-6, A-2, and E-23.

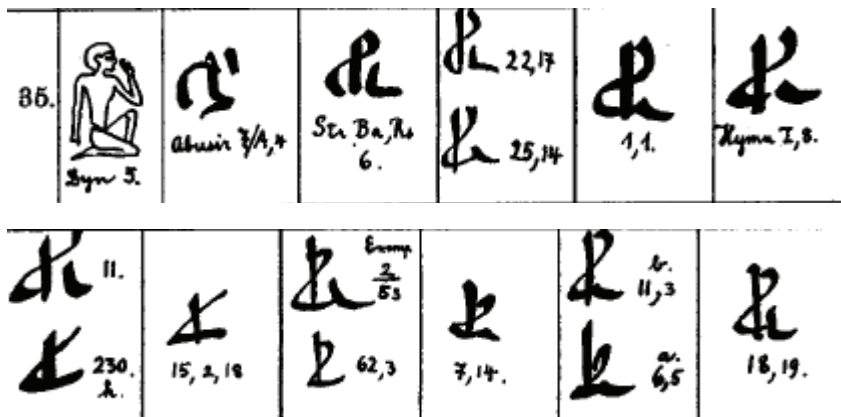
H-6:

P. Rhind



(Möller Number 236, Bd. III-1-31, page III 236-244) (derived from Gardiner Number H-6) Rhind Papyri, I 9, 7; I, 4, 2; British Museum (Möller 1965)

A-2:



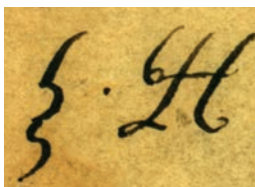
Möller Number 35, Bd. I-1-32, pg. I 32–40 (derived from Gardiner Number A-2) (Möller 1965)

E-23:



Möller Number 125, Bd. III-1-31, pg. III 120-128bis (derived from Gardiner Number E-23) Takelothis Papyri, 3045, 8, 9; Aegyptisches Museum and Papyrussammlung, Berlin (Möller 1965)

This particular construction from Egyptian for one of the Caractors DNIG glyphs is fairly transparent, especially if one considers the example of C-27 and its attendant character, C-28, which is also a calendrical glyph called an ADI (to be discussed later).



The H-shaped portion of the Caractors DNIG is close in form to the hieratic Möller Number 35 from a variety of sources in the Möller hieratic glossary. The curly 6s are close in form to Möller Number 125, and the attendant ADI with Möller Number 236. All together, they form the Egyptian word for *El*, or God in Hebrew.

Secondarily, the word for *El* is also shown in the Paleo-Hebrew (Old Hebrew). According to contemporary scholars, the Paleo-Hebrew script developed alongside others in the region during the course of the late second and first millennia BC. It is closely related to the Phoenician script.

Clear Hebrew features are visible in the scripts of the Moabite inscriptions of the Mesha Stele, set up around 840 BC by King Mesha of Moab. The eighth century Hebrew inscriptions exhibit many specific and exclusive traits, leading modern scholars to conclude that already in the tenth century BC the Paleo-Hebrew script was used by wide scribal circles. Paleo-Hebrew was completely abandoned around the time of the destruction of the Second Temple in the year AD 70. Except for the inscriptions on a few ancient Jewish coins, no remnant of Paleo-Hebrew remained. The later Aramaic-influenced Hebrew is only known after the Babylonian captivity, so the Hebrew script at the time of Lehi would have been some form of Paleo-Hebrew.

El is written in the Hebrew as two letters, aleph and lamed.

A portion of the Moab Stone is shown in figure 52 with the letters *aleph* and *lamed* marked. As is obvious, the curly 6 is in fact the letter *lamed*. The *aleph* is also represented in one of the hieratic forms of the stylized H part of the Caractors DNIG glyph shown previously (Möller Number 35) (bottom row, second from the left).

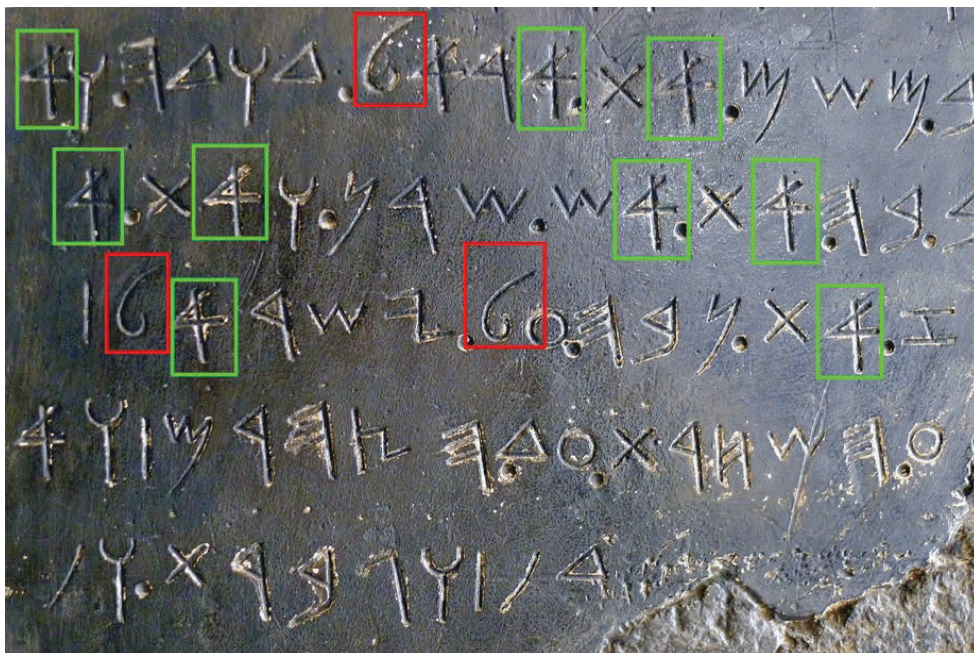


Figure 52. The 850 BC Paleo-Hebrew Moab Stone, showing the letter *lamed* in red and the letter *aleph* in green (Wikipedia Commons 2015a)

It is also of interest to note that the “resting lion” glyph that we have been referring to as E-23 is also the hieroglyphic source glyph of the Proto-Sinaitic letter *lamed*. The curly 6 *lamed* can be seen in the example of Proto-Sinaitic shown in figure 53.

The Proto-Sinaitic script was the first alphabetic writing system and developed sometime between about 1900 and 1700 BC. People speaking a Semitic language and living in Egypt and Sinai adapted the Egyptian hieroglyphic or hieratic scripts to write their language using the acrophonic principle. This involved choosing about thirty glyphs, translating their Egyptian names into the Semitic language, and using the initial sounds of those names to represent the sounds of their language.

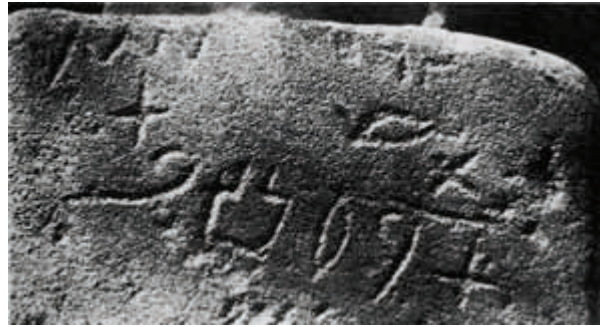
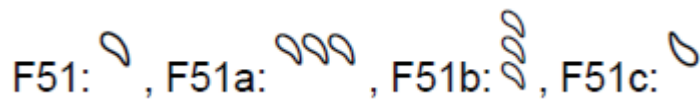


Figure 53. Proto-Sinaitic script from Serabit el-Khadim, Sinai Peninsula, dated to ca. 1500 BC (Wikipedia Commons 2015b)

The curly 6 is also constituted by the Egyptian hieroglyph Gardiner Number F-51, which can occur in multiple numbers and orientations:



The hieratic form is:

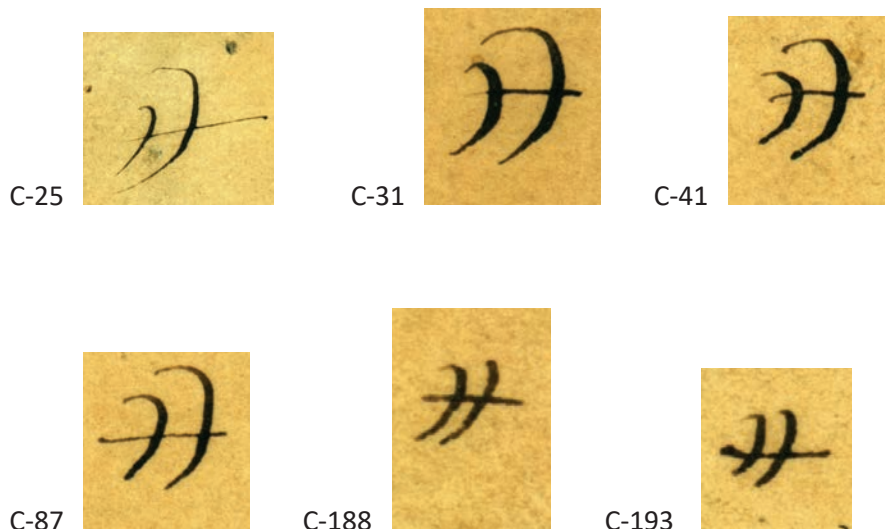


Möller Number 178, Bd. III-1-31 pg. III 176-186 (Möller 1965)

This glyph is a determinative for “flesh,” and is also at times a generic determinative for “goddesses” (Gardiner 1957, 467). Multiples of this glyph are also the primary glyphs (in triplicate) in the Egyptian word (after Budge’s phonetics) *ḥā neter*, which means “God’s body” (Budge 1920, 1:466).

Posterior Date Indicator (PDI) Glyphs

As has been previously discussed, the PDI is oftentimes associated with the Maya Distance Numbers, although not exclusively so (Stuart 1990), and it generally places the number going forward in time. The Caractors PDI is found as Characters 25, 31, 41, 87, 188, and 193:



The Caractors PDI is found incorporated as an infix into the associated Maya PDI affix glyph. As noted in the DNIG, in Egyptian the orientation of a hieroglyph can be reversed depending on the direction it is read, so examples of reversed versions of the PDI are included here:



The slightly stylized Caractors PDI is found incorporated and embedded in nearly all of the Maya PDI affixes. The glyph is quite obvious in the various Maya PDI glyphs shown in figures 54 through 60. Unlike the DNIG, the PDI is typically an affix glyph, meaning it is attached to another glyph, usually on the side. However, Maya scribes were creative and would move the affixes all around (and even morphed them into the adjacent glyph).

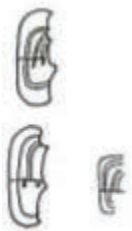
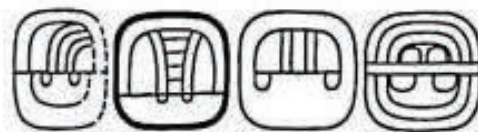


Figure 54. PDI Glyph Affixes, Palenque Temple of Inscriptions Sarcophagus 1-9 (Schele 1982)

YMI



T 0679



i

Figure 55. PDI General Catalogue form (Macri et al. 2003, 207)



PDI—Yaxchilan, Lintel 31, I3b



PDI—Palenque, Temple of the Inscriptions, West Panel, S5

Figure 56. Maya PDI Glyphs (Gloss 1994, 357)

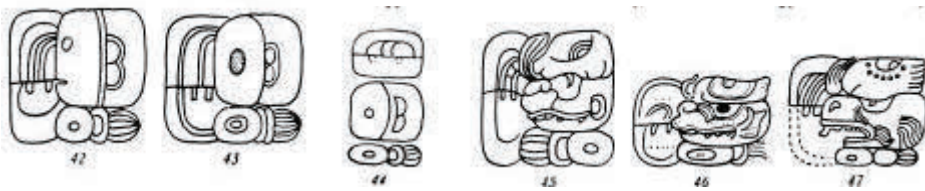


Figure 57. PDI Glyphs—42. Pal. Inscr. (W), R12; 43. Yax. L 25, N1; 44. Quir. E (W), S5; 45. Pal. Inscr. (W), S5; 46. Pal. 96 Gl. G1; 47. Cop. TI1, E door, S panel, C5. (Thompson 1950, figure 30)

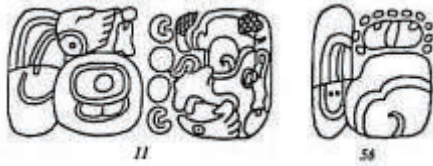


Figure 58. PDI Combination Forward to Completion Glyph—11. Forward to completion of second baktun, Pal. Fol. Cross, C7-D7; 56. Forward to haab completed (') Cop. Z, B3 (Thompson 1950, figure 32)

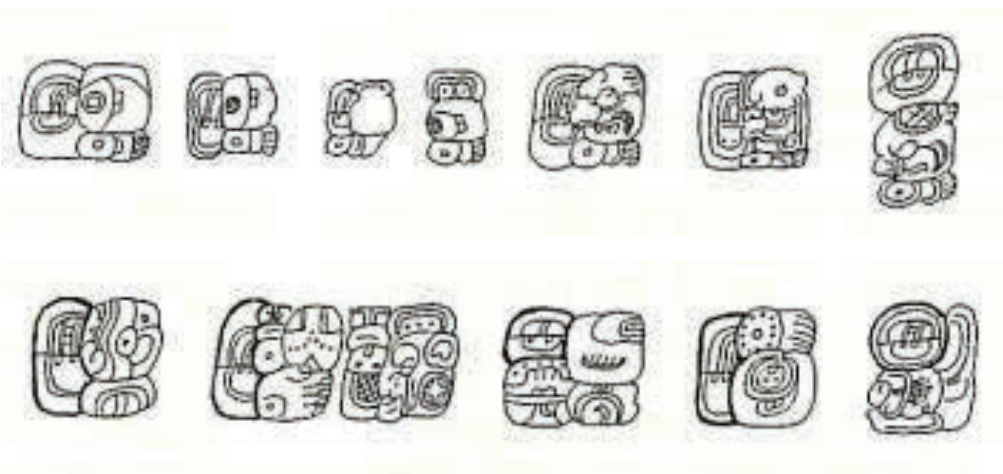


Figure 59. PDI Glyph Affixes, Palenque Temple of Inscriptions Sarcophagus 1-9 (Schele 1982, 22)

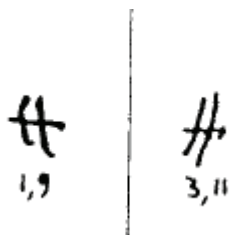


Figure 60. PDI Glyphs (Stuart 1990, 217)

The embedding of the Caractors glyph could potentially be considered a combined glyph; however, given the simplicity of the glyph affix in which it is found, this might just be an example of a stylistic form of the Caractors glyph. Various Mayanists have translated the full Maya PDI glyph set, which is pronounced *i-u-ti*, as “and then it came to pass,” “and then,” and “forward” (Stuart, 1990; Montgomery 2007). This translation is well represented in the current text of the Book of Mormon.

The Maya glyph affix by itself is identified by Thompson number T679, with the pronunciation in Maya as *i/l* with a definition of “then” or “and then” as a particle of speech (Montgomery 2007).

The Egyptian source of the Caractors PDI glyph is the hieratic form of the Gardiner Number Z-11 hieroglyph and the Gardiner Number M-42 hieroglyph, which often is substituted in for Z-11 in the hieratic (Gardiner 1957, 539).



Möller Number 564, Bd. III-32-72-Taf, pg. 554–564B (derived from Gardiner Z-11) (Möller 1965)

The Z-11 glyph by itself forms the Egyptian word *imy* meaning “which is in” (Dickson 2006, 290). Another meaning of a form of *imy*, *imy xt* (constructed with additional glyphs including Z-11), means “following after (of time)” (Dickson 2006, 124). Also, when placed together with the Egyptian version of the religious version of the main DNIG sign (Gardiner Number A-2) as occurs in the Caractors Document, the meaning is an Old Kingdom variant for “old” (Gardiner 1957, 539). The Egyptian word *i’w* means “old man” and *i’wi* means “old age.”

The relationship between the Maya PDI glyph and the reformed Egyptian glyph appears to be a direct borrowing from the reformed Egyptian into the Maya both in script and in the verbal language or perhaps via a proto-Nahuatl contact with the Maya.

The Maya PDI glyph (T679) is pronounced *i* or *l* or *iwal* and as previously mentioned means “then,” “and then,” and “it came to pass.” In Mayan, this is typically prefixed to indicate the later or focus event (Harris et al. 1996). In Egyptian, the stative verb suffix *-i* means “it is done,” and the passive verb suffix *-iw* means “it was done” (Stubbs, 2015, 87–88), so this is a very straightforward loan into Maya. Again, related to the Z-11 glyph form mentioned above, the Egyptian word *i’w* means “old man” and *i’wi* means “old age” (Dickson 2006, 5, 115).

It is also possible that the loan passed first from reformed Egyptian in the spoken form as found in proto-Nahuatl. Brian Stubbs (2015) has noted that the Egyptian suffixes *-i* and *-iw* are found in the Uto-Aztecan language family as *-i* and *-iwa*, also as suffixes with the same meaning.

Others have noted that the adverbial marker in the Mayan proto-Ch’olan form **iwa:l* meaning “and then” was borrowed from the Nahuatl form spelled *i:hua:n* or *i:wa:n*, which is phonologically similar and also has the meaning in Nahuatl of “and, and also; and moreover” (Gayol et al. 2005, 17–18). This might be a secondary loan pathway for the reformed Egyptian glyph to have been incorporated into the Maya glyph. These and other authors noted that the linguistic contact between Nahua and Maya speakers was “an intense and long-termed one, to get ingrained at such deep structural levels of language” and that the linguistic interaction between Nahua and Maya cultures “could have begun earlier than formerly admitted” and with the assumption that the contact was from Teotihuacan during its apogee (ca. AD 450). Brian Stubbs’s research has indicated that the spoken Nephite language was likely a form of Nahuatl, so the close contact of the Nephite culture with the Lamanite (Maya) culture (which the Book of Mormon discusses) is a very plausible explanation.

The ADI and PDI glyphs have some possible sources in Sumerian proto-cuneiform as well. A variety of glyphs with calendrical indications, when slightly modified, match the ADI and PDI glyphs. First, the year sign in the proto-cuneiform previously discussed has the essential format for the PDI glyph of two curved lines with a central bar. One of the lines is flipped, but this would be a reasonable variation of the glyph.

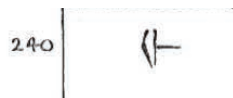


A similar proto-cuneiform glyph has also been interpreted to mean “end” and to be the word *ud* meaning “when” or “day”:



Early Dynastic I period ca. 2800–2700 BC. E. Burrows, *Archaic Texts* (UET 2; London 1935)

Another similar glyph is *igi*, which means “first” or “earlier”:



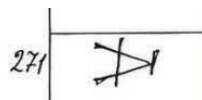
Early Dynastic I period ca. 2800–2700 BC. E. Burrows, *Archaic Texts* (UET 2; London 1935)

Another similar glyph is *šū*, which means “totality”:



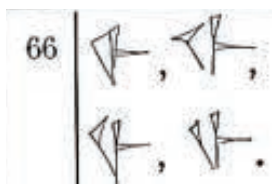
Early Dynastic I period ca. 2800–2700 BC. E. Burrows, *Archaic Texts* (UET 2; London 1935)

Some proto-cuneiform glyphs that are slightly more recent, from the Early Dynastic IIIa period (ca. 2600–2500 BC), show the similarity and variability. This glyph is another version of *ud*, which means “first” or “earlier”:



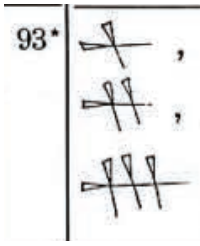
A. Deimel, *Liste der archaischen Keilschriftzeichen* (WVDOG 40; Berlin 1922)

While slightly later than the Jaredite departure (2500–2600 BC), some early cuneiform shows the daughter glyphs of the previously mentioned proto-cuneiform glyphs. The glyph for *igi*, which means “first” or “earlier,” is found in the Early Dynastic IIIb period (Old Sumerian, pre-Sargonic Lagash; ca. 2500–2340 BC):



Y. Rosengarten, *Répertoire commenté des signes présargoniques sumériens de Lagash* (Paris 1967)

Also found are the glyphs for *first year*, *second year*, and *third year*, respectively:

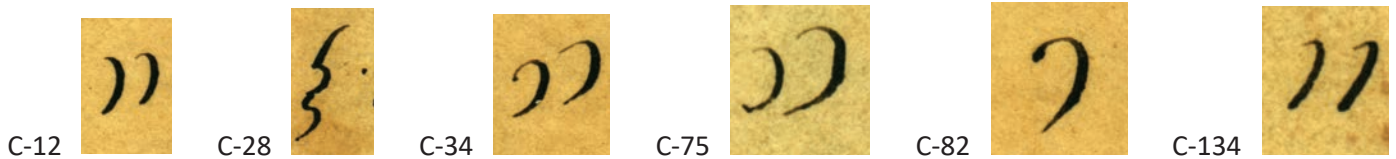


Y. Rosengarten, *Répertoire commenté des signes présargoniques sumériens de Lagash* (Paris 1967)

Considering that the ADI and PDI glyphs may not be loans between Maya and reformed Egyptian, a reasonable source for both would be an earlier Sumerian proto-cuneiform brought with the Jaredites and modified over time in Mesoamerica.

Anterior Date Indicator (ADI) Glyphs

As has been previously discussed, the ADI is oftentimes associated with the Maya Distance Numbers, although not exclusively so (Stuart 1990), and it generally places the number counting back in time. The Caractors ADI is found as Characters 12, 28, 34, 75, 82, and 134:



Like the other Caractors calendar glyphs, the Caractors ADI is found incorporated into the associated Maya ADI affix glyphs. There are two forms of ADI in both the Caractors Document and the Maya; C-28 is the variant snake-like form, which will be compared separately. It is not certain that C-82 should be classified as a typical ADI based on its location in sequence, and it is more similar to the Period-Ending glyphs. But it does appear to affect the count in its location. C-82 will be discussed further as part of the discussion involving Period-Ending glyphs.

As noted in the DNIG, in Egyptian the orientation of a hieroglyph can be reversed depending on the direction it is read. However, presentation of a mirror image here is not necessary based on the simplicity of this double crescent character. The Caractors ADI is not embedded in the Maya ADIs; it is actually *identical* to the Maya ADI affixes except that the crescents are situated as needed to fit the Maya glyph. This is quite obvious in the various Maya ADI glyphs shown in figures 61 through 69. Like the PDI, the ADI is typically an affix glyph, attached to another glyph, typically on the side, and creative Maya scribes would move the affixes all around (and even morphed into the adjacent glyph).

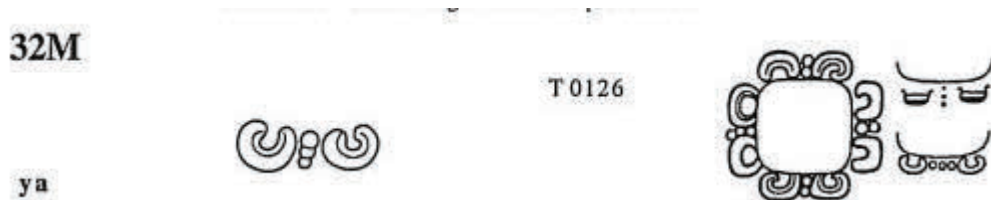


Figure 61. ADI general catalogue form (Macri et al. 2003, 296)

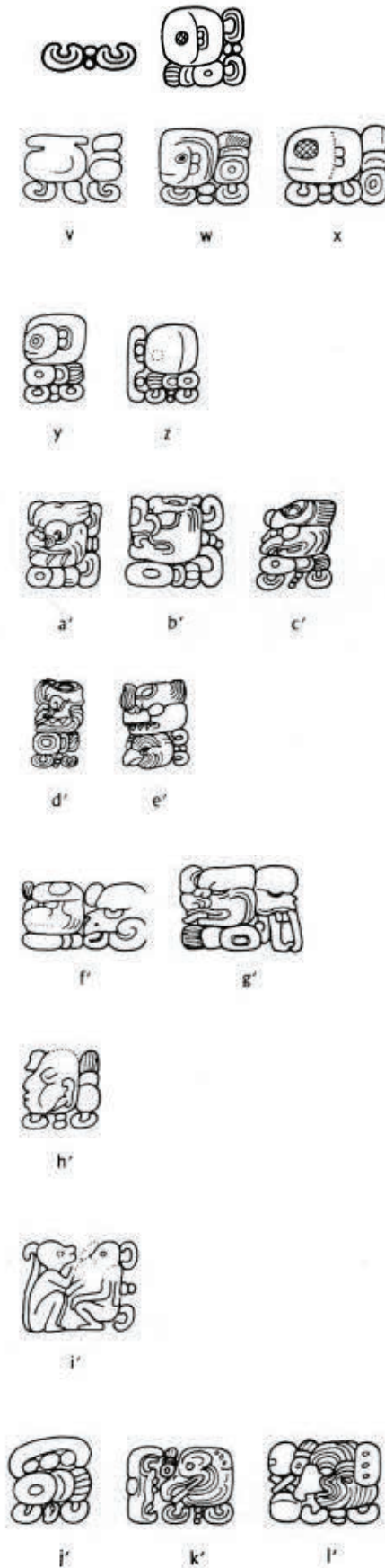


Figure 62. ADI Muloc glyph and other glyphs showing ADI affix (Stuart 1990, 217)



Figure 63. ADI glyph affixes, Palenque Temple of Inscriptions Sarcophagus 1–9 (Schele 1982, 22)



ADI—Copan, Stela C, A7a



ADI—Kuná-Lacanhá, Lintel 1, K2

Figure 64. ADI glyph affixes (Gloss 1994, 357)

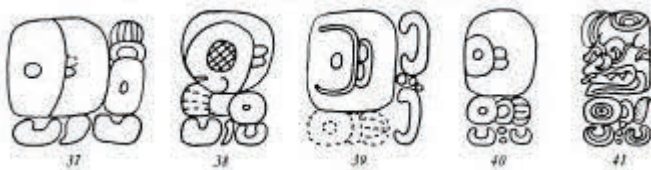
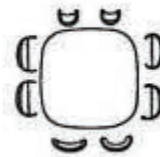


Figure 65. ADI glyphs—37. P.N. L 2, X3; 38. P.N. 12, A16a; 39. Cop. U, P2; 40. Quir. P, E9b; 41. Cop. C, A7a (Thompson 1950, figure 30)

32M



T 0047
Z 0074
K —

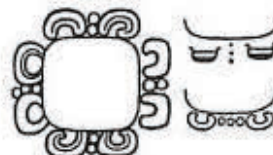


ya

32M



T 0126
Z 0074
K 0037



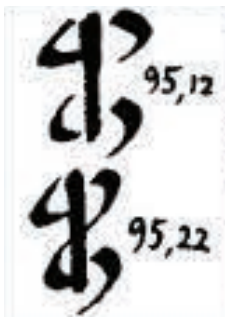
ya

Figure 66. ADI affix for later Codices (Macri et al. 2009, 237)

The Egyptian source for the double C-shaped Maya ADI is the Egyptian word *xpr* or *khepher* (under the Budge phonetics), which means “to happen” and “exist, be, come into being, become, change (into), occur, happen, or come to pass” (Budge 1920, 2:542; Dickson 2006, 299). The word can be represented as a single Gardiner L-1 glyph (Budge 1920, 2:542; Vygus 2018, 977):



The hieratic form of this glyph is Möller Number 258:



Möller Number 258, Bd. I-23-76, pg. I 250–258 (Möller 1965)

As shown in various examples above, the utilization of more than two C glyphs in the Maya is found for the *ya* glyph, and they are used to surround other glyphs, consistent with the Egyptian hieratic form. In Mayan, in addition to the ADI function, *ya* indicates the relative times and importance of two or more events and is usually subfixed to the backgrounded and earlier event (Harris et al. 1997, 43).

Snake Variant ADI

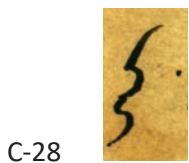


Figure 67. ADI snake variant general catalogue form (Macri et al. 2003, 54)



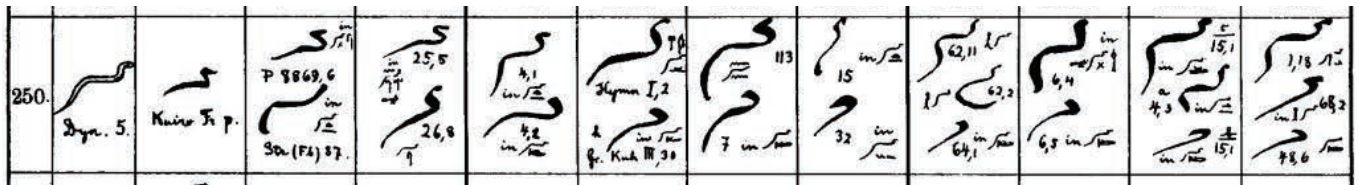
Figure 68. ADI snake variant—Palenque, Tablet of the 96 Glyphs (Gloss 1994, 357)



Figure 69. ADI snake variant—48. With 13 Ahau. Pal. Inscr. (E), M7; 49. With 3 Ahau. Pal. Inscr. (W), R3; 50. With 1 Manik, Pal. I, A10; 51. With 13 Ahau. Pal. 96 Gl., K2 (Thompson 1950, figure 30)

In Maya, the snake ADI glyph (T206) is pronounced *chan* or *kan* and can also mean the cardinal number 4 and is homophonous or semi-homophonous with *chan* or *ka'an*, meaning “sky,” and *chan* or *kan*, meaning “snake” (Montgomery 2007).

Just like the other form of the ADI glyph, there is a phonetic connection to Egyptian. Another word containing the phonetic word *imy* is found in Egyptian, *imyw tA*, which means “snakes” (Dickson 2007, 124). Not surprisingly, some of the Egyptian glyphs consist of snakes, such as Gardiner I-10, which in the hieratic is Möller Number 250 and is very close in form to C-28:



Möller Number 250, Möller Bd. I-23-76, pg. I 250–258 (Möller 1965)

Period-Ending or Completion Glyphs and Transitional Glyphs

General Period-Ending Marker

Three period endings are intimated in the Book of Mormon as indicated by the clause “making in the whole,” which is only used in three places in the Book of Mormon: Mosiah 6:4 (end of the Seven Tribes period, corresponding with commencement of the reign of Mosiah₂); Mosiah 29:46 (end of the Reign of the Kings Calendar); and Mormon 3:4 (end of a 360-year period after the Coming of Christ).

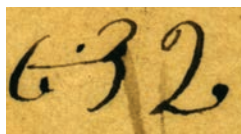
A crescent glyph is an element of all of the Period-Ending markers. The Egyptian definition of the word *m ∞*, a single crescent glyph, is “behold” or “see” according to the *Chicago Demotic Dictionary*:



Rhind Papyrus I, 2d13, CDD M (10:1), p. 1 (*Chicago Demotic Dictionary* 2014)

Each of the Caractors Period-Ending glyphs, as expected, is unique to the time period it closes, and each will be discussed individually.

1. Seven Tribes Subcalendar Period-Ending Glyph



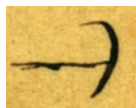
C-81, C-80

This glyph has the identifying number 7 starting the sequence (the glyph for tribe is not included), followed by the 50 portion of the Reign of the Kings glyph (the bottom 5 bar is not included but is perhaps represented by the central horizontal bar). Finally there is a right-facing crescent connected by a line, with two dots between the 50 and the right-facing crescent. This ends only a subcalendar period, as the Reign of the Kings Calendar continues to run.

2. Lehi Departure Calendar (600-Year) Completion and Transition Glyphs



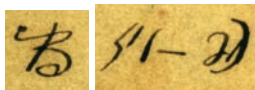
C-111



C-119

This pair of left-facing crescent glyphs is known by its location to be the Period-Ending glyph for the completion of the 600-year period in the Lehi Departure Calendar, which is a subcalendar to the 1,000-Year Calendar. From a date calculation standpoint, the 1,000-Year Calendar continued to run beyond 1,000 years after the final battle all the way to the demise of Moroni, which completed all of the Book of Mormon prophecies (which will be discussed later), ending with the extinction of the Nephites. The section between the two glyphs also explains the initiation of the Coming of Christ Calendar, so in a sense, these glyphs are best described as period-transition glyphs.

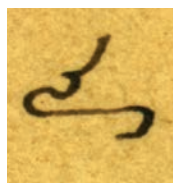
3. Reign of the Judges Period-Ending Glyph



C-175, C-174, C-173, C-172, C-171, C-170

This glyph set is initiated by the Period-Ending left-facing crescent with what appears to be a small line followed by the identifying number 7 signifying the Reign of the Judges. The typical period-ending horizontal line follows (that might also be interpreted as a "spacer" line), and then there is a transition to initiate the implementation of the Coming of Christ Calendar (which had already been running) with the Introductory Calendar glyph for that calendar. The second part of this glyph consists of C-173, which means "toward" (to be discussed later), and C-174, which means "Most High" (also to be discussed later), followed by the Coming of Christ ISIG.

4. Fourth-Generation Completion Glyph



C-189

This Period-Ending glyph is principally identified in the context of Book of Mormon chronology and by its location in the text. There is a Distance Number Indicator, followed by the PDI, and then this glyph occurs, indicating it is either a number or a calendar period. A combination of the Egyptian hieratic/Demotic determinative for *fourth* connected at its base to the general Period-Ending marker, which also means “behold,” would seem to be the Egyptian construct of this character.



(Erichsen 1954, 696)

There is no indication in the text of Mormon 3:4 that identifies a specific event surrounding the end of 360 years; it just has the earmark language associated with the date “making in the whole.” However, the Book of Mormon lacks any specific statement of finality with reference to the Fourth Generation prophecy specified in 1 Nephi 12:11–12 (three generations from the coming of the resurrected Christ shall pass in righteousness, and “many of the fourth generation passed in righteousness”); Alma 45:12 (“even that fourth generation shall not pass away before the great iniquities come”); Helaman 13:10 (“there shall be those of the fourth generation who shall live, of your enemies, to behold your utter destruction... and those of the fourth generation shall visit your destruction.”); and 3 Nephi 27:32 (“fourth generation from this generation” shall become wicked).

The generations of people will of course overlap since not all families have children at the same time, and there are multiple children of each succeeding generation. The Fourth Generation prophecy is not tied to a specific year count, just generations, and the completion of the prophecy was to occur at some point in time during the fourth generation. The more specific completion of the prophecy is tied to the nearly complete wickedness of the Nephites.

In 4 Nephi 1:18 Mormon specifically marks the complete passage of the first generation at 110 years after the coming of Christ, and in 4 Nephi 1:21–22 Mormon specifically marks the complete passage of the second generation (“save a few”) at 200 years after the coming of Christ. What this means is that essentially all the people who had been alive at the time of Christ’s coming around AD 30 had died off by AD 110. So a baby that was one year old at that time would have died by AD 110, meaning at eighty years of age. There may have been others that lived longer in terms of age, say a ten-year-old who lived to be ninety years old, or a twenty-year-old that lived to be one hundred, for example. So it can at least be said that the youngest persons of the first generation lived no longer than 80 years.

With the second generation, however, it is a bit more complicated, because one must look at the oldest age by which one of the first generation could have sired children. It has been recorded that some men in their nineties have sired children. So it is possible that a child could have been sired just prior to AD 110 and then lived ninety years to the demise of the second generation that was noted at AD 200.

There are no further specific markings of the passage of the generations, but since the second generation was marked after a period of ninety years, it seems reasonable that the complete passage of the third generation would have been around 290 years after the coming of Christ (“save a few”) as Mormon had noted on the second generation, with the fourth generation being gone (“save a few”) by around AD 380. Mormon notes in 4 Nephi 1:45 that when 300 years had passed away, “both the people of Nephi and the Lamanites had become exceedingly wicked one like unto another,” which would be into the fourth generation. The prophecy that indicated that there were some of the fourth generation of the Lamanites that witnessed the Nephite destruction in AD 384 is thus very possible, although there were likely not too many left. Since the Lamanites broke off again during the third generation, which may be the reason that the end of the third generation was not noted, as likely they were not aware of when the third generation of Lamanites passed away as they were not tracked separately until that point.

It is important to remember that we are talking about the maximum possible extent of age that a Nephite line of four generations might have gone. The minimum could be, assuming childbearing age at fifteen, as short as sixty years, so some lines of four generations may have been completed in AD 90. Thus, where the prophecy states that many of the fourth generation “passed in righteousness,” this part of the prophecy was no doubt satisfied long before AD 290.

In Mormon 3:4, where Mormon marks 360 years having passed after the coming of Christ, Mormon had just completed preaching repentance one final time to the Nephites, but it was in vain, and they “did harden their hearts against the Lord.” This date would be consistent with the fulfillment of the Fourth Generation prophecy of complete wickedness of the Nephites.

Like the other Caractors calendrical glyphs, portions of the Period-Ending or Completion glyphs are found in the Maya Period-Ending glyphs. Figures 70 and 71 show Maya Period-Ending glyphs featuring the crescent with two dots that is reflected in the Seven Tribes Period-Ending glyph. Figure 65 shows the Maya Period-Ending glyphs that feature the crescent with single or multiple lines that are reflective of the Lehi Departure Period-Ending glyph and the Reign of the Judges Period-Ending glyph. Figure 66 shows those with just a bare crescent, the general form.

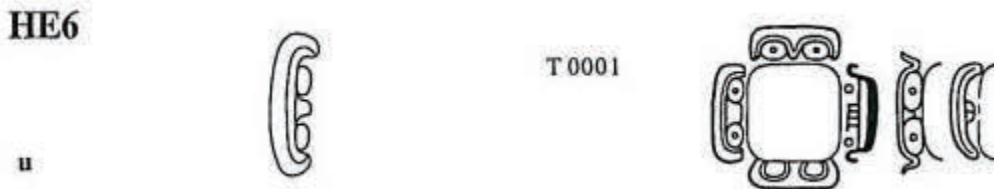


Figure 70. Period-Ending glyph (Macri et al. 2009, 106)

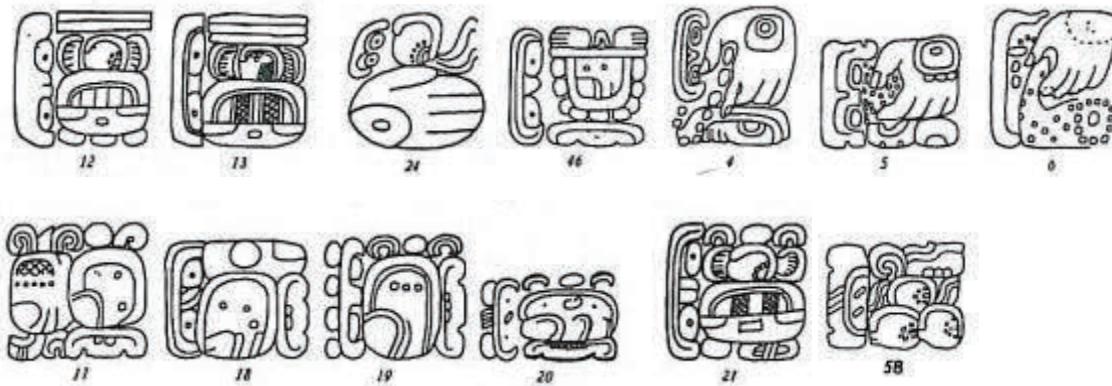


Figure 71. Period-Ending glyphs “C with dots”—12. Tenth Katun Pal. INscr. (E), T2; 13. Fifteenth Katun P.N. Alt 2, H2; 24. Completion of haab, Nar. 25. D4; 46. Half of Period, UAZ 22, B3; 4. Cop. B, B7; 5. Quir. C, C13; 6. Nar. 14, E12; 17. Pal. Inscr. (W) S11; 18. Nar. 24, D8; 19. Tik. T 4, L 2, K1; 20. Pal. 96 Gl., I8; 21. First Katun P.N. L 3, F1; 58. Quir. C, A14 (Thompson 1950, figure 32)

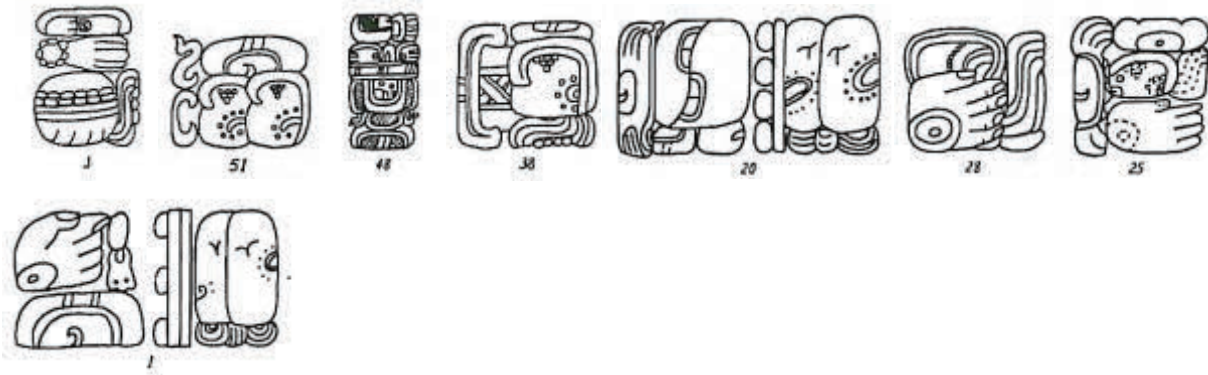



Figure 72. Period-Ending glyphs “C with lines”—3. Cop S. 11B; 51. Cop N, pedestal, 22; 48. At its half period. Cop 6, A7b; 38. Fifth Haab. Quir A. B11; 20. Count of Succession of 9 Baktuns, Pal. Cross. S1-R2; 28. Completion of Haab, Nar. 24, E15; 25. Completion of Count of New Haab, P.N. Alt 2, G3; 1. Completion of 13 Baktuns. Pal. Cross, D4-C5. (Thompson 1950, figures 32 and 33)

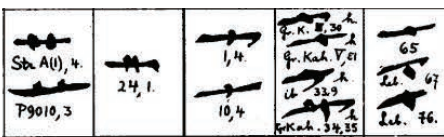


Figure 73. Period-Ending glyphs “C only”—14. Quir. E, D19a; 27. Completion of Expiration of Haab (Thompson 1950, figures 32 and 33)

The meaning of the Mayan period-ending affix (T1 or T001) is the third person pronoun "he, she, it" or the third person possessive pronoun "his, hers, its" and has a pronunciation of *U/u* (Montgomery 2007). The corresponding Egyptian glyph and Egyptian word is *s* or *sy*, meaning “(suffix pronoun) she, her, it, its” or “(dependent pronoun) she, her, it” (Dickson 2006, 166). The Egyptian glyph for *s* or *sy* consists of the single Egyptian glyph Gardiner O-34:

O34: 

The corresponding hieratic glyph is Möller Number 366:



Möller Number 366, Möller Bd. I-23-76, pg. I 355–367 (Möller 1965)

The hieratic does consist of lines and two dots, so it correlate with the Maya in that regard. It must be remembered that the orientation of the glyph is not critical in Maya as it moves around based on the particular glyph.

The phonetic correlation of the Mayan *U* with its meaning as a third person pronoun is found directly in the Hebrew/Semitic third person pronoun word for “he” consisting of *hu/huu/huwa*. Stubbs noted a similar correlation between Egyptian and Uto-Aztecan with the third person pronouns (Stubbs 2015, 85–86).

This connection is further phonetically correlated with *huwa* when looking at another Maya form of *U* consisting of *U . . . wa* with the function in Maya as a “transitive completive verbal affix pattern; marks transitive completive verbs” (Montgomery 2007).



This function as marking completeive verbs also correlates with the calendrical function as a completeive period aka Period-Ending glyph.


5. Spacer glyphs

The numerous spacer glyphs found in the second part of the Caractors Document are also calendrical markers in that they separate events and represent significant periods of time or time gaps. Their Egyptian derivation is discussed in the next chapter.


Calendar Glyphs and the Egyptian Measurement Glyphs

In evaluating the PDI and ADI glyphs, Linda Schele (1983) noted that there was a water-based theme and relationship for the glyphs, and also the element of a jar container, linking the glyphs to a particular Mayan word/phonetic. Further analysis by David Stuart (1990) indicated that this analysis was deficient as there was no element of measuring or counting anything with the words/phonetics that Schele had identified.

There is a possibility that some of the Caractors calendar related glyphs may also have some relation to Egyptian units of measure or numerals. There are some Palestinian hieratic glyphs that may in fact match some of the above discussed calendar glyphs as follows:

Number 1 
25.2^o


19.1

Number 2 
19.2


1

Bath: Hebrew liquid volume measurement


3

Kor: Hebrew dry volume measurement


3.1


3.2

Se'ah: Hebrew dry volume measurement



Hekat: Egyptian dry and liquid volume measurement



Khar (Sack): Egyptian dry volume measurement



Homer: Hebrew dry volume measurement

(Wimmer 2008, 197, 199, 252, 254, 256, 259, 263, 264)

The Palestinian numbers and volumetric measurement glyphs in use at the time Lehi left Jerusalem look to be a possible corollary source of some of the time measurement glyphs used in the Caractors calendar system.

Egyptian or Semitic Source of Calendar Date Structure

While the identification of the Egyptian glyphs and their phonetic and glyphic relationship to Maya has been established, the actual source of the function of the calendar glyphs is still somewhat uncertain and whether it is an entirely Egyptian notation of a Hebrew structure or whether it originates in Mesoamerica (or most likely a mix of both) is still a question. From the Egyptian element, a good place to start would be the combinations of the Egyptian words *iw* and *hpr*. Various combinations have been defined as “came to pass,” “since it happened,” etc. As previously mentioned, the glyph for “old age” matches the Caractors PDI glyph, and the transliterated word for it in Egyptian is *iw*. An excerpt from the *Chicago Demotic Dictionary* of the various combinations is included here:

as introductory word or in introductory clause
iw=f r hpr iw... "it shall/should happen that..." (EG 355)
iw=f hpr iw... "if it happens that..." (EG 355)
mtw=y hpr "(& I should be" (EG 356)
(n-)dr.t hpr=f "since it happened" (EG 356)
 var.
n-t3y hpr X "after X happened" (R P Harkness, 3/11; R P Vienna 10000, 3/5
 [vs. Zauzich, *Fs. Rainer* (1983) p. 167, who read *n dd hpr* "of speaking...(there) came (to pass)..."])
r-db3 hpr iw "because it happened that ..." (EG 356 & 621, s.v. *tb3*)
hpr(=f) as impersonal *sdm=f* (often w. zero subject); see Simpson, *Grammar* (1996) pp. 130-31, §8.2.2-4
 in constructions
hpr + main clause "it happened/came to pass (that); it being the case (that); for, because" (EG 355)
 (R O Cologne 219, 7; P P HLC 5/1; P/R P Berlin 13603, 2/21 & 4/28; R P Carlsberg 1, 2/34, 3/20
 & *passim*; R P Harkness, 2/4)
 for discussion, see de Cenival, *Studien Westendorf* (1984) p. 219; Shisha-Halevy, *JAOS* 109
 (1989) 427, §2.1.f; Vernus, *RdE* 41 (1990)167-68, §5.3; Thissen, *Harfner*. (1992) p. 46, n. to 3/11
hpr iw + main clause "it happened/came to pass that...; it has come to be the case that" (EG 355)
 (P O Pisa 2, 5; P P Berlin 13381=, 15)
hpr m-s3=s + main clause "it came to pass afterwards (lit., "after it") ..." (P P Berlin 13603, 2/10)

ḥpr = s + conjunctive "it will come to pass that" (R P Serpot, 3/25)
 in formulas
hrw (n) s^cnḥ X...*ḥr* ḥb.t nb *ḥpr* = f "X endowment day(s)... monthly, when they (lit., "it," scil., the endowment day[s]) come to pass" (P P Turin 6070, 4; P P Turin 6072B, 4 & 6)
hrw (n) s^cnḥ X... *ḥr* rnp.t nb *ḥpr* = f "X endowment day(s)... yearly, when they (lit., "it," scil., the endowment day[s]) come to pass" (P P Turin 6069, 3, 4 & 6; P P Turin 6070, 3 & 4; P P Turin 6072B, 3-4; 6)
ḥr *ḥpr* = f "it (routinely) comes to pass" (EG 355)
 var.
 š^c - *ḥpr* = f "it (routinely) comes to pass" (R P Carlsberg 1, 2/18-19; 7/3; R P Carlsberg 1a, 3/29)
 on š^c as phonetic var. of aorist particle *ḥr*, see below

(Chicago Demotic Dictionary 2014, ḥ, 53–54)

The Hebrew language also generates these sorts of phrases and structures. It is known as “anterior construction” and involves linguistic constructs involving the pluperfect and the preperfect and verb modifications involving *qatal* and *waw* verb forms (Zevit 1998). Such a study is beyond the scope of this translation and is needed for the entire Book of Mormon in comparison with the Bible and with Mesoamerican usage, for which the Caractors Document and translation should provide further insight.

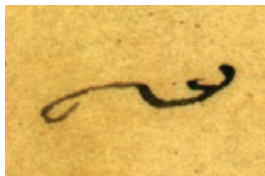
Additional Nephite Calendar Units

Days

It appears that a dot can represent “days” in the Caractors Document. The Egyptian hieratic glyph for “day” is either a circle with a dot in the center or a small circle, so the simple dot would be a shorthand version of this glyph. It would be found as the adjacent dot in C-21 and the lower central dot of C-15.



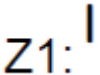
Years

For the regular year counts in the Caractors Document, the word for “year” is implied by default and does not appear except in the instance of the explanation of the change in the calendar nine years after the birth of Christ. That character is C-118:

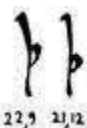


C-118

The Egyptian word for year is *rnpt* and consists of the following Gardiner Number hieroglyphs (among some other configurations), with the X-1 above the Z-1 and both to the side of M-4:

X1: 
 M4:  Z1: 

The Egyptian hieratic for these hieroglyphs are:



22, 21, 12 Möller Number 270 (Gardiner No. M-4), Möller Bd. III-1-31, pg. III 263bis–276 (Möller 1965)



Combined glyph (Gardiner Number X-1 on top of Gardiner Number Z-1) Möller Number LII, Möller Bd. II-31-74-Taf, pg. II Anhang XLVII-LVI (Möller 1965)

Similar to some other glyphs (like Zeniff, which will be discussed later), this is a glyph that consists of two morphed glyphs, which was not unusual in the Maya glyphs. As appears to happen with some of the other calendar related glyphs, this one is also rotated to the horizontal.

In the Egyptian system, in addition to months, the year was further divided into three seasons of four months each: inundation, winter, and summer (Gardiner 1957, 203). This system is indicated by the designation of a third of a year in the context of “1 1/3 years” with Characters 76, 77, and 78, which would indicate that a unit of a third of a year exists in the Nephite calendar. This calendrical unit of one third of a year may be the translated source of the oft-used Book of Mormon chronological terms “in the commencement of the year” and “in the latter end of the year.” This breaking up of the year into thirds would also be consistent with the ancient three annual Hebrew festivals (Exodus 23:14), which include the festival of unleavened bread, the festival of weeks, and the festival of huts (Deuteronomy 16:16; Exodus 23:17; 34:23; Waagenar 2005, 7). Also present in the Caractors Document are indicator glyphs for the “Jubilee year.” The Egyptian source of the glyph relates to months so will be discussed below. The instances of the Jubilee glyph and its correspondence will be discussed in a separate section in a later chapter that deals with all of the chronological elements of the Caractors Document.

Months

The word *month* is used in two locations in the Caractors Document, C-103 and C-160:



The two standard Egyptian hieroglyphs for month are Gardiner Numbers N-11 and N-12:



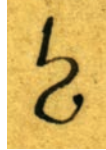
There are a fair number of similar forms in the hieratic:



Möller Number 308, Bd. III-1-31, pg. III 300–308 (Möller 1965)

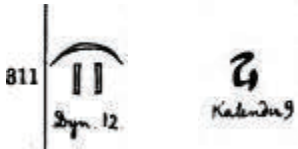
There is the presence of a dot in some of the Egyptian forms, so it cannot be assumed that the dot in the Caractors Document has some sort of numerical meaning. This glyph was used when identifying the first month, but there was an ordinal used (C-159 and C-160). In the Egyptian system, there were only four numbered months, as they were designated within each of the thirds of the year (inundation, winter, and summer). So although the entire year had twelve months total, there were only designations of first, second, third, and fourth months. The Book of Mormon does not reflect this system, as it uses enumerated months up to at least the eleventh month.

As discussed previously, the month designation for “2 month” associated with the Lehi Departure Calendar Glyph is a separate sign for a particular month (that particular one came from the Gezer calendar). There is also found an additional month glyph in the Caractors Document relating to King Benjamin that has the rotated form of the hieroglyph for the second Egyptian month. The character is C-84:



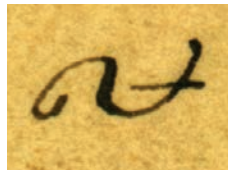
C-84

The glyph in the Egyptian hieratic is:



Möller Number 311, Bd. I-23-76, pg. I 310-319 (Möller 1965)

Character 151 is also a permutation of this glyph, as it is rotated to the horizontal:

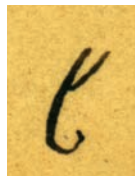


C-151

This sign, although originating from the Egyptian sign for month, is actually the indicator sign for the Jubilee year in the Nephite/Hebrew calendar, so it should be considered a year sign.

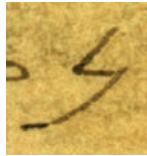
There are also months that are derived from Paleo-Hebrew letters. This is not necessarily surprising, since the Hebrews utilized (long after Lehi’s departure) the Hebrew alphabet to designate numbers, so perhaps there was some precedent. To date, there is no archeological evidence one way or another as to how the Hebrews designated the months in Paleo-Hebrew, but it is clear that the Nephites at the time of Mormon used them, at least for some of their months. This would also be somewhat consistent with the appearance of three Paleo-Hebrew letters in conjunction with three Maya calendar days (to be discussed in detail involving the name of Mulek).

As previously discussed C-68 is designated as one of the months in the Nephite calendar as a probable *waw*.



C-68

A character previously not discussed is the twelfth month of the calendar (at least of the 365-day calendar initiated after the coming of Christ), which is Character 179:



C-179

This is clearly the Paleo-Hebrew letter *nun*. Based on calculations of the prophetic calendar to be discussed later, it is known that this month would have been the last month of the year of the 365-day calendar and was the month in which the resurrected Christ left the Nephites.

The full Paleo-Hebrew alphabet is shown below; the Caractors Document shows the clear presence of the letters *waw*, *lamed*, *nun*, and perhaps *ayin*. *Aleph* was indicated to have been contributory in the glyph construction of the DNIG. Their actual inscription on the Moab Stone that matches fairly well the depictions in the Caractors Document (except *aleph*, which was not directly used) is shown in figure 74.

𐤀	'alep	'	𐤁	lamed	l
𐤁	bet	b	𐤂	mem	m
𐤂	gimel	g	𐤃	nun	n
𐤃	dalet	d	𐤄	samek	s
𐤄	he	h	𐤅	ayin	'
𐤅	waw	w	𐤆	pe	p
𐤆	zayin	z	𐤇	tsade	š
𐤇	het	ḥ	𐤈	qop	q
𐤈	tet	ṭ	𐤉	reš	r
𐤉	yod	y	𐤊	šin	š
𐤊	kap	k	𐤋	taw	t

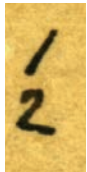


Figure 74. Moab Stone with Paleo-Alphabet, portion of lines 12–16—Green *aleph*, red *lamed*, purple *waw*, yellow *nun*, blue *ayin* (Wikipedia Commons 2015a)

There is not enough information in the Caractors Document to identify the order of particular months except for the twelfth month of the 365-day calendar as *nun*, and the first month of the prophetic calendar as the hieratic N-12. The hieratic N-12 also appears to be the general word for a month based on the month count involving the Samuel the Lamanite five-year prophecy. Based on the alphabetical order of the Paleo-Hebrew alphabet, one could project that the *waw* (C-68) might be the fourth month, but there is nothing at this point to independently verify anything so it will be left in the final translation as the “second month.” It would be logical to assume that the second month in the Egyptian hieratic (C-84) (appearing in a half-rotated fashion) could also be the second month of the prophetic calendar as well; however, it appears later in the Caractors Document flipped on its side with a quarter rotation and was determined to be a Jubilee year indicator. The Caractors Document exhibits a mix of Egyptian and Paleo-Hebrew in its month designations; it is even possible, based on the third of a year designation, that there may be different monthly calendars, which is completely the case in Mesoamerican examples.

Week

The word *week* is mentioned three times in the Book of Mormon (Mosiah 18:25; Alma 31:12; 32:11). There were seven days indicated in the week (Mosiah 6:13–19; 18:23, 25). As was discussed in the section dealing with numbers, the word for “week” is the numeral 1/7 (C-166):



C-166

In the Book of Mormon there is no direct indication that weeks were counted, but the Caractors Document indicates that they were as it indicates that Christ remained for fifty weeks before departing.

Summary

There is a scientifically indisputable direct relationship between the Caractors text and Maya in that both texts have Introductory Glyphs, DNIG, ADI, PDI, and PE glyphs. The Caractors series glyph forms have been *directly incorporated into or are identical* to the Maya Introductory, DNIG, ADI, PDI, and PE glyphs. Certain features are present in the earlier Epi-Olmec Long Count dates that indicate there is a direct relationship to the Nephite calendar system. The translation of these Maya glyphs is identical to the meaning and usage of the corresponding glyphs in the Caractors Document. The Caractors calendar and time-marking glyphs also have additional calendar or time-marking functions that extend beyond what is utilized in the Maya system (at least as far as that system is understood). Reasonable sources for the origination of these glyphs from Egyptian have also been established. Just like the numeric systems, there has been indisputable borrowing and incorporation between the Maya, Epi-Olmec, and Nephite calendar and year-counting systems.

Other Semitic and Egyptian influences on the Maya calendar are noted as follows:

- There is a Hebrew connection to the Maya calendar involving three sequential Maya day names that correspond with three sequential Hebrew letters (Kelley 1960).
- I note here that most of the Mesoamerican calendars have a New Year’s Day that falls on one of these three Hebrew-lettered days (Edmonson 1988, 6–7).
- There is a direct correspondence between the Paleo-Hebrew alphabet and the Maya day names (Compton 2010, 60–61).
- There is a correspondence between the Egyptian phonetic glyph sounds and the Mayan syllabic glyph sounds (Compton 2010, 242–243)

That there has been significant borrowing by the Maya calendar of Egyptian and Semitic elements is getting difficult to ignore.

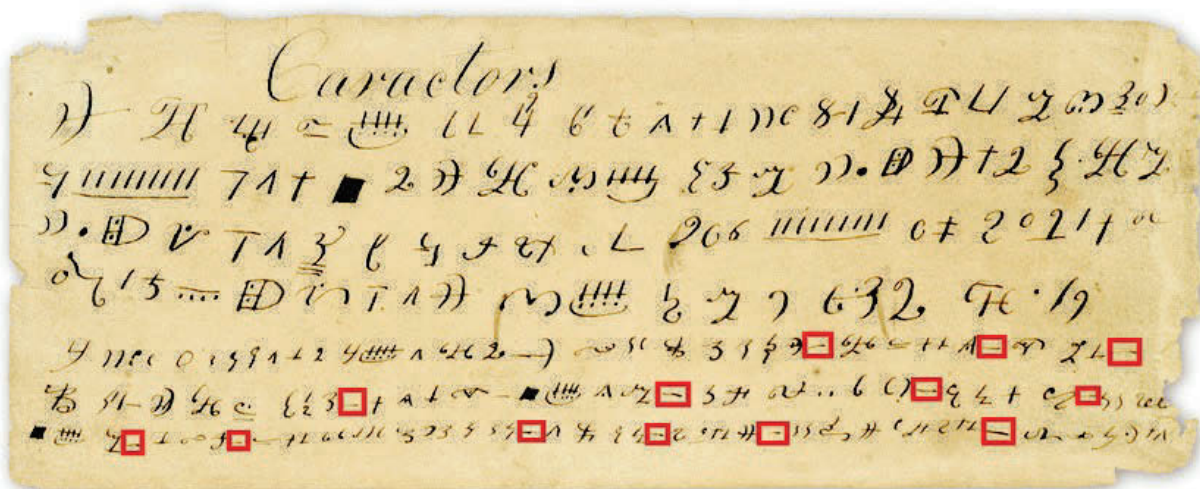
Chapter 6

Macro-Linguistic Structure of the Caractors Document and Position on the Source Plate

In the process of the initial translation it was clear that there were two separate parts to the Caractors Document, and the separation mirrors the character size. The top four lines are a brief chronological summary of events and dates that included the Seven Tribes subcalendar period during the Reign of the Kings and aligns with being the missing preface to the Book of Mosiah. It is complete in that the document does not appear to start mid-phrase or end mid-phrase.

The second section (bottom three lines) also contains a type of chronological summary, but it is not proscribed by a particular calendar or calendar segment from the Book of Mormon text, as is the case for the first section. The contents of the second section are dictated by the elements of the fulfillment of the principal prophesies in the Book of Mormon. There is also a chronological break between the first and second sections, the first ending at the death of King Benjamin, and the second beginning with Samuel the Lamanite.

As is also obviously apparent, there are a series of horizontal dashes that occur periodically in the second section, while none are present in the first section. While one of the dashes is the ordinal for the number one (*first*), the others function as separators or space fillers for the different dates and events. In the Caractors Document, for the one instance of the ordinal number *first*, it was clearly apparent from the context and position that it was not a spacer glyph.



Spacer glyphs shown in red

These spacer glyphs were known in the Palestinian hieratic and are sometimes referred to as “checkmarks,” and they occurred in tabulations or lists (Wimmer 2008). This same function is found in other forms of Egyptian as well, as horizontal lines and dashes were sometimes used to “fill” hieroglyphic units. This spacer glyph serves essentially the same function in the Caractors Document.

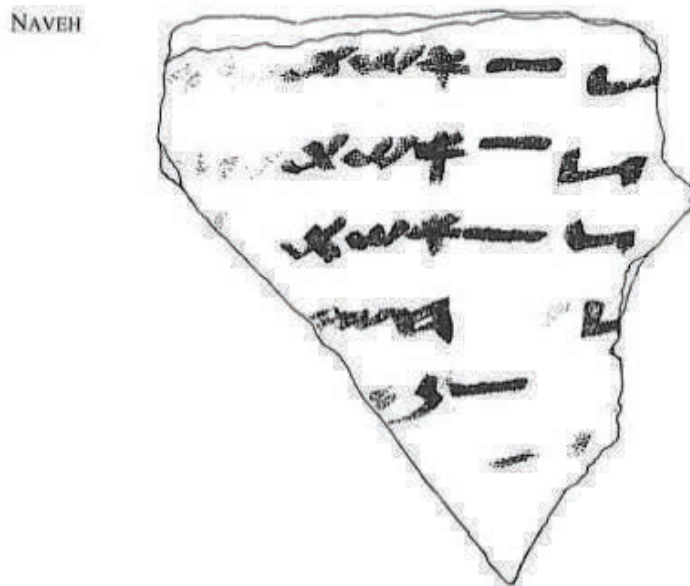


Figure 75. Spacer glyph on Ostraca Jerusalem IN 4, from the Iron Age II period (1200–586 BC; Wimmer 2008)

Given the different nature of the Front Plate of the Book of Mormon it should not be assumed that these glyphs are present in the main textual body of the Book of Mormon. In fact, there does not appear to be any portion of the main body of the Book of Mormon that has similar types of sentence fragments/summary clauses except for the prefaces to the various individual books in the Book of Mormon and the Title Page. The Original Manuscript of the Book of Mormon does not contain any punctuation, and neither does the Caractors Document. The filler glyph does not appear to provide any punctuation or independent meaning other than separating date or event clauses. The Title Page authored by Moroni does not contain dates, but it may have contained filler glyphs or other positional structure resulting in some of the sentence fragments found there.

In examining the Original Manuscript (Skousen 2001), the only surviving legible prefaces are to 2nd Nephi and Helaman (partial). The Title Page is not present in the Original Manuscript. The preface to 2nd Nephi in the Original Manuscript does appear to have a few dashes as original to the dictation (though the preface to Helaman does not) so there is at least some evidence of use of the spacer glyph in preface portions of the Book of Mormon.

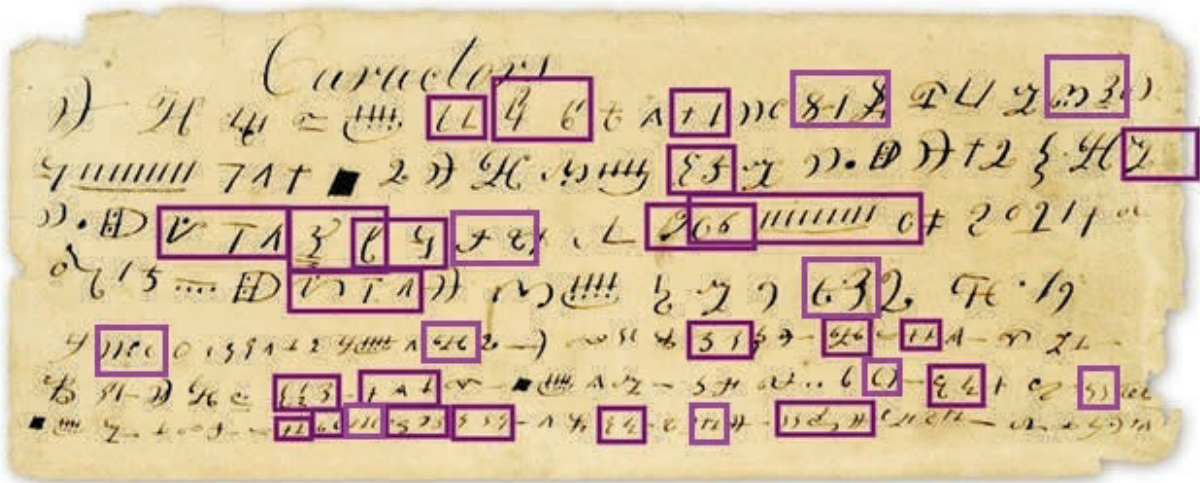
Another question that can be posed is whether the second portion, because filler glyphs are used in Egypt in hieroglyphic panels, was actually part of the concentric circle emblem that was on the Front Plate, or whether it might have been in a different tabular form.

There is nothing in the Caractors translation that is out of order chronologically, even from line to line, so it would seem that it was probably not compartmentalized in some sort of drawing. It may be possible that it was tabular, but there is no definitive evidence to that effect. The character strings between the filler glyphs are typically short with only a few characters (3, 4, 26, 4, 6, 9, 6, 8, 7, 4, 4, 13, 3, 3), so that feature would be consistent with some sort of tabular arrangement, but it is not possible to say much beyond that.

Finally, in comparison with the original chapter breaks in the Book of Mormon, it is clear that the second (or first) section is not forming anything equivalent to a Table of Contents.

Mirror Images and Matching Glyphsmanship

In addition to the word formation and definitional wordplay going on with regards to the Caractors Document, there is also glyphic mirroring and matching going on where adjacent characters are copies, mirrors, or mirrored and flipped images. The ADI and PDI glyphs themselves have mirror or parallel glyph structure with the dual crescents. Other examples of parallel, mirror, and rotational glyph structure are as follows:



C-26, B26b

Mirror, Parallel, and Rotational Imaging Diagram

Some of the mirroring or matching glyphs are centered around a middle glyph that is not reversed. This “glyphsmanship” in the Caractors Document may explain a few things with regards to linguistic/grammatical structures that are yet to be studied and analyzed, especially in light of the practice of the technique in the Maya glyphs. The Egyptian example found near the end of the Caractors Document involving Satan and God, and the Nephite and Lamanite abandonment of God for Satan shows that the technique was well developed by Mormon. In the numeric system, it does explain the spoken Maya pattern of having the number 10 or 15 in front of the number 400. Since the number 400 is V shaped and the number 10 is an inverted V, by placing the number 10 next to 400, you get a mirror-flipped pattern. When one uses the number 15, you have the same pattern, only with the number 5 glyph in the middle. This is potentially a source of this curious and unique leading number 10 and 15 pattern found only in spoken Mayan.

An extensive summary of the analysis of the Maya practice of mirror image or reverse-facing glyphs is contained in a recent article on the topic (Matsumoto 2013, 1):

Numerous ancient Maya monuments contain individual mirror-image glyph blocks whose component hieroglyphs face against the standard left-to-right reading order, such as Seibal, Stelae 3 and 7 (see [Graham, 1996]: 7, 25), Caracol; Stela 1, from Chichén Itzá (Ruppert, 1935: 280, see figure 167), a fragment from La Entrada region known as the Monster Muzzle (Schele, 1991a: 211, see figure VII-30: 1), and a monument from the Usumacinta region (see [Robertson et al., 1972]: Pl. 78). Sequences of multiple mirror-image hieroglyphs are found on other media from the Maya realm, most on notably ceramics (e.g. Kerr, n.d.: 1333, 1507, 4925) and in the codices (Severin, 1981: 21; see [Lee, 1985]: 156–157), and they also appear on monuments from other Mesoamerican cultural groups (see [Kaufman and Justeson, 2001]: 34–74).

Scholars have recently turned more attention to the interplay between the structure and significance of ancient Maya monuments, with respect to both their inscriptions and their iconography. Nonetheless, few researchers have thoroughly addressed the importance of variability in textual form and the relationship of such variability with the use of different iconographic structures (e.g. [Miller, 1989]: 182). Theories to explain alternate orientations of visual motifs or hieroglyphs are often functional, assuming that such discrepancies reflect personal artistic expression or spatial constraints (e.g. [Foster, 2002]: 280; [Justeson, 1989]: 28–29; [Kerr, 2007]; [Palka, 2002]: 432).

Some of those who have attributed symbolic connotations to the reversed structure of mirror-image texts have posited a cosmological or political meaning behind the use of alternative inscriptional structures (e.g. [Robicsek, 1975]). Additional theories have concentrated on the left/right symbolism as an expression of beliefs surrounding cosmological and social ordering (e.g. [Akers, 2008]; [Loughmiller-Newman, 2008]: 40; [Palka, 2002]), according to which the body orientation of individuals depicted in iconography, as well as the direction in which any associated hieroglyphs were read, reinforced the social, ritual, and/or political significance of the monument. Monumental structure has thus been related to cultural messages concerning gender (e.g. [Joyce, 1996]: 174; [McAnany and Plank, 2001]: 116–117) and cardinal direction (e.g. [Foster, 2002]: 256; [Joyce, 1996]: 174).

One widely-supported theory asserts that reversed monumental inscriptions were intended to be read from a position behind the monuments on which they were carved, presumably by gods and other supernatural beings, including the ancestors, who would have been able to read through stone (Schele, 1991b: 70; [Schele and Freidel, 1990]: 326–327; [Schele and Ellen Miller, 1986]: 187; [Steiger, 2010]: 53). Similarly, others argue that these texts reflected the spatial context of the recorded events (Schele and Ellen Miller, 1986: 49) or the position of the viewer relative to the monument (Houston, 1998: 342–343; [Jones, 1975]: 91; [Palka, 2002]: 431–432).

Other scholars propose that mirror-image reversals indicated that the events and individuals recorded belonged to the underworld, “because the underworld is the mirror image of the world” (Baudez, 1988: 138; also see [Palka, 2002]: 438; [Robinson, 2010]: 1–2). Alternately, some interpretations posit that the mirror-image inscriptions visually represented the social position of the text’s protagonists (e.g. [McAnany and Plank, 2001]: 117; [Schele and Ellen Miller, 1986]: 107; [Palka, 2002]: 430; [Viel, 1999]: 386). Still other theories apply the possible social connotations of mirror-image inscriptions more generally and suggest that their reversed structures symbolized broader social phenomena, such as ceremonial contexts (Palka, 2002: 431), rather than relationships between specific individuals.

The author provided a constructed example of mirroring of the Maya glyph T714 TZAK as it occurs on the underside of Yaxchilán Lintel 25:



Although primarily found in monumental texts, the Egyptian hieroglyphs and iconography often featured mirror imaging and matching symmetry (see figure 76).

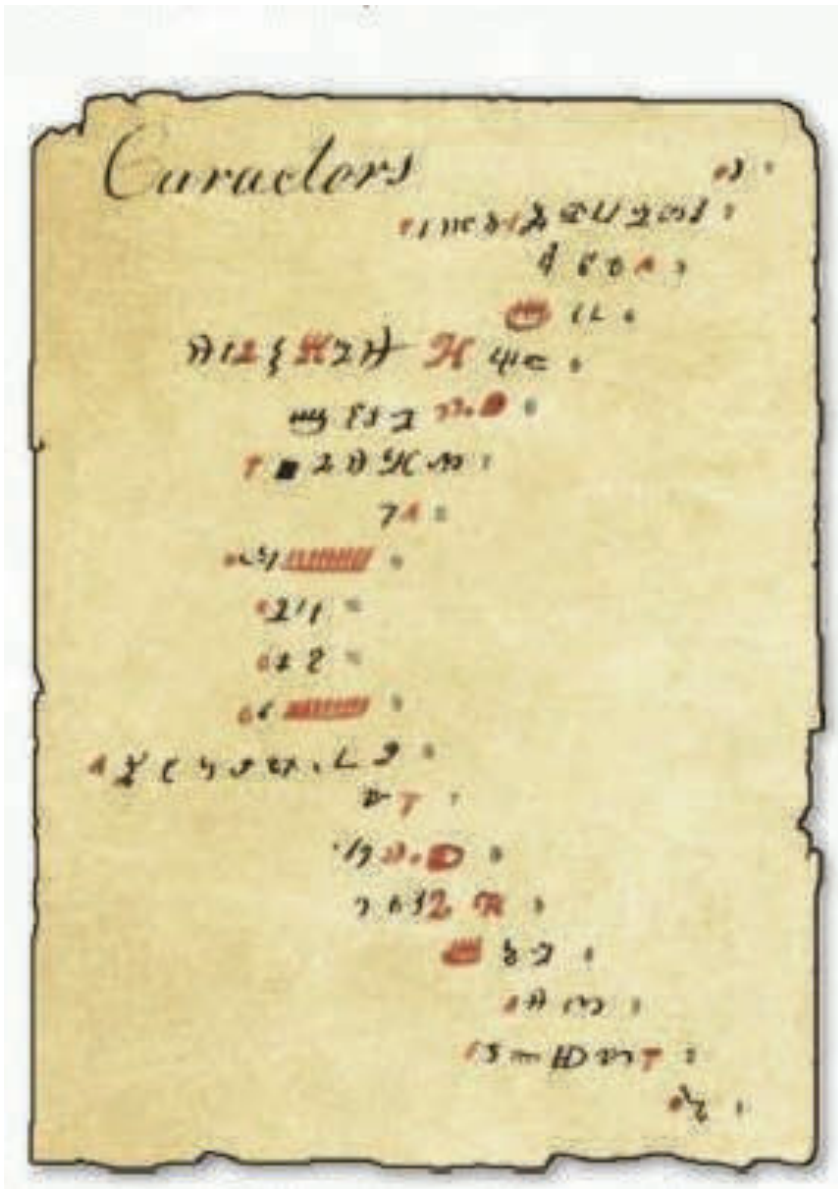


Figure 76. Egyptian Stela Warsaw 141262 in the British National Museum showing mirror imaging and matching symmetry. (Courtesy of the National Museum; photograph by Z. Doliński; Marée 2009, 82)

For the most part, all of the names of individuals and tribes are not phonetically expressed in Hebrew, but they are expressed in Egyptian, with the Egyptian glyphs and the Egyptian meanings preserved. The meanings of the personal and tribe names are derived from the Hebrew roots, but those meanings are then expressed in Egyptian. Such is the case for much of the rest of the translated characters in the Caractors Document.

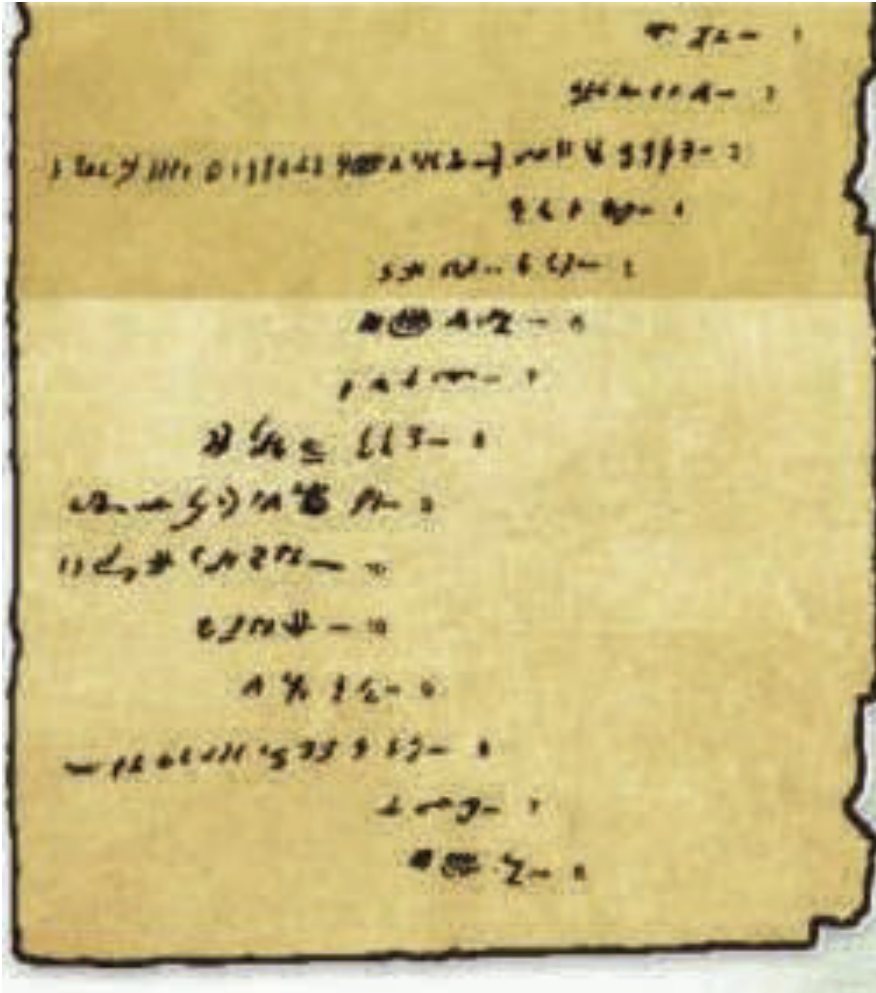
Overall Glyphic Parallel structure of the Caractors Document

Wade Brown (2001, 73–83) has proposed a larger inverted parallel structure that can be found in the Caractors Document, based on some of the characters present proposing that the top four lines consist of a separate chiasm (note red letters):



(Shaw 2011)

The bottom three lines also are represented by Brown as having an incomplete chiastic structure:



(Shaw 2011)

This second chiasm implies that there must be some unknown additional text following the end of the text of the Caractors Document.

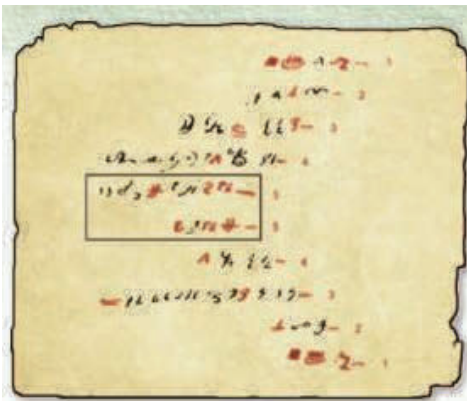


Figure 3. Lines 5 of the diagrammed symbols are shown in a box (added); compare to Figure 2. Note that the dash and symbols resembling an "L," a "T," a backward "S" and two backward "Cs" with a line through them are each repeated in lines 5. The diagram highlights a total of 10 parallel segments of which lines 5 are at the center. Repeated symbols are shown in red (dust jacket back).

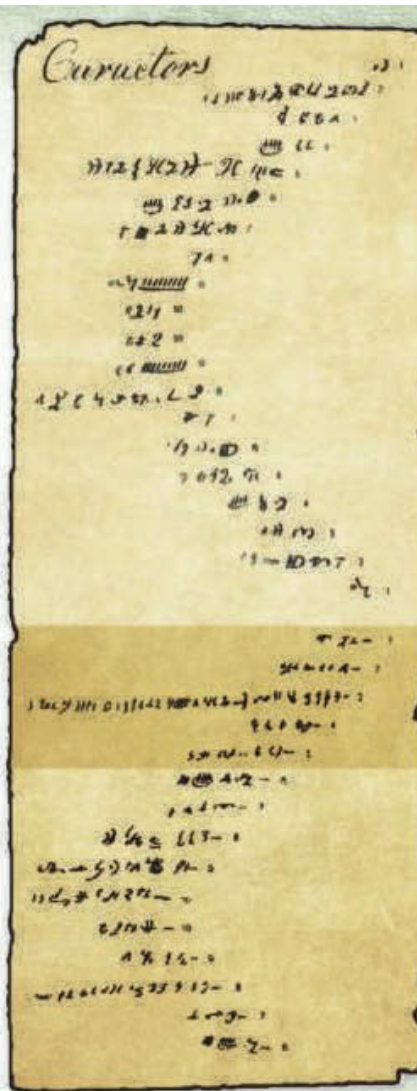


Figure 5. TWO CHIASMS. The top four lines (which were copied in larger symbols) are one complete chiasm, followed by a second incomplete chiasm in the bottom section (p. 78). BOTTOM CHIASM. The shaded upper part introduces the first half of the bottom chiasm. The inverted second half of this beginning portion is missing from the bottom of the "caractors" transcript and may indicate that Joseph stopped copying before the conclusion of the chiasm (p. 82).

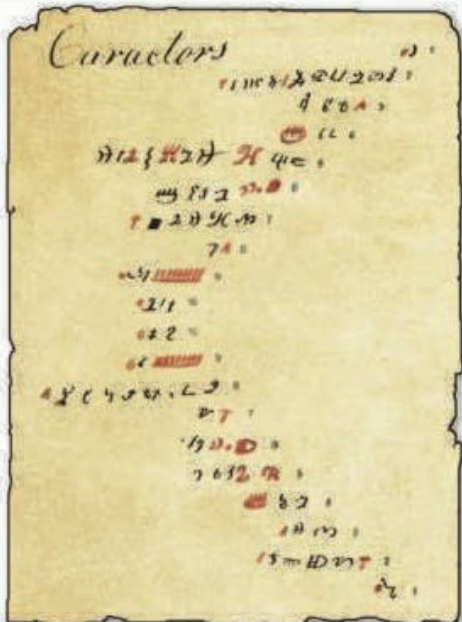


Figure 4. TOP CHIASM. The top four lines of the transcript are diagrammed to show the parallel symbols (red added for emphasis). Most do not appear any other place on the document (p. 77).

(Shaw 2011)

The translation of the Caractors Document does not exhibit any apparent chiasm or parallel textual structures, which would not be expected because it is not a literary or potential poetic passage. Brown's analysis would then have to rely on a glyphic parallelism feature only, and it does not appear that enough characters exhibit this larger parallelism to clearly indicate that it was originally written with an intentional larger parallel structure. It is noted that Brown's proposed structure does include the parallel contrast between the date of Christ coming to the Nephites with the destruction, and the date of the final battle and the Nephite destruction (Brown did not propose a translation, but he just noted the glyphic parallelism).

Configuration and position of Caractors glyphs on the source plate

This translation of the Caractors Document shows that the language is read from right to left. However, it appears that Whitmer copied the characters in the normal English writing pattern, from left to right. This would be the default assumption and is supported by the fact that the last character (C-76) on the last line of the first part (first four lines) written in the fashion does not end up at the edge of the Caractors Document, as do the first three lines, indicating that the copying stopped there. Had it been copied from right to left, the gap at the end would have appeared on the left side of the fourth line.

Why is this important? It is important because it evidences that the lines copied are the same lines represented on the plate. If the lines were copied from right to left, and each line did not end at the same location as the line on the plate, there would be no continuity to the translation, which was not the case.

The second portion of the document (the last three lines) also has continuity, which is evidence that this portion was not an extracted text from different compartments contained in the emblem that was indicated on the plates and brought to Anthon. One would not expect that the extraction and copying from the emblem would place all of the different sections separated by the spacer glyph in the correct chronological order. The translation of the document is in exact chronological order.

Chapter 7

Christ's Tribe, and Who Is Left?

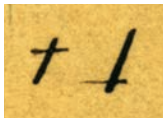
An important element of the translation involves the determination and translation of various names and groups. By determining the glyph for “tribe,” it became clear where an “-ite” was probably referred to in the text, and in some cases the “-ite” it referred to was apparent by context. In this chapter each of the tribal, place, and personal names in the Caractors Document will be discussed.

Tribal Names

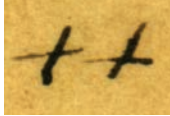
Nephites and Lamanites

The expectation that the Caractors Document would contain the word *Nephite* and other “-ites” has proven to be accurate. However, the process involved a unique twist that adds enlightenment to its use in the Book of Mormon itself. As discussed previously, the glyph for “tribe” was identified from the Egyptian in the Caractors Document. Keeping in mind that there was an expectation that the Caractors Document would include the term *Nephite*, the most common glyph combination involving the word *tribe* is:

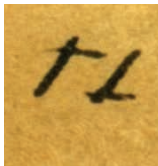
C-14, C-13



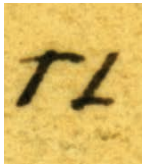
C-107, C-106



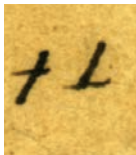
C-184, C-183



C-195, C-194



C-216, C-215



The preceding character best matched in context the Egyptian character for “Son,” which is the word *sʿ* (Gardiner 1957, 471). The simplest hieroglyphic form of the word is the hieroglyph identified as Gardiner Number G-39 (Budge 1920, 2:583; Vygus 2018, 716):

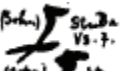
G39: 

One of the hieratic forms of G-39 is:

(Sohn)
24, 8.


Hatnub Papyrus



Möller Number 216, Bd. I-1-22, pg. I 215–224 (Möller 1965)


(Sohn)
St. 24
18-7.


Elephantine Papyrus

Möller Number 216, Bd. I-1-22, pg. I 215–224 (Möller 1965)

In the Egyptian Demotic, it also has the same form and constitutes part of the following Demotic words:

R P Harkness 4/18 


R P BM 10507, 2/7 (& 8/9, 9/10) 

(*Chicago Demotic Dictionary* 2014, S [13:1], 14, 15)

While it seems surprising that *Nephi* would be expressed as *Son* (which is considered in this translation to be equivalent to *Christ*) instead of some glyph reflecting the etymology of the ancient name *Nephi*, it might be explained that he was the most faithful son of Lehi. However, it is more probable that king Benjamin directed that, whatever the original glyph was which probably included the name of Nephi, it be replaced with the glyph for *Christ* as described below:

Mosiah 1:10–11

10 Therefore, he had Mosiah brought before him; and these are the words which he spake unto him, saying: My son, I would that ye should make a proclamation throughout all this land among all this people, or the people of Zarahemla, and the people of Mosiah who dwell in the land, that thereby they may be gathered together; for on the morrow I shall proclaim unto this my people out of mine own mouth that thou art a king and a ruler over this people, whom the Lord our God hath given us.

11 And moreover, I shall give this people a name, that thereby they may be distinguished above all the people which the Lord God hath brought out of the land of Jerusalem; and this I do because they have been a diligent people in keeping the commandments of the Lord.

Mosiah 5:7–12

7 And now, because of the covenant which ye have made ye shall be called the children of Christ, his sons, and his daughters; for behold, this day he hath spiritually begotten you; for ye say that your hearts are changed through faith on his name; therefore, ye are born of him and have become his sons and his daughters.

8 And under this head ye are made free, and there is no other head whereby ye can be made free. There is no other name given whereby salvation cometh; therefore, I would that ye should take upon you the name of Christ, all you that have entered into the covenant with God that ye should be obedient unto the end of your lives.

9 And it shall come to pass that whosoever doeth this shall be found at the right hand of God, for he shall know the name by which he is called; for he shall be called by the name of Christ.

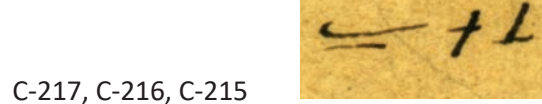
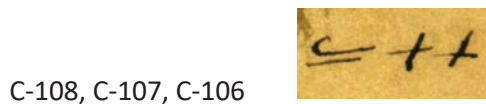
10 And now it shall come to pass, that whosoever shall not take upon him the name of Christ must be called by some other name; therefore, he findeth himself on the left hand of God.

11 And I would that ye should remember also, that this is the name that I said I should give unto you that never should be blotted out, except it be through transgression; therefore, take heed that ye do not transgress, that the name be not blotted out of your hearts.

12 I say unto you, I would that ye should remember to retain the name written always in your hearts, that ye are not found on the left hand of God, but that ye hear and know the voice by which ye shall be called, and also, the name by which he shall call you.

The Caractors Document glyph also provides an explanation to the language that states that if one was to “take upon you the name of Christ” one “shall be found on the right hand of God” and whomever would “not take upon him the name of Christ must be called by some other name; therefore, he findeth himself on the left hand of God.”

The two-element glyph for *Nephite* actually occurs in two instances in conjunction with a third glyph as follows:



It appears from the context that this third combined glyph represents “the Nephites and the Lamanites.” It is interesting that “one who is a Nephite” would be on the right side, and “one who is not a Nephite” is on the left side of the combined glyph. At this point, the translation of this third glyph as “Laman,” or “Lamanite” is better discussed later as a personal name and also dealing with the Nephite directional system.

The interpretation of the Nephites as Christ’s tribe—as reflected in the actual glyph name for *Nephite*—is an indicator that affiliation into the tribe was at least at times based on religious affiliation instead of political affiliation.

The following scriptures seem to be a bit clearer when considered in that light:

Mosiah 25:23–24

23 And now there were seven churches in the land of Zarahemla. And it came to pass that whosoever were desirous to take upon them the name of Christ, or of God, they did join the churches of God;

24 And they were called the people of God. And the Lord did pour out his Spirit upon them, and they were blessed, and prospered in the land.

Alma 5:38

Behold, I say unto you, that the good shepherd doth call you; yea, and in his own name he doth call you, which is the name of Christ; and if ye will not hearken unto the voice of the good shepherd, to the name by which ye are called, behold, ye are not the sheep of the good shepherd.

Alma 45:13–14

13 And when that great day cometh, behold, the time very soon cometh that those who are now, or the seed of those who are now numbered among the people of Nephi, shall no more be numbered among the people of Nephi.

14 But whosoever remaineth, and is not destroyed in that great and dreadful day, shall be numbered among the Lamanites, and shall become like unto them, all, save it be a few who shall be called the disciples of the Lord; and them shall the Lamanites pursue even until they shall become extinct. And now, because of iniquity, this prophecy shall be fulfilled.

Alma 46:13

And he fastened on his head-plate, and his breastplate, and his shields, and girded on his armor about his loins; and he took the pole, which had on the end thereof his rent coat, (and he called it the title of liberty) and he bowed himself to the earth, and he prayed mightily unto his God for the blessings of liberty to rest upon his brethren, so long as there should a band of Christians remain to possess the land—

Alma 46:18

And he said: Surely God shall not suffer that we, who are despised because we take upon us the name of Christ, shall be trodden down and destroyed, until we bring it upon us by our own transgressions.

4 Nephi 1:17

There were no robbers, nor murderers, neither were there Lamanites, nor any manner of -ites; but they were in one, the children of Christ, and heirs to the kingdom of God.

4 Nephi 1:37–39

37 Therefore the true believers in Christ, and the true worshipers of Christ, (among whom were the three disciples of Jesus who should tarry) were called Nephites, and Jacobites, and Josephites, and Zoramites.

38 And it came to pass that they who rejected the gospel were called Lamanites, and Lemuelites, and Ishmaelites; and they did not dwindle in unbelief, but they did wilfully rebel against the gospel of Christ; and they did teach their children that they should not believe, even as their fathers, from the beginning, did dwindle.

39 And it was because of the wickedness and abomination of their fathers, even as it was in the beginning. And they were taught to hate the children of God, even as the Lamanites were taught to hate the children of Nephi from the beginning.

Moroni 1:1–3

1 Now I, Moroni, after having made an end of abridging the account of the people of Jared, I had supposed not to have written more, but I have not as yet perished; and I make not myself known to the Lamanites lest they should destroy me.

2 For behold, their wars are exceedingly fierce among themselves; and because of their hatred they put to death every Nephite that will not deny the Christ.

3 And I, Moroni, will not deny the Christ; wherefore, I wander whithersoever I can for the safety of mine own life.

Alma 2:11

Now the people of Amlici were distinguished by the name of Amlici, being called Amlicites; and the remainder were called Nephites, or the people of God.

Alma 24:29

Now, among those who joined the people of the Lord, there were none who were Amalekites or Amulonites, or who were of the order of Nehor, but they were actual descendants of Laman and Lemuel.

It is interesting that in Alma 1 the Nephites were called the “people of Nephi” when there were varying religious beliefs. After the division, those following Amlici were Amlicites and the remainder were called “Nephites, or the people of God,” and were also referred to as “the people of the Nephites” (Alma 2:11–12).

During the seventh year of the reign of the judges, 3,500 people were baptized, and then ended the “seventh year of the reign of the judges over *the people of Nephi*” (Alma 4:5; emphasis added). At this time there were those that were in the church and those that were not (Alma 4:10), and then started the ninth year of the reign of the judges. Alma 4:19 said that Alma, after stepping down, would “go forth among his people, or among *the people of Nephi*.” The phrase “the people of Nephi” is repeated many times in this manner, referring to the full polity of Nephites, which consisted of various religions. It is likely that this term was a different glyph since the full group of Nephites would not be considered Christ's tribe.

Similarly when Alma returns to Ammonihah and meets Amulek, Amulek tells him, “I am a Nephite,” and he knows that Alma is a prophet of God and that an angel appeared unto him. This is clearly consistent with the indication that the term *Nephite* here is really designating a religious affiliation (Alma 8:20).


Also, with regards to the “-ites” references in 4 Nephi 1:17, the Caractors Document is consistent, because at the coming of Christ to the Nephites, the glyph in the Caractors Document then refers to only “people” or “tribe” without affiliation (C-163). However, after the period of time that the Nephites were righteous, when wickedness started again and they split back into the Nephites and the Lamanites, the Nephite and Lamanite glyphs then reappear.

Based on the “glyphnastics” observed throughout the Caractors Document, it is not too difficult to determine what the earlier glyph form for *Nephites* would have been prior to king Benjamin's change. Essentially, the *Son* portion of the glyph, an upside-down cross, used to be a right-side-up cross. Together with an identical right-side-up cross forming the glyph for “tribe” or “-ite,” the glyph for Nephite would be a double cross.

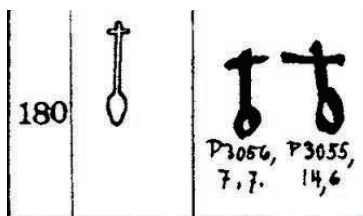
The Book of Mormon Onomasticon has indicated one of the etymologies of the name *Nephi* is:

The most likely derivation of the name is Egyptian *nfr* “good, beautiful.” The final r in Egyptian had dropped out of pronunciation about a thousand years earlier, and it is attested as a personal name at the time of Lehi.

The word *nfr* is translated as “good” (*Chicago Demotic Dictionary* 2014, N [04:1], 72). The phonetic hieroglyph for *nfr* is Gardiner Number F-35, meaning “good” (Gardiner 1957, 465):

F35: 

The hieratic versions of the glyph are:



Möller Number 180, Bd. III-1-31, pg. III 176–186 (Möller 1965)

Also consistent with the assertion that the original *Nephi* portion of the glyph was a right-side-up cross is the description of Nephi as the “protector”:

2 Nephi 6:2

Behold, my beloved brethren, I, Jacob, having been called of God, and ordained after the manner of his holy order, and having been consecrated by my brother Nephi, unto whom ye look as a king or a protector, and on whom ye depend for safety, behold ye know that I have spoken unto you exceedingly many things.

Jacob 1:10

The people having loved Nephi exceedingly, he having been a great protector for them, having wielded the sword of Laban in their defence, and having labored in all his days for their welfare—

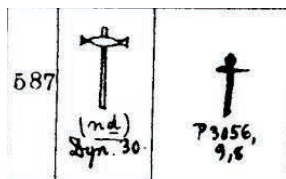
Nephi is the only one in the Book of Mormon described as a “protector.” Two words meaning “protect,” “protection,” and “protector” in Egyptian according to the Dickson Dictionary (2006, 251 and 303) are *sA* and *nD* and are represented by Gardiner glyph numbers V-17 and Aa-27, respectively:



Hieratic forms for V-17 is Möller Number 389 and for Aa-27 is Möller Number 587:



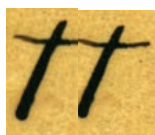
Möller Number 389, Bd. I-23-76, pg. I 338B–397 (Möller 1965)



Möller Number 587, Bd. III-32-72-Taf, pg. III 578–587 (Möller 1965)

Also phonetically correlated with Nephi is the Egyptian word *nebi* (Budge phonetics) or *nby* (Vygus 2018, 1360), meaning “protector” (Budge 1920, 1:366).

As to the projected earlier glyph form for *Nephite*, it may have even made sense from the standpoint of scribal ease, simplification, and utility of space to connect both the “Nephi” and the “-ite” glyphs into one glyph, hypothetically constructed as follows:



The Nephi glyph consists of the Latin form of the Christian crosses, both upright and inverted. As has been discussed, in Egyptian the meanings can be “beautiful” or “protector,” with the inverted form meaning “Son,” referring to Christ. There is little doubt that the righteous portion of the Nephites were familiar with the relationship of the cross to Jesus Christ and his crucifixion (1 Nephi 10:11; 11:13; 19:10; 2 Nephi 6:9; 9:18; 10:3, 5;

25:13; Jacob 1:8; Mosiah 3:9; 15:7; 3 Nephi 12:30; 27:14; Ether 4:1). As discussed earlier, one of the meanings of *Nephite* is "Christ's tribe."

The symbol of the cross was present in Mesoamerica when the Spanish arrived; it represented the "World Tree" (Tordesillas 1725–1726, II:121). World trees embodied the four cardinal directions, which also represented the fourfold nature of a central world tree, a symbolic axis mundi connecting the planes of the Underworld and the sky with that of the terrestrial world (Miller and Taube 2007). As has been discussed, one example is found at the Temple of the Cross in Palenque, shown in figure 43. Among the Aztecs, the *Codex Borbonicus* depicts priests igniting their torches during the ritual New Fire ceremony and visually displays the integration of the cross symbol on the temple walls and sacerdotal garments (see figure 77).

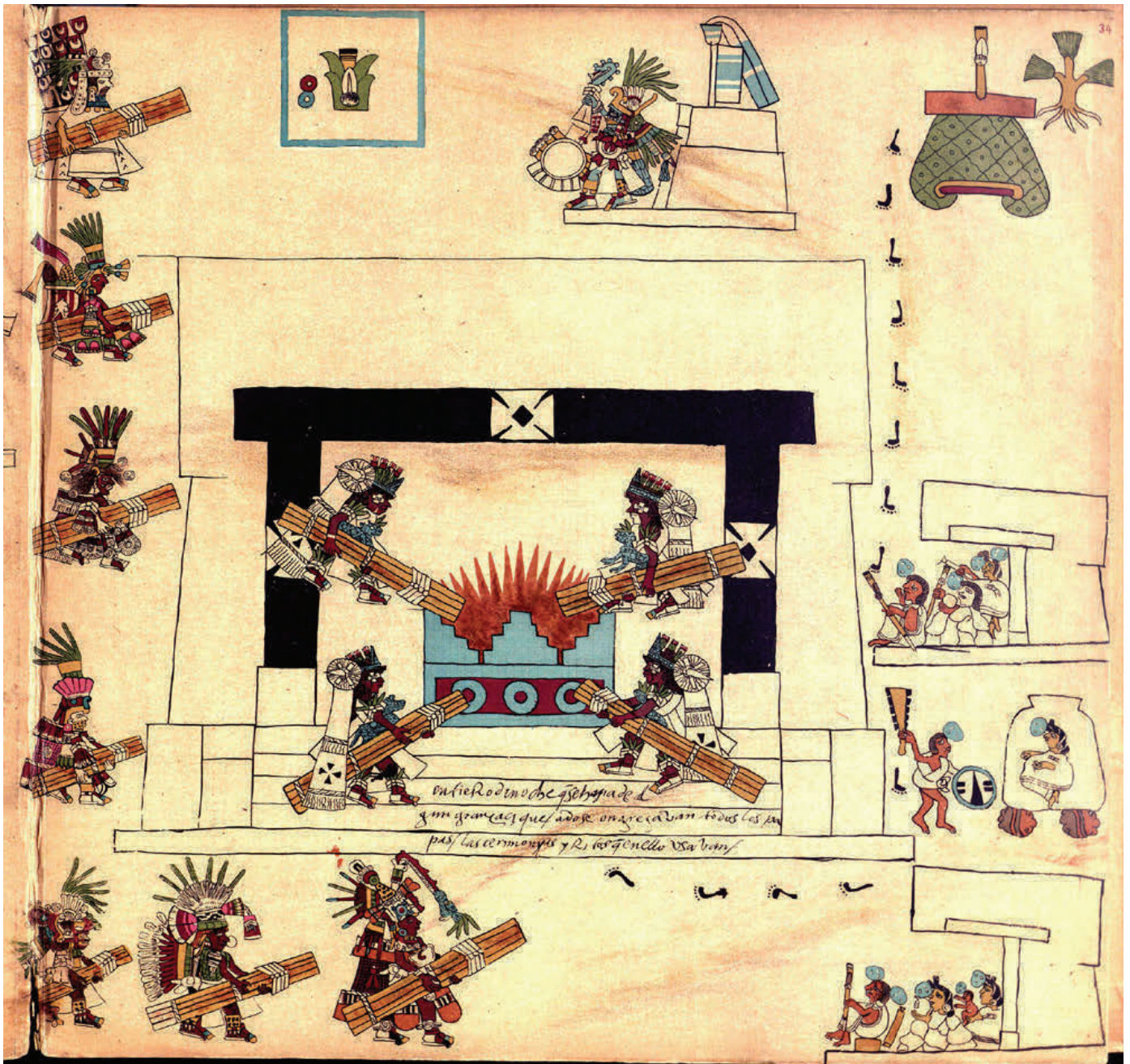


Figure 77. "The New Fire Ceremony," *Codex Borbonicus*, bark paper (Loubat 1899, 34)

The name *Nephi*₁ has a Sumerian compound construction (among other possibilities), consistent with the Mesoamerican meaning of the cross symbol and its Mesoamerican meaning:

Sumerian

ne: strength; force

*ne*₃-*ba*, *ne*₃-*bi-a* (form of *ne*)

NE: a designation of trees

e: temple; (temple) household; station (of the moon)?

*e*₂-*bi*, *e*₂-*ba* (form of *e*)

e: trust

hi: process wool

HI: (compound verb nominal element)

i: clothing, garment

i: oil; container for oil (designating priestly function)

Combination name: *Ne*₃-*b(i)-(a)hi* (parentheses signifies a dropped letter)

This fit is consistent with *Nephi*₁, who was responsible for construction of the first temple (2 Nephi 5:16). As the World Tree cross symbol is present throughout Mesoamerica, examples should not be expected to be correlated exclusively to the Nephites (except as Christ correlates with other Mesoamerican traditions, which is not addressed in this book). However, in my personal collection there is an interesting example of a warrior figure from Veracruz culture that could potentially correlate with the time and location of the Nephites. The warrior figure bears the Nephite inverted cross symbol on the banner held and displayed by the warrior (see figure 78).

The apparent cloth armor around the waist and extending down from the waist is an interesting correlation to the armor described in the Book of Mormon:

Alma 46:13

And he fastened on his head-plate, and his breastplate, and his shields, and *girded on his armor about his loins*; and he took the pole, which had on the end thereof his rent coat, (and he called it the title of liberty) and he bowed himself to the earth, and he prayed mightily unto his God for the blessings of liberty to rest upon his brethren, so long as there should a band of Christians remain to possess the land—

Alma 46:21

And it came to pass that when Moroni had proclaimed these words, behold, the people came running together with their *armor girded about their loins*, rending their garments in token, or as a covenant, that they would not forsake the Lord their God; or, in other words, if they should transgress the commandments of God, or fall into transgression, and be ashamed to take upon them the name of Christ, the Lord should rend them even as they had rent their garments. (emphasis added)









Figure 78. a-d Veracruz culture figure (ca. AD 300–800) (from private collection of the author)

People of Limhi (Limhites)

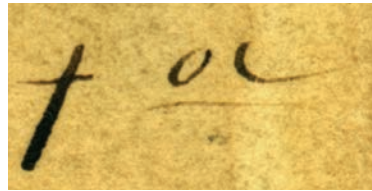
The translation of the tribal name *Limhi* or *Limhite* as represented by the following characters has been discussed in a previous chapter involving the number 30.



C-44, C-43

Jaredites

The name for the Jaredites consists of Characters 51, 50, and 49:



C-51, C-50, C-49

Characters 49 and 50 are actually one glyph. Under close examination of the images of the Caractors Document, both in color and in the 1886 black-and-white version, there is a line that underlies both characters.



(1886)

The Book of Mormon Onomasticon's evaluation for the etymology of *Jared* is a bit tentative because of the Jaredite linguistic origin:

Jared may be derived from the same Hebrew root as the biblical name, "Jared," namely, *yrd*, "descend, go down."

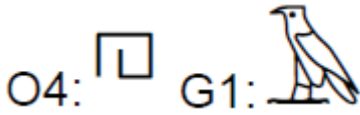
Because there are other directional implications for the underlying line, the two upper symbols will be looked at initially (excluding the word *tribe*, which has been previously discussed). A spot-on definitional match for these upper characters are the Egyptian words *ʾh* and *hʾ*. Like other creative wordplay associated with names in the Caractors Document, this glyph has comparable meanings when read either forward or backward. Taking the reverse reading first (*hʾ*), and considering the masculine, feminine, and verb forms, the various definitions for this Egyptian word are:

- "to descend, to go down into a boat, to travel by sea" (Budge 1920, 1:438)
- "ruin, destruction, to fall, to attack, to perish" (*Chicago Demotic Dictionary* 2014, H [01.1], 1–13)

Anyone familiar with the story of the Jaredites will know that this perfectly describes the origin and end of the Jaredites. The forward reading (*ʾh*) is:

- "pain, grief, trouble, loss, sorrow, misery, destitution, sadness, ruin, woe" (Budge 1920, 1:7)
- "dispute, battle" (*Chicago Demotic Dictionary* 2014, ʾ [02.1], 60)

The short forms in the hieroglyphics for these words (Budge 1920, 1:7, 438) consist of Gardiner Numbers O-4 and G-1:



Hieratic forms closest to the Caractors glyphs are:



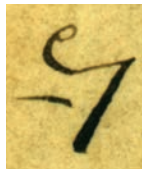
Möller Number 342, Bd. III-32-72-Taf, pg. III 339–344 (Möller 1965)



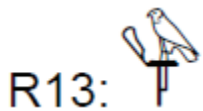
Möller Number 192, Bd. III-1-31, pg. III 187–194 (Möller 1965)

Inclusion of the underlying line will render a directional meaning that will be discussed in the chapter on Nephite directional systems (chapter 10). This directional meaning actually is consistent with the location of the Jaredites within the Book of Mormon geography.

It is also of note, again to be discussed in more detail in a later chapter involving Nephite directions, that Character 48 (adjacent to the glyph for the Jaredite plates) is either an adjective used to describe the Jaredite plates, or it indicates the location from which they come. C-48 is the hieratic version of the following Egyptian glyph (Gardiner Number R-13) and in the hieratic Möller Number 189:



C-48



Westcar	Golen.	Ebers
 8, 19	 1, 3	 36, 15 100, 2

Möller Number 189, Bd. I-1-22, pg. I 189–196b (Möller 1965)

The character is an ideogram for the Egyptian word for the West, *Īmnt* (Gardiner 1957, 502), which would be consistent with the location of the Jaredites. It also is the hieroglyphic symbol representing Duat (also known as Tuat and Tuaut or Akert, Amenches, Amenti, Imenet or Neter-khertet), the Egyptian Land of the Dead (Budge 1920, 53; Vygus 2018, 1763). Of course, this symbolism is obviously descriptive of the Jaredite demise considering the description of the Jaredite lands being “covered with dry bones” (Mosiah 21:26–27):

26 Nevertheless, they did find a land which had been peopled; yea, a land which was covered with dry bones; yea, a land which had been peopled and which had been destroyed; ...

27 And they brought a record with them, even a record of the people whose bones they had found; and it was engraven on plates of ore.

This character is considered the equivalent of the land of Desolation mentioned throughout the Book of Mormon.

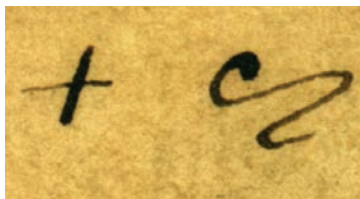
The character set for “Jaredites” has an amazing number of levels of meaning, all describing the origin, demise, and location of the Jaredites.

The Egyptian characters and Egyptian definition of *Jared* give insight into the probable source of some of the Jaredite names. The Jaredite records were translated by Mosiah₂ by use of the interpreters. It is not known what language they were translated into. The definition for *Jared* here does not sound like a simple translation of an individual's name. The definition encompasses the genesis and demise of an entire civilization. It would seem that this name, at least in reformed Egyptian, must have been given “after the fact” by the Nephites, because, barring some prophetic intervention by Jared's father at his birth, the genesis and demise of the civilization would not have been known.

Some of the names in the Book of Ether are clearly biblical, *Jared* being one of them. It would seem that perhaps the translation of the plates of Ether involved some places and names that the Nephites already had terms for, and those are reflected in the biblical names found in the Book of Ether. In the case of Jared, it certainly raises some distinct issues relative to both of the translation processes that the name has apparently undergone.

Gaddianton Tribe (Robbers)

The Gaddianton tribe consists of Characters 141 and 142:

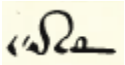


C-142, C-141

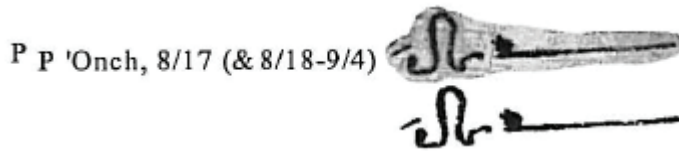
Among the etymological possibilities that the Book of Mormon Onomasticon evaluated for the name *Gaddianton* was one that they considered unlikely:

Unlikely are the suggestions from HEBREW * *gādî-āntôn*, “my fortune is oppression/affliction/rapine,” from *gād*, “lot, good fortune, riches, name of good fortune” + *’ēnû*, “labor upon, exercise upon, oppress, afflict,” in *piel* “rape,” with noun affirmatives *-t* and *-ōn*; or perhaps *gad-ya-nton*, “fortune is given by Yah,” with *ntn*, “to give” (RFS). The root of *’ēnû* and *ntn* both would require a vowel between the “n” and the “t,” but for different reasons.

In fact, what the Onomasticon scholars considered unlikely, the Characters Document indicates is actually the name of the Gaddianton tribe. In the Egyptian Demotic, according to the *Chicago Demotic Dictionary*, the following character means “wealth, riches; (good) fortune” (CDD R [01.1], 50) and constitutes the Egyptian word *rnn.t*. The match with the Characters Document and Gaddianton is nearly exact:

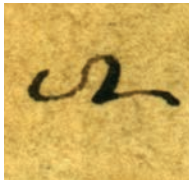


(Erichsen 1954, 250)



Ptolemaic Papyrus, Onchsheshonqy, CDD R (01.1), 50 (*Chicago Demotic Dictionary* 2014)

Character 181 is also the same character as Gaddianton, but it is not the tribal name. However, it retains the same meaning (“wealth, riches”), but in the context of its use during the time that people had all things in common, the best translation would probably be “prosperous.” The previous glyph (C-142) used to describe the tribe is slightly different in that it is stylized and on a slant.



C-181

Similar to the name for *Jared* in relation to the Jaredites, it would seem that the name *Gaddianton* was applied after the fact, as it describes the nature of the group as opposed to some sort of birth name. There is some precedent for the renaming of individuals after the fact in the Book of Mormon (Jacob 1:11):

Wherefore, the people were desirous to retain in remembrance his name. And whoso should reign in his stead 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 name they would.

According to Brant Gardner (2015, 326–337) the most plausible identification of the Gaddiantons is the Teotihuacanos. The Gaddianton glyph rotates the Egyptian Demotic glyph counterclockwise, nearly onto its side. In looking for a corollary to Teotihuacan from the Gaddianton glyph, the most obvious depiction is the mouth of the Teotihuacan Feathered Serpent or War Serpent (see figure 80), which is the ancestral form to the Aztec Xiuhcoatl shown in figure 79 (Beyer 97–109; Krickeberg 1993).



Figure 79. Stone figure of the Aztec fire-serpent Xiuhtecuhtli, with the head of a serpent, short legs finishing in claws, and a curved snout. The end of the figure's tail is formed by the conventional Mexican year symbol (xihuitl): a triangle, like the solar ray sign, and two entwined trapezes excavated from Texcoco (ca. 1300–1521) (British Museum 2008, Am1825, 1210.1)

The form of the mouth as a representative glyph symbol would be apparent to the Nephites, as it was featured in open architectural representations and was part of the Teotihuacan headdress regalia (see figures 80–81).



Figure 80. Feathered Serpent from the Temple of the Feathered Serpent in Teotihuacan (Bitto 2018)



Figure 81. Teotihuacan-style War Serpent headdress from polychrome vessel sherd from the Maya site of Nohmul (prior to AD 250) (Taube 1992, 61)

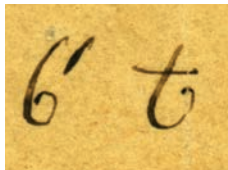
Teotihuacan was established around 100 BC, and the influence of Teotihuacan was widespread throughout Mesoamerica by the Xolalpan period (AD 350–550), which corresponds well with the Book of Mormon time frames of the Gaddiantons (Garcia-Des Lauriers 2000, 13).

Taube (2000) asserts that the Teotihuacan War Serpent is a possible ancestral form of the Aztec Xiuhcoatl (Taube (2000a). The Teotihuacan headdress of the War Serpent was widely known in Mesoamerica during Book of Mormon times (see figure 81). The correlation with the Caractors Document glyph and the mouth configuration of Xiuhcoatl is striking.

Chapter 8

Hieing to Zarahemla—Place Names

The name *Zarahemla* appears in the first line of the Caractors Document, consisting of C-16 and C-17:



C-17, C-16

Just like the personal and tribal names, the glyph for *Zarahemla* and its placement is structured to have multiple levels of meaning. Among various potential etymological meanings of *Zarahemla* identified by the Book of Mormon Onomasticon, the two utilized in the Caractors Document are:

Hebrew *zera' hammēlûkā*, *zera' hammamlākā* "royal descendant" (Jeremiah 41:1, 2; 2 Kings 11:1; 25:25; Ezekiel 17:13; Daniel 1:3), and like Hebrew *zera' 'ēlōhîm* "progeny of God, godly offspring" (Malachi 2:15).

The curly 6 element of this set of glyphs has already been discussed and means “God” or some clause that primarily involves God, such as “power of God,” etc. That portion of the definition for “godly offspring” is clear. The word for the equivalent of offspring is the word for “child” and “fledgling” found in the Egyptian word *t* or *t̄* (*Chicago Demotic Dictionary*, 2014, T [01.1], 10), which is an apt characterization as Christ indicates that he gathers his people like a hen gathers her chicks (3 Nephi 10:4). The Egyptian hieroglyphic word can consist solely of the G-47 glyph and its associated hieratic (Möller Number 224). The G-47 glyph is a depiction of a duckling, which is also consistent with a young bird or fledgling:



Möller Number 224, Bd. II-1-30, pg. II 219-228 (Möller 1965)

The hieratic here is a fairly straightforward C-16. The word is sometimes written with the addition of the hieroglyph with Gardiner Numbers Z-1 (Scribd.com 2010):



The hieratic version of Z-1 is pretty much the same as the original Egyptian hieroglyph, so it is not shown separately here. In C-17 it is the additional tick mark above the curly 6 word for *God*. There is still one more glyph play involving *Zarahemla*, as some forms of the Egyptian word *t* or *t̄* are written with G-47, Z-1, and then with the addition of G-39:

G39: 



Möller Number 216, Bd. I-1-22, pg. I 215-224 (Möller 1965)

This is significant because it adds a potential meaning twist, as this particular glyph is a variant of the Caractors glyph for *Christ* (Son) already discussed. Additionally, in another case of adjacent glyph borrowing, C-15, the adjacent glyph for “comes” or “goes” is principally an inverted V, so it is essentially the same as G-39 except for orientation. Crowley (1961, 43) also indicates a form similar to C-15 and C-16 (again ignoring the dot in C-15) together as constituting the Egyptian Demotic word *pr nsw.t*, which means “king’s house” or “palace.”

Also, on another level of meaning, G-47 also means “vizier” (Scribd.com 2010), which is, according to the Merriam-Webster online dictionary (www.merriam-webster.com 2017), defined as “a civil officer in ancient Egypt having viceregal powers,” which would seem to be another fitting description of Zarahemla, a principal base of political power.

It is also fitting as a name for the leader of the people of Mulek, as Zarahemla was not considered a king. It is interesting, as will be discussed later, that the translation of Mulek is the title vizier. It is apparent that this title remains the title for the leaders of the people down through the generations, as there was no apparent kingly line.

Land of Desolation

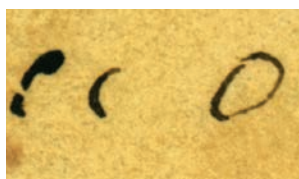
As has been previously discussed with regards to Jared and the Jaredites, C-48 is the glyph for the land of Desolation.

River Sidon, River Bountiful, and the River of Lamanite Possessions

The names of these locations will be discussed in a later chapter involving Nephite directions.

Land of Jerusalem

Characters 131 to 133 are translated as “the land of Jerusalem”:




C-133, C-132, to C-131

The Book of Mormon Onomasticon does not offer an etymology of Jerusalem. Another source identifies the etymology of Jerusalem:

Without a doubt the second and dominant part of the name [Jerusalem] reminded (then and now) of the word שלום (*shalom*), meaning peace.

The first part of the name Jerusalem may likely have reminded a Hebrew audience of the verb ירה (*yara*), throw, cast or shoot. (Uittenbogaard 2015)


C-131 is identified by Budge as the hieratic glyph for the Egyptian word *niwt* or *nut* for “city or town” (1920, 1:351; Scribd 2014; Dickson 2006) or “community or settlement” and is derived from the hieroglyph Gardiner Number O-49:

O49: 



Möller Number 339, Bd. II-31-74-Taf, pg. II 339-352 (Möller 1965)

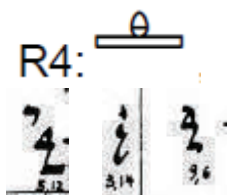
Character 132 is the hieratic glyph for the Egyptian word *qm* or *qma* for “throw” (Scribd 2014) and “to cast away” (Budge 1920, 2:770) and is derived from hieroglyph Gardiner Number T-14:

T14: 



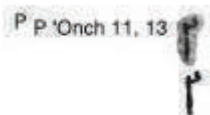
Möller Number 457, Bd. I-23-76 I, pg. 455-464 (Möller 1965)

Character 133 is a close variant to the hieratic glyph for the Egyptian word *hetep* or *Htp*, which means “be at peace,” “peaceful” (Dickson 2006; Budge 1920, 1:517), and it is derived from Gardiner Number R-4:



Möller Number 552, Bd. II-31-74-Taf, II pg. 540b–552 (Möller 1965)

Also, Character 133 is the Egyptian word for mankind, *rmt* (Petty 2012, 89), and matches more closely in the Egyptian Demotic than *hetep*. It looks like this is another example of one glyph with two meanings.



(Chicago Demotic Dictionary 2014, R [01.1], 37)

Chapter 9

Something Fishy about Mulek—Additional Personal Names

Persons who are not part of a tribal name that has been previously discussed are discussed in this chapter.

Mulek/Muloch

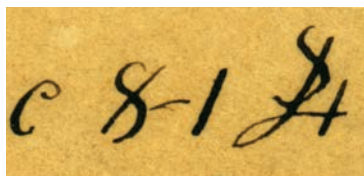
There is a bit of discrepancy in the earlier versions of the Book of Mormon and the Printer's Manuscript as to the spelling of *Mulek* or whether there are two individuals being referenced (Book of Mormon Onomasticon 2015). I would suspect, based on Royal Skousen's analysis referenced in the Onomasticon, that the proper spelling is "Muloch," but that does not bear any reference to the translation of the name Mulek from the Caractors Document, since the names determined so far do not appear to have a phonetic element as the primary method of construction and are instead written in Egyptian according to their etymological meanings, not from a transliteration. The Onomasticon provides a likely etymology for *Mulek*:

It is very tempting to read MULEK as a shortened form, perhaps a hypocoristicon, of a longer name. For example, from the same time period, the days of ZEDEKIAH, the name Malchiah in Jeremiah 38:6, reads in Hebrew *malkiyahû* and means "Yahweh is (my) king." It has been proposed by some scholars that Malchiah may have been the son of ZEDEKIAH, which, if it is correct, has been obscured by the King James translation. That is, the Hebrew, *malkiyahû ben hammelek*, can be translated most readily, as the Septuagint does, as "Malchiah the son of the king," rather than the King James rendering, "Malchiah the son of Hammlech." Because of the suggested identity of Malchiah as a son of ZEDEKIAH, LDS scholars have also suggested a connection between Book of Mormon MULEK and biblical Malchiah.

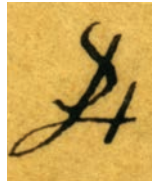
The form MULEK, if it is a hypocoristicon of a name similar to Malchiah, would be from the noun pattern for a diminutive or caritative, *pu'ail* (*fu'ayl* in Arabic), meaning "little king." The diphthong *-ai-* can shorten to */e/*. Given that MULEK was the son of King ZEDEKIAH (see Helaman 8:21), then a Personal Name based on a diminutive of the Semitic root *mlk* would seem appropriate.

The following characters have been translated as "Mulek." The definitions that are relevant to Mulek are as follows: C-8 is the hieratic sign for "walking fish"; C-9 and part of C-10 is the Egyptian word *rn* meaning "to be young" and also means "name" (Dickson 2006, 16); part of C-10 is the Egyptian word *hwtj*, which is a determinative "male" adjective; *hwt* is also known to mean "male" in the *Chicago Demotic Dictionary* (2014, H [09:1], 75); and C-11 is *hry*, which in Egyptian means "lord," "master," or "chief" (*Chicago Demotic Dictionary* 2014, H [09:1], 219).

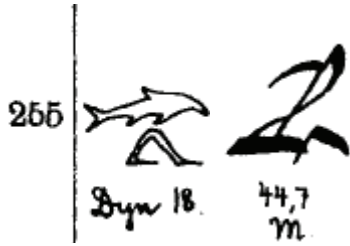
It is a fairly straightforward translation that "young male chief" would be equivalent to "little king," which would translate as "Mulek" (according to the Onomasticon), who would have been the first king of the Mulekites. "Walking fish" in the context of the Mayan language is a perfect match for Mulek as explained below. Each associated Egyptian glyph is shown below:



C-11, C-10, C-9, C-8



C-8

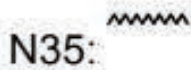
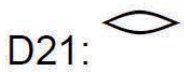


Möller Number 255, Harris Papyri H. M. (Möller 1965, Bd. II 1-30, pg. 249–257)

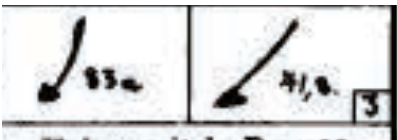


Part of C-10 and C-9

The word *rn* consists of Gardiner Numbers D-21 and N-35:



One hieratic form of D-21 is the angled vertical line:



Möller Number 719 (Gardiner Number D-21) (Möller 1965, Bd. I-23-76, pg. I 707–719)

The hieratic form of N-35 is a horizontal line:



Möller Number 331 (Gardiner Number N-35) (Möller 1965, Bd. II-1-30, pg. II 326bis–338)

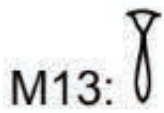
The intriguing thing about Möller Number 719 is that the angled vertical line individually has the meaning of “a third.” Since Mulek was one of the sons of Zedekiah, this glyph may be denominating Mulek as the third son of Zedekiah (even though it is delineating a fraction).

This form for a third is also found in Egyptian Demotic:

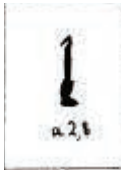


(Chicago Demotic Dictionary 2014, Numbers [14.1], 271)

The word *wAD* (*uatch* with Budge phonology) means “to be young” and is written as Gardiner glyph M-13 (Budge 1920, 1:150):



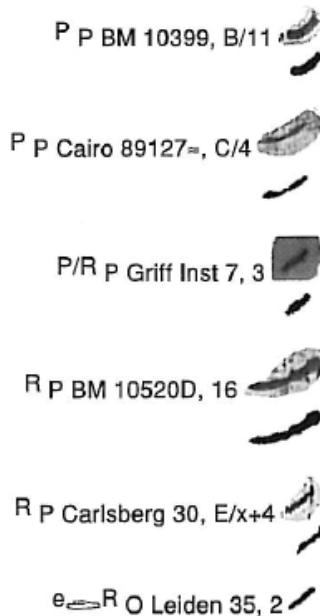
One hieratic form of M-13 approaches the form of a vertical line.



Möller Number 280 (Gardiner Number M-13) (Möller 1965, Bd. II-1-30, pg. I 271–282)

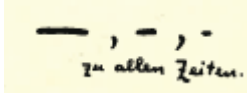
Finally, although not likely, the word *rn* can also be formed by the phonetic combination of the words *r* and *n*.

Example of *r*:



(Chicago Demotic Dictionary 2014, R [01.1], 1)

Example of *n* from *Demotisches Glossar* (Erichsen 1954)



Part of C-10



Example of *hwt*:

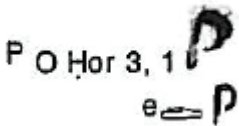


Ptolemaic hieratic/Demotic from *Demotisches Glossar* (Erichsen 1954, 297)



C-11

Example of *hry*:



Ptolemaic Ostrakon (*Chicago Demotic Dictionary* 2014, H [09:1], 219)

It should also be noted that the fish portion of the Möller Number 255 glyph is included by Gardiner as the hieroglyph Number K-3 and that it is the initial phonetic element in the word for “administrator of a province” and “excavator of canal(s)”: ‘*d-mr* (Gardiner 1957, 477).

Something Fishy about Mulek

As noted above, the Egyptian hieratic glyphs closely matching part of Mulek’s name are the signs for fish (Gardiner Number K-3) and walking legs (Gardiner Number D-55). In Egyptian, certain verbs involving the notion of movement add the walking legs ideogram. The walking legs ideogram can also indicate backward movement when oriented as in the Caractors glyph. It could have been interpreted as “moving fish,” but normally a designation for fish does not include some addition for movement since a fish is presumed to be able to move by swimming.

As discussed in a previous chapter, the Maya PDI and ADI glyph almost always features the glyph called in the Maya “Muloc,” which depicts a fish, or “Xoc,” which is a shark.



ADI and PDI, including the Muluc fish glyph and the PDI Xoc shark glyph (previously referenced)

Famous Mayanist David H. Kelley (1960) noted a Hebrew connection to the Maya calendar involving three sequential Maya day names that corresponded with three sequential Hebrew letters. The day names are Manik, Lamed, and Muluc. The Manik glyph is of a hand and corresponds with the Yucatec Mayan word for hand, *kab*. The corresponding Hebrew letter is *kaph*. The next Hebrew letter in the Hebrew alphabet is *lamed*, or *l*, and the next Maya calendar day name is *Lamat*. As discussed previously, *lamed* is the Paleo-Hebrew “curly 6” character. The next Hebrew letter in sequence is *mem*, which means water, and the next sequential Maya calendar day name is *Muluc*, which features a fish as its glyph.

The symbol of a fish or a shark is well known in the late Olmec (Epi-Olmec) culture area. Shark iconography is especially associated with the Gulf lowlands, most deriving from Veracruz and Tabasco (Arnold 2005). This is precisely the area that most Mesoamerican Book of Mormon models place the landing place and initial settlement of the Mulekites.

In relation to the ADI, it is interesting that one of the shark depictions in a ceramic plate from southeast Mexico has accentuated line drawings on it that match the Caractors and Maya ADI (see figure 82).



Figure 82. Highland Olmec shark depiction on the interior base of a ceramic plate from Tlapacoya, southeast of Mexico City (Arnold 2005, 7)

This ceramic plate is tentatively dated to the Early Formative period (1500–900 BC), which predates the arrival of either the Lehites or the Mulekites, and so might point to a Mesoamerican or potentially Sumerian source for this particular sign.

Notably, the shark or fish theme has been featured in the royal headdresses of the Gulf Lowland region of the Epi-Olmec. A shark headdress is featured on the La Mojarra Stela 1, which includes a large shark hanging from the rear of the headdress, with four smaller sharks along its spine (see figure 83). The stela was pulled from the Acula River near La Mojarra, Veracruz, Mexico, not far from the Tres Zapotes archaeological site.

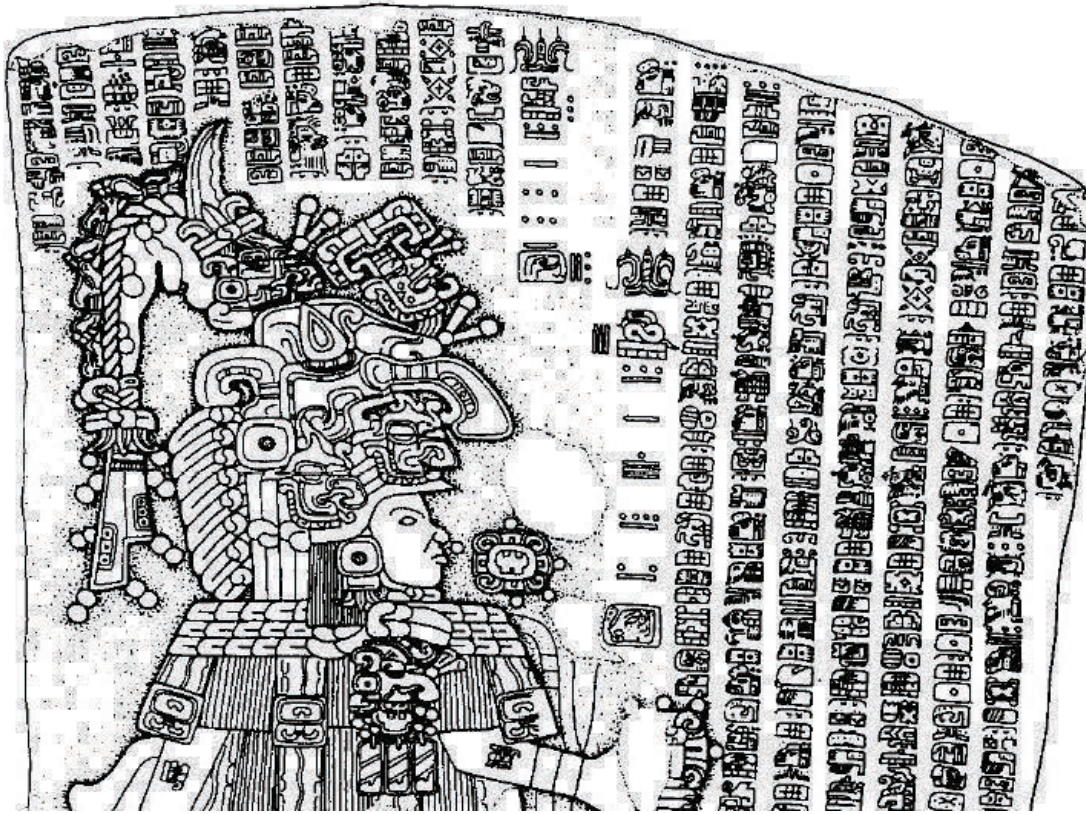


Figure 83. Shark headdress featured on the La Mojarra Stela 1, dating from 300 BC to the 2nd century AD (Wikipedia Commons, 2017)

So other than the fish theme for the Maya glyph Muluc, the correlation with the Paleo-Hebrew letter, and the association with the fish/shark theme in the area where the Mulekites would have been located, is there any further correspondence with the “walking fish” title for Mulek? John L. Sorenson (2013, 539) has provided some convincing arguments that the bearded Semitic-looking individual with a large aquiline nose on La Venta Stela 3 is, in fact, Mulek and that the scene depicts the arrival of Mulek (see figure 84). La Venta flourished during the 800 BC to 500 BC period and was located in the area that fits the Book of Mormon for the location of the Mulekites. One detail apparently overlooked in Stela 3 is that the headdress that the individual identified as Mulek is wearing is in the form of a big fish! The designation in the Caractors Document as “walking fish” as either part of his name or as a ceremonial title is exactly consistent with the Maya glyph Muluc, the ADI featuring Muluc, and the La Venta Stela 3, featuring Mulek.

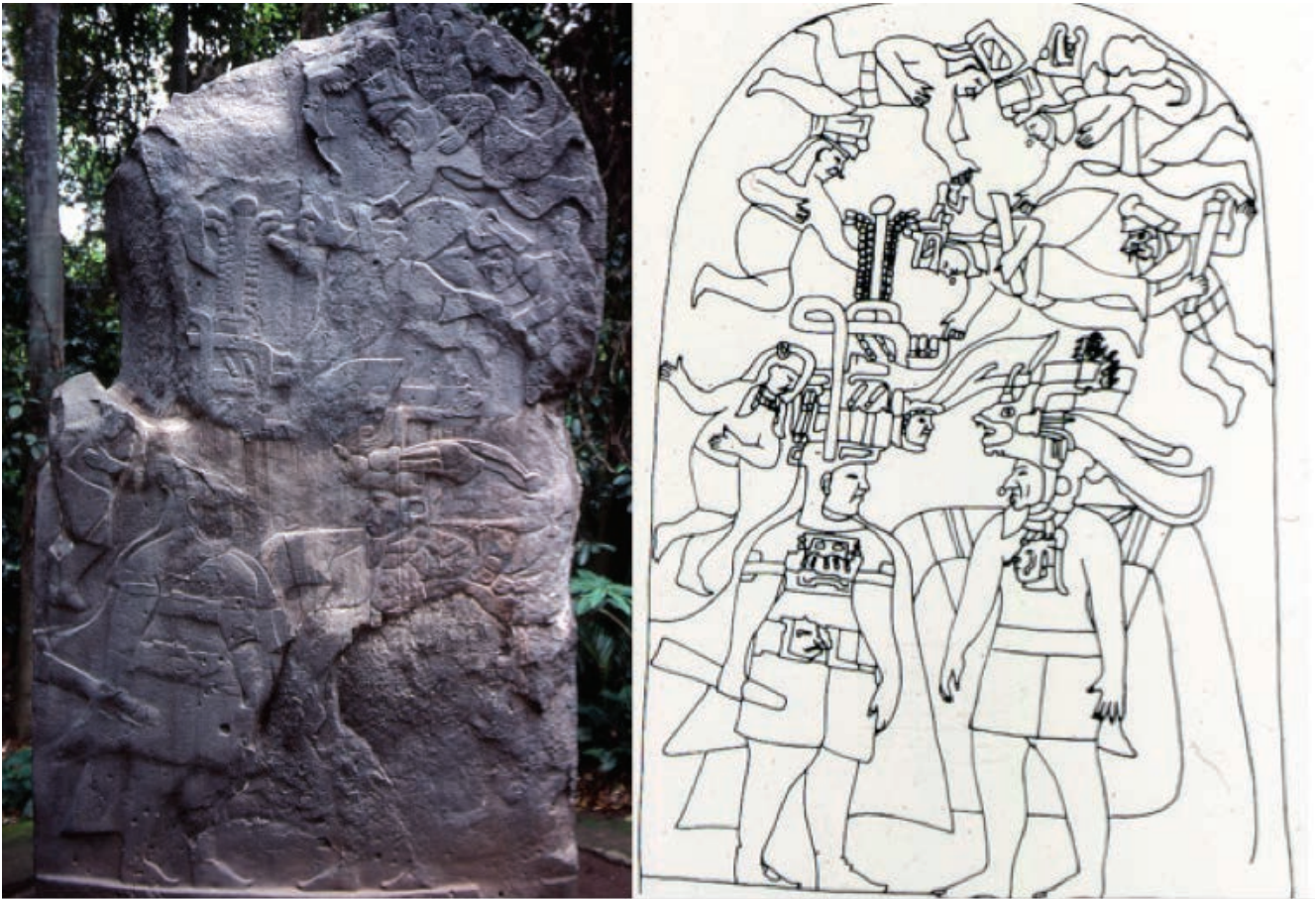


Figure 84. La Venta Stela 3 (Studyblue.org 2015)

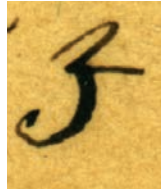
Consequently, the title found in the reformed Egyptian name for Mulek is not “king” but rather “lord,” “master,” “chief,” or even “administrator.” This is consistent with the references to Mulek in the Book of Mormon, as there are no “Mulekites,” only the people of Mulek. When the Nephites migrated to Zarahemla, the descendants of the original Mulek group did not have a king. The fact that Mulek’s group landed in territory occupied by the Olmecs/Jaredites is consistent with Mulek not being a king because the Jaredites already had a king. The people of Mulek living within the boundaries of the Jaredites would be consistent with Mulek being a vassal leader, or chief, in the Jaredite political structure.

Zeniff

According to the Book of Mormon Onomasticon, the etymology of the name *Zeniff* is:

- *snb* (*znb*), “very common elements in Egyptian proper names, cf. Senepta” (*snp-t3*)
- and citing the same Egyptian words, from Hugh Nibley’s “Lehi in the Desert”: “common elements of EGYPTIAN proper names”

The character for *Zeniff* in the Caractors Document is C-36:



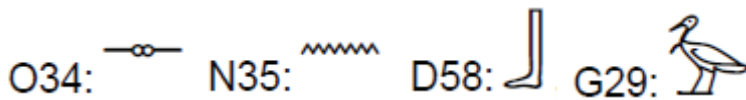
C-36

The Egyptian word *snb* as found at the end of royal names is found in the *Chicago Demotic Dictionary* (S [13:1], 263–64) and does have the form of the glyph:

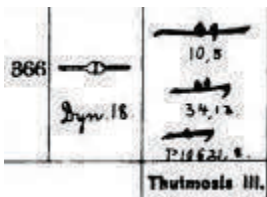


Demotisches Glossar (Erichsen 1954, 438)

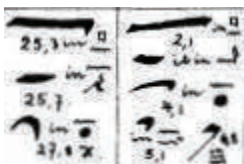
However, phonetically, *snb* has other meanings in Egyptian that also match *Zeniff* in terms of a Book of Mormon setting as well as glyphically. The first is what Budge (1920, 2:606) identifies as *senb*, which has meanings of “to be overthrown” and “to be evilly entreated.” The first definition might be applicable to *Zeniff*’s first foray into the wilderness, which ended in a battle for power (Mosiah 9:1–2); the second is certainly an apt description of *Zeniff*’s entire tenure as a vassal/enemy subject to the whims of king Laman. One of the forms for the hieroglyph for this word consists of the following, with the associated Gardiner Numbers:



In the hieratic, Gardiner Numbers O-34 and N-35 become essentially horizontal lines:

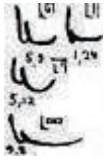


Möller Number 366 (Gardiner Number O-34) (Möller 1965, Bd. II-31-74-Taf, pg. II 356–366)



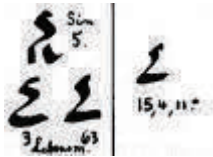
Möller Number 331 (Gardiner Number N-35) (Möller 1965, Bd. II-1-30, pg. II 326bis–338)

The D-58 hieratic generally is reflected as an “L” type form, but there is a form (recognizably much later in time) that is similar to the glyph:



Möller Number 124 (Gardiner Number D-58) (Möller 1965, Bd. III-1-31, pg. III 120–128bis)

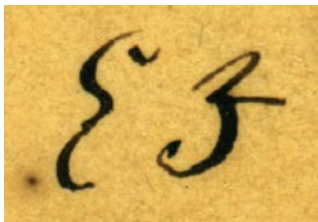
G-29 is reflected in the hieratic as:



Möller Number 208 (Möller 1965, Bd. I-1-22, pg. I 206–214)

The Zeniff glyph is a compact combination glyph that essentially is a reverse of the hieratic G-29, with the hieratic D-58 of similar form, with the line through the middle of the glyph represented by both O-34 and N-35. Another definition for the Egyptian word *snb* is to “step over boundaries” (Dickson 2006, 170), which has some of the same hieroglyphic elements (O-34, N-35, and D-58) and would also seem to be descriptive of Zeniff, who left the confines of Zarahemla to return to the land of Nephi.

The Zeniff glyph also exhibits the “mirror-image” glyph play as it mirrors the adjacent character (C-37), which means “depart.”



The same mirroring involving the word for “depart” also occurs with the glyph for *Nephi₂*, which will be discussed later. As was explained, Egyptian characters can face either direction depending on the direction they are read, but in this case the character may have been flipped as a form of glyph play. The morphing together of separate glyphs to make one glyph is a staple in Maya glyph play, as is reversing directions. It may not be possible to say what the Nephites borrowed from the Maya or vice versa, but it is very clear there was “glyph play” borrowing of concepts going on between the two groups.

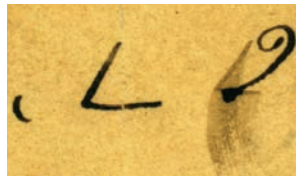
Mosiah₁, Mosiah₂, and King Benjamin—Sharing between Father and Son

The characters for Mosiah₁ and Mosiah₂ are:



B1d, B1c, B1b, B1a

Mosiah (1)



C-63, C-62, C-61

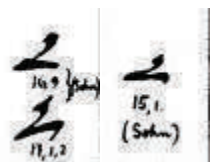
Mosiah (2)

The leading base dot (B1d) character in Mosiah₁ is an ordinal number for “first,” designating Mosiah₁ from Mosiah₂.

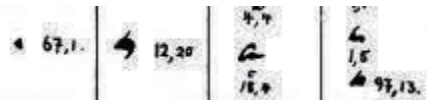
The Book of Mormon Onomasticon indicates the following for the etymology of the name *Mosiah*:

MOSIAH may derive from the Hebrew *mšḥ*, “messiah,” though this does not produce the o vowel of the first syllable.

The phonetic word for “son” in Egyptian is *s*, with the associated Egyptian hieroglyphs being G-39 followed by A-1 (Gardiner 1957, 442), with the corresponding hieratic symbols as follows:



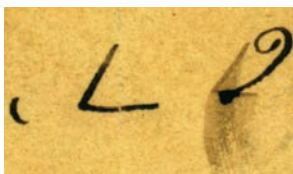
Möller Number 216 (Möller 1965, Bd. I-1-22, pg. I 215–224)



Möller Number 33b (Möller 1965, Bd. I-1-22, pg. I 32–40)

As previously mentioned, it is apparent from prior analysis that the “curly 6” is the abbreviated name for God, or elements related to God, as it derives both through Paleo-Hebrew and through Egyptian from the name of God (*El*), probably with the phonetic identical to the Paleo-Hebrew letter for *l*, as *lamed*, which is the “curly 6” letter. Perhaps by inverting the “curly 6” it differentiated the name of Mosiah from being the same as the “Son of God.”


The name *Mosiah* is a fairly straightforward phrase for the Messiah, the Son of God, or “God’s Son,” with the translation being:



Son

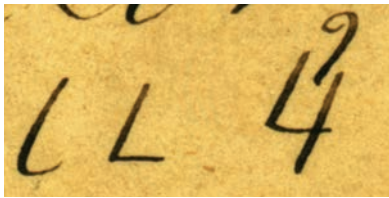
God’s

In an example of glyph double entendre, by utilizing the “curly 6,” another meaning for that glyph is the Gardiner Number V-1 hieroglyph, which is a determinative in Egyptian for “king” in that the symbol also represents the front bent appendage of the Egyptian crown (Gardiner 1957, 521):

V1: 

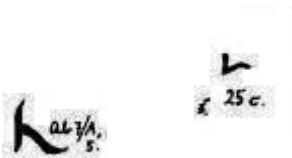
Also, positioning the word “Son” where it links Mosiah₂ to his father, king Benjamin.

The name of Mosiah is also used in conjunction with the term that is translated as the “20,000 children (followers) of Mosiah,” which constitutes characters C-18, C-19, and C-20:



C-20, C-19, and C-18

The number for 20,000 (C-20) has already been discussed in the chapter on numbers; however, the upper glyph has been stylized into the “curly 6” or God glyph, which acts as the first glyph in the name for Mosiah. The L-shaped glyph in the center (C-19) is the G-39 (Möller Number 216) glyph, as discussed. The L-shaped glyph farthest to the left is a different form of the A-1 glyph (Möller Number 33b), which has an L shape:

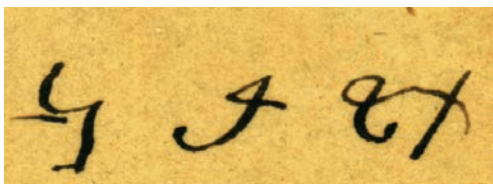


Möller Number 33b (Möller 1965, Bd. I-1-22, pg. I 32–40)

Since the Egyptian word *sʿ* for “son” is phonetically equivalent to the Egyptian word for daughter, *sʿ.t*, this word could also be translated and interpreted as “sons and daughters” or “children.” The translated phrase would be “20,000 of the children of Mosiah₁.” One would not expect, given the nature of Mosiah₁ and his followers’ flight, that it would be considered a tribe, since it probably consisted of members of multiple tribes. This type of terminology is at home in the Book of Mormon as one finds the phrase “children of Lehi” (Alma 49:8; 3 Nephi 5:22; Mormon 4:12) and “children of Nephi” (Mosiah 11:13; 25:2, 12; 4 Nephi 1:39).

King Benjamin

The name for Benjamin consists of characters C-67, C-66, C-65, and C-64:

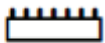

















C-67, C-66, C-65, C-64

The Book of Mormon Onomasticon discusses the following etymology for the name *Benjamin*:

For the etymology of BENJAMIN see the standard biblical commentaries, which usually suggest the meaning “son of the right (hand)” (Genesis 35:18). This interpretation is derived from the Hebrew for “son,” *bēn* and from the usual word in HEBREW for “right,” *yāmîn*.

There appears to be a significant amount of phonetic and definitional wordplay going on with this name, which was apparently not an uncommon event with Old Testament names. Characters C-64 and C-65 are, in fact, one character, not two. This character consists of the hieratic form of the compound Egyptian hieroglyph consisting of Gardiner numbers Y-5 and G-17:


Y5: 

540															
	Thutmosis III.	Amenophis II.	Amenophis III/IV.	Sethos I.	Menephtah/Sethos II.		Ramses IV.	Ramses IX.	21. Dynasty						

Möller Number 540 (Möller 1965, Bd. II-31-74, pg. II 530–540)

As is apparent, C-64-65 might be considered a character that may have undergone a bit of alteration, as opposed to just scribal differences of the hieratic example. Gardiner notes that this character can serve as a phonetic character for the sound *mn*, consistent with a portion of the phonetics for *yāmîn* (Gardiner 1957, 534).

Gardiner notes that the G-17 (C-66) hieroglyph can serve as a phonetic character for the sound *m* (Gardiner 1957, 469).

G17: 



Golen. Papyri

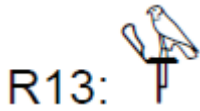
Möller Number 196 (Möller 1965, Bd. I-1-22, pg. I 189–196b)

Character C-67 is similar in the hieratic to two hieroglyphs with Gardiner Numbers G-7 and R-13.

G7: 



Möller Number 188b (Möller 1965, Bd. I-1-22, pg. I 181–188b)



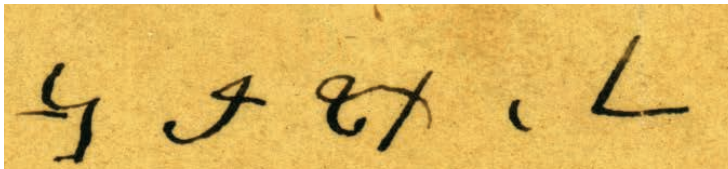
Westcar	Golen.	Ebers
 8, 19	 4, 1, 3	 9, 3
		 36, 15
		 100, 2

Möller Number 189 (Möller 1965, Bd. I-1-22, pg. I 189–196b)

The etymology for *king Benjamin* is indeed interesting. Gardiner notes that hieroglyph G-7 is a determinative for “king” and that hieroglyph R-13 is an ideogram and emblem for “West” and related words such as “right hand” or “right side” (Gardiner 1957, 468, 502). Gardiner indicates the phonetic word in Egyptian for “right” is *imn*. The letter “i” is considered one of the weak consonants in Egyptian, and it is surmised that it was often not pronounced, which would leave the reading as “mn” for this particular character, which means both “king” and “right hand.” Character C-64-65 is also pronounced “mn,” and together with character C-66 “n” forms the phonetic word “mnm,” which could then be read as “right hand” from either direction!

Essentially, this part of the name constitutes a complex, multilevel phonetic and ideogramatic palindrome (reading the same forward and backward). It should also not be forgotten that it was Benjamin who changed the Nephite glyph so that the “tribe” in the glyph could be on the “right hand” of Christ (chapter 7).

There is one final play on the name of king Benjamin. As is noted in the etymology of *Benjamin*, to be complete, the word *son* should also be represented. In fact, by placing the name adjacent to “Mosiah,” and by placing the title for “king” on the left, the name for Benjamin is able to “borrow” the last two characters from the name of Mosiah, which means “son of,” making the complete name “son of the right hand”!



One other interesting aspect of the name of king Benjamin is that it means not only “right hand” but also “west.” Because of the Caractors Document, we now know that Benjamin was born after his father, Mosiah₁, fled to the west. This may constitute a palindromic double entendre, if such a thing is even known to exist.

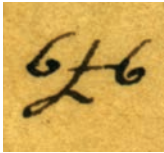
Just like the term “Nephites and Lamanites” where the “tribe” glyph is shared by both words, the same has occurred with the names “Benjamin” and “Mosiah.” “Glyph sharing” to an adjacent glyph is known as “transference.” It can be presumed that this was a common practice by Mormon. This practice reduces the space needed for any given pair of words, a concept consistent with the statements by Mormon that space was at a premium on the Book of Mormon plates.

In addition, C-67 has been translated as “king” as an adjective to Benjamin; however, consistent with the double use of a glyph it also serves as an indicative verb of the ascension to the kingship, as it is immediately followed by the ascension date of Benjamin.

This practice of glyph transference is very definitely consistent with Mesoamerica writing style. Transference of affixes to adjacent glyphs was a practice recognized early on in the decipherment of the Maya script (Thompson 1950, 38–41).




Samuel the Lamanite

“Samuel the Lamanite” appears in the Caractors Document as C-109:



C-109

The Book of Mormon Onomasticon identifies *Samuel* as being from the Hebrew *shemu'ēl*—meaning the “name of *El*” or “his name is *El*.” As previously mentioned, there are a variety of Semitic words and names that are found in Egyptian. The Hebrew name *Samuel* is found in a few places in Egyptian as well. On the Anastasi Papyri III from the Nineteenth Dynasty (ca. 1292–1189 BC) is found the hieratic word “NAME,” equivalent for *Samuel* in Egyptian (Hoch 1994, 279). The following shows one of the standardized hieroglyphic forms that made up the name *Samuel* as represented by Hoch.

V1:  T14:  A3: 

The hieratic form of each glyph can be derived by looking at hieratic glyphs for each of these glyphs in the order V-1, T-14, and A-3.


8,3

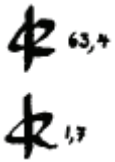
Golen. Papyrus

Möller Number 518 (Gardiner Number V-1) (Möller 1965, Bd. I-23-76, pg. I 513–521)


63, 8.

Ebers Papyrus

Möller Number 457 (Gardiner Number T-14) (Möller 1965, Bd. I-23-76, pg. I 455–464)

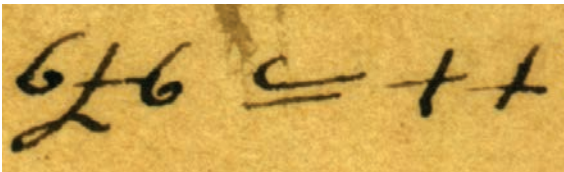


Ebers Papyrus

Möller Number 33 (Gardiner Number A-3) (Möller 1965, Bd. I-1-22, pg. I 32–40)

We again see the “curly 6” glyph, which is part of the name of God (*El*) as described previously. In the Caractors Document, the glyph seems to be a religious determinative word for “God,” “power of God,” “holy,” etc. It appears that the “throwing stick” (V-1) was incorporated into the glyph by rotating it 180 degrees. In the case of *Samuel*, it is clearly a combination of the individual Egyptian glyphs, using morphing, and is stylized with the name of God, the “curly 6”s matching perfectly the Hebrew meaning as the “name of *El*.”

Similar to “Benjamin” and the phrase “son of,” one wonders where the “Lamanite” in “Samuel the Lamanite” is found in this instance. This is another case of glyph sharing, or transference. In fact, this situation is a case of double transference. Below is shown the additional three-character group to the right of “Samuel.”



As was explained previously, those three glyphs constitute “the Nephites and the Lamanites.” In that set, the word for Nephites and the word for Lamanites share the center glyph “-ites.” The two glyphs to the right of “Samuel” constitute “Lamanites” and so share their meaning with Samuel, creating “Lamanite Samuel,” or as the Book of Mormon has translated it, “Samuel the Lamanite.”

Nephi₂ and *Nephi₃*

The name of is reflected in C-143 and C-199:



C-143 is referring to *Nephi₂*, father of *Nephi₃*, in 3rd Nephi who departed out of the land (3 Nephi 1:2–3, 2:9). The second is referring to the three “disciples of Jesus” who were blessed to “tarry” and not die. They are now popularly referred to as the “Three Nephites” but were not referred to that way in the text of the Book of Mormon. Although Mormon indicates that he was forbidden from writing the names of the three disciples (3 Nephi 28:25), this glyph is an indication that one of them was *Nephi₃* who was called as one of the twelve disciples (3 Nephi 19:4).

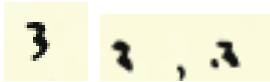
The Book of Mormon Onomasticon has indicated one of the etymologies of the name *Nephi*:

The most likely derivation of the name is Egyptian *nfr* “good, beautiful.” The final *r* in Egyptian had dropped out of pronunciation about a thousand years earlier, and it is attested as a personal name at the time of Lehi.

While *nfr* was not indicated directly by glyph forms, the Demotic article *nʿ* also functions as a prefix to adjective-verb forms that are associated with “beautiful” and a few other similar words:

nʿ	def. art. (EG 202)
nʿ	prefix of adj.-verbs (EG 202) for discussion, w. extensive list of verbal roots w. adj.-verb forms, see Stricker, <i>OMRO</i> 43 (1962) 33-34, §§23-24; Johnson, <i>DVS</i> (1976) pp. 29-31; Vernus, <i>RdE</i> 41 (1990) 170-72, §8
	in compounds
nʿ-ʿʒ	"to be great" (EG 202)
nʿ-ʿn	"to be beautiful" (EG 202)
nʿ-wsh	"to be broad" (EG 202)
nʿ-bn	"to be bad, evil" (EG 202)
nʿ-mnh	"to be excellent" (EG 202)
nʿ-nw	"to be good, pleasing"; see under ʿn, above
nʿ-nfr	"to be beautiful" (EG 202)

(Chicago Demotic Dictionary 2014, N [04:1], 7)



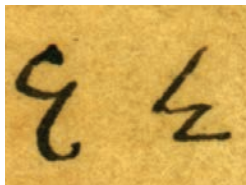
Demotisches Glossar (Erichsen 1954, 202)

The reversal is curious (if this etymology is correct) but may be explained by the reference to the three disciples, since the number in this reverse orientation would accommodate a double meaning as the number 3, which is found as character C-86:

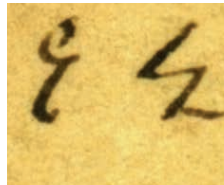


C-86

In addition, considering that it occurs exclusively in a match set with the glyph that means “departed,” the reversal may also be some sort of glyph play:



C-144, C-143



C-200, C-199

In the Caractors prophetic calendar Mormon emphasizes the departure of Nephi₂ prior to the birth of Christ. This would seem to have been a fairly minor event in the larger scheme of the Book of Mormon. However, it apparently had significant ramifications involving the calendar, and that is why it was mentioned by Mormon in the summary of the prophetic calendar.

The brief mention in the Book of Mormon of the event is found in 3 Nephi 1:2–3:

2 And Nephi, the son of Helaman, had departed out of the land of Zarahemla, giving charge unto his son Nephi, who was his eldest son, concerning the plates of brass, and all the records which had been kept, and all those things which had been kept sacred from the departure of Lehi out of Jerusalem.

3 Then he departed out of the land, and whither he went, no man knoweth; and his son Nephi did keep the records in his stead, yea, the record of this people.

This may have seemed a benign event, except that it was clearly much more than that with regard to the calendar (3 Nephi 2:5–9):

5 And also an hundred years had passed away since the days of Mosiah, who was king over the people of the Nephites.

6 And six hundred and nine years had passed away since Lehi left Jerusalem.

7 And nine years had passed away from the time when the sign was given, which was spoken of by the prophets, that Christ should come into the world.

8 Now the Nephites began to reckon their time from this period when the sign was given, or from the coming of Christ; therefore, nine years had passed away.

9 And Nephi, who was the father of Nephi, who had the charge of the records, did not return to the land of Zarahemla, and could nowhere be found in all the land.

If read carefully, it is clear what has happened: the calendar counting records were in the possession and “charge” of the older Nephi₂, and he disappeared with them. It is noteworthy that the second reference to his disappearance is ten years after the first indication that he had “departed out of the land.” That may be one reason that the calendar was changed so late. Fortunately he left the plates and religious records with his son, the younger Nephi₃. Spackman (1993) has analysis of a different reason that the change was nine years after the fact, namely, that the timing was to coincide with other Mesoamerican calendars; however, there is no evidence in the Book of Mormon that those Mesoamerican calendars were being utilized by the Nephites, although they may have been aware of them.

This whole situation later caused consternation with the calendar count itself where it was indicated (probably in the words of Nephi₃, the son of Nephi₂) (3 Nephi 8:1–4):

1 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—for he truly did many miracles in the name of Jesus; and there was not any man who could do a miracle in the name of Jesus save he were cleansed every whit from his iniquity—

2 And now it came to pass, if there was no mistake made by this man in the reckoning of our time, the thirty and third year had passed away;

3 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.

4 And there began to be great doubtings and disputations among the people, notwithstanding so many signs had been given.

It appears, assuming that it is Nephi₃, the son of Nephi₂, speaking, that a “just man” was selected to keep the calendar record. It has been noted that in Mesoamerica, time keepers or day keepers were actually sophisticated specialists and priests (Wright 2012), and as noted in the Book of Mormon, it was one individual (a just man) who was responsible for the calendar count. It might also be interpreted that Nephi₃, the son of Nephi₂, is the day keeper, if the narrative point of view is not being provided by his writing.

In the chronological order of the Characters Document, the departure of Nephi₂ is noted following the establishment of the Gadianton robbers after the birth of Christ and so would be consistent with the commentary on his departure after the nine-year period, as it was clear they had been hopefully waiting his return.

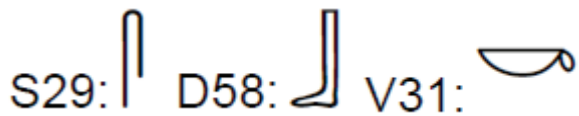
*Laman*₁

The Book of Mormon Onomasticon lists a few possible Hebrew etymologies for the name *Laman*, but none of these etymologies were found that corresponded with any potential Egyptian hieroglyphs as reflected by the Characters meaning Laman, C-108 and C-217:



Since we don't yet have a Hebrew etymology with the glyph for *Laman*, a phonetic match in Mesoamerica is the best approach for analyzing this glyph. It has been suggested that the Maya city of Lamanai, Belize, may provide a Mesoamerican phonetic source for the name *Laman* (there are a variety of internet posts to this effect, but it is not clear what the original source is for this suggestion). It is not presumed that Lamanai is in fact a Lamanite city, just that it might provide a phonetic basis for the name *Laman*.

Lamanai means "submerged crocodile" in the ancient Yucatec Mayan language (Pendergast 1981, 32). The Egyptian word that most closely matches the Laman glyph form related to crocodile is *Sbk*, which is the name of Sobek, the Egyptian Crocodile God. One of the Egyptian forms for *Sobek* consists of hieroglyphs with Gardiner Numbers S-29, D-58, and V-31 (Budge 1920, 2:660; Vygus 2018, 1828):



The hieratic forms of these glyphs for Sobek the Crocodile God that are most similar to the Laman glyph are:



Möller Number 432 (Gardiner Number S-29) (Möller 1965, Bd. III-32-72-Taf, pg. III 425–435)

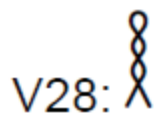
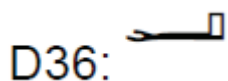


Möller Number 124 (Gardiner Number D-58) (Möller 1965, Bd. III-1-31, pg. III 120–128bis)

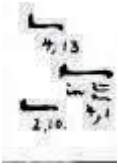


Möller Number 511 (Gardiner Number V-31) (Möller 1965, Bd. I-23-76, pg. I 504–512)

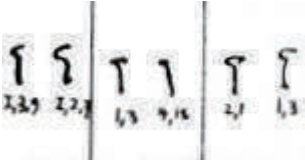
Words for "submerge" in Egyptian most consistent with the Laman glyph are *bāh* (using Budge phonetics) or *b'hi* (Vygus 2018, 321) and *hs* (Budge 1920 1:213, 505). The word *bāh* consists of Gardiner Number hieroglyphs D-58, D-36, and V-28. The D-58 form has just been shown. D-36 and V-28 are as follows:



The hieratic forms of these glyphs most similar to the Laman glyph are:

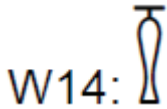


Möller Number 99 (Gardiner D-36) (Möller 1965, Bd. II-1-30, pg. II 90–99)



Möller Number 525 (Gardiner V-28) (Möller 1965, Bd. III-32-72-Taf, pg. III 518–526)

The word *hs* consists of three hieroglyphs with Gardiner Numbers V-28, W-14, and S-29. V-28 and S-29 have just been shown above. The remaining glyph, W-14, in the hieroglyphic and hieratic form is:



Möller Number 502 (Möller 1965, Bd. II-31-74-Taf, pg. II 498–509)

The word *hs* also means “filthy” when consisting of only two hieroglyphs: V-28 and S-29 (Budge 1920, 1:505). Use of the word that means “filthy” is consistent with references to the Lamanites made by the Nephites in the Book of Mormon (see 1 Nephi 12:23, Jacob 3:5, Jacob 3:9, Enos 1:20, and Mormon 5:15).

As discussed below, the Laman glyph in the Caractors Document also doubles as a locational glyph for *upriver*, which is why it includes the lower vertical line representing “river.” The Laman glyph elsewhere in the reformed Egyptian likely does not double as a location and would consist of the upper single shepherd-hook glyph.

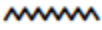
This glyph form is also found in Mesoamerica in Book of Mormon time frames, on mural paintings at Teotihuacan and, based on similarities with the Aztec *cuitlatl* glyph, has been determined to have as one of its meanings “excrement, filth, or sin” (Langley 1986, 254; see figure 85).



Figure 85. “Excrement, filth, or sin” glyphs from Teotihuacan murals (Langley 1986, 254)

Since all of the Egyptian hieroglyphs for *Sbk*, *bāh*, and *hs* that make up the word *Laman* are consistent in form with the upper hook portion of the Laman glyph, the glyph for Laman is considered a multiple-combination glyph, with

multiple meanings and multiple substitutions. The lower portion of the glyph is consistent with the hieroglyph for water, Gardiner Number N-35:

N35: 

This is consistent with the “submerged crocodile” meaning and also creates a directional glyph that matches the geographical location of the Lamanites, which will be discussed in chapter 10.




The “submerged crocodile” meaning is also consistent with the Book of Mormon concept that the Lamanites had “gone native” and had adopted the pagan forms of religion that were around them in Mesoamerica. The crocodile was prominent in Mesoamerican religious iconography and deity forms (Pacheco et al. 2015). The meaning of “submerged crocodile” for *Laman* is also consistent with the Book of Mormon reference that the Lamanites in battle fought “like dragons” (Alma 43:44).

Finally, a nearly identical name for the Egyptian Crocodile God in Mesoamerica exists in the Nahuatl language of the Aztecs (*sipak*), which was recognized long ago by the renowned Semiticist and pioneering authority in Ugaritic, Cyrus Gordon (Gordon 1971, 135). Further linguistic analysis has indicated that the Egyptian and Nahuatl terms are phonetically identical (Stubbs 2015, 63).

At this point, although a bit speculative, it might be possible to reverse engineer some ideas for a Semitic or Egyptian etymology of *Laman* from the Mesoamerican etymology and the Caractors glyph form. The fact that a river was named after Laman while Lehi’s party was traveling through the Arabian peninsula (1 Nephi 2:6–7) is consistent with an etymology that might have some relationship with water. One of the Egyptian words for “fish” is *Im* (*Chicago Demotic Dictionary* 2015, L [01.1], 7).


The top of the Caractors glyph for *Laman* is in the form of a hook, which matches the Paleo-Hebrew letter *lamed* (see figure 52).

A Sumerian proto-cuneiform genesis for this glyph is also a possibility. The following is a similar proto-cuneiform glyph representing the word *bar*, meaning “outsider,” “other side,” “strange,” and “to split”:

252		251,  290, etc. — 143 III 4.	
		PN 233, 281, 283, 339, 445.	
		Éug-bar: 251. With genu: 223. edin-bar: Int.V, M(?) With iku: ibid.J(vi). S.198b.	

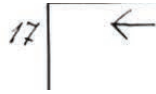
Early Dynastic I Period ca. 2800–2700 B.C. Burrows, *Archaic Texts* (UET 2; London 1935)

Slightly more recent proto-cuneiform from the Early Dynastic IIIa period (ca. 2600–2500 B.C.) with similar form to the Laman glyph have meanings related to derogatory terms similar to the Egyptian *hs* mentioned previously. The following is the glyph for *di*, which means “bowel disorder”:

803 

A. Deimel, *Liste der archaischen Keilschriftzeichen* (WVDOG 40; Berlin 1922)

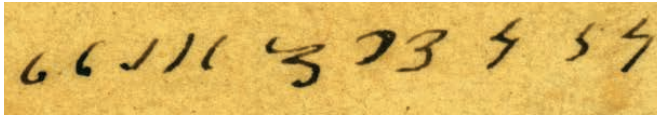
The following is the glyph for *idim*, which means “(to be) stilted; (to be) obtuse, deaf; simple person, imbecile; weak.” The term also means “wild” and “furious”:



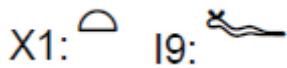
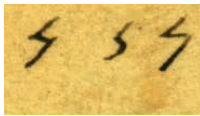
A. Deimel, *Liste der archaischen Keilschriftzeichen* (WVDOG 40; Berlin 1922)

God the Father and Satan

In a sophisticated complex of mirrored meaning and other glyphmanship, the Caractors Document displays the name of God the Father and Satan in the character series C-204 to C-214:



On the far left of the set are the recognizable glyphs for *God* (curly 6’s), which are shown in a matching, repeating fashion (C-213 and C-214). On the other side of the set is a set of three glyphs, which has a mirror meaning; the set can be read the same forward and backward, with its shared central glyph (C-204, C-205, and C-206). This set has the meaning of “Father,” which in the Egyptian is *it* (Dickson 2006, 80). The Egyptian word for “Father” consists of hieroglyphs with Gardiner Numbers X-1 and I-9:



Budge’s dictionary shows this word as *tef* (Budge 1920, 2:832) and with Vygus (2018, 2461) showing *it* with Budge showing variations that use these two characters multiple repeating times when used in the plural.

Hieratic forms for these two glyphs include:

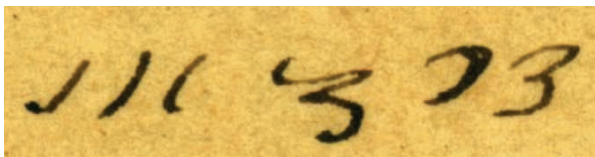


Möller Number 575 (Gardiner Number X-1) (Möller 1965, Bd. II-31-74, pg. II 575–586; Bd. I-23-76, pg. I 572–581)



Möller Number 263 (Gardiner Number I-9) (Möller 1965, Bd. I-23-76, pg. I 260–268)

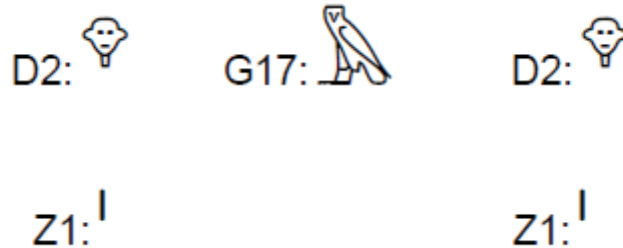
The configuration used is X-1, I-9, X-1, and it can be read the same frontward and backward. Sandwiched between these two sets are two additional matching sets that separately mean “Satan”:



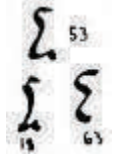
The Book of Mormon Onomasticon identifies the etymology of the word *Satan*:

The title comes from a HEBREW word, *sāṭān*, that means “adversary, opponent.”

One of the Egyptian words for “opponent” is identified by Budge (1920, 1:493) as *her*__, with the underline indicating that it is placed adjacent to the opponent. Another definition of the word is “face-to-face”—that is, being face-to-face with someone. The Egyptian hieroglyphs that make up this word are D-2, G-17, D-2, Z-1, and Z-1, in the following configuration:



Some forms of the hieratic for these hieroglyphs are:



Möller Number 80 (Gardiner Number D-2) (Möller 1965, Bd. III-1-31, pg. III 65–80)



Möller Number 196 (Gardiner Number G-17) (Möller 1965, Bd. II-1-30, pg. II 191–198)

The hieratic for Z-1 is essentially the same as the hieroglyph: a vertical line.

In this character set, there has been a slight rearrangement, which is not atypical for hieroglyphs, by placing the Z-1 glyphs to the side instead of underneath for the word “Satan.” Since the hieroglyph for “opponent” is typically placed next to the person opposed, in this arrangement, the opponent on one side of Satan is God (or Gods) and on the other side is Father.

An extra Z-1 glyph has been added, making three Z-1 glyphs in a row, which is not an accident. When three Z-1 hieroglyphs are placed together in this fashion, they form the Z-2 hieroglyph, which has been used as an Egyptian determinative meaning a “substitute for signs representing human figures which were regarded as magically dangerous” (Gardiner 1957, 536).

The entire set of glyphs containing “Gods” and “Satan” is followed by the glyph set for “the Nephites and the Lamanites.” The entire set appears before the battle that occurred 384 years after the coming of Christ, which fulfilled the 400-year prophecy of Samuel the Lamanite. The Book of Mormon contains the definitive text that shows us the clear translation of this set (Mormon 5:16–18):

16 For behold, the Spirit of the Lord hath already ceased to strive with their fathers; and they are without Christ and God in the world; and they are driven about as chaff before the wind.

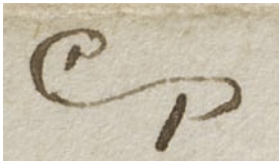
17 They were once a delightsome people, and they had Christ for their shepherd; yea, they were led even by God the Father.

18 But now, behold, they are led about by Satan, even as chaff is driven before the wind, or as a vessel is tossed about upon the waves, without sail or anchor, or without anything wherewith to steer her; and even as she is, so are they.

The correct translation of this glyph set is that the Lamanites and Nephites are without Christ and God the Father and are now led by Satan.

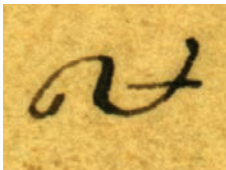
Mormon

While not a part of the Caractors Document, the character from Cowdery or Williams—translated by Joseph Smith by use of the interpreters (the Urim and Thummim) as “Mormon”—takes the main portion of its definitional source in the Caractors Document, so it is appropriate to mention it here.

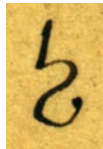


OF2

As previously mentioned in the discussion on calendar glyphs, there are two glyphs for the Jubilee Year, which was celebrated every 49 years under Hebrew tradition. The glyph for “Mormon” is a mirror image of the Jubilee glyphs (C-151 and C-84). These glyphs (including the one for “Mormon”) are a version of a glyph for an Egyptian month. A later analysis will show that, in fact, Mormon was actually born on a Jubilee Year, so that was an important genesis for his name.



C-151

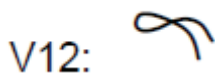


C-84

The Book of Mormon Onomasticon lists a wide series of possibilities for the etymology of *Mormon* and then adds as an afterthought:

Less likely is EGYPTIAN *mr* (> Nubian and Coptic *mur, mor*), “bind, girth”

However, this least-likely etymology is the correct one. The determinative Egyptian hieroglyph for “bind” is Gardiner Number V-12 (Gardiner 1957, 523):



The Egyptian hieratic for this glyph is:



Möller Number 522 (Möller 1965, Bd. I-23-76, pg. I 522–532)

The V-12 glyph also constitutes the simplest form of the Egyptian word *ʿrk* or *arq* (in Budge phonetics) (Budge 1920, 1:131), meaning “the last” or “the end,” which is very descriptive of Mormon. *ʿrk* also means “to be wise.” In

addition, the V-12 glyph represents a band of string used to bind rolls of papyri, and thus it is typically associated with and included in Egyptian words related to records, such as *art* (meaning “roll of papyrus”); *TAw* (“book”); *Sat* (“document”); *pr mDA*t (“library”); *hrwyt* (“journal”); *snn* (“copy [of a document]”); *mdw nTr* (“written characters, script”); *sxrt* (“roll [of papyrus]”); *gnwt* (“records, annals”); *wD* (“[written] decree, dispatch,” “inscription,” and “stela”); *wDt* (“command, decree”); *Hbt* (“ritual book”); and *mDA*t (“papyrus – roll”) (Dickson 2006). Of course, records and record keeping are also clearly associated with Mormon.

Lazy-S Motif in Mesoamerica

Having some familiarity with Mesoamerican iconography, I recognized the *Mormon* glyph as a form of the “Lazy-S,” or curlicue, glyph that is found in Olmec and Maya iconography. In a previous work involving Sumerian roots of Book of Mormon names (Grover 2017), I determined that many of the names in the Book of Mormon have multiple levels of meaning in Hebrew and Sumerian, as well as, as my translation of the *Mormon* glyph showed, Egyptian.

Academics involved in Book of Mormon geography generally associate the Olmec with the Jaredite culture. Although there is debate over exactly where the Nephite lands were located in Mesoamerica, most agree that there was some contact between Nephites and the early Maya, with the Lamanites likely being part of or reflective of Maya culture. Because the *Mormon* glyph is present in both Olmec and Maya iconography—with the Jaredites’ time period being consistent with the Olmecs and the later Nephites’ time period being consistent with the early Maya—the *Mormon* glyph will be discussed in each of these contexts.

Mayan Lazy-S

In the Mayan hieroglyphic classification system, the Lazy-S glyph is more formally identified as T632 (Macri et al. 2009, 140). A typical drawing of a glyph containing the Lazy-S, as well as an example of the glyph from the Madrid Codex, is shown in figure 86.



Figure 86. Lazy-S glyphs (T632): The top image is a reproduced drawing from monuments (www.pauhtun.org 2016); the bottom image is from page 11, register b, of the Madrid Codex (Wikipedia Commons 2016).

The *Mormon* glyph actually consists of a mirror image of the Lazy-S, which is not an atypical representation in either Maya or Egyptian glyphs; such mirroring was discussed previously.

The central curlicue that comprises the main element of the Lazy-S/T632 glyph was interpreted initially by Mayanist David Stuart as a “blood scroll” (Stuart 1988, 203–4). Shortly thereafter, Stuart and Houston also determined that the T632 glyph could also be read in the Mayan language as *muyal*, meaning “cloud” (Houston and Stuart 1994, 44). On page 68a of the Dresden Codex (a pre-Columbian Maya book from the eleventh or twelfth century of the Yucatecan Maya in Chichén Itzá), streams of water fall from a T632/Lazy-S onto one of the pair of Chacs, which are

seated on a skyband. The water can be seen continuing to fall into the space below the skyband, indicating that the Lazy-S is functioning as a raincloud (see figure 87).



Figure 87. Portion of page 68a of the Dresden Codex (image courtesy of the British Museum www.britishmuseum.org 2016).

The Lazy-S is an iconographic element in the headdresses of Maya deities and rulers, and this “cloud diadem” has been linked specifically with the headdress worn by the Maya rain deity Chac. Though the Lazy-S motif is the central element of glyph T632, it also occurs without the surrounding dots in a variety of Mayan iconographic settings, including over the doorway of Structure 22 at Copan, in Maya art on thrones, on women’s costumes, and as women’s body paint. The Lazy-S motif also is linked to period-ending events and to the celestial location of royal

ancestors (Stone 1993, 5–6). In its function as a time marker, the Lazy-S is referred to as the “reversal sign,” and Herbert Spinden has indicated that in the Dresden Codex, it represents the reversal from the dry season to the wet season. Also in relation to the Dresden Codex, V. Bricker and H. Bricker have, based on interpretation of other tables in the Codex, indicated that the sign may refer to solstices and equinoxes (Macri et al. 2009, 140).

Examples of the Lazy-S motif are found on objects from the Early Classic Maya. One example is shown in figure 88, which shows a bar pectoral known as the Cleveland Plaque. The Cleveland Plaque has been stylistically dated between 400 and 500 AD, which closely corresponds to Mormon’s timeframe. Each cartouche on the Cleveland Plaque mentions the name of a royal personage, so the Lazy-S glyph in the upper cartouche is attested here as being used in the context of the name of an individual. (Note that this object does not appear to have any specific relation to Mormon.)



Figure 88. The Cleveland Plaque (Cleveland Museum of Art 2016)

Olmec Lazy-S

The Lazy-S motif can be found in the Olmec style from the Formative Period (1200–500 BC). One example of the motif from the Olmec heartland is visible on the side of the headless feline statue known as San Lorenzo Monument 7 (see figure 89).



Figure 89. San Lorenzo Monument 7 (www.tibolon.blogspot.com 2016)

Further from the Olmec heartland, at the site of Chalcatzingo, the Lazy-S motif is found on Chalcatzingo Monument 31 (see figures 90 and 91).



Figure 90. Chalcatzingo Monument 31 ([Wikipedia Commons](https://commons.wikimedia.org/wiki/File:Chalcatzingo_Monument_31.jpg) 2016a)

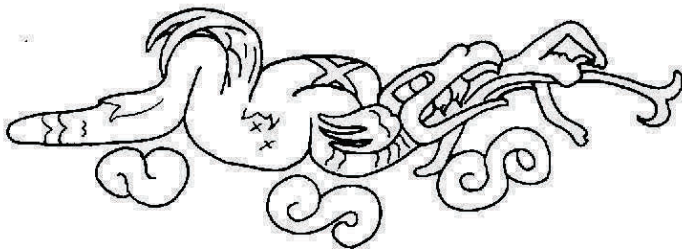


Monument #31, Chalcatzingo

Figure 91. Rubbing of Chalcatzingo Monument 31 (www.anthropology.ua.edu 2016)

Among the Olmec (like the Maya), the Lazy-S motif indicates a rain cloud, and in three instances, it is also associated with a ferocious feline; in two of those instances, the feline is mauling a person. This mauling (as well as other depictions of the Lazy-S) has been linked to the Lazy-S in the Maya and its association with blood or bloodletting (Reilly 1993, 1).

Also at Chalcatzingo is a rock carving identified as Monument 5, which depicts a snake mauling a human while sitting on top of three Lazy-S motifs (see figure 92).



Monument #5, Chalcatzingo

Figure 92. Snake mauling a human (www.anthropology.ua.edu 2016a)

In addition, rock carvings at Chalcatzingo identified as Monuments 11, 8, 14, 15, 7, and 6 (which Reilly refers to as the Water Dancing Group), depict saurian supernaturals perched atop Lazy-S symbols and below rain clouds. In the case of three of these saurian supernaturals, double scrolls emerge from their closed mouths (see figure 93).



Monument #8, Chalcatzingo



Monument #14 (from a rubbing), Chalcatzingo

Figure 93. Rubbings of Monuments 8 and 14 from Chalcatzingo, each showing a saurian supernatural with Lazy-S and double scrolls (www.anthropology.ua.edu 2016b; www.anthropology.ua.edu 2016c)

It has also been surmised that the Lazy-S motif on Chalcatzingo Monument 1 is indicative of vegetative fertility (Reilly 1993, 5).

Olmec and Sumerian (Jaredite) Etymological Associations Involving the Lazy-S Motif

That *Mormon* was originally a Jaredite name should not be a surprise to anyone familiar with the Book of Mormon. After all, the name is similar in form to *Moron*, the name of a Jaredite land and king. Mormon was apparently born and raised in the land northward until the age of eleven, when he was taken by his father to the land southward (Mormon 1:6).

Mormon has Sumerian etymology. Not only is Sumerian now a dead language, but it probably was not even spoken during the period from which most Sumerian texts date. From 2500 BC until 1600 BC, the language gradually changed from a spoken language to an exclusively literary language (Thomsen 1984, 15).

Sumer was an ancient civilization located in southern Mesopotamia, modern-day southern Iraq. It is not certain when the Sumerians had initial contact with the Akkadians, who were generally located to the northwest of Sumer, but there seem to be indications of contact as early as 3000 BC. There was likely a long period of contact, at least in the shared boundary areas, although there are no written attestations until 2600 BC. Some 2600 BC Sumerian texts include Akkadian personal names, and the scribes of some texts also have Akkadian names. A few loan words also appeared at that time.

From 2600 to 2400 BC, there was apparently a large number of bilingual persons in the northern part of Sumer. The Akkadian language was thus probably spoken in the north, while the populations in the south primarily spoke Sumerian.

During the reign of Sargon (2334–2279 BC), the official language of Sumer was principally Akkadian, with royal inscriptions, religious texts, and year dates being bilingual. Elsewhere, however, Sumerian is found only in Sumer proper, so it is surmised that the Sumerian language began to vanish. However, during the third dynasty of Ur (2112–2004 BC), the use of Sumerian increased in official documents and was almost exclusively used in royal inscriptions, juridical and administrative documents, and correspondence, though the use of Sumerian as a spoken language was very limited.

During the Old Babylonian period (2000–1600 BC), Sumerian was a dead language and Akkadian was the spoken language, even though Sumerian was still used as an official and literary language. Sumerian may have been spoken by scholars and scientists. The death of a language is not a uniform or simple process, so during this period, there may have been pockets of Sumerian-speaking people, especially in the south.

Since Sumerian was a dead language at the time of the Akkadians, knowledge of how Sumerian was pronounced largely comes from Old Babylonian lexical texts in which scribes took care to represent the full phonology of the Sumerian words being written. But our understanding of Sumerian pronunciation is limited, in part because the texts that represent the pronunciation of Sumerian are filtered through the Akkadian phonological system; further, the texts we have appear to be practice exercises that were a part of a scribal training process and thus exhibit some errors (Smith 2007, 19–38).

When looking at the transliteration Book of Mormon names in Sumerian, it must be recognized that the Romanized dictionaries for Sumerian do not include the English letter “O.” Some Sumerian academics have also argued that a letter “O” phoneme might have existed—a fact that would have been concealed by the Akkadian transliteration, which does not distinguish “O” from the letter “U.” (Michalowski 2013, 29–30). In exploring the Sumerian etymological possibilities, both “A” and “U” will be considered for the presence of the letter “O” in the name *Mormon*.

Sumerian writing never attempted to render the language phonetically correct, exactly as it was spoken. The very first stages of writing as attested in Uruk and Ĝemdet Našr (about 3000 BC) were pictographic or ideographic in nature, thus rendering only the most important words like the catchwords of an account or a literary text. . . . The ideographic writing system without phonetic signs for grammatical elements means that the identification of the language behind the written records is not immediately evident. (Thomsen 1984, 22)

Sumerian was a mnemonic language, utilizing rebus principles, and operated primarily as a memory aid. Even when utilizing the maximum of phonetic symbols created for its signs, exact renderings of the pronunciation did not occur. Sumerian glyphs were not always written in the order they were meant to be read. Thomson (1984, 24) has indicated that reconstructing the complete spoken Sumerian is probably impossible. Thus, texts cannot be taken at their face value as a detailed grammatical description of the language. Before the language's death, the Sumerian script was thus mainly an aid for memory, rendering the most important words in an ideographic way and leaving out many things that were not thought absolutely necessary for understanding the text. As a result, not a lot is known of the Old Sumerian grammar. Old Sumerian dates from the early texts in 2600 BC to the end of the Sargonic dynasty in 2200 BC.

Structurally, Sumerian features a word structure called “agglutination,” which, explained simply, consists of “gluing” or compounding different morphemes (simple word structures) and word modifiers together to form a single complex compound (often long) word (Cunningham 2013, 96).

This method of compounding, or agglutinating, different words to make a name is found in Mesoamerica. For example, the typical way to form an Aztec place name is to combine nouns, typically by dropping a portion of one or more of the nouns, and also by sometimes adding a place particle at the end. Book of Mormon place names do not appear to have a place particle included, but this may be an artifact of the translation process in which the particle was possibly replaced by English words such as “city” or “land.” For example, the Aztec place name *Acamilixtlahuacan* is translated as “where are level fields of rushes.” The name is a compound of *acatl* (reed), *milli* (field), *ixtlahuaca* (level expanse), and *can* (place particle). The letters in bold are the letters that are dropped from each word when it is compounded (Starr 1920, 3). An example of an Aztec place name that doesn't have a definitive place particle is *Teocalhueyac*, translated as “in the high or upreared temple,” which consists of *teocalli* (temple) and *hueyac* (high, prolonged). Personal names in Nahuatl (the language of the Aztecs) are typically compound names as well. For example, the Nahuatl name *Kozkakuahitli* consists of *Kozkatl* (necklace) and *Kuauhtli* (eagle).

Many Mayan names are compound names as well. For example, the Mayan name *Sachihiro* consists of ‘*sachi*, which means “happiness,” and ‘*hiro*, which means “vast.” Zoque place names are typically compound names; some also have place suffixes like the Aztec (Wonderly 1946, 217–28). Mixe names are also compound names, such as the name of a Mixe god, *Naaxwiiñ*, which consists of *naax* (earth) and *wiiñ* (face, surface).

When considering the possible construction of Book of Mormon names from Sumerian, it is not necessarily required that we find any of these names attested in Sumer or Mesopotamia. As has been discussed, the syntax and grammar of early spoken Sumerian cannot be accurately constructed from the Sumerian logograms. In addition, the translation of the Caractors Document indicates that one change that occurred in reformed Egyptian was that adjectives preceded nouns; the likelihood of syntax changes has already been discussed.

The following chart shows a variety of compound constructions from Sumerian for the name *Mormon*, all of which exactly or very closely match the Olmec meanings of the Lazy-S *Mormon* glyph as found in Mesoamerica. All Sumerian definitions are from the University of Pennsylvania ePSD Sumerian Dictionary (Pennsylvania Sumerian Dictionary 2006). For the final compound word, shared letters are indicated in bold, with dropped letter(s) in parentheses.

<u>Sumerian</u>	<u>Olmec meaning</u>
<p><i>mu</i>: to crush, mangle</p> <p><i>ur</i>: lion</p> <p><i>ur-ra, ur-a, ur-re, ur-e, ur-re₂, ur-am₃, ur-im</i> (form of <i>ur</i>)</p> <p><i>urmah</i>: lion</p> <p><i>ur-mah-am₃</i> (form of <i>urmah</i>)</p> <p><i>umun</i>: blood</p> <p>Agglutinized construction: <i>mur(u)mun</i></p>	ferocious feline

<p><i>mur</i>: rainstorm; mist; drizzle</p> <p><i>umun</i>: blood</p> <p>Agglutinized construction: <i>mur(u)mun</i></p>	rain cloud, blood
--	-------------------

<p><i>mur</i>: fodder; (to be) fat</p> <p><i>mur-ra</i> (form of <i>mur</i>)</p> <p><i>mu</i>: to grow</p> <p><i>mu₂-a-am₆</i> (form of <i>mu</i>)</p> <p><i>u</i>: grass, herb; pasture, plants</p> <p><i>u₂-ni, u₂-ne, u₂-na</i> (form of <i>u</i>)</p> <p><i>un</i>: to arise; (to be) high</p> <p>Agglutinized construction: <i>murmun</i></p>	vegetative fertility
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<p><i>mah</i>: (to be) mature</p> <p><i>mah</i>: (to be) great</p> <p><i>mah-a, ma-ha, mah-ra</i> (form of <i>mah</i>)</p> <p><i>mu</i>: good, beautiful</p> <p><i>mu₅-a-na</i> (form of <i>mu</i>)</p>	heavenly ancestors
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<p><i>un</i>: to arise; sky; (to be) high</p> <p>Agglutinized construction: <i>mahr(a)mun</i></p>	
---	--

<p><i>mir</i>: a mythical snake</p> <p><i>umun</i>: blood</p> <p>Agglutinized construction: <i>mir(u)mun</i></p>	<p>supernatural</p> <p>snake/saurian mauling</p>
--	--

Egyptian and Maya Correlations Involving the Lazy-S Motif

The correlation of the Lazy-S Maya “blood scroll” with the Egyptian meaning of *Mormon* as “scroll” is quite direct, especially when considered in combination with the Sumerian meaning of “blood.” The Egyptian meaning of *Mormon* as “the last” and “the end” is entirely consistent with the Maya correlation of the Lazy-S with period-ending events. This takes on added significance when one considers that Mormon’s role and place in the Book of Mormon was to compile a record of 1,000 years of his people and create a period-ending record.

Mormon was also a geographic location mentioned in the Book of Mormon—a land located in the larger land of Lehi-Nephi, where Alma₁ fled for refuge with his followers. Mormon mentioned that he “was called after” this “land of Mormon” (3 Nephi 5:12). The name was also used for a place in the forest in the same land “having received its name from the king, being in the borders of the land having been infested, by times or at seasons, by wild beasts” (Mosiah 18:4). In Mormon there was also “a fountain of pure water” called the “waters of Mormon” (Mosiah 18:5, 30).

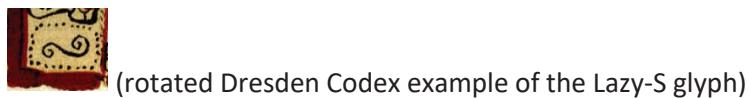
The Mesoamerican Lazy-S meanings of rain and ferocious feline correlate quite directly with meanings of *Mormon* as “pure water” and “wild beasts.”

Maya Period-Ending, Lazy-S Correlation with the Jubilee Year Glyph

As discussed elsewhere a form of the Lazy-S glyph relates to a period-ending event in relation to the Jubilee year. That glyph is also related to Mormon since that year was his birth year. As previously discussed, an Egyptian month glyph has the rotated form of the hieroglyph for the second Egyptian month. The character is designated C-84:



Character C-151 is also a permutation of this glyph, as it is rotated to the horizontally:



Although the sign originates from the Egyptian sign for one of the Egyptian months, it is actually the indicator sign for the Jubilee year in the Nephite/Hebrew calendar and so should be considered a year sign. Iconographically, these two glyphs match the Lazy-S glyph with the addition of a small line.

The V-12 Mormon glyph and the Jubilee year in Egyptian correlate in other ways: the V-12 glyph constitutes part of the Egyptian words *mna* (“come to an end”), *arqy* (“last day of the month”), and *wnf* (“be joyful”) (Dickson 2006, 287, 31, 52).

It is also useful at this point to look to the Sumerian language to see if there is any phonetic and etymological support for “Jubilee year” as another potential meaning for the name *Mormon*. There seems to be reasonable support for this proposition.

<u>Sumerian</u>
<i>mu</i> : year
<i>mu-ra</i> , <i>mu-na</i> , <i>mu-ni</i> (form of <i>mu</i>)
<i>u</i> : peace
<i>mu</i> : good, beautiful
<i>mu₅-a-na</i> (form of <i>mu</i>)
Agglutinized construction: <i>mur(a)mu(a)n(a)</i>

Origination of the Lazy-S Glyph

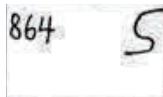
Since etymological evidence ties Sumerian to the Mesoamerican meaning of the Lazy-S glyph, the next question to ask is whether the glyph itself was developed in Mesoamerica or whether there is a possibility of a Sumerian genesis.

The likely timeframe for the arrival of the small Jaredite party is somewhere around 2600 BC, and the written language that they were utilizing was some form of Sumerian/Elamite proto-cuneiform. Since Sumerian/Elamite proto-cuneiform is a text that is still undeciphered (except for some numbers and glyphs related to the metrological systems [measurement]), it is not possible to do a precise etymological comparison. However, we can still examine the undeciphered Sumerian/Elamite proto-cuneiform to at least see if this is a possibility.

Various proto-cuneiform sign lists were consulted, and some possibilities are identified below. However, with such a long time depth (from 2600 BC) and considering that the sign is not extremely complex, no conclusion should be reached other than that a Sumerian/Elamite genesis cannot be ruled out. The Lazy-S glyph, however, may very well have a Mesoamerican origin. If it is of Mesoamerican origin, it is clear that the Sumerian etymological meaning played some role in the glyph’s development and representation.



ZATU788, Late Uruk Period, full list of proto-cuneiform signs (CDLI:Wiki www.cdli.ox.ac.uk/wiki/doku.php?id=late_uruk_period 2016)



Signs 864 & 865, Late Uruk Period (Falkenstein 1936)

The second question that needs to be asked is whether there is a possibility of an Egyptian origin. It does not appear that the Lazy-S symbol in Mesoamerica could have originated from any Egyptian brought by the small Lehite group, since the examples at Chalcatzingo are too early and too far removed geographically (50 miles south of Mexico City) from any area the Nephites would have been; they were in the land southward during the timeframe of the Chalcatzingo glyphs. However, others have postulated other earlier Egyptian contacts (Compton 2010), so an Egyptian source should not be completely ruled out.

It is possible that the Egyptian glyph matches a pre-existing Mesoamerican Lazy-S glyph because of the variability in Egyptian hieratic of the glyph for *Mormon*, meaning that one hieratic form was selected in the reformed Egyptian over another for the name *Mormon* in order to more closely match the existing Mesoamerican glyph. Figure 94 shows the various forms of the Egyptian hieratic glyph for *Mormon*. Figure 95 shows the various Egyptian hieratic forms for the Jubilee glyph.

The hieratic glyphs shown in the figures are from different time periods and places, so all these forms were probably not known to the Nephites; however, we do not know what records were available to or brought by the Lehite group.



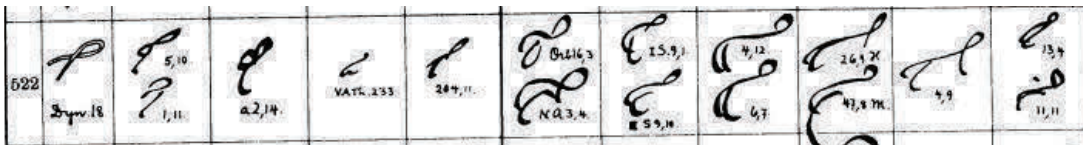


Figure 94. Examples of the Egyptian hieratic glyph for *Mormon* (Möller 1965, Möller Number 522, Bd. I-23-76, pg. I 522–532; Bd. III-32-72-Taf, pg. III 518–526; Bd. II-31-74-Taf, pg. II 520–529)

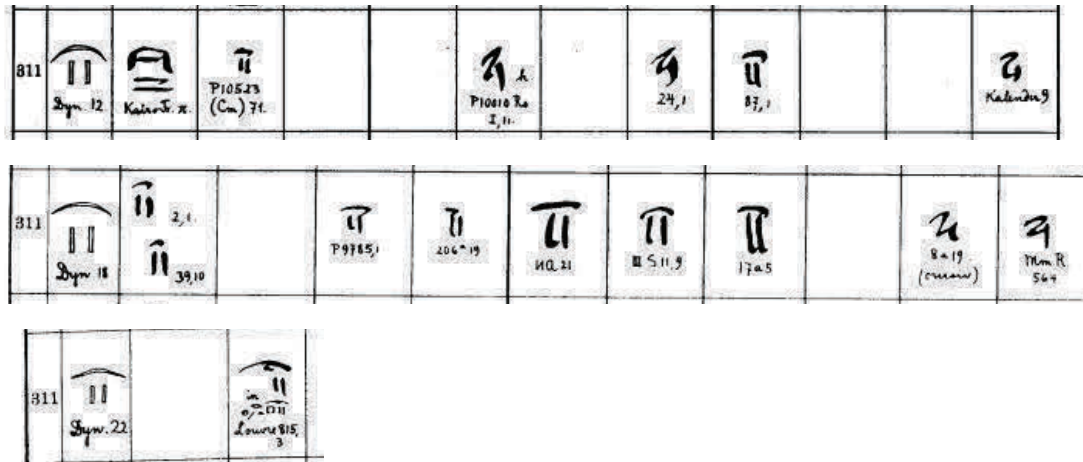
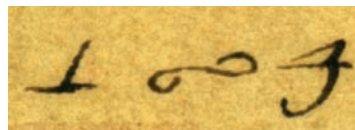


Figure 95. Examples of the Egyptian hieratic glyph for the Jubilee glyph (Möller 1965, Möller Number 311, Bd. I-23-76, pg. I 310–319; Bd. II-1-30, pg. II 306–315; Bd. III-1-31, pg. III 310–318bis)

Thus, the name *Mormon* in the reformed Egyptian is found in hieratic Egyptian with meaning that correlates to the Book of Mormon prophet Mormon. The Lazy-S glyph is found in the ancient Olmec and Maya cultures concurrent with Book of Mormon timeframes. The meanings and depictions associated with the Mesoamerican Lazy-S glyph are consistent with the etymological meanings for the phonetic word *Mormon* found in Egyptian and Sumerian. Book of Mormon descriptions associated with the geographical locations identified as “Mormon” are consistent with the Mesoamerican meaning of the Lazy-S glyph. The Mesoamerican *Mormon* glyph may have originated in Sumerian proto-cuneiform.

Moroni

The name *Moroni* is in the second-to-last clause of the Caractors Document and consists of the characters C-219, C-220, and C-221:




C-221, C-220, C-219

Character C-221 has previously been translated as “Son or Christ”; C-219 is identical to character C-66, which was part of the name of king Benjamin and is equivalent to the Egyptian phonetic sound *m* (G-17). The equivalents of C-220 were just discussed and constitute the name of Moroni’s father, Mormon.

The Book of Mormon Onomasticon does not include any possible etymology for the name *Moroni* as found in the Caractors Document. The meaning of *Moroni* involves the phonetic-roots hieroglyphs for *m* and *a* (“ ‘ ”) in the Egyptian language, represented by hieroglyphs with Gardiner Numbers G-17 and D-36, making the word *m^c*, which means “in the hand, possession, charge of, together with, from, owing to” (Scrib.com 2015; Petty 2012, 64; Dickson

2006, 71). The form of G-17 was previously discussed as part of the name of king Benjamin. The Egyptian hieroglyph and hieratic for D-36 are as follows:

D36: 



Möller Number 99 (Möller 1965, Bd. I-1-22, pg. I 98–107)

As can be observed, this glyph has a similar form to the *Mormon* name glyph, so the *Mormon* name glyph replaced it in this glyph set.

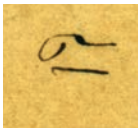


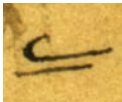
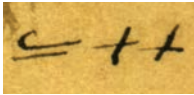
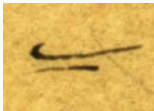
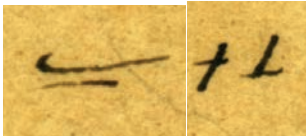
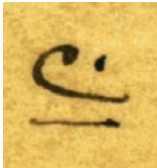
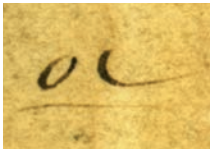

As in all the name glyphs, this one has multiple meanings. This set is translated as “Mormon and Moroni in the hands of Christ”; it is possible that the intent was to include only Moroni, but the substitution of the D-36 glyph with the glyph for the name of Mormon might imply that Mormon is included. It is also possible that the actual name of Moroni features the glyph for the name of his father, and that would imply the intention was to include only Moroni. The other glyph play going on here is that the glyph for Christ means “son,” so the glyph also says “Mormon’s son.”

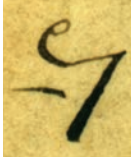
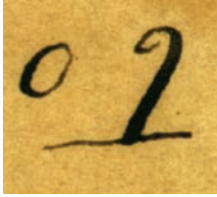
Since, in this instance, the name of Moroni incorporates his father’s name glyph, it is worth evaluating whether Moroni could have been born in a Jubilee year, since that would be another reason to incorporate his father’s glyph into his name. The next Jubilee year after Mormon’s birth would be 967 years on the Common Calendar, which would equate to 356 years after the coming of Christ, meaning Mormon would have been 47 years old at the time of Moroni’s birth. It is a possibility, since there was a period of truce from the 350th year to the 360th year (Mormon 2:28; 3:1).

Chapter 10

A River Runs through It—Nephite Directional System

There are multiple glyphs related to directions found in the Caractors Document:

C-22			north (downriver) on the River Sidon
C-196		 (1886)	north (downriver) (on the River Coatzacoalcos)
C-108			south (upriver) on the River Sidon
			C-108, C-107, C-106
C-217			south (upriver) on the River Sidon
			C-217, C-216, C-215
C-168			Christ's ascension to heaven (upriver)
C-50, C-49		 (1886)	south and north (upriver and downriver) (along the River Coatzacoalcos)

C-51, C-50, C-49		
B49a		south (upriver) on the River of Lamanite Possessions (Usumacinta River)
C-23		east
C-48		west, Land of the Dead, Land of Desolation
C-54, C-53		west

The system of direction in the Book of Mormon has perhaps caused the most confusion for academics and others trying to construct a plausible geographic model for the Book of Mormon in Mesoamerica. The model that seems to be the best developed and most defensible to date is called the “Sorenson model,” named after its principal author, Dr. John L. Sorenson. Maps showing the essentials of his model are shown in figures 98 through 100. The principal (and perhaps only) significant problem with the Sorenson model is the skewed alignment of Mesoamerica, which is inconsistent with the Book of Mormon directions: north, south, east, west, eastward, northward, and southward.

Eastward is only used by Nephi₁ in the small plates and by Ether in the Jaredite plates. The terms *northward* and *southward* in the Book of Mormon generally refer to the land northward and the land southward, as clarification of the configuration of two areas along the boundary of the land northward and the land southward (Desolation and Bountiful), and the occasional migration of sea-bound or other groups going northward. There are a few other minor uses of these two terms. The terms *northward*, *southward*, and *eastward* do not create apparent issues with the Book of Mormon geography under the Sorenson model, since they are not exact terms of direction, and also because the Nephite populations in the land northward were located principally on the northern portion of the Isthmus of Tehuantepec, and for roughly the first half of the Book of Mormon time period, the principal Nephite population in the land southward was on the south portion of the Isthmus of Tehuantepec.

Directional difficulties are not found everywhere in the Book of Mormon. The Book of Ether (not including Moroni’s commentary) has few directions, generally only the non-specific “-ward” terms, and although there isn’t too much in the way of specific directions, it appears to be reasonable with our compass-based, cardinal-direction concept. In the small plates section of the Book of Mormon, some of which takes place in the Old World, there is little controversy; in fact, Nephi₁ uses terms easily understood to us such as “south-southeast” (1 Nephi 16:13).

It is where Mormon writes the abridgment toward the end of the fourth-century AD that one starts to experience directional indigestion. There are a few strange directional references, such as “they fled west and north” (Alma 2:6) and “scattered on the west and on the north” (Alma 2:37), but the main problem has to do with references involving the various seas.

The main challenge with the directions in the Book of Mormon involves the issue of matching an existing river to the Book of Mormon’s River Sidon and having that make sense with all of the other requirements of the Book of Mormon (culture, written records, populations in the right places at the right time, etc.). In Mesoamerica, there are only a few rivers that could realistically be considered. The two primary ones around which most Mesoamerican geographical models are being formulated are the Grijalva and the Usumacinta.

To start the analysis, it is assumed that the Grijalva River (upon which the Sorenson model is based) is the River Sidon. Figures 98–100 show the geography of the Sorenson model. As becomes apparent, the East Sea and the West Sea do not look be east and west at all but are more north and south. This fact is geographically puzzling; in addition, the Book of Mormon text indicates that there is a sea to the north (Alma 50:15). In fact, the Book of Mormon seems to encapsulate in one brief verse some indication that there are seas on all sides (Helaman 3:8):

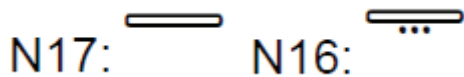
And it came to pass that they did multiply and spread, and did go forth from the land southward to the land northward, and did spread insomuch that they began to cover the face of the whole earth, from the sea south to the sea north, from the sea west to the sea east.

Unless one is on an island, a literal interpretation of this verse is difficult to apply to any known geography; as a result, some individuals have attempted in their models to have the entire Yucatan peninsula as part of the land northward, just to try to make this one verse work. Is there something in the water that the Nephites are drinking that is causing them confusion? The answer is yes.

The Egyptian Directional System

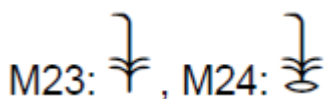
Sorenson continually noted that varying ancient cultures had different ways of referring to directions. Among the many that he discussed, often citing other sources, he noted that the Egyptian model for naming directions was based on a person facing upstream toward the head of the Nile, *south* in our terms. That direction was denominated by terms signifying “face,” “fore,” or “sedge,” among others. Our *north* was labeled by words with meanings of “delta,” “papyrus,” “inundation,” “downstream,” “flow,” “back,” “aft or stern,” or “hindquarters.” Of the terms for our *east* and *west*, the terms were synonymous with “left” and “right,” respectively (Sorenson 1992, 404–405).

As shown in the map as figure 96, Egypt was divided into two lands, Upper Egypt and Lower Egypt. Lower Egypt was in the north and Upper Egypt in the south, and the entirety of Egypt was actually referred to as “The Two Lands.” The land of Egypt in its simplest hieroglyphic form was indicated by two horizontal flat bar glyphs placed one above the other, represented by a set of either Gardiner Number N-17 or N-16:



When written in Egyptian hieratic, the bars in these hieroglyphs are written as straight horizontal lines.

The hieroglyphic symbol for the Upper Kingdom (southern) was the flowering sedge (Gardiner Numbers M-23 and M-24):



These glyphs represented in the hieratic are:



Möller Number 289 (Möller 1965, Bd. III-1-31, pg. III 288–297)

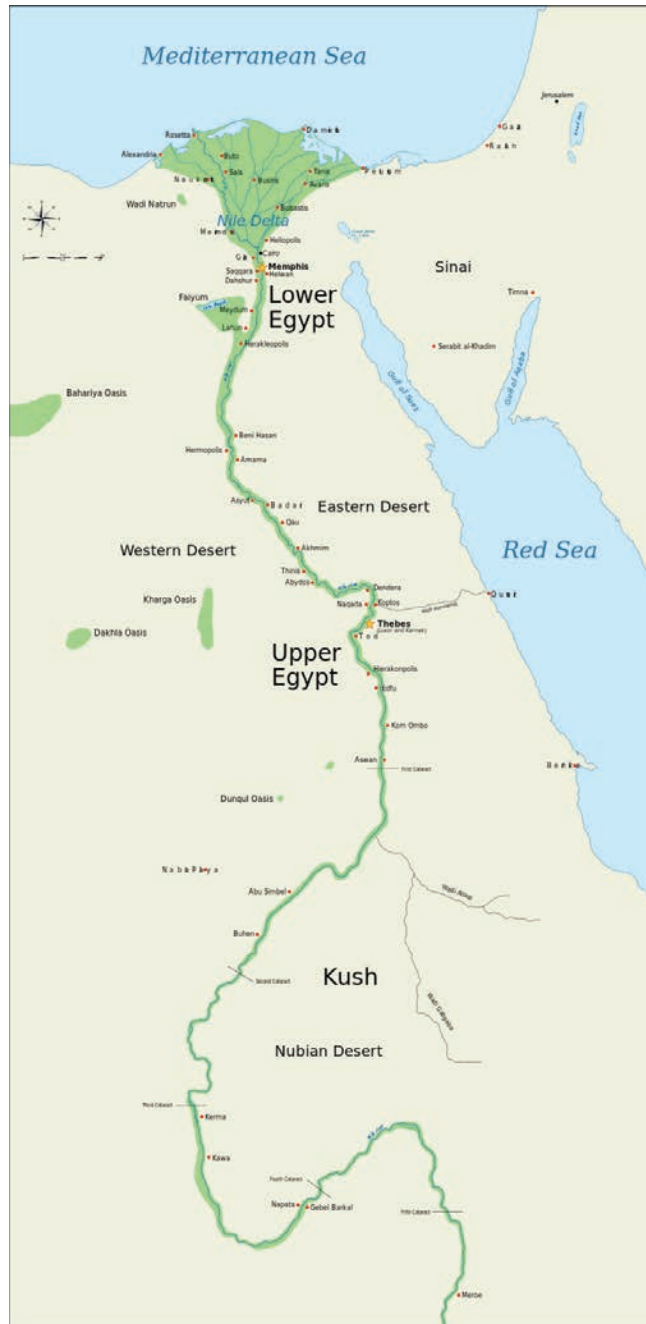



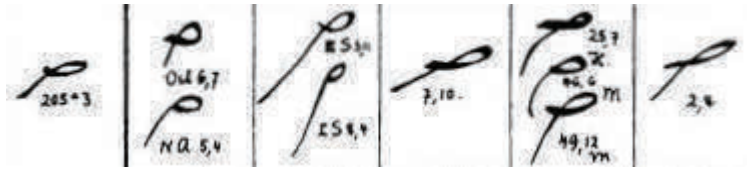


Figure 96. Map of Upper and Lower Egypt, showing the Nile up to the fifth cataract, and major cities and sites of the Dynastic period (c. 3150 BC to 30 BC) (Dahl 2007)

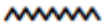
The hieroglyphic symbol for the Lower Kingdom (northern) was either a whip symbol or a papyrus. The papyrus symbol does not appear to be pertinent to Caractors Document glyphs; just the whip (Gardiner Numbers V-22, V-23, and V23a) and related hieratic are pertinent:

V22:  , V23:  , V23a: 



Möller Number 459 (Möller 1965, Bd. II-31-74-Taf, pg. II 468–475)

The hieroglyph for a ripple of water is Gardiner Number N-35 and is written in hieratic either as a straight line or in other varying forms:

N35: 

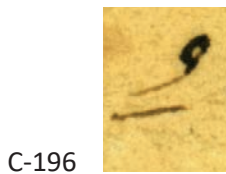
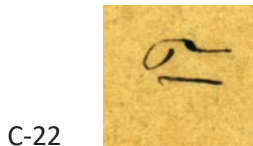


Möller Number 331 (Möller 1965, Bd. II-1-30, pg. II 326bis–338)

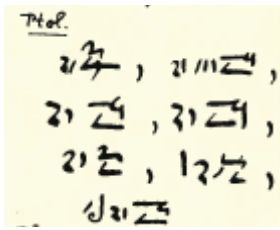
North

As previously mentioned, the directional system in Egypt was upriver to the southern Upper Kingdom for *south*, and downriver to the northern Lower Kingdom for *north*.

The simplest word for “the North” in Egyptian is *Meḥ-t* (Budge 1920, 1:318) or *mḥ* (Vygus 2018, 2230) and consists simply of the whip hieroglyph. The hieroglyph represented by a ripple of water is N-35, shown previously. Virtually all Egyptian words involving water (river, stream, rain, etc.) contain one or more of this glyph. Placing the hieratic “whip” on top of the hieratic glyph for water (in either direction), one arrives at the Caractors glyphs for “travel north, downstream”:



One of the Egyptian words for “to travel north, downstream” is *ḥt* (*Chicago Demotic Dictionary*, 2014, *H* [01:1], 83). In the Demotic Egyptian, one also sees nearly identical forms of the Caractors glyph in the Demotic phrase for “travel north” and “travel downstream”:

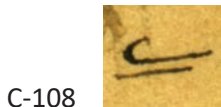


Demotisches Glossar (Erichsen 1954, 397)

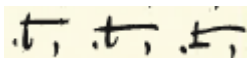
It is immediately noticeable that the two Caractors glyphs interpreted as “north” or “traveling north” are different, even though they both have the whip form on top. As will be discussed later, this is indicative of traveling down different river systems.

South

The simplest hieroglyphic form for the Egyptian word for “south” (*rs*) involves a single hieroglyph for the “flowering sedge.” Just as the Caractors glyph for “north,” by placing the hieratic form of the “flowering sedge” on top of the line for “water,” one approximates the Caractors glyphs for “south” and “upriver”:

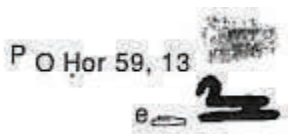


The Egyptian Demotic words for “south” do not show the sedge glyph on top of another line, but some variants for the word meaning “south” or “southern,” *rs*, do show it in a horizontal form, although with the flower turned down instead of up (reversed) (*Chicago Demotic Dictionary* 2014, R [01.1], 65):

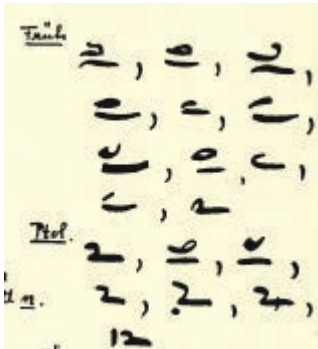


Demotisches Glossar (Erichsen 1954, 254)

Another glyph that closely approximates the “south” glyph and the “north” or “travel north” glyphs is the Egyptian hieroglyph “to bring.” This character is a fairly straightforward form in the Egyptian Demotic, with the Egyptian phonetic word being *in* and the definition found in the *Chicago Demotic Dictionary* being “to bring” (ĭ [11:1], 144–47).



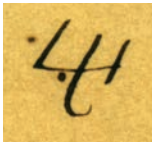
Ptolemaic Ostrakon (*Chicago Demotic Dictionary* 2014, ĭ [11:1], 147)



Demotisches Glossar (Erichsen 1954, 33)

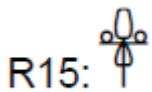
East

The Caractors glyph for “east” is C-23:



C-23

As previously mentioned the Egyptian term for “east” refers to the left side, while the term for “west” refers to the right side. The Egyptian word for “east” is *ib* (*Chicago Demotic Dictionary*, I [11:1], 13). The Egyptian hieroglyph for “East” is Gardiner Number R-15 (Gardiner 1957, 502) and consists of a spear in its standard form:

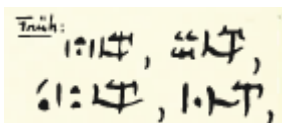


The hieratic form of the word is a reasonable match to the Caractors glyph:



Möller Number 578 (Möller 1965, Bd. III-32-72, pg. III 578–587)

It also shows a similar glyph in Demotic words as well:

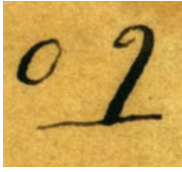


Demotisches Glossar (Erichsen 1954, 17)

The glyph may be a combined glyph since the bottom tail is curved, making the central bar of the glyph a hook. It is not known how that might add to the meaning of the glyph, but it may account for the slight variance in the glyph.


West

The Caractors glyph set for “west” is C-53, and C-54:



C-54, C-53

This set of characters is a slight variant for the Egyptian word *ʾmḥt*, which means “the west” (*Chicago Demotic Dictionary* 2014, ʾ [11:1], 136). This word and words related to it have a wide variety of forms, however, the “hook” portion is seen in most versions in the hieratic and derives from the top feather of the hieroglyphic word for “west,” Gardiner Number R-14 (Gardiner 1957, 502):

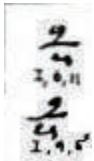
R14: 

In the Demotic:



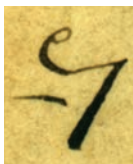
Demotisches Glossar (Ericksen 1954, 31)

In the hieratic:




Möller Number 579 (Möller 1965, Bd. III-32-72, pg. III 578–587)

Hieroglyph R-14 is an abbreviation of R-13, omitting the falcon and enlarging the feather. As was discussed in the previous sections dealing with king Benjamin, Caractors glyphs C-48 and C-67 can also mean “west” in addition to “right” and are derived from hieroglyph R-13 and its hieratic derivation (Möller Number 189). C-67 is part of the name of king Benjamin, so the use of this character would not be considered geographically directional. However, character C-48 may have dual meanings, one of which would be “from the west,” in relation to where the Jaredite plates originated.



C-48

R13: 

In the hieratic:

Westcar	Golen.	Ebers
		
8, 19	2, 1, 3 4, 9, 3	36, 75, 100, 2

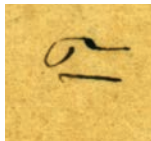
Möller Number 189 (Möller 1965, Bd. I-1-22, pg. I 189–196b)

As was mentioned in the discussion of this character in relationship to the characters representing “Jaredite,” it is an ideogram for the West, *îmnt* (Gardiner 1957, 502), which would be consistent with the location of the Jaredites. It also is the hieroglyphic symbol representing Duat (also known as Tuat and Tuaut or Akert, Amenthes, Amenti, Imenet, or Neter-khertet), the Egyptian Land of the Dead (Budge 1920, 1:53; Vygus 2018, 1763). In the context of the Jaredite plates, like other wordplay of the Nephite Caractors glyphs, this glyph may mean both “west” and “the land of Desolation,” so it also serves as a directional glyph.

Lines and Rivers

As was noted before, there are two distinct glyphs for going downriver, C-22 and C-196.

C-22

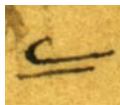


C-196

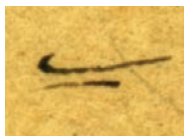


There are three glyphs for going upriver, with two being identical and incorporated into the glyph for “Lamanite” (C-108 and C-217). A third appears to have the same top element, but the bottom element is different (B49a).

C-108



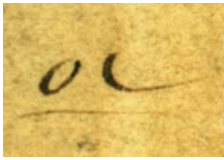
C-217



B49a



Finally, we have the name of the Jaredites, which also has the directional form. It has an element of going upriver but also has the little “o.” It is recognized that this glyph may have been stylized somewhat to incorporate all the other meanings of “Jared” and “Jaredite”; it is not solely a directional glyph.



C-49, C-50

There are four major rivers that may have been involved in the Book of Mormon in Mesoamerica; they are, from west to east, the Papaloapan River, the Coatzacoalcos/Uxpanapa River, the Grijalva River, and the Usumacinta River. While there are other geographic models that use rivers further to the east, this inquiry looks at the Sorenson model to see if it fits. See figure 98 for the hydrologic traces of all rivers.

Assuming that there are different glyphs for downriver, with separate and different glyphs for upriver, unique to each river, we should be able to ferret out which river each is referring to. We can do some initial sorting based on what is clear in the Book of Mormon and in the text of the Caractors Document.

The first glyph to look at will be the Lamanite upriver glyphs. If it was not already obvious, one of the additional glyphic names of the Lamanites according to the Caractors Document is the “Upriver Tribe.” The Lamanites (excluding those who joined the Lamanites) were never located in the land northward and were, for most of the Book of Mormon, above the head of the River Sidon. The Sorenson model has them located in the Valley of Guatemala, so the only two rivers that might be considered for this upriver glyph is the Grijalva or the Usumacinta, since both of these rivers headwater in this area.

The Caractors text utilizes C-22 when discussing the travel of Mosiah₁ and his “children” going downriver to Zarahemla, which is known from the Book of Mormon text to be on the River Sidon. It is clear, without considering the Sorenson model, that the only rivers that could be considered for this glyph are the Usumacinta and the Grijalva. The Sorenson model would designate this glyph as a descriptor for the Grijalva. Since the Nephite/Lamanite glyph shows multiple times as a combined glyph, it is reasonable to conjecture that the Lamanite upriver glyph is also unique to the River Sidon, or the Grijalva River.

The C-196 glyph in the Caractors text is used in reference as the Nephites fled north late in the Book of Mormon, and the Sorenson model puts this embattled flight on the dividing line between the land northward and the land southward, which is going downstream and is consistent with the C-196 glyph. Thus this glyph is attached to and unique to the Coatzacoalcos/Uxpanapa River.

The B49a glyph, although a little roughly drawn, appears to be slightly different from the Lamanite glyph on the base but is still an upriver glyph. This glyph is used in the Caractors Document to indicate the direction of travel when Zeniff’s men returned with the Jaredite record to the land of Nephi. It indicates they went upriver, and they clearly did not follow the River Sidon or they would have encountered Zarahemla, which was what they were originally looking for. The only remaining river they could go up to return home was the Usumacinta River, so the B49a glyph is the unique upriver glyph for the Usumacinta River.

That leaves only the Jaredite tribe directional glyph, and it is not used as a directional glyph in the text of the Caractors Document. The available possibilities are upriver or downriver on the Papaloapan River, upriver on the Coatzacoalcos/Uxpanapa River, or downriver on the Grijalva or Usumacinta Rivers. All of these could be argued as possibilities, since the Jaredites did spread to some extent into the land southward, but the Usumacinta was probably too far to the east. Since the core of the Jaredite lands was in the land northward, the most probable candidate is the Coatzacoalcos/Uxpanapa River, with the Papaloapan River probably being too far to the north.

From a linguistic standpoint, the Lamanite upriver glyph, like so many of the other Caractors glyphs, also appears to have embedded into it the name of at least part of the River Sidon. The Book of Mormon Onomasticon indicates:

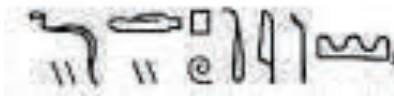
Since this river passed through ZARAHÉMLA, and ZARAHÉMLA was first settled by Mulekites, it is likely that this Geographic Name is Mulekite. If it does derive from the biblical name for the Phoenician city SIDON (*šidon*, Phoenician *šdn*, EGYPTIAN *ddwn3*, ASSYRIAN *šiduna*), as most commentaries suggest, this may denote the presence of Phoenician influence among the Mulekites.

HALOT states that the “etymology [of the Phoenician Geographic Name is] not absolutely certain.” DNWSI says “unknown meaning” for *šdn*, and “uncert[ain] meaning” for *šd*, and has no entry for *šwd*. It is possible that it may come from HEBREW *šwd*, to catch, hunt, and if it does, *-ôn* may be the fairly common nominalizing ending.

Sidon is actually a known Egyptian hieroglyph (Budge 1920, 2:1064–1065; Vygus 2018, 839). Budge shows the place name of Sidon as:



Tchiṭuna



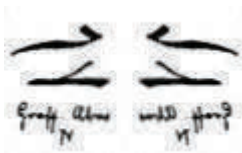
Tcheṭtenna

In looking at the first two common characters in both names for Sidon, the serpent and the hand, there is an example in hieratic in the reverse as to these two characters in that configuration:

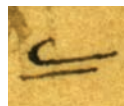


Möller Number XLI (Möller 1965, Bd. II-72-32-Taf, pg. II XXXVIII–XLVI)

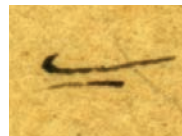
Reversing the hieroglyph to match the correct depiction of the initial combined serpent and hand glyph for Sidon, one arrives at a good match for the Lamanite upriver glyph:



C-108



C-217



C-108 and C-215 are clearly identified as on the River Sidon. Perhaps it could be conjectured that there may have been a Nephite glyph that was used after Mosiah₁ fled and prior to the name change by Benjamin of the Nephite glyph that may have substantially completed the name of the River Sidon. There are certainly hieroglyphic elements in the Egyptian Sidon that would be consistent with the form needed (two ripples of water, throw stick).

The determination of which river C-196 is referring to is reasonably consistent with the River Bountiful.

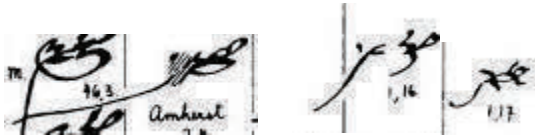
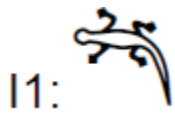


C-196

The Book of Mormon Onomasticon provides the following etymological source for the word *Bountiful*:

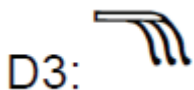
Another possible HEBREW Vorlage to BOUNTIFUL, *’ōšer*, “wealth,” has a literary analog in the possibly EGYPTIAN cognate of this word, *’š*, “abundant.” This word is used to describe the “bountiful” land of Yaa in the EGYPTIAN “Tale of Sinuhe.”

The simplest hieroglyphic for this Egyptian word consists of hieroglyph Gardiner Number I-1 (Petty 2012, 36) with the accompanying hieratic:



Möller Number 240 (Möller 1965, Bd. II-1-30, pg. II 240–248; Bd. III-1-31, pg. III 236–244)

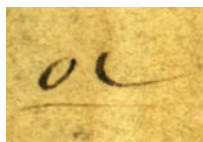
Since the river was also the dividing line with the Land of Desolation, it may have incorporated elements of “desolation.” One Egyptian word that means “to be destroyed” is *wš* or *gm wš*. The simplest hieroglyph and a few of the hieratic forms for the word are designated Gardiner Number D-3:



Möller Number 81 (Möller 1965, Bd. II-1-30, pg. II 80e–89)

Thus C-196 is a reasonable approximation of both glyphs for Bountiful and Desolation. This fits with the Caractors Document and with the Sorenson model, where the flight to the north by the Nephites was along this river. Figure 100 shows the Sorenson model’s geographical depiction, which would follow the Coatzacoalcos River.

The glyph for “Jaredite” already referenced is related definitionally to the land northward and the Land of Desolation, so the probable candidate for this directional glyph is the River Bountiful. Perhaps it is a form of the upriver directional for the river. If not, then perhaps the Papaloapan River could be considered, but there is no etymology or reference in the Book of Mormon for that river, so nothing can be assessed in that regard.



C-49, C-50

There is only one remaining directional glyph to link to a specific river—B49a:





B49a


It could be argued that it is similar in form to the River Sidon glyph, but we know from the context of the Caractors Document and the Book of Mormon that this would not be possible. This glyph is the upriver glyph for the group of Limhites who returned from the Land of Desolation with the Jaredite plates. They had been looking for Zarahemla, which was on the River Sidon. We know that they did not find Zarahemla, so they did not come up the River Sidon. They were returning to the land southward, so clearly they were not following the River Bountiful. The only river left to follow that would bring them to the land of Nephi is the Usumacinta River.

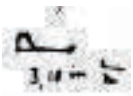
The Book of Mormon text names the River Sidon specifically, but the only other river(s) mentioned is a land of rivers and waters very far to the north (Helaman 3:4, Mormon 6:4). The River Bountiful (as I am calling it) was referred to as the “line Bountiful” (Alma 22:32) and it was this “line” that was between the land Bountiful and the land Desolation (3 Nephi 3:23). The River Bountiful is also referred to in Helaman 4:7 and as the previous verse indicates, it was near Bountiful. The only other “line” referred to in the Book of Mormon is in Alma 50:13, which indicates a “line of the possessions of the Lamanites” somewhere in the proximity of the east sea. Although not definitive, this would be a good candidate for the Usumacinta River.

In looking for a potential Egyptian source for the glyph that might meet the description provided in the Book of Mormon, a candidate was found that means “possess,” or “possessions” in Egyptian (Budge 1920, 772)—the word *gen*. The hieroglyph and associated hieratic for *gen* is:

N29: 

N35: 

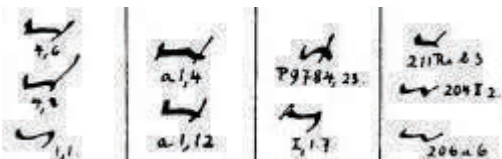
D40: 



Möller Number 319 (Gardiner Number N-29) (Möller 1965, Bd. III-1-31, pg. III 319–327)



Möller Number 331 (Gardiner Number N-35) (Möller 1965, Bd. II-1-30, pg. II 326bis–338)



Möller Number 105 (Gardiner Number D-40) (Möller 1965, Bd. II-1-30, pg. II 100–108)

This phonetic word also means “offence,” “to be strong,” and “to prevail over” and so would be consistent with the Lamanite possessions concept. The glyph had to blend one of the elements; otherwise there would have been three lines, but it otherwise seems to be a fairly straightforward match.

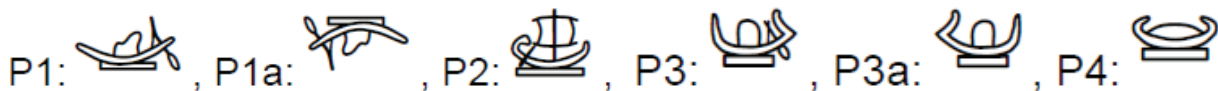
As a bit of verification for this river-based directional system, the Caractors Document indicates that the Limhites traveled west to get to Zarahemla, but in this one instance it does not use any of the directional river glyphs. In describing this incident, the Book of Mormon also indicates that when they escaped, they did not go down the river but went around through the wilderness:

Mosiah 22:11

And it came to pass that the people of king Limhi did depart by night into the wilderness with their flocks and their herds, and they went round about the land of Shilom in the wilderness, and bent their course towards the land of Zarahemla, being led by Ammon and his brethren.

Rivers as Lines

As is already clear, the mention of a “line” in the Book of Mormon is a reference to a river—the word is mentioned only four times, all in reference to a river. The River Sidon is not mentioned as a “line,” and it is fairly obvious what the difference is. There is no indication that the River Sidon ever served as a boundary line between nations or lands, while the other two rivers did. In addition, it is clear from the river directional glyphs themselves that the descriptor of “line” is perfectly appropriate, since a river is represented by a line in the Caractors glyphs. In all the Egyptian hieroglyphs involving boats, the river is also represented as a line, even for capsized boats:



Finally, there is no mention of a line when dealing with the west side of the narrow neck of land; it only refers to “borders” of the land Bountiful (Alma 63:5), reinforcing the fact that a “line” is a river.

The identification of the word *line* as a river may help resolve the long debate regarding a particular verse in the Book of Mormon that indicates that the narrow neck can be traversed with a journey of a day and a half for “a Nephite” (Alma 22:32):

And now, it was only the distance of a day and a half’s journey for a Nephite, on the line Bountiful and the land Desolation, from the east to the west sea; and thus the land of Nephi and the land of Zarahemla were nearly surrounded by water, there being a small neck of land between the land northward and the land southward.


People have tried to calculate what would be the average running speed of a marathon-running Nephite in order to traverse the 140-mile or so neck of land across the Isthmus of Tehuantepec. What everyone has ignored is that the Book of Mormon doesn’t say that he ran—it says that he traveled and specifically journeyed (at least for a portion of the trip) “on the line” or on the river. It also doesn’t say he traveled alone; he could have taken a boat going downriver or upriver, depending on the direction being traveled. There is mention of cargo ships in the Book of Mormon, so there were probably boats for hire on the River Bountiful. At four to five miles per hour in a flatwater canoe, half the distance could be traversed in 16 hours, accounting for river meanders, and if timed right, “a Nephite” could even sleep all night in the boat and then make the remainder of the 60-mile traverse during the next 20 hours at a rate of 3.5 miles per hour, not an unreasonable brisk walking speed, also assuming that there is no need to go from beach to beach.

Anciently, Egypt was divided up in to administrative districts or provinces called *sepat* (*sp̄t*). They almost exclusively used rivers as the boundaries between *sepats*, or points along the main Nile River (see figure 97).



Figure 97. *Sept* provinces or districts for Lower Egypt utilizing rivers or points along the river as boundaries (www.commons.wikimedia.org/wiki/File:Lower_Egypt_Nomes_01.png, 2015c)

The hieroglyph known as Gardiner Number Aa-8 is the primary hieroglyph that constitutes the word *spꜣt* in its simplest form, and is nearly identical to this form in the hieratic:

Aa8: 

The form is itself a line and so is consistent with the Book of Mormon translation of a river as a “line.” It also is the primary glyph in the Egyptian word for “desert edge,” *ꜥd*, and would be a probable candidate, because of its simplicity, for the originating glyph for the word “borders” in the Book of Mormon.

“Line” would also be an appropriate translation into English for a “river that serves as a boundary,” since the Oxford English Dictionary (2015) contains in the definition of the word “line” as “track, course, direction,” giving an example of a “river line,” describing a defensive military boundary.



Figure 1 - The Sorenson Model



Figure 98. Sorenson model (Sorenson 2013)



Figure 4 - Additional Details of the Sorenson Model

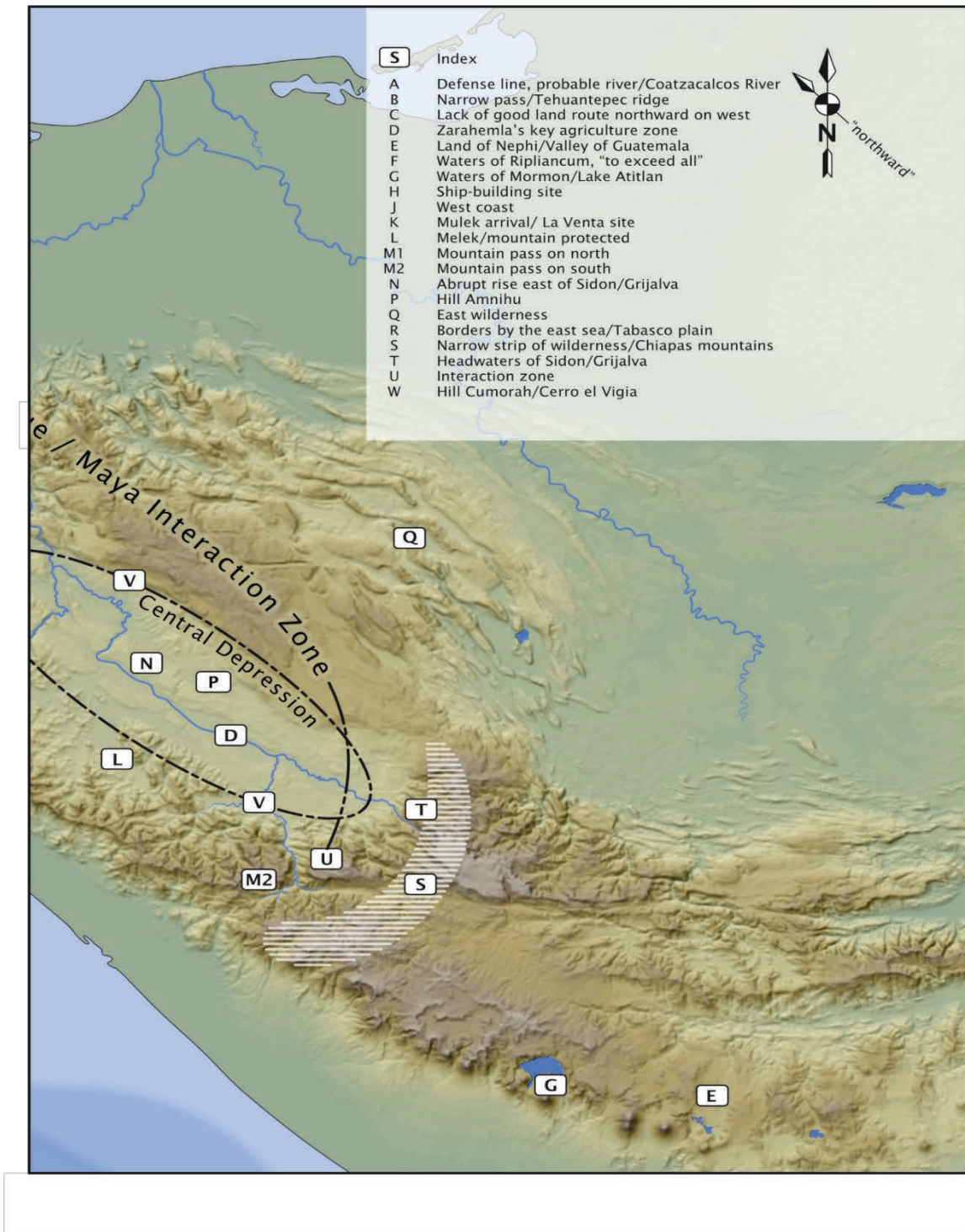


Figure 99. Additional details of the Sorenson model (Sorenson 2013)



Figure 100. Sorenson model of the final Nephite war (Sorenson 2013)

Directional Terminology in the Book of Mormon

In considering directional terminology, it is consistent to assert that the terms *northward*, *southward*, and *eastward* are referring to general directions, such as northwest and southeast, or are part of a specific name for a “land.” These do not seem to be related to a river-derived directional system. Other references may be derived from the Egyptian river directional system, although not all. In his recent book, Brant Gardner provides a synopsis of the

various Mesoamerican approaches to directional systems, which also might be at play in the Book of Mormon (Gardner 2015).

As I went through the Sorenson model, keeping in mind and applying the potential application of the river-based directional system, I found that the problems with Book of Mormon directionality vanished.

In summary, the designations of rivers and Book of Mormon reference is as follows:

“line”: a river

“line Bountiful” (River Bountiful): Coatzacoalcos River

“line” dividing Lamanite Possessions and Nephites (River of Lamanite Possessions): Usumacinta River

“River Sidon”: Grijalva River



Figure 101. River Sidon–based directions: blue line—Upper Grijalva; red line—Lower Grijalva

The directional basis for the Book of Mormon is based on the alignment of the River Sidon (Grijalva River). It needs to be noted that the northern extent of the Grijalva anciently was further to the west, but in general, current orientations are the same for this analysis. The Nephites primarily occupied the upper Grijalva or above (along the blue line in the figure) until 500 years after Lehi’s departure, when they expanded to the north (Alma 50:15). Until that point in time, there was no reference to a north or south sea, only the east sea and the west sea (see Alma 22:27; 50:8). After the expansion to the north, since the alignment of orientation based on the river was different in the northern reach of the River Sidon (along the red line in the figure), those populations would refer to the seas as being on the south or the north. Hence approximately 552 years after Lehi’s departure, when the Book of Mormon mentions a north and south sea for the first time in Helaman 3:8 (for persons on the lower portion of the river), as

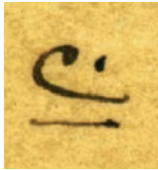
well as the east and west sea (which were mentioned previously and continued to be the case on the upper river), the statement was accurate from a river directional point of view.

In addition, the River Bountiful (Coatzacoalcos River) also runs nearly directly south to north. In later times, as this area became populated with Nephites, the north sea would be directly north where it discharges and the headwaters would be directly south.

As explained, in order for the directions to make sense in the Book of Mormon, there must be a river that changes course in the right location and reflects the correct relationship to settlement patterns. The Grijalva River is the only river in the Isthmus that meets these criteria, so the Caractors Document does provide definitive directional evidence that the Grijalva River is in fact the River Sidon.

Christ's Departure Directional Glyph

There is one directional glyph that has not been discussed even though the form of the glyph is indicative of another Mesoamerican river. However, the context of the glyph requires it to be examined separately. Character C-168 comes at the end of a clause translated "After 50 weeks Christ departed _____."



C-168

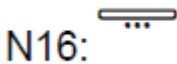
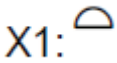
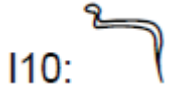
The Book of Mormon indicates that Christ left the Nephites by ascending to heaven—in the same fashion as in the Old World (3 Nephi 28:12–13). It would not appear that going "upriver" as the glyph implies would be an apt description of ascending to heaven. However, it must be kept in mind that the script in the Caractors Document is primarily Egyptian. In that context, it does seem appropriate that this form of glyph be used for Christ's return to heaven when considering the Egyptian concept of travel to heaven:

The "utterances" and instructions of The Pyramid Texts describe the journey of deceased royalty into the afterlife. In Utterance 2141, the ka of the dead prepares to ascend "up to the place" where his "father abides." The direction of travel is ambiguous and seems to be both up into the sky and toward the west. Utterance 2171 describes a journey with Re-Atum across the underworld "united in the darkness." After travelling through the underworld, they "rise on the horizon" together, the resurrection of the deceased coinciding with the daily re-emergence of the Sun. In Utterance 3641 the deceased is commanded to "Stand up now!" he has been placed in the Sarcophagus, "Nut has embraced [him] in her name of 'Sarcophagus'" and his mouth has been opened. He has been brought back to life; more precisely he is reborn. The resurrection is complete, the "deceased" will now "live and travel every day" with the solar barque, rising in the east, crossing over the Nile and setting in the west. This journey after death recounted by The Pyramid Texts reflects the bisection of Egypt by the Nile. The deceased goes west like the setting Sun, crosses the underworld and is then resurrected, rising in the east like the dawn, crossing the sky over the Nile and setting in the west again ad infinitum. The journey of the dead is also described in the pyramid texts as crossing the "river of heaven." Utterance 4731 describes a ferry launching from the east, "The ferries of heaven have been launched. . . . Pepi will go forth on the east side of heaven where the gods are born." This supernatural travel by ferry echoes daily life on the Nile; the Sun setting and rising, boats traversing the river and the waters flooding and receding. The cyclical patterns of the sun rising and setting are reflected in both the journey of the deceased and the direction of travel leading to resurrection.

Models of boats were often included in the tombs of the deceased. As David explains, their purpose was "to allow the owner to travel to Abydos, the burial place of . . . Osiris." Since Abydos was a temporal city on the western bank of the Nile, this practice would suggest the Egyptians believed the boats of the dead travelled on the same river as boats carrying the living. The Nile was a numinous river, a waterway where the divine

and the temporal merged, a boundary place where the barrier between worlds was lifted. (Oman-Reagan 2009)

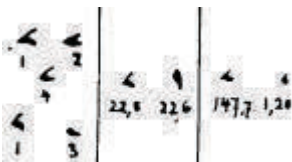
As is to be expected in the Nephite glyphs, this glyph is a stylistic form of the Egyptian word for “eternity” and “estate,” *dt*, so the glyph can be read as “ascending up to eternity” or “ascending up to heaven” (Gardiner 1957, 487). The hieroglyph consists of three elements vertically stacked as follows:



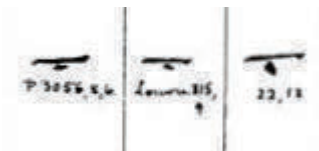
The hieratic of the individual glyphs are as follows:



Möller Number 250 (Gardiner Number I-10) (Möller 1965, Bd. III-1-31, pg. III 245–253)

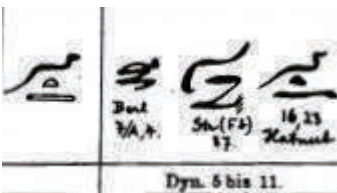


Möller Number 575 (Gardiner Number X-1) (Möller 1965, Bd. III-32-72-Taf, pg. III 565–575)



Möller Number 318 (Gardiner Number N-16) (Möller 1965, Bd. III-1-31, pg. III 310–318bis)

An early combined hieratic hieroglyph was found that is nearly identical to the full glyph:



Möller Number LXXVII (Möller 1965, Bd. I-23-76, pg. I LXXIV–LXXVII)

If one reverses the last combined glyph to meet the direction of Character C-168 and moves the dot a bit, although it is not a complete match, the general form and elements for “eternity” are all there. The half circle and dot also are similar to the glyph form of the “sun” or god of the Sun, as previously discussed.

Dots in Relation to Directional Glyphs

There are certain glyphs that incorporate a dot or have an apparent dot adjacent not used in the meaning of the glyph that seem to add additional meaning to the glyph as they were not included.

C-23		east
B49a		Usumacinta River
C-147, C-146		restrain, dam off
C-168		Christ ascension

While the meaning of the dot is not directly known from translation, some conjecture might be made as to the meaning of the dot. As previously discussed, C-168 indicates the ascension of Christ; the dot is above the glyph. Glyphs C-147 and C-146 are part of the discussion of the Nephites gathering “in the center” of their lands, so the central location of the dot in the glyph may reflect this meaning. The other uses of the dot are not clear. For the “east” glyph, there are two dots, one centrally located and one above and to the left. It is possible that the dot on the left indicates travel from the east, with a central dot indicating Zarahemla, which is in the central part of the Nephite polity. That would be consistent with glyph B49a, which has the dot on the opposite side, which would indicate a return from the west, which is consistent with a return of the Limhite party from the Jaredite area back to the land of Nephi. This is at least a reasonable explanation for these dots, although additional text would be necessary to verify this interpretation of these dots.

Chapter 11

Translation of Remaining Characters Not Previously Discussed

This chapter gives a character by character (or group of characters) translation in character order. Translated words for characters or groups of characters that have already been discussed in the book will be included without further explanation. The translation explanation follows the character for those characters that have not yet been translated. When applicable, scriptural references from the Book of Mormon are provided as additional references for the newly translated characters.

B1d, B1c, B1b, B1a  First king Mosiah (Mosiah₁)

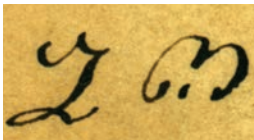
C-1, C-2  Regnal Year

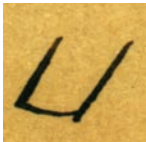
Discussion: This character is a known Egyptian hieratic/Demotic glyph for the Egyptian word *ḥsb.t* and *ḥʿb.t* with the meaning “regnal year” (*Chicago Demotic Dictionary* 2014, H [09:1], 268).




(Erichsen 1954, 288)

C-3  Reign of the Kings Introductory Glyph (55 years)

C-5, C-4  19 (nineteen) [years] (6 + 13)

C-6  mountains (wilderness)

Discussion: This character is fairly straightforward in the Egyptian hieroglyphs as Gardiner Number N-26:

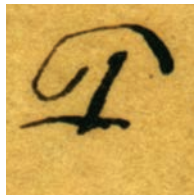
N26: 

It is one of the principal forms of the hieratic form of this hieroglyph:



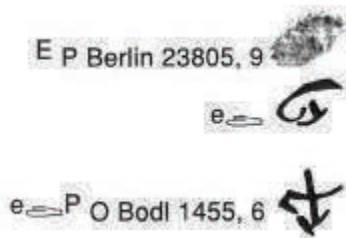
Möller Number 320 (Möller 1965, Bd. II-1-30, pg. II 317–326)

It is the main ideogram for the Egyptian word *dw* (Gardiner 1957, 489), and Gardiner describes its form as representing a “sand-covered mountain over edge of green cultivation.” Budge uses different phonetic terminology for the same word *tu* and indicates that this single glyph can mean “hill” or “mountain” (Budge 1920, 869). The nature and location of the passage over the mountains that Mosiah and his group took from the land of Nephi to Zarahemla indicates that this term was considered in the small plates as “wilderness” (Omni 1:13). Under the Sorenson geographic model, Mosiah and his group would first have had to go over the Chiapas Mountains when traveling from the land of Nephi to Zarahemla.



C-7 others, persons of foreign speech



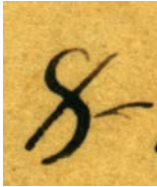
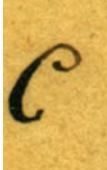
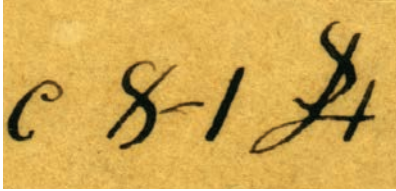
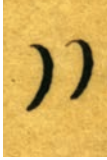


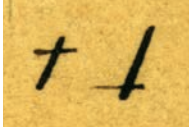
Discussion: This character is the word *ky* or *kʹ* in Egyptian, and the form is a known form. According to the *Chicago Demotic Dictionary*, the meaning is “other” (persons) or “another” (person). Budge indicates that this term (*kaiu* or *kiu* in the plural of Budge phonetics) is used referring to “stranger, foreigner” or “men of foreign speech” (Budge 1920, 2:782). Vygus (2018, 2342) has a comparable reading. The description is correct since the term in the Caractors Document is followed by the name *Mulek*. It was noted in the Book of Mormon that for the Mulekites, “their language had become corrupted . . . and Mosiah, nor the people of Mosiah, could understand them” (Omni 1:17). Please note that the Book of Mormon itself does not refer to the Mulekites as a tribe or as the “Mulekites”; that is modern vernacular. The Caractors Document is consistent in that regard, since it does not refer to them as a tribe either.

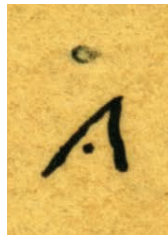


(Chicago Demotic Dictionary 2014, K [01:1], 7)



(Erichsen 1954, 558)

C-8		Walking Fish (title)
C-9		to be young
C-10		male determinative
C-11		"lord," "master," or "chief"
C-11, C-10, C-9, C-8		Muloch or Mulek
C-12		Maya Anterior Date Indicator (ADI), count since, count from, count back to, and it had come to pass
C-13		son (Christ)
C-14		tribe (-ite, people)
C-14, C-13		Nephite, tribe of the Son, tribe of Christ



C-15

exited (dual meaning: eleven days)

Discussion: This character is a combination glyph consisting as its first part the hieratic form of the Gardiner hieroglyphs Numbers D-54 or D-55 (legs walking), which is the determinative glyph for motion with a meaning “to come” or “to come back” (Gardiner 1957, 457). These hieroglyphs correlate with Möller Numbers 120 and 121. This character appears to match more closely to “come back” (No. 121); however, the Caractors Document would indicate that the context matches “to come.” As the directionality of Egyptian glyphs can change based on reading direction, this is not a significant issue.

Hierogl.	Louvre 3226	Lederhs.	Qur'āb	P. Rollin	Ennene	Pentoere	Harris Th.	Harris H. M.	P. Abbott	Möller
120 Nephtys Dyur 18	 #3, 4 5a		 Quana. I. ja	 204 II, 18	 KQ 3, 18 a 5a	 II S 1, 1 a 2a	 3, 5	 3, 5 3044 20, 70		 No. 12 230
121 Dyur 18					 NQ 11, 1 O.L. 4, 5	 II S 4, 2	 7, 7	 7, 7 76, 7 70		 11, 4

Möller Numbers 120 and 121 (Möller 1965, Bd. II-1-30, pg. II 120–132)

The second part of this glyph consists of the lower dot and an upper check mark. This glyph is the Egyptian word *per-t* (Budge phonetics), meaning “to exit” (Budge 1920, 1:240). This word, in addition to the D-54 or D-55 glyphs, also contains the Gardiner X-1 glyph:



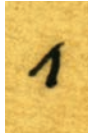
The X-1 glyph corresponds with the hieratic glyph designated as Möller Number 575:

 15, 1, 1	 20, 2 Sidel 2	 3, 6 5, 6	 3, 1 3, 2 1, 3 16, 3	 33, 15
 17, 1, 1	 1, 1 Sidel 1	 37	 1, 1 4, 1 1, 2 (1/2)	 45, 21
 16, 3	 5 6 Sidel 62, 3			 46, 10

Möller Number 575 (Möller 1965, Bd. I-23-76, pg. I 572–581)

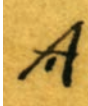
The C-15 glyph, with the exception of the check mark, also has the same form as the number eleven with the dot at the center, so it is possible that an additional meaning of this glyph may be “eleven days” in the context of the translation.

Other characters (e.g., C-105, C-122, C-162) have a related meaning and feature the inverted V and have “came” or “went” as part of their meaning. C-127 is a fairly straightforward legs-walking glyph meaning “came” or “went.”



C-127

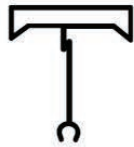
C-105 and C-162 are identical glyphs and are combination glyphs of the word “to come,” as discussed above, and also contain as an additional glyph in the center the hieratic determinative glyph of “night” or “darkness.”



C-105

C-162

The Gardiner glyph N-2 and its variant N-3 is the determinative for “night” (Gardiner 1957, 485):



N-2



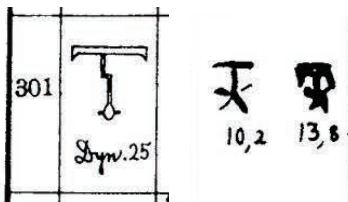
N-3

This determinative is present as a glyph in almost all words for darkness in Egyptian and is also found as the word *gerh* (Budge phonetics), meaning “darkness” or “night,” as a single glyph (Budge 1920, 2:811) and as *hꜣwy* (Vygus 2018, 1265).

A related but unusual determinative glyph for “night” or “darkness” is Gardiner N-46b (Smith 2007):



The associated hieratic glyph for these hieroglyphic “darkness” glyphs is a form of Möller Number 301:



Möller Number 301 (Möller 1965, Bd. II-1-30, pg. II 294–303)

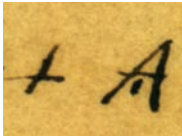
This glyph in the Caractors Document has a modification in the sense that a dot is shorthand for the sun (the top horizontal bar is the sky) and is depicted in lieu of the star-type symbol, which would be appropriate if one considers that the Egyptian glyph for the sun is a round circle with a dot in the center or can be depicted simply as a round circle.

Smith (2007) notes that the N-46b glyph is found consistently in a group of texts where the texts seem to be trying “to express the concept of darkness at a time which was unusual,” with some seeking “the lifting of a punishment imposed by a god.” Some of the texts discuss blindness as a result of divine retribution. Smith asserts that these texts featuring the N-46b glyph were describing the blocking out of the sun in the form of an eclipse.

In the Caractors Document, C-162 serves as the number eleven in the date for the destruction and three days of darkness that occurred at Christ’s death, so the double meaning of this glyph is clear, serving as a number and also representing “coming in darkness.” Similarly, C-105 is part of the glyph set indicating the coming of Samuel the Lamanite, who prophesied of the darkness which was to come at the death of Christ, although it could be alternatively an indicator that Samuel the Lamanite came to preach to the Nephites at night.

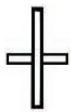
While not an Egyptian corollary, the glyph also has the appearance of a conic mountain. Since the Nephite destruction at the time of Christ’s death is consistent with a volcanic eruption, this glyph form may also be representing a volcano.

C-105 also has an adjacent glyph, C-106, that serves as a borrowing glyph, meaning a glyph that participates in two words.

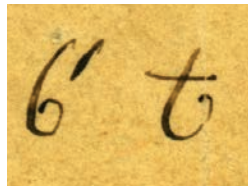


C-106, C-105

In this instance, C-106 is the hieroglyphic and hieratic form of Gardiner Z-11.

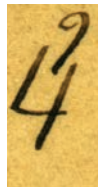


The Z-11 glyph by itself consists of the word *imn*, which means “who is in, which is in” (Dickson 2006, 290). A word inclusive of *imn* is *imn xt*, meaning “to follow after (in time)” and containing the Z-11 glyph (Dickson 2006, 124). Thus, although a shorthand version, the meaning of the two glyphs would also be an indication of Samuel the Lamanite coming and speaking of the “darkness” “to follow,” matching the prophesy he gave of the darkness that would come at the time of Christ’s death (Helaman 14:20).



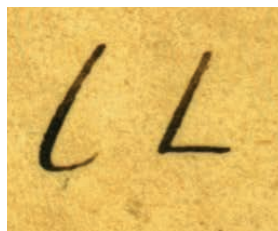
C-17, C-16

Zarahemla



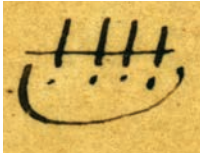
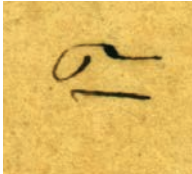
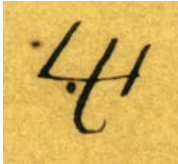
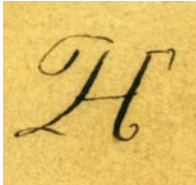
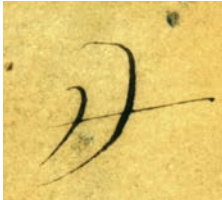

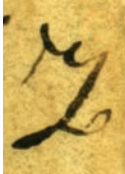

C-18

20,000 (twenty thousand)

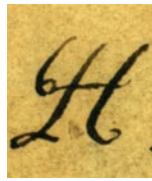


C-20, C-19

children of Mosiah

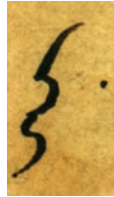
C-21		80 (eighty) [days]
C-22		traveled downriver (River Sidon)
C-23		on the east side
See Omni 1:12–19		
C-24		Maya Distance Number Introductory Glyph (DNIG)
C-25		Maya Posterior Date Indicator (PDI), then it happened, count forward, count to, count until, and it came to pass
B26b		7 (seven) [years]
C-26		4 (four) [years]
C-26, B26b		11 (eleven) [years] $4 + 7 = 11$

C-27



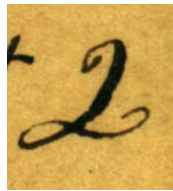
Maya Distance Number Introductory Glyph (DNIG)

C-28



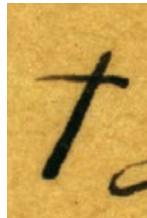
Maya Anterior Date Indicator (ADI), count back to, since it happened, count since, count from, and it had come to pass

C-29



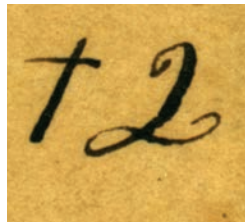
7 (seven)

C-30



tribe, phyle (-ite, people)

C-30, C-29



"Seven Tribes"

C-31


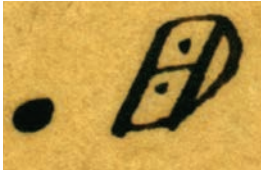
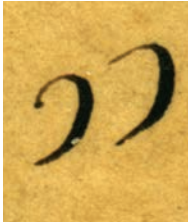
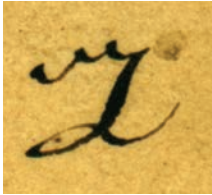
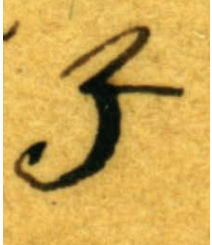
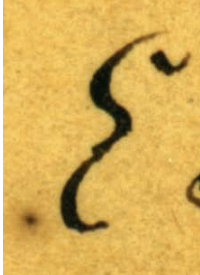


Maya Posterior Date Indicator (PDI), then it happened, count forward, count to, count until, and it came to pass

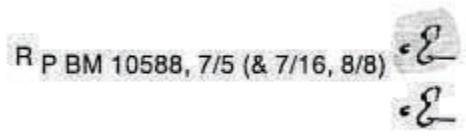
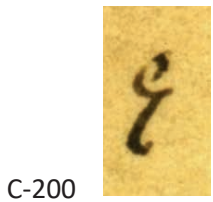
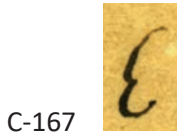
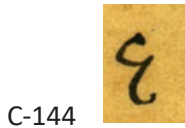
C-32



20 (twenty) [years]

C-33		1 (one) [year]
C-33, C-32		21 (twenty-one) [years] 20 + 1 = 21
C-34		Maya Anterior Date Indicator (ADI), count back to, since it happened, count since, count from, and it had come to pass
C-35		60 (sixty) [persons]
C-36		Zeniff
C-37		left, departed

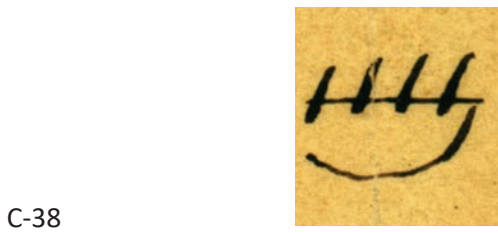
Discussion: This is a fairly straightforward Demotic character of the Egyptian word *šm*, which is the verb “to go” (*Chicago Demotic Dictionary* 2014, Š [10:1], 118). Other identical characters with the same meaning are C-144, C-167, and C-200.



Chicago Demotic Dictionary 2014, Š [10:1], 120

This particular example is used since it is clearer than others, but it is from a later Demotic time frame. However, many other examples of earlier dates and of similar form are found in the *Chicago Demotic Dictionary* and in *Demotisches Glossar* (Erichsen 1954, 505–516).

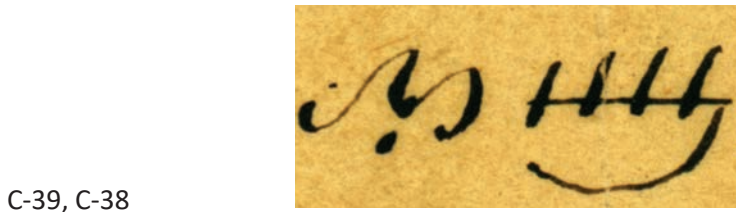
See Omni 1:27–29; and Mosiah 9:1-4.





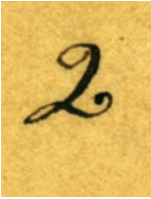


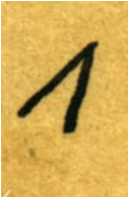
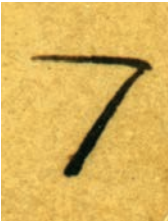
40 (forty) [years]

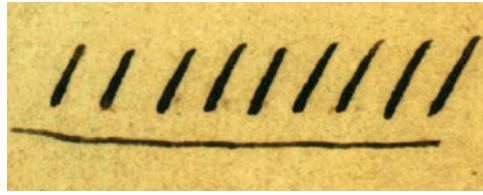


13 (thirteen) [years]



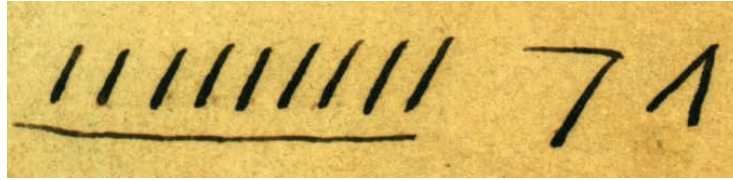
40 + 13 = 53 (fifty-three) [years]

C-40		Maya Distance Number Introductory Glyph (DNIG)
C-41		Maya Posterior Date Indicator (PDI), then it happened, count forward, count to, count until, and it came to pass
C-42		7 (seven) [years]
C-43		Limhi
C-44		tribe (-ite, people)
C-45		10 (ten)
C-46		5 (five)



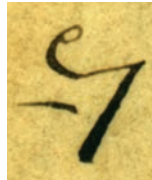
C-47

9 (nine) and plates (rebus)



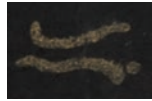
C-47, C-46, C-45

10 + 5 + 9 = 24 plates



C-48

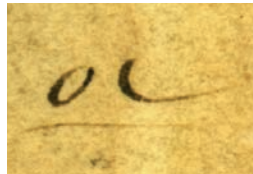
West, Land of the Dead, Land of Desolation



B49a
"to"

upriver (Usumacinta River) (also perhaps
"bring" or "brought")

See Mosiah 21:25–28.



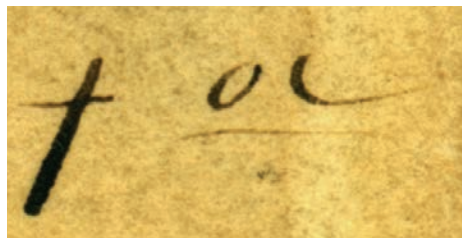
C-50, C-49

Jared



C-51

tribe (-ite, people)



C-51, C-50, C-49

Jaredite



C-52

toward

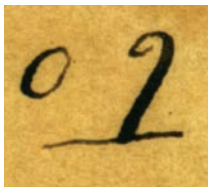
Discussion: This character is recognized as the Egyptian preposition *r* and has as one of its definitions “toward.” It is found in a straightforward form in the Egyptian Demotic:

- P P BM 10399, B/11
- P P Cairo 89127, C/4
- P/R P Griff Inst 7, 3
- R P BM 10520D, 16
- R P Carlsberg 30, E/x+4
- e R O Leiden 35, 2

(Chicago Demotic Dictionary 2014, R [01.1], 1)

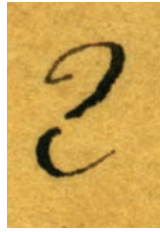


This glyph is also found as C-173 .



C-54, C-53

the west



C-55

gold

Discussion: This is a somewhat straightforward form of the Egyptian Demotic character for the word *nb*, which is translated as “gold” (*Chicago Demotic Dictionary* 2014, N [04:1], 57).



Demotisches Glossar (Erichsen 1954, 213)

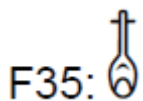


C-56

good (pure in context)

Discussion: This is a straightforward form of the Egyptian hieratic character for the word *nfr*, translated as “good” and which would be translated as “pure” in this Book of Mormon context (*Chicago Demotic Dictionary* 2014, N [04:1], 72).

The phonetic hieroglyph for *nfr* is Gardiner Number F-35, meaning “good” (Gardiner 1957, 465):



The hieratic versions of the glyph are:

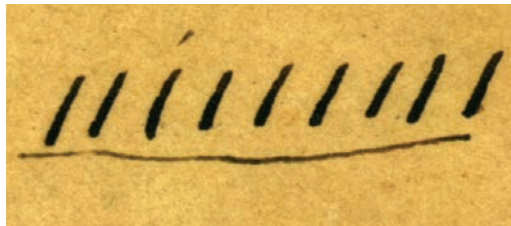
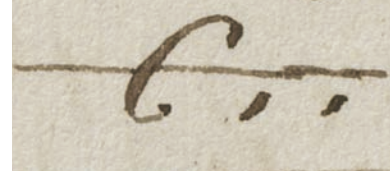


Möller Number 180 (Möller 1965, Bd. III-1-31, pg. III 176–186)



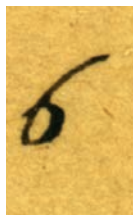
C-57

portion of translation verb, which includes Characters 57–60; equivalent to OF4



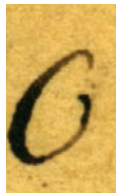
C-58

plates



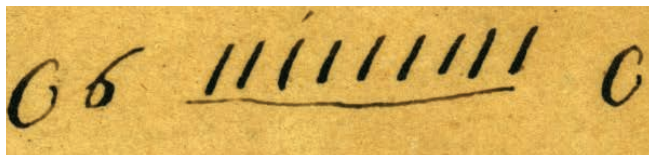
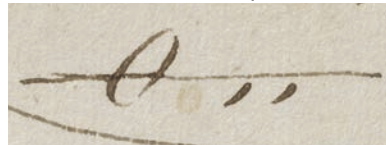
C-59

by the power of God



C-60

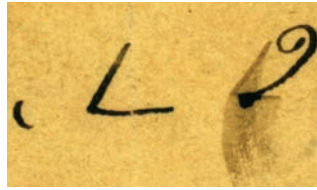
portion of translation verb, which includes Characters 57-60; equivalent to OF3



C-60, C-59, C-58, C-57

translated the plates by the power of God

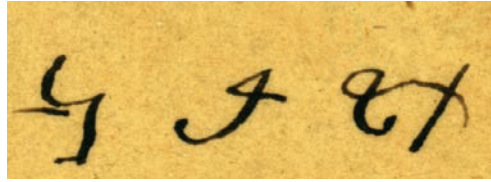
Discussion: The translation of this set of glyphs was discussed earlier; however, the “curly 6” (translated here as “by the power of God”) was not discussed since the meaning of the glyph was determined during the translation of the calendar glyphs, the tribes, and the personal names. This glyph may also be a representation of placing an item under the interpreter glasses (the two lenses being represented by the circular glyphs on each side).



C-63, C-62, C-61

King Mosiah (Mosiah₂)

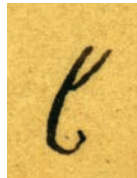
See Mosiah 22:11–14.



C-67, C-66, C-65, C-64

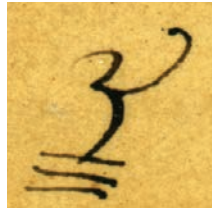
King Benjamin

Discussion: Character 67 has been translated as “king.” However, it is probable that the character also serves as an indicative verb of the ascension to the kingship, since it is followed by the ascension date.



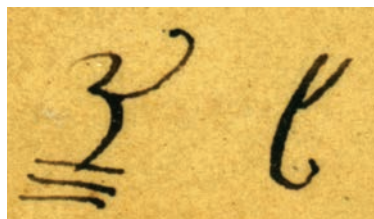
C-68

“2 month,” part of Initial Series Introductory Glyph (IGIS) for Lehi Departure Calendar



C-69

Initial Series Introductory Glyph (IGIS), for Lehi Departure Calendar; a combination of 3 x 200 = 600



C-69, C-68

Lehi Count Initial Series Introductory Glyph (IGIS)




C-70

10 (ten) [years]

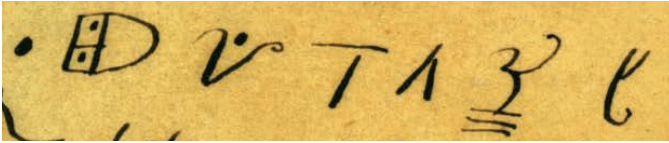
C-71  5 (five) [years]

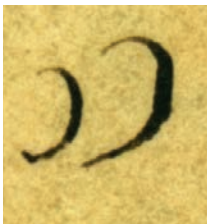
C-72  400 (four hundred) [years]

C-73  20 (twenty) [years]

C-74  1 (one) [year]

C-74, C-73, C-72, C-71, C-70, C-69, C-68

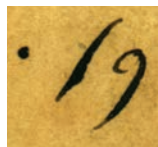
 436 [years] after Lehi's
Departure (1 + 20 + 400 + 15 = 436)

C-75  Maya Anterior Date Indicator (ADI), count back to, since it happened, count since, count from, and it had come to pass

C-77, C-76  1/3 (one third) [year]

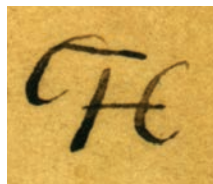
C-78  1 (one) [year]

C-78, C-77, C-76



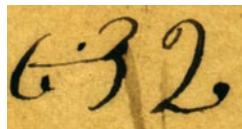
1 + 1/3 = 1 1/3 [years]

C-79



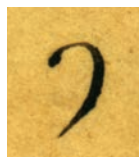
Maya Distance Number Introductory Glyph (DNIG)

C-81, C-80



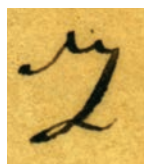
Maya Period Ending Glyph (PE) for Reign of the Kings—"Seven Tribes" regnal Period

C-82



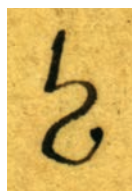
Maya ADI/PE glyph by context (also "behold")

C-83



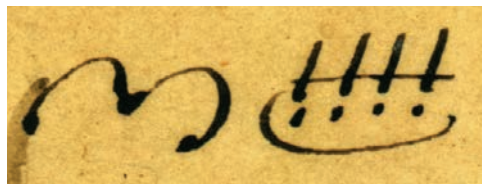
4 (four) [years]

C-84



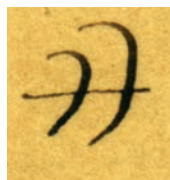
Jubilee Year Glyph

C-86, C-85

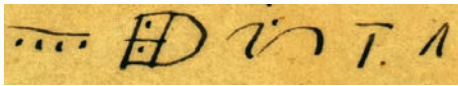


83 (eighty-three) [years] (80 + 3 = 83)

C-87



Maya Posterior Date Indicator (PDI), then it happened, count forward, count to, count until, and it came to pass

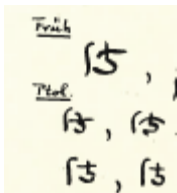
C-92, C-91, C-90, C-89, C-88 

479 (four hundred seventy-nine)
[years] (9 + 20 + 400 + (5 x 10) = 479)

C-94, C-93 

to rise, accession

Discussion: This set is the Egyptian hieratic/Demotic word *h'*, defined as “to rise” or “accession,” and the Caractors glyph is an exact match (*Chicago Demotic Dictionary* 2014, H, 27–28).





(Erichsen 1954, 350–351)


C-96, C-95 

eternity

Discussion: This glyph has one of the same meanings as C-168, which is the Egyptian word for “eternity” and “estate,” *dt* (Gardiner 1957, 487). The hieroglyph consists of three elements vertically stacked as follows:

I10: 

X1: 

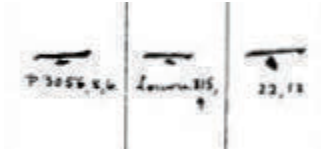
N16: 



Möller Number 250 (Gardiner Number I-10) (Möller 1965, Bd. III-1-31, pg. III 245–253)

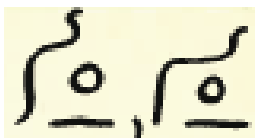


Möller Number 575 (Gardiner Number X-1) (Möller 1965, Bd. III-32-72-Taf, pg. III 565–575)



Möller Number 318 (Gardiner Number N-16) (Möller 1965, Bd. III-1-31, pg. III 310–318bis)

The Demotic form is:



Demotisches Glossar (Erichsen 1954, 688)

It might seem that the base line is missing in the Caractors glyph; however, as in other places in the Caractors Document, it seems to be sharing the adjacent line character (C-94) to complete the word (recognizing that it is a slanted, not a horizontal line). Also the reverse form is not an issue in Egyptian.

See Mosiah 6:4–5.

*****This is the end of the top four lines of the Caractors Document*****

C-100		spacer glyph
C-102, C-101		60 ½ (sixty and one half)
C-103		months
C-104		spacer glyph

C-105  came and prophesied of darkness

C-108, C-107, C-106  to the Nephites and Lamanites

C-109  Samuel the Lamanite

See Helaman 13:1–4.

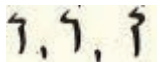
C-110  spacer glyph

C-111  Period Ending/Transition Glyph

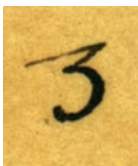
C-112  1,000 Year Calendar glyph

C-113  going back

Discussion: This glyph is found in the Egyptian Demotic as either the related words *h3* or *h3.t*, meaning “behind” or “front, beginning, before” (*Chicago Demotic Dictionary*, 2014, H [09.1], 1, 5):





Demotisches Glossar (Erichsen 1954, 286–287)

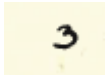
C-114  by means of

Discussion: This glyph is found in the Egyptian Demotic as the word *m*, which means “through, by means of” (*Chicago Demotic Dictionary* 2014, M [10.1], 2):

e—R O Berlin 6170, 7 

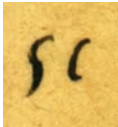
R P Louvre 3229, 2/19 (& passim) 


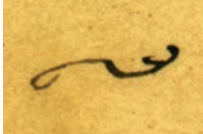
(Chicago Demotic Dictionary 2014, M [10.1], 2)



Demotisches Glossar (Erichsen 1954, 145–146)

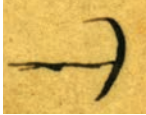
C-115  Coming of Christ Calendar Glyph

C-117, C-116  (9) nine

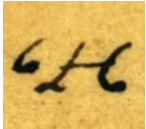
C-118  years

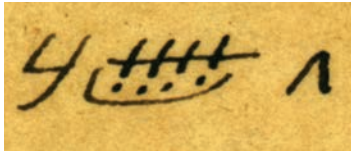
Discussion: This set of characters, from C-111 to C-118, is best translated by reference to the Book of Mormon. The full translation of the set by itself would be that “the primary count calendar was shifted from the 1,000 Year Calendar to the Coming of Christ Calendar, effective retroactively nine years after the Coming of Christ Calendar started.”

See 3 Nephi 2:7–9

C-119  Period Ending/Transition Glyph Lehi 600 Year Calendar

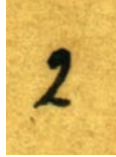
C-120  Introductory Glyph Reign of the Judges (7)

C-121  Maya Distance Number Introductory Glyph (DNIG)



C-124, C-123, C-122

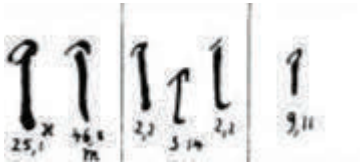
92 (ninety-two) [years] (2 + 80 + 10 = 92)



C-125

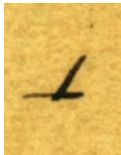
Lord (king pertaining to Gods)

Discussion: This glyph in its hieroglyphic form is the ideogram for the determinative for “king” and for “gods” (Gardiner 1957, 468) and is identified by Gardiner Number G-7 and the associated hieratic:



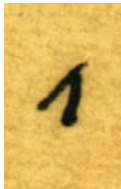
Möller Number 188 (Möller 1965, Bd. II-1-30, pg. II 182–190)

The hieratic form for this glyph is fairly standard through time.



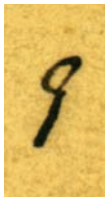
C-126

Christ (the Son)



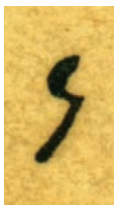
C-127

came



C-128

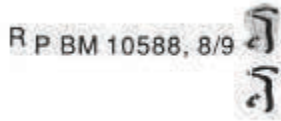
Most High



C-129

First

Discussion: C-128 and C-129 are similar glyphs with somewhat interchangeable meanings and forms in the Egyptian. One type of glyph is found in the Egyptian Demotic as either the related words *ḥ* or *ḥ.t*, which means “first” or “front, beginning, before” (*Chicago Demotic Dictionary* 2014, Ḥ [09.1], 4, 39–40). This second is found in the Egyptian Demotic as either the related words *ḥʿ* or *ḥʿ.t*, which means “one who is in front,” “chief,” or “front, beginning, before” and is the same as C-113 (*Chicago Demotic Dictionary* 2014, Ḥ [09.1], 1, 5):



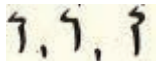
(*Chicago Demotic Dictionary* 2014, Ḥ [09.1], 4, 40)



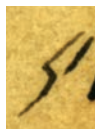
Demotisches Glossar (Erichsen 1954, 289)



(*Chicago Demotic Dictionary* 2014, Ḥ [09.1], 1, 5)



Demotisches Glossar (Erichsen 1954, 286–287)



C-174 is also a form of this glyph.



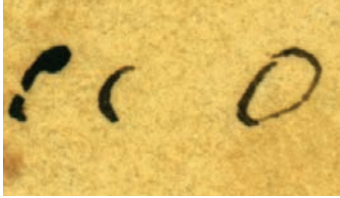
C-130

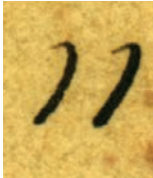
Royal name suffix

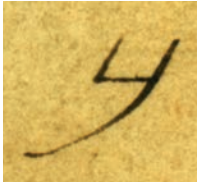
Discussion: The Egyptian word *snb*, as found at the end of royal names, is found in the *Chicago Demotic Dictionary* (S [13:1], 263–64), and the Demotic does have the form of the Caractors glyph:

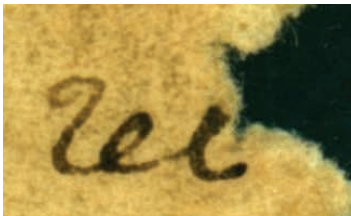



Demotisches Glossar (Erichsen 1954, 438)


C-133, C-132, C-131  Land of Jerusalem

C-134  ADI

C-135  2 (two) [days]

C-137, C-136   (1886) to be born

Discussion: This glyph is very straightforward in the Egyptian, being the hieratic form of Gardiner Number F-31 and, in the simplest definitions, meaning “to be born,” “to give birth to,” or “born of” (Budge 1920, 1:321; Petty 2012, 70).

F31: 

In the hieratic:

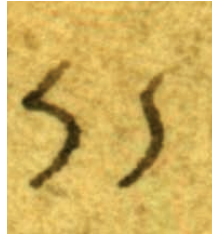


Möller Number 408 (Möller 1965, Bd. III-32-72-Taf, pg. III 405–414bis)

A similar form is also found in Egyptian Demotic:



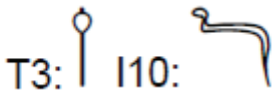
(Chicago Demotic Dictionary 2014, M [10.1], 224)



C-139, C-138

brightness, white

Discussion: The word meaning “white” or “bright” in Egyptian is *ḥd*. It can occur as a single glyph, identified as Gardiner Number T-3, but most often occurs with Gardiner Number I-10 (Dickson 2006, 228; Budge 1920, 1:522). The hieroglyphs and hieratic are:



Möller Number 447 (Gardiner Number T-3) (Möller 1965, Bd. III-32-72-Taf, pg. III 436–447bis)

Bulaq 18	Math.	Westcar	Qoln.	Ebers

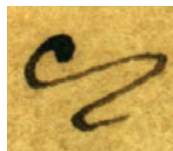
Möller Number 250 (Gardiner Number I-10) (Möller 1965, Bd. I-23-76, pg. II 250–258)

See 3 Nephi 1:1–15.



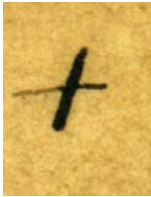
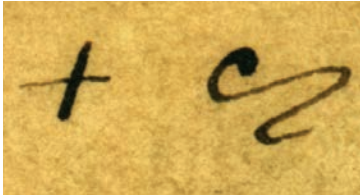
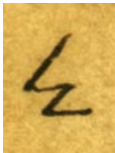
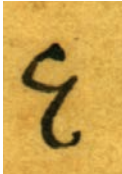

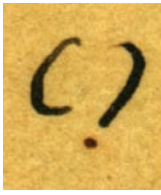
C-140

spacer glyph



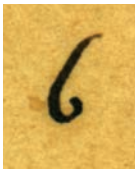
C-141

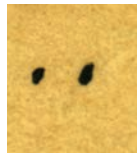
Gaddianton

C-142		tribe (people)
C-142, C-141		Gaddianton tribe, Gaddianton robbers
C-143		Nephi
C-144		departed
C-145		spacer glyph
C-147, C-146		restrain, dam off

Discussion: This is an Egyptian determinative for “restrain, dam off” (Gardiner 1957, 523), with Gardiner Number V-11a and V-11c. The hieroglyph constitutes one half of a cartouche; the interpretation is that it is used twice, similar to the full cartouche sign. The interpretation is consistent with 3 Nephi 3:23, which indicates that the fortifications against the Gaddianton robbers went up to the “line” that was between the land Bountiful and the land Desolation, which the Caractors Document indicates was the River Bountiful (Coatzacoalcos River):

V11a: [V11c:]

C-148		to God
-------	---	--------

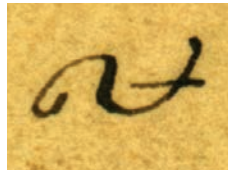


C-150, C-149

language

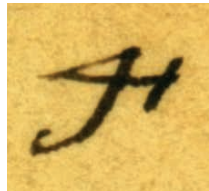
Discussion: Characters C-148, C-149, and C-150 are translated together as “praising God.” The word “language” is derived from the translation for “book” and “the interpreters of languages” glyphs discussed later. All of those glyphs contain the double dots present here, so by commonality they must refer to language; also, the Book of Mormon context is consistent with that translation.

See 3 Nephi 4:30–33



C-151

Jubilee Year glyph



C-152

12 (twelfth)



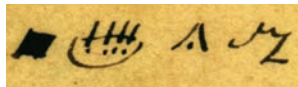
C-153

1,000 (indicates in the 1,000 Year Calendar)



C-154

spacer glyph



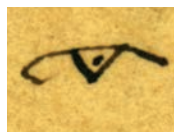
C-158, C-157, C-156, C-155

125 (one hundred twenty-five) [years] ($30 + 80 + 11 + 4 = 125$)



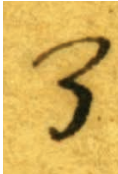
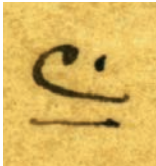
C-159

first

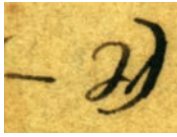


C-160

month

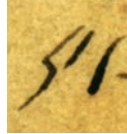
C-161		Christ (the Son)
C-162		came in the darkness
C-163		to the people (tribes)
See 3 Nephi 8:5.		
C-164		spacer glyph
C-165		50 (fifty)
C-166		weeks (of seven days each)
C-167		departed
C-168		upwards to heaven
C-169		Maya Distance Number Introductory Glyph (DNIG)

, C-172, C-171, C-170



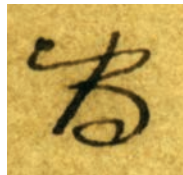
Period Ending and Transition Glyph for Reign of the Judges, conversion to new Coming of Christ Calendar already concurrently running, with variant ADI glyph marking point in time,

C-174, C-173



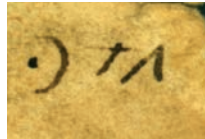
toward the Most High (or First)

C-175



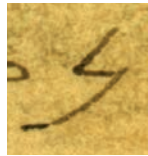
Introductory Glyph Coming of Christ Calendar

C-178, C-177, C-176



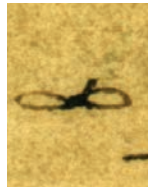
34 (thirty-four) [years] (19 + 5 + 10 = 34)

C-179



twelfth month

C-180



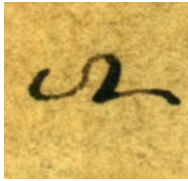
truth

Discussion: This is the Egyptian word m^{sc} , which means “to be true, to be upright, true, truthful, veritable, real” (Budge 1920, 1:270). In its shortest form, it is represented by hieroglyph Gardiner Number U-5, with the associated hieratic:

U5:



Möller Number 469 and 469b (Möller 1965, Bd. II-31-74-Taf, pg. II 468–475)



C-181

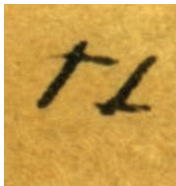
fortune, wealth, prosperous

See 4 Nephi 1:1–23.



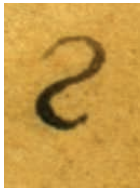
C-182

spacer glyph



C-183, C-184

Nephites



C-185

gold (became wealthy)

Discussion: This glyph does not appear to have the small visible gap like the previous character for gold (C-55); however, it is possible that this is a copyist error, given the small size of this glyph, but it may signify a difference in meaning. The meaning of the term *gold* here is amplified to represent somewhat more metaphorically “wickedness,” especially considering the prophecy of Christ that preceded the event:

3 Nephi 27:32

But behold, it sorroweth me because of the fourth generation from this generation, for they are led away captive by him even as was the son of perdition; for they will sell me for silver and for gold, and for that which moth doth corrupt and which thieves can break through and steal. And in that day will I visit them, even in turning their works upon their own heads.

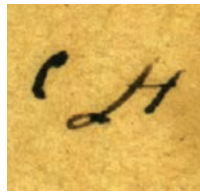
4 Nephi 1: 43–46

43 And also the people who were called the people of Nephi began to be proud in their hearts, because of their exceeding riches, and become vain like unto their brethren, the Lamanites.

44 And from this time the disciples began to sorrow for the sins of the world.

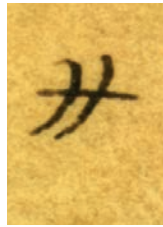
45 And it came to pass that when three hundred years had passed away, both the people of Nephi and the Lamanites had become exceedingly wicked one like unto another.

46 And it came to pass that the robbers of Gadianton did spread over all the face of the land; and there were none that were righteous save it were the disciples of Jesus. And gold and silver did they lay up in store in abundance, and did traffic in all manner of traffic.



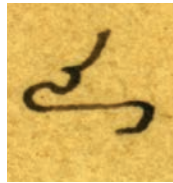
C-187, C-186

Maya Distance Number Introductory Glyph (DNIG)



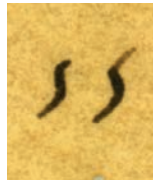
C-188

Maya Posterior Date Indicator (PDI), then it happened, count forward, count to, count until, and it came to pass



C-189

Calendar glyph Period Ending Fourth Generation

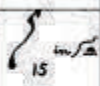

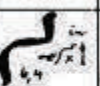









C-191, C-190

estate (generation)

Discussion: This set of glyphs constitutes the Egyptian word *dt*, which means “estate” (Petty 2012, 187; Dickson 2006, 99; Budge 1920, 2:893). The hieroglyphs that constitute this word are Gardiner Numbers I-10 and X-1, with the associated hieratic:

I10:  X1: 

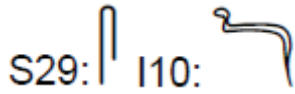
Bulaq 18	Math.	Westcar	Golen.	Ebers
				
				

Möller Number 250 (Gardiner Number I-10) (Möller 1965, Bd. I-23-76, pg. II 250–258)

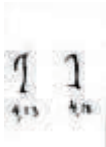


Möller Number 575 (Gardiner Number X-1) (Möller 1965, Bd. II-31-74, pg. II 575–586; Bd. I-23-76, pg. I 572–581)

In a double entendre that describes the condition of the Nephites and Lamanites at the time, this glyph in variant form also can be read as the Egyptian word *sd*, which means “fracture, rupture” or “to break” and “to scatter.” The hieroglyph consists of Gardiner Numbers S-29 and I-10:



The hieratic form for S-29 for this word is:

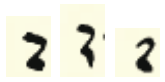


Möller Number 432 (Möller 1965, Bd. III-32-72, pg. III 425–435)

This set of glyphs also could be in the position consistent with ADI, though the form is slightly different, and perhaps could retain both meanings.

C-192		spacer glyph
C-193		Maya Posterior Date Indicator (PDI), then it happened, count forward, count to, count until, and it came to pass
C-195, C-194		Nephites
C-196		traveled downriver (north) on the River Bountiful (River Coatzacoalcos)
C-197		north countries

Discussion: This glyph was already shown in the examples given in chapter 10 on Nephite directions but is redisplayed here, since this glyph is the portion of the Egyptian Demotic word *ht* that constitutes “north”:



Demotisches Glossar (Erichsen 1954, 397)

The selection of the term “north countries” here is based on the recitation of this exact event in Mormon 2:3, but it is possible that it may just be “north”:

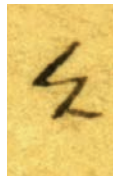
And it came to pass that in the three hundred and twenty and seventh year the Lamanites did come upon us with exceedingly great power, insomuch that they did frighten my armies; therefore they would not fight, and they began to retreat towards the north countries.

C-198



spacer glyph

C-199



Nephi, Three Disciples (three Nephites)

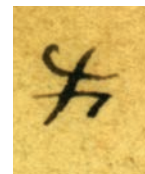
C-200



departed

See Mormon 1:13.

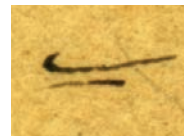
C-201



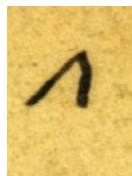
multitude (innumerable) of Lamanites

Discussion: Note that the glyph for the Lamanites has been incorporated into this glyph since there is the upper horizontal hook and the lower line from the Lamanite name represented in the glyph.

C-217



C-202



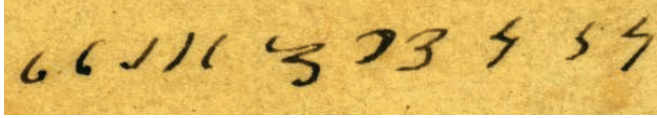
came

See Mormon 4:17.



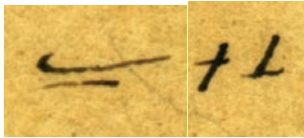
C-203

spacer glyph



C-214 through C-204

are without Christ and God the Father, and are now led by Satan



C-217, C-216, C-215

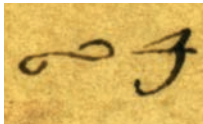
Nephites and Lamanites

See Mormon 5:16–18.



C-218

spacer glyph



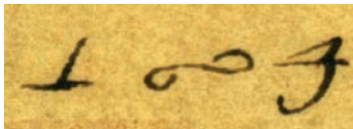
C-220, C-219

in the hands of



C-221

Christ (the Son)



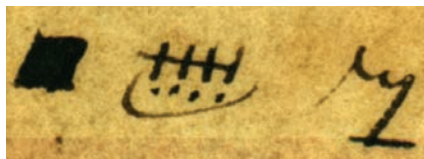
C-221, C-220, C-219

Mormon and Moroni in the hands of Christ



C-222

spacer glyph



C-225, C-224, C-223



384 (three hundred eighty-four) [years]
(300 + 80 + 4 = 384)

Translation of Oliver Cowdery and Frederick G. Williams Characters



OF1 Book

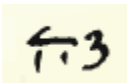
Discussion: Joseph Smith translated this character using the interpreters (Urim and Thummim) as “book,” and it is a fairly straightforward translation from Egyptian. The word for “papyrus roll” or “book” or “bookroll” or “divine literature” in Egyptian is *mdt* (Gardiner 1957, 533; *Chicago Demotic Dictionary* 2014, M [10:1], 299; Budge 1920, 1:337) and is represented by hieroglyph Y-1 and in the associated hieratic:

Y1: , Y1a: 



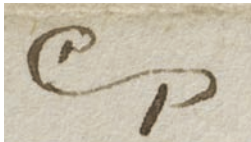
Möller Number 538 (Möller 1965, Bd. I-23-76, pg. I 534–540b)

Pretty much the exact character is found in the Egyptian Demotic for “bookroll”:



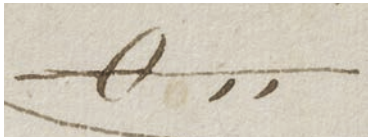
Demotisches Glossar (Erichsen 1954, 194)

Of course, the “book” referred to in the translation by Joseph Smith is not a “bookroll” but is the book of plates, so the use of the left portion of Demotic (as confirmed by the hieratic) related to “book” is perfectly appropriate.

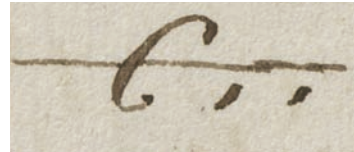


OF2 Mormon

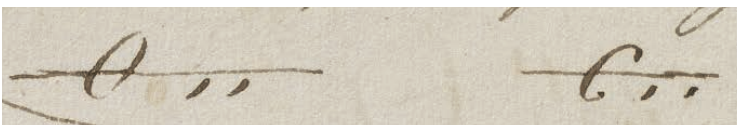
Discussion: The translation of this term was discussed earlier.



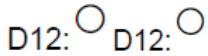
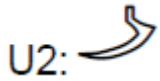
OF3



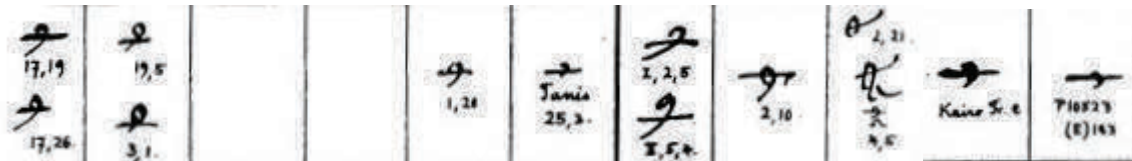
OF4



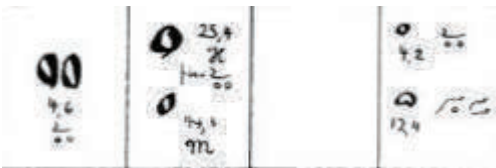
Joseph Smith translated both of these glyphs together as “The interpreters of languages,” again likely using the interpreters. Like the above translation of “book,” this translation in the Egyptian is fairly straightforward. The Egyptian word *mꜣꜣ* has been translated to mean “to see,” “to examine,” “to inspect,” “to perceive,” “to look at” “regard,” and “look upon” (Dickson 2006, 236; Scribd 2014; Petty 2012, 61; Budge 1920, 1:266). The identical phonetic equivalent of the word is the divine title of *Maa* meaning “Seer” (Budge 1920, 1:267) or *mꜣꜣt* (Vygus 2018, 2082). The simplest construction of the word consists of three Egyptian hieroglyphs, U-2, D-12, and D-12:



Each of the two lower hieroglyphs is derived from the pupil of the eye (Gardiner 1957, 451). In the hieratic, the glyphs are as follows:

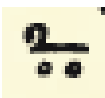


Möller Number 519 (Gardiner Number U-2) (Möller 1965, Bd. III-32-72-Taf, pg. III 518–526; Bd. I-23-76, pg. I 513–521)



Möller Number 88 (Gardiner Number D-12) (Möller 1965, Bd. II-1-30, pg. I 80c–89)

The hieratic construction of both of the Cowdery/Williams OF3 and OF4 glyphs is just as displayed; there are versions of the hieratic that contain a circle and versions that contain the “C” on the line. The two underlying dots in the hieratic are slightly different in that they are hollow; however, the Egyptian Demotic version of the word simply has dots instead of hollow dots:



Demotisches Glossar (Erichsen 1954, 147)

This set of glyphs was designed to be graphically operative, meaning that the item to be translated would appear between the two glyphs (as indicated by the term for Jaredite plates in the Characters Document). With regard to these characters, since the Oliver Cowdery versions utilize dots instead of the comma-type tick marks of the Frederick G. Williams version, this may be evidence that the Oliver Cowdery copy is the more accurate.

Chapter 12

The Completed Translation

Now that all the terms have been translated individually, the translation of the full text can be rendered. There are always different possibilities for final prose in any translation. The scriptural style and language of the Book of Mormon will not be duplicated in this translation. The translation is meant primarily to discern the complete meaning of the text, so I will not attempt to preserve all of the elements of the time and calendar marking system (such as potentially ten “it came to pass” clauses) or express the multiple meanings of the names, places, and tribes. The translation is in contemporary English, leaving in place some of the original structure where it makes sense. Bracketed words or phrases are not a direct translation per se but provide context.

Translation of the First Four Lines of the Caractors Document

In the nineteenth regnal year of Mosiah I, the Nephites exited over the mountains to the foreign speaking people of Mulek. These twenty thousand “children of Mosiah₁” traveled over the mountains for eleven days and then downriver on the east side of the River Sidon [Grijalva River] for eighty days reaching Zarahemla. And then it came to pass that after eleven years thus began the Period of the Seven Tribes. After the space of twenty-one more years had passed, Zeniff, with sixty of his people, departed. Fifty-three more years then passed; then the Limhites departed and obtained the Twenty-Four plates from the West in the Land of Desolation, returning upriver on the River of Lamanite Possessions [Usumacinta]. Seven years from the date of the departure to obtain the Jaredite plates, the Limhites traveled west, bringing the pure gold Jaredite plates to Mosiah₂, which he translated.

Previous to the arrival of the Limhites, Benjamin was made king in the second month of the four hundred and thirty-sixth year after Lehi left Jerusalem. At the age of eighty-three, king Benjamin ascended to eternity, which was four hundred seventy-nine years after Lehi left Jerusalem. King Benjamin’s death occurred one and one third years before the arrival of the Limhites. Four years before the arrival of the Limhites, the Period of the Seven Tribes ended in conjunction with the Jubilee Year.

Translation of the Second Three Lines of the Caractors Document

— Sixty and one half months [prior to the coming of Christ] — Samuel the Lamanite came to the Nephites and the Lamanites prophesying of darkness — The Nephite primary count calendar was shifted from the 1,000 Year Calendar to the Coming of Christ Calendar, effective retroactively nine years after the Coming of Christ Calendar started — The 600 year Lehi Departure Calendar period ended; in the ninety-second year of the Reign of the Judges, the First and Most High King, Christ the Son, came to the Land of Jerusalem; while he was born occurred two days of brightness — The Gaddianton tribe arose; Nephi₂ departed — Siege of the Gaddianton robbers, praise voiced to God; a Jubilee Year takes place, which completes the Twelfth Jubilee Period of the 1,000 Year Calendar — On the first month of the one hundred and twenty-fifth year of the Reign of the Judges Calendar, Christ came at the time of darkness to the people — After remaining fifty weeks, in the twelfth month of the thirty-fourth year of the Coming of Christ (the Most High) Calendar, Christ ascends upward to heaven; the Reign of the Judges Calendar period ends; thus commences a period of truth and prosperity — Nephites seek after riches; the rise of the Fourth Generation is complete — Nephites retreated downriver on the River Bountiful [Coatzacoalcos] to the north countries; Three Disciples departed — Innumerable multitudes of Lamanites came — The Nephites and the Lamanites are without Christ and God the Father, now choosing to be led by Satan — Moroni and Mormon are in the hands of Christ — three hundred eighty-four years.

Zipf's Law

An interesting question raised on the internet wondered if the reformed Egyptian observed Zipf's law. Zipf's law states that given a large sample of words used, the frequency of any word is inversely proportional to its rank in the frequency table. So, word number N has a frequency proportional to $1/N$. Thus the most frequent word will occur about twice as often as the second-most frequent word, three times as often as the third-most frequent word, etc.

Since the reformed Egyptian is an almost pure logographic language, and Zipf's law applies to the counting of individual words, the language would tend to deviate more from Zipf's law. As an example, while the frequency distribution of Chinese characters is known to deviate markedly from Zipf's law, the frequency distribution of Chinese words generally follows the law (Shtrikman 1994). Thus, in the case of reformed Egyptian characters, the only real analysis that can be run is on the translation itself.

The answer is basically yes, within the confines of the small sample size. The translation of the Caractors Document renders the distribution for the top 18 words, in comparison with the expected Zipf distribution, as follows: 1.86/2, 4.73/3, 5.46/4, 7.1/5, 7.1/6, 7.8/7, 8.85/8, 10.11/9, 11.8/10, 14.2/11, 14.2/12, 14.2/13, 14.2/14, 17.7/15, 17.7/16, 17.7/17, and 17.7/18.

Expected Script Modification

As has been previously touched upon, the reformed Egyptian exhibits script modification. As a very general rule, script over time evolves through a process of simplification and efficiency, which has occurred in Egyptian (Baines 2012, 32); this evolution generally includes a reduction in strokes, more efficient constructions of word forms, and/or changes in the underlying system of linguistic elements (Salomon 2012, 122). The reformed Egyptian script shows elements of this kind of simplification and efficiency:

1. In Egyptian, there are often a lot of glyph combinations that can be used for an individual word. In the case of reformed Egyptian, the glyph combination selected is typically the one with the least number of glyphs, most often just a single glyph in its most compact form. When Demotic is used, the forms are simple, short, and more compact than the hieratic counterpart.
2. The efficiency of selecting a single glyph has extended to grammatical evolution for efficiency. Notably, determinative glyphs are used as free-standing words instead of just being an addition to an existing word. In addition, the reformed Egyptian lacks prepositions, articles, and plurals, for the most part.
3. Separate glyphs have been combined into one glyph, typically reducing the number of strokes as well as the number of glyphs. The "innumerable number of Lamanites" glyph is a good example of combining the glyph for "innumerable" and the glyph for "Lamanite."
4. The phonetic elements of the Egyptian language seem to have significantly decreased in the reformed Egyptian, reverting to a more logographic script. This is likely because the Nephite spoken language was not Egyptian (although there were likely some Egyptian words or word forms).

The "de-cursivization" of the hieratic or Demotic in the reformed-Egyptian simplification may be due to the writing medium of metal plates. For example, changes in the form of cuneiform signs have been attributed to the differences in writing surfaces (Veldhuis 2012, 8).

Chapter 13

Correspondence of the Caractors Document with the Known Book of Mormon Timeline

One way to confirm the accuracy of the translation is to apply the new dates and chronology into existing Book of Mormon chronology. The chronology spelled out in the translation is an exact fit. The following is the chronology of the relevant sections; the events in bold are those for which the translation provides new dates or verifies known dates. The events that are indented in the first section are those that occur concurrently with other events in different geographical locations. The first indented line indicates events where the people of Zeniff are separated from Zarahemla in the land of Nephi, and the second indented line is for events involving Alma after being separated from the people of Zeniff. Approximate dates that are listed are derived from the Book of Mormon, based on estimated time periods of transfer of records and reasonable lifespans and chronological facts. Years are listed in terms of the years passed after Lehi's departure.

First Section of the Translation

Amaron receives small plates—320 years pass (Omni 1:5) (estimated age 20), 320 years

Amaron transfers small plates to brother Chemish (Omni 1:8) (Amaron estimated age 60, Chemish age 40), 360 years

Mosiah₁ becomes king (calculated with Caractors information), 369 years

Zeniff born in land of Nephi (estimated at 370); Zeniff knew the land of Nephi (Mosiah 9:1), 370 years

Chemish transfers small plates to son Abinadom (Omni 1:10) (Chemish estimated age 60, Abinadom age 20), 380 years

Mosiah₁ and Nephites flee to Zarahemla and encounter people of Mulek (calculated with Caractors information), 388 years

Benjamin born (Benjamin died at age 83; calculated with Caractors information), 396 years

Calendar Period of Seven Tribes commences (calculated with Caractors information), 399 years

Amaleki born in the days of Mosiah₁ (Omni 1:23), 400 years

Abinadom transfers small plates to Amaleki (Abinadom estimated age 60, Amaleki age 20), 420 years

Zeniff and companions depart for land of Nephi (Omni 1:28–29; Mosiah 9:1) (calculated with Caractors information), 420 years

Zeniff becomes king (estimated at 420 years), 420 years

Large stone brought to Mosiah₁ (estimated at 425 years), 425 years

Zeniff and people experience threat of war 12 years after coming (Mosiah 9:11) (calculated with Caractors information), 432 years

Zeniff and people experience war 13 years after coming (Mosiah 9:14) (calculated with Caractors information), 433 years

Alma₁ born (calculated from age of death, indicated in Mosiah 29:44–47), 427 years

Mosiah₁ dies, and Benjamin takes throne (date specified in Caractors Document), 436 years

Zeniff is still king after 22 years, and king Laman₂ dies (Mosiah 10:3) (calculated with Caractors information), 442 years

Zeniff in his old age (estimated at 444 years) (Mosiah 10:10), 444 years

Noah₃ becomes king (estimated at 445 years), 445 years

Mosiah₂ born (calculated from Mosiah 6:4), 446 years

Alma₁ flees with followers (estimated at 455 years) (Mosiah 18:35), 455 years

Noah₃ killed, and Limhi becomes king (estimated at 462 years), 462 years

Amaleki grows old and transfers small plates to king Benjamin (Omni 1:25) (Amaleki estimated age 65), 465 years

Limhi sends out 43 people to look for Zarahemla (Mosiah 8:7–9) (calculated with Caractors information), 473 years

Calendar Period of the Seven Tribes ends (calculated with Caractors information; corresponds with Nephite glyph name change), 475 years

King Benjamin waxes old (estimated age 79 years) (Mosiah 1:9), 475 years

Mosiah₂ takes throne (Mosiah 30 years old) (Mosiah 29:44–47; 6:4), 476 years

Jubilee Year (**determined with Caractors information**), 477 years

Limhi's exploration party returns with 24 Jaredite pure gold plates (Mosiah 21:26), 478 years

Mosiah₂ grants Ammon to go back to Nephi (Mosiah 7:1; Mosiah 21:28 [Original manuscript indicates Benjamin, not Mosiah, was in possession of the interpreters when Ammon left]), 479 years

King Benjamin dies (83 years old) (Mosiah 6:5) (**date also identified in Caractors text**), 479 years

Ammon finds Limhi currently king (Mosiah 7:8), 479 years

People of Limhi return to Zarahemla with Ammon (Mosiah 21) (calculated with Caractors information), 480 years

People of Alma subjugated (estimated at 484 years) (Mosiah 23), 484 years

People of Alma return to Zarahemla (estimated at 489 years) (Mosiah 24), 489 years

People of Zarahemla, Alma₁ and followers, and Limhites all become Nephites and then are baptized, supporting the glyph change of Nephites being called the people of Christ (estimated at 492 years) (Mosiah 25:17; 25:24), 492 years

Mosiah₂ dies (63 years old), Alma₁ dies (82 years old), and the Reign of the Kings ends, (Mosiah 29:44–47), 509 years

Second Section of the Translation

Samuel the Lamanite preaches to the Nephites and Lamanites in the 86th year of the Reign of the Judges (Helaman 13:1–2), **60 and ½ months before the birth of Christ (identified in the Caractors Document)**

600 years pass from the time Lehi left Jerusalem, when the 91st year of the Reign of the Judges had passed away (3 Nephi 1:1); **the Period Ending glyph and the same date were calculated with Caractors information.**

In the commencement of the 92nd year of the Reign of the Judges, Christ is born with the associated signs (3 Nephi 1:4, 19); **the Caractors Document identifies the 92nd year of the Reign of the Judges as the year Christ was born.**

In the ninth year following the birth of Christ, the Nephites retroactively change their calendar reckoning, using the birth of Christ as the base date (3 Nephi 2:6–8); **the Caractors Document specifically discusses this exact change, indicating that the count was shifted from the 1,000 Year Calendar to the Coming of Christ Calendar.**

In the fourth day of the first month of the 34th year (counted since Christ's birth [3 Nephi 2:8]), there is a great destruction (3 Nephi 8:5); approximately three days later, Christ speaks to the remaining people (3 Nephi 9:1); **the Caractors Document indicates that Christ came to the people in the first month of the 125th year of the Reign of the Judges, which calculates to be the first month of the 34th year under the Coming of Christ Calendar.**

Christ's ministry to the Nephites could be said to have begun when he spoke to the people through the darkness, which would have been on approximately the seventh day of the first month of the 34th year (3 Nephi 8:23), and was completed after "the ending of the thirty and fourth year" (3 Nephi 10:18); **the Caractors Document indicates that Christ departed after 50 weeks consisting of seven days each, which calculates to 350 days; considering that Christ spoke to the Nephites on the seventh day of the first month, he would have departed on the 357th day of the year, corresponding with the date given in the Caractors Document of the twelfth month of the 34th year under the Coming of Christ Calendar.**

The Book of Mormon does not indicate any ending to the Reign of the Judges; **the Caractors Document indicates that the Reign of the Judges ended during the twelfth month of the 34th year under the 365-day Coming of Christ Calendar, very possibly coinciding exactly with the end of the 126th year under the 12-moon lunar calendar; the Coming of Christ calendrical period commenced at the birth of Christ and overlapped the tail end of the Reign of the Judges calendrical period.**

The siege of the Gaddianton robbers occurs from the 16th to 24th year after the birth of Christ (3 Nephi 3–6); **the Caractors Document indicates a Jubilee Year during this period, signifying the completion of the 12th Jubilee period under the 1,000 Year Calendar.**

360 years pass after the coming of Christ (Mormon 3:4); **Period Ending glyph of the Fourth Generation prophecy; because an interpretation of a date clause in the Book of Mormon text was used to determine a portion of the Caractors date, this date does not necessarily confirm the correctness of the Caractors Document.**

384 years pass after the coming of Christ; Mormon finishes his record, while the bulk of the Nephites are destroyed (Mormon 6:1, 5, 7–15); **the Caractors Document indicates a date of 384 years; the Caractors Document references a 1,000 Year Calendar that matches this date exactly.**

More than 420 years pass after the coming of Christ; Moroni is the last Nephite (Moroni 10:1) and is going shortly to rest in the paradise of God (Moroni 10:34); **the Caractors Document references a 1,000 Year Calendar, which if extended 400 years after the resurrected Christ came to the Nephites, provides a date of 422 years after the coming of Christ as its ending point.**

In addition to an exact match between the Caractors dates and the expressed dates found in the Book of Mormon, the order and series of intervening events in the Caractors Document are all exactly consistent with the text of the Book of Mormon.

Limhite Expedition Absence

Since the publication of the first edition of this book, I have received a few unpublished communications from some Book of Mormon researchers who have taken issue with one of the time periods found in the translation—namely, the five years when the Limhite explorers were away; Mosiah 8:8 indicates, “They were lost in the wilderness for the space of many days,” and the issue at hand is that five years is not consistent with “many days.” The answer, however, lies in the fact that the verse can be interpreted to mean that they were not lost the whole time they were gone, just for a certain amount of time in the “wilderness.” In fact, such an interpretation is necessary since they returned to the main body of Limhites—they were clearly not lost, at least not during their return. In addition, a careful reading of the Book of Mormon text indicates that they were gone quite a long time.

Limhi indicates that the party was sent out at the time when he was “grieved for the afflictions of my people” (Mosiah 8:7). It is important to look at the timeline when Limhi was king to determine what the Book of Mormon text indicates regarding this five-year period:

- After becoming king, Limhi had peace for the space of two years (Mosiah 19:29).
- After the abduction of Lamanite daughters by the priests of king Noah³, the Lamanites and their king went to war against the Nephites (Mosiah 20:1-11).
- After peace was established, they dwelt in peace (Mosiah 21:1).
- After “many days,” the Lamanites were stirred up in anger against the Nephites (Mosiah 21:2).
- The Lamanites exercised authority over the Nephites and smote them and put burdens on their backs (Mosiah 21:3–4).
- At this point in time, “the afflictions of the Nephites were great” and the people were desirous to escape but couldn’t since they were surrounded (Mosiah 21:5).
- The Limhites engaged the Lamanites in battle.
- The Limhites engaged the Lamanites in a second battle.
- The Limhites engaged the Lamanites in third battle and were driven back every time (Mosiah 21:7–12).
- The Limhites humbled themselves, but the Lord “was slow to hear their cries” (Mosiah 21:13–15).
- The Limhites’ prayers were heard, and the Lamanites eased their burdens (Mosiah 21:15).
- The Limhites began to “prosper by degrees in the land” and “began to raise grain more abundantly, and flocks, and herds” (Mosiah 21:16), clearly indicating multiple growing seasons.
- There was no more disturbance between the Lamanites and the people of Limhi, even until the time that Ammon and his brethren arrive (Mosiah 21:22).
- The Limhite party returned “not many days” before the arrival of Ammon (Mosiah 21:26).

The only mention in the text referencing the point in time when the Limhites had “afflictions,” which was the description of the state of events at the time the Limhite party left, is prior to the three battles/wars and prior to the agricultural and animal husbandry growth that could have occurred only in “degrees” over multiple growing seasons. Even if we ignore the specific “afflictions” reference, the only other time that might be characterized as having “great” afflictions is after or during the three battles/wars but still before the agricultural and domestic animal prosperity. Warfare was often seasonal, so three battles/wars could reasonably have occurred over a period of three years.

Period of the Seven Tribes

The Caractors Document provides us with a heretofore unknown subperiod that was apparently the preferential count during the Reign of the Kings called the Period of the “Seven Tribes.” The Seven Tribes appears as a defined period but does not appear as a base point for counting in the date sequence in the Caractors Document. The Period of the Seven Tribes started 399 years after the departure of Lehi, some ten years after Mosiah₁ and his followers left the land of Nephi, and ended 76 years later, 475 years after the departure of Lehi. The period began ten years after the Nephites’ arrival in Zarahemla and the encounter with the people of Zarahemla, hinting that the period’s start probably had a political genesis, and it ended when Benjamin renamed the Nephites and left the throne to Mosiah₂.

The Period Ending glyph indicates that the Seven Tribes Period was a secondary calendar period subject to the overall Reign of the Kings Calendar. Seven tribes are identified in the Book of Mormon at the commencement of the Reign of the Kings, 55 years after the departure of Lehi from Jerusalem (Jacob 1:12–14):

12 And it came to pass that Nephi died.

13 Now the people which were not Lamanites were Nephites; nevertheless, they were called Nephites, Jacobites, Josephites, Zoramites, Lamanites, Lemuelites, and Ishmaelites.

14 But I, Jacob, shall not hereafter distinguish them by these names, but I shall call them Lamanites that seek to destroy the people of Nephi, and those who are friendly to Nephi I shall call Nephites, or the people of Nephi, according to the reigns of the kings.

It might seem strange that the tribes associated with the Lamanites would be part of the organization of the seven tribes, but it is possible since Mosiah₁ fled out of the land of Nephi with “as many as would hearken unto the voice of the Lord,” which certainly could have included some righteous Lamanites. These seven tribes are again enumerated at later points in the Book of Mormon (see 4 Nephi 1:38; Mormon 1:8) and so appear to be a political structure that is consistent throughout the Book of Mormon. The Period Ending glyph for the Period of the Seven Tribes also contains the element from the Reign of the Kings Calendar glyph, indicating that the period was a subset of the Reign of the Kings Calendar.

Looking at the sparse information that we have for this time frame in the Book of Mormon, the Seven Tribes Period seems to coincide roughly with Mosiah₁ coming to power and so likely marks the shift in the succession of the series of kings required to be named Nephi, as indicated in Jacob 1:11.

The text of the Book of Mormon indicates that Mosiah₁ was not a formal king at the time of his departure. Amaleki refers to him only as “Mosiah” up until the people of Mosiah₁ and the people of Zarahemla united and he was appointed to be king over the land of Zarahemla (Omni 1:19, 12). Amaleki refers to Benjamin as “king Benjamin” after he was made king (Omni 1:24–25) which is consistent that Mosiah₁ was not considered a king when he departed. This seems to be a bit inconsistent with the Caractors Document indicating that the Mosiah₁ and his followers departed in the nineteenth “regnal year” according to the Egyptian glyph but this may not be indicative of his formal title as this is just the interpretation of the translation of the year marking glyph.

The likely reason for the shift from the Reign of the Kings count temporarily to the Seven Tribes seems to indicate that Mosiah₁ did not have the bloodline to be one of the kings called “Nephi” pursuant to Jacob 1:11. The end of the Seven Tribes Period returned to the Reign of the Kings Calendar count at the time king Benjamin turned his reign over to Mosiah₂ indicating that perhaps the mother of Mosiah₂ had some right to the original bloodline.

While the break in ruling line may explain the timing of the Seven Tribes Period, the name of the period does warrant further investigation. As previously mentioned, the Book of Mormon does not indicate clearly the groups that Mosiah₁ led out of the land of Nephi. The Caractors Document refers to them as the “children of Mosiah” and also utilizes the “Christ’s tribe” form of the Nephite glyph. Prior to leaving the land of Nephi, there was continued

conflict during the life of Abinadom, Amaleki's father (Omni 1:10), so there is no indication there of friendly Lamanites; if there were some Lamanites who came to Zarahemla, there were not likely too many.

After reaching Zarahemla, no mention is made by Amaleki of the term *Nephite* until well into the reign of king Benjamin (Omni 1:24), probably some 60 years after the arrival in Zarahemla. Lamanites are mentioned for the first time at this point as well by Amaleki—the text says there was much bloodshed between the Nephites and Lamanites, with king Benjamin finally driving them “out of the land of Zarahemla.” Mormon's sparse description of the same time indicates that king Benjamin “had somewhat of contentions among his own people” (Words of Mormon 1:12), and shortly thereafter, armies of Lamanites “came down out of the land of Nephi” to do battle with king Benjamin's people (Words of Mormon 1:13). King Benjamin fought the Lamanites until he “had driven them out of all the lands of their inheritance” (Words of Mormon 1:14). Among his people there had been much contention and “dissensions away unto the Lamanites” (Words of Mormon 1:16).

Both descriptions by Amaleki and Mormon are not inconsistent with there being at least some Lamanites included with the initial migration, and the fact would seem to be implied since there were dissensions out of Benjamin's people to the larger body of Lamanites, and the Lamanites had to be cleared out of the land of Zarahemla. It thus seems that initially some of the Lamanite, Lemuelite, and Ishmaelite tribes were with Mosiah₁ when he left. As with the Nephite glyph, there is likely more than one Lamanite glyph; I suspect there was one for the tribal Lamanites and one for those who were not politically affiliated with the Seven Tribes or who broke affiliation.

The departure of the three tribes that constituted the Lamanites is also consistent with the end of the Seven Tribes Period. King Benjamin, shortly after the dissensions to the Lamanites, was able to establish peace (Words of Mormon 1:18; Mosiah 1:1). Not too long afterward, Benjamin made a final spiritual unification of his people and modified the Nephite glyph, changing the political designation of the people, and then passed the kingship to Mosiah₂. Concurrent with king Benjamin ending his reign, the Seven Tribes Period ended 475 years after the departure of Lehi.

It also seems that the Seven Tribes designations were a significant part of the 116 lost pages, since the seven tribes are specifically mentioned in relation to the 116 lost pages and the Book of Lehi in the Doctrine and Covenants (D&C 3: 17–18). There is also the possibility that Mosiah₁ and Benjamin considered themselves kings over all the seven Lehiite tribes, even though three of them were in absentia.

The final question involving the Period of the Seven Tribes is that it is not delineated in the Book of Mormon. There is really no issue as to why the start of the period is not mentioned, since the record of this chronological period in the Book of Omni is scant and mentions few details of any aspect of the Nephite culture or practice. The ending of the period would have occurred in Mosiah 6, and since the first six chapters of Mosiah were not derived from the small plates, there is some expectation that the Seven Tribes Period would have been mentioned, especially since the first portion of the Caractors Document looks to be the preface for the Book of Mosiah.




There has always been an unanswered question as to whether the loss of the 116 pages may have affected the translation of the remainder of Book of Mormon, since they may have contained material critical to understanding the rest of the Book of Mormon. There are a very few items that were likely found in the 116 pages that also occur in the rest of the Book of Mormon, but there is nothing that leaves the balance of the Book of Mormon incomprehensible, especially with the addition of the small plates. The failure to mention the Seven Tribes Period is not an indication of problems with the Caractors Document; rather, it is evidence that some modification of the interpretation/translation of the balance of the plates was required to render the balance completely comprehensible. The omission of the Seven Tribes Period ending is just such a modification.

ISIG, DNIG, ADI, PDI, and Spacer Glyph Chronological Structure

Further analysis of the time-passing markers is useful in trying to determine if the differences in the DNIG can be explained, to determine other features of the time-marking system, and to help determine when numbers are year counts or otherwise.

First section

Utilizing the generic meanings of the DNIG as “time passed,” the ADI as “it had happened,” the PDI as “and then it happened,” as well as the ISIGs, the first portion of the Caractors document can be laid out with the following structure from beginning to end, including the individual numbers:

- 19 regnal years
- ISIG — Reign of the Kings
- Text about Mulek
- ADI — it had happened
- Text about travel to Zarahemla
- 20,000 people
- 80 (days)
- Text about downriver, to the east
- DNIG — time passed 
- PDI — and then it happened
- 10 (years)
- DNIG — time passed 
- ADI (snake version) — it had happened
- Seven Tribes
- PDI — and then it happened
- 21 (years)
- ADI — it had happened
- 60 (people)
- Text of Zeniff departing
- 53 (years)
- DNIG — time passed 
- ADI — it had happened

- 7 (years)
- Text of Limhites
- 24 plates
- return of Jaredite plates
- ISIG — Lehi Departure Calendar (Base Date)
- 436 (years) and 2 (months)
- ADI — it had happened
- 1 1/3 (years)



- DNIG — time passed
- Seven Tribes Period Ending glyph, Transition Glyph back to Reign of the Kings
- ADI — it had happened
- 4 (years)
- Jubilee Year glyph
- 83 (age in years)
- PDI — and then it happened
- 479 (years)
- Text of Benjamin's death

To determine the utilization of the DNIGs, it is first useful to look at whether the position of the DNIG in relation to the adjacent PDIs and ADIs is determinative. The first and fourth DNIGs in this sequence are similar, and the second and third DNIGs are identical—both in the curly 6 and the left foot loop. Since the second and third are identical, they are good test cases. The second and third DNIG both occur in advance of an ADI; however, the first and fourth DNIGs appear before a PDI and ADI, respectively. Thus, this pattern does not appear to dictate the form of the DNIGs. What does appear to be consistent is that the first and fourth DNIGs occur in the Reign of the Kings calendar count, while the second and third occur within the Seven Tribes Period subcalendar. Thus it appears that the location of the curly 6 and, secondarily, the foot loop of the DNIGs is determined by the calendar period in which the DNIG occurs. This will be further evaluated when looking at the second part of the Caractors Document.

Since most of the numbers associated with years do not have an obvious 'year' designation attached to the number, it is possible that the location of the number in relation to the calendar count signs might be indicative.

First, some numbers have adjacent or incorporated signs or the nature of the glyph itself that indicate what they are referring to (e.g., 20,000 people, 24 plates, 7 tribes, 2 months).


Second, all numbers adjacent to an ISIG/PDI/ADI/DNIG sign or sequence are years with the exception of the 60 people of Zeniff (19, 10, 7, 21, 53, 7, 436, 1 /13, 4, 83, and 479).

Third, those that are not adjacent to any calendar count signs are not years with the exception of the 60 people of Zeniff, which follows an ADI (80 days).

Thus, it is apparent that the designation of years can be implied by the location of a number adjacent to a calendar count sign. The only exception is the 60 people of Zeniff, but this may possibly be that the particular form of this 60 glyph may be indicative of people, but there are not enough examples to know for sure. The same is true for the 80 day glyph.

Second section

The second section exhibits the following structure:

- Spacer
- 60 ½ months
- Spacer
- Samuel the Lamanite Text
- Spacer
- Period Ending/Transition Glyph
- ISIG 1,000 Year Calendar
- Text describing calendrical relationships
- ISIG Coming of Christ calendar
- 9 years
- Period Ending glyph
- Reign of the Judges ISIG
- DNIG — time passed 
- 92 (years)
- Text of Christ's birth
- ADI — it had happened
- 2 days
- Text of Birth and brightness
- Spacer
- Text of Gaddianton tribe and Nephi₂ departure
- Spacer
- Text of siege and relief
- 12th Jubilee
- ISIG 1,000 Year Calendar
- Spacer

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- 125 (years)
- First month
- Text of Christ's arrival in darkness
- Spacer
- 50 weeks
- Text of Christ's departure



- DNIG — time passed
- Period Ending and Transition Glyph for the Reign of the Judges
- ISIG Coming of Christ calendar
- 34 (years)
- 12th (month)
- Text of prosperity
- Spacer
- Text of Nephite wealth



- DNIG —time passed
- PDI —and then it happened
- Fourth Generation (Period Ending)
- Spacer
- PDI — and then it happened
- Text of Nephite retreat
- Spacer
- Text of Three Nephites departing, multitude of Lamanites
- Spacer
- Text of Nephites led by Satan
- Spacer
- Text of Moroni and Mormon
- Spacer
- 384 (years)

Building on the analysis of the first section, the DNIGs here are consistent with the premise that the form is dependent on the calendar count period. In the second section, the first and second DNIGs are almost identical, with loops on both legs (the leg loops on the first are not quite so apparent, likely a copying issue). These both occur in the Reign of the Judges calendar time period. The third, which is different in the “curly 6” orientation, occurs during the Coming of Christ Calendar count and/or the Fourth Generation period. The Reign of the Judges DNIGs are close in form to the Seven Tribes DNIGs from the first section, with the difference being leg loops. This is interesting since both of the ISIGs for these time periods include the number 7.

The spacer glyphs are, in fact, calendrical glyphs as well, along the same lines as the ISIG, DNIG, PDI, ADI, and PE glyphs, except they do not direct a year count but instead designate events separated by significant periods of time, whereas the others are utilized in the recounting of events over a more compact time period. The ISIG, DNIG, PDI, ADI, and PE glyphs do occur between the spacer glyphs when there are events being recounted in that spacer separated time period.

Following along the analysis regarding numbers in the first section:

First, some numbers have adjacent or incorporated signs, or the nature of the glyph itself that indicate what they are referring to (60 ½ months, 9 years, 2 days, 12th Jubilee, 50 weeks, First month, 12th month, 3 Nephites).

Second, all numbers adjacent to an ISIG/PDI/ADI/DNIG/Spacer sign or sequence are years (125, 34, 384).

Thus, the identification of a particular number being a year is dictated by being adjacent to a calendar count sign, just as in the first section.

Chapter 14

Nephite Prophetic Calendar

One of the issues that the translation sheds light on is the Nephite calendar. As indicated in the Caractors Document and partially in the Book of Mormon, there is a prophetic calendar that runs through the length of the Book of Mormon. The Caractors Document refers to it as a “1,000 Year” Calendar. It will be useful to look at the prophetic calendars in light of each of the prophecies that state specific time periods or dates. There are prophecies that do not state specific time periods or dates, such as Samuel the Lamanite’s prophecy (and other prophet’s prophecies) of the destruction and coming of the resurrected Christ (Helaman 14:20–27; however, it would seem that this prophecy originally did have a specific date based on the indication of a specific date in the Book of Mormon as to when it occurred.

1. Lehi’s prophecy of Christ being born 600 years after Lehi’s departure from Jerusalem (1 Nephi 10:4; 19:7–8; 2 Nephi 25:19; 3 Nephi 1).
2. Samuel the Lamanite’s prophecy that after five years, the signs of Christ’s birth would be manifest (Helaman 14:2–8; 3 Nephi 1).
3. The prophecy of Samuel the Lamanite that the signs of Christ’s death would be manifest after an implied period of 33 years (Helaman 14:20–27; 1 Nephi 19:10–12; 3 Nephi 8).
4. Nephi’s prophecy that destruction of his posterity would begin with the fourth generation following Christ’s appearance as a resurrected being (1 Nephi 12:11–15; 2 Nephi 26:8–10; Alma 45:9–14; Helaman 13:5–10; 3 Nephi 27:31–32; 4 Nephi 1:18–34).
5. The prophecy of Samuel the Lamanite that the Lord would remove his Spirit and the Nephites would be smitten and the sword of justice fall on them after 400 more years (Helaman 13:5; Mormon 8:6–9).
6. The prophecy of Alma that the Nephites would be pursued and become extinct 400 years from the time that Christ would manifest himself unto them (Alma 45:9–14).

The 600-Year Prophecy and Five-Year Prophecy to the Birth of Christ

There is a bit of confusion for those who try to apply the 600-year calendar from Lehi’s departure to the birth of Christ. Essentially, the problem is that if one goes by standard solar calendar years under the Gregorian calendar (the BC and AD calendar we are familiar with), then Lehi’s departure in 587 BC and, according to most scholars, Christ’s birth sometime around 5 BC, creates an obvious problem, since only 582 years have elapsed. Some have tried to say that Lehi left much earlier, but those conjectures require modifications of known history. Randall P. Spackman produced an excellent analysis of the Book of Mormon calendrics in his 1993 article “Introduction to Book of Mormon Chronology” (Spackman 1993). The 600-year prophecy is accurate when one considers a 12-month lunar calendar, which the Hebrews were using at the time of Lehi’s departure. Essentially, the premise is that an uncorrected (meaning no leap months or days are added) lunar calendar year of 354.367 days ran continuously through that time period. This concept of an “uncorrected” calendar would not be at all adverse to Mesoamerican calendar counting, since they had a continuously running calendar called the “Tzolkin” sacred calendar that consisted of 13 20-day counts, making a 260-day year.

Spackman used a variety of historical sources to derive the potential time window for Lehi’s departure, the probable date for Christ’s birth, the probable date for Christ’s death (and Christ’s subsequent announcement to the Nephites), and a logical calendrical explanation for the change in how the Nephites began to “reckon their time” from Christ’s birth, which happened nine years after Christ’s birth. Spackman refers to the 12-moon (354.367 day)

calendar as the “Common Lunar Calendar” and the 365-day calendar as the “Civil Year,” so I will use those terms as well.

Essentially, Spackman arrived at the following dates (expressed both in raw number of days with the Julian calendar, and also with the more familiar Gregorian dates):

Lehi’s Departure	1507046 Julian (January 25, 587 BC)
Christ’s Birth	1719679 Julian (March 23, 5 BC)
Christ’s Death	1731727 Julian (March 18, 29 AD)

The five-year prophecy to Christ’s birth made by Samuel the Lamanite is reflected by a time period of 60½ months according to the Caractors Document, indicating 12 months per year under the Common Lunar Calendar, as Spackman surmised. This is not necessarily something new, since there are no months listed in the Book of Mormon above the eleventh, but a 12-month year using month counts had not yet been verified calendrically. The extra half month noted in the Caractors Document (along with the passage of the 600-year period) could also help explain the argument that occurred just prior to Christ’s birth that the day that was prophesied had already passed (3 Nephi 1:5–7):

5 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.

6 And they began to rejoice over their brethren, saying: Behold the time is past, and the words of Samuel are not fulfilled; therefore, your joy and your faith concerning this thing hath been vain.

7 And it came to pass that they did make a great uproar throughout the land; and the people who believed began to be very sorrowful, lest by any means those things which had been spoken might not come to pass.

In addition, the Caractors Document provides clear evidence that the calendar that was followed during this time period was the Common Lunar Calendar with no attempted corrections to the solar year. A corrected (intercalated) calendar was used by the ancient Hebrews that involved an additional month being added to the year every two or three years to keep it in sync with the solar calendar. However, there is little evidence that this was the calendar prior to Lehi as no “leap month” in addition to the 12 months is specified in the Bible (1 Kings 4:7). As mentioned, the 12-moon lunar calendar has about 354.367 days, whereas the solar year has 365.242 days per year, meaning the calendar difference is 10.875 days between the two different year measurements. If there were corrections being made by adding an additional month to correct the calendar, the five-year prophecy made by Samuel the Lamanite would require that an additional 54.36 days be added, which under the most minimal scenario would have required at least one month to be added, making a total of 61 months. Since there is no addition of a corrective month, we know that approach was not used.

It is also clear now that the 360-plus-5-day calendar utilized by the Egyptians was not being used at this point, since that calendar added five days at the end of each year, and no such correction is mentioned or consistent with the 60½ months identified in the Caractors Document.

The Caractors Document identifies the year of Christ’s birth the same way the Book of Mormon does (92nd year of the Reign of the Judges), and so it does not shed any new light on the date of Christ’s birth. Spackman’s dates for the departure of Lehi and Christ’s birth are verified by the Caractors Document.

The Dates of Christ’s Death and the Accompanying Prophesied Nephite Destruction

The Caractors Document presents us with a totally new date count to the Nephite destruction, since it continues to use the Reign of the Judges years to arrive at the prophesied time of destruction (in the first month following the 125th year of the Reign of the Judges). For the change in “reckoning” of time after Christ’s birth, Spackman

determined that the calendar count after the coming of Christ was the Civil Year Calendar (365-day). Use of the 365-day calendar provides a match for the known time duration of Christ's life and the date of his crucifixion. A 365-day calendar is well known and widespread in Mesoamerica and is called the "Haab" calendar and consists of 18 months of 20 days each and one five-day unlucky month.

Upon evaluating the Common Lunar Calendar date in the Caractors Document, I find that the date fits exactly with the Spackman date—Jesus spoke to the Nephites three days after his death of 1731730 Julian (March 21, 29 AD). When looking at the total years that had passed since Lehi left Jerusalem, and combining that with the Caractors dates from the Reign of the Judges, the calculation is fairly straightforward:

$$\begin{aligned} &509 \text{ Years (total years to start of the Reign of the Judges)} + 125 \text{ years (years given in the Caractors Document)} \\ &= 634 \text{ years.} \end{aligned}$$

Using the Julian day conversion, one arrives at 1731714.6 Julian days, or March 29, 29 AD. The Spackman date is remarkably within eight days of the calculated date using the Caractors dates. That small range of difference may perhaps require some minor adjustments to the date of Lehi's departure, Christ's birth, or possibly the calendars nine years after Christ's birth. In any event, the Caractors date is very accurate.

The Caractors Document indicates that after Christ's ministry started (assumed to be when there was a voice in the darkness), 50 weeks passed (each consisting of seven days), which if one uses the 7th day of the first month at the start of the 34th year as the start of the ministry, then the ministry would have ended with Christ departing on the 357th day of the Civil Calendar. We have calculated a date on the Common Lunar Calendar within eight days of the first day of the coming of Christ on the Civil Calendar. If we assume an allowance of a few days adjustment of the Common Lunar Calendar, putting the exact date in the Common Lunar Calendar of the commencement of the ministry on the fourth day of the first month of the Common Lunar Calendar (which is still within the first month as the Caractors date indicates), then the addition of 350 days would make the date of Christ's departure exactly at the end of the Common Lunar Calendar year. This is consistent with the Common Lunar Calendar being the religious calendar for tracking all major religious and prophetic events.

One might wonder if the translation is correct in indicating that Christ remained 50 weeks. This translation should not be interpreted to mean that he was exclusively with the Nephites during this time, since the New Testament indicates that Christ had a 40-day ministry in the Old World after his resurrection (Acts 1:3). McConkie (1958, 52) opines that Christ was also visiting the Nephites during this 40-day period and that the ascension referred to in the Book of Mormon, which indicates that Christ visited the Nephites (3 Nephi 10:18; 11:12), was his first ascension after resurrection, not his formal Old World ascension after his Old World ministry. Circumstantial facts indicate that Christ had contact with the 12 disciples prior to his visit to the Nephite people at Bountiful, namely, that all of the 12 disciples happened to be present, and Nephi₃ had ready and was able to produce virtually all the Nephite records in a short amount of time.

Again, the Caractors Document provides accurate and consistent chronology with respect to the account of Christ's coming to the Nephites in the New World.

The Fourth-Generation Prophecy

While this prophecy was discussed in the section involving the Introductory Glyphs, it bears repeating. The main addition that the Caractors Document may make in interpreting this prophecy is that a "generation" may in fact have an actual point in time where it was deemed completed. This comes from the observation, thanks to the Caractors Document, that the Period Ending glyphs have been translated using the clause "making in the whole." This clause is exclusively used for this purpose. The clause also appears in Mormon 3:4 at the passage of three hundred and sixty years from the Coming of Christ. While some of the citations for this prophecy indicate the fourth generation after Christ visited the Nephites, Christ himself stated (3 Nephi 27:32):

But behold, it sorroweth me because of the fourth generation from this generation, for they are led away captive by him even as was the son of perdition; for they will sell me for silver and for gold, and for that which moth doth corrupt and which thieves can break through and steal. And in that day will I visit them, even in turning their works upon their own heads.

Mormon marks in 4 Nephi 1:18 that 110 years after the birth of Christ that the “first generation from Christ had passed away.” Mormon marks the second generation passing away at two hundred years after Christ’s birth at 4 Nephi 1:22. Mormon does not further mention the generation prophecy, but the prophecy says that three generations will pass in righteousness, and part of the fourth generation will pass in righteousness, but at some point in the fourth generation all will be totally wicked. It appears that Mormon marked the completion of the prophecy with regards to the wickedness of the people being complete at 360 years after Christ, as he had just preached repentance to them one final time, which they rejected. Mormon then cites the Lord in Mormon 3:15, indicating that the complete destruction is imminent.

The 400-Year Prophecies

1. Samuel the Lamanite prophecy (Helaman 13:5; Mormon 8:6–9)

Some have lumped the 400-year prophecy made by Samuel the Lamanite together with the prophecy made by Alma as to 400 years passing, but this is a mistake. They are distinctly different prophecies since each has a different start date and talks about different prophecy-fulfilling events. The prophecy by Samuel the Lamanite, according to the Book of Mormon, was five years before the birth of Christ. It was 60.5 months before the birth of Christ according to the Caractors Document. The date at the end of the Caractors Document is “384 years,” corresponding with the date that Mormon provides for the final battle of the Nephites. So how can this prophecy be squared with the actual date in the Caractors Document and the Book of Mormon since it doesn’t make 400 years?

The answer is intuitively apparent when considering the source of the prophecy. Samuel the Lamanite made the prophecy in conjunction with the five-year prophecy, which was made using the 12-moon or Common Lunar Calendar, so it is logical to assume that his 400-year prophecy was on the same calendar. Also, the prophecy was made prior to the institution of the 365-day Civil Calendar. The Caractors Document has shown that the prophetic Common Lunar Calendar continued to run after the Civil Calendar was implemented, still utilizing the Reign of the Judges Calendar that utilized the 12-moon system. Assuming that to be the case, the 400-year prophecy can be calculated and converted to show that the 384-year date provided by Mormon and the Caractors Document is accurate; the proper conversions are shown here:

$(5.042 \text{ years [this is 60.5 months converted]}) (354.367 \text{ days/year}) + (384 \text{ years}) (365 \text{ days/year}) / (354.367 \text{ days}) =$
400.56 years

The Caractors Document also refers to a 1,000 Year Calendar, of which the 1,000 years would have also been up on the 384-year date. Again, the Caractors Document date and calendar correspond exactly with the Book of Mormon and help explain the accuracy of the Samuel the Lamanite 400-year prophecy.

2. Alma’s 400-year prophecy (Alma 45:9–14)

Unfortunately, because the Caractors Document does not have information beyond the 384-year date, it is not possible to confirm with the Caractors Document any specific date given for the Alma 400-year prophecy that discusses the hunting down and extinction of the Nephites 400 years after Christ’s physical appearance to the Nephites. It is possible that there are no further dates on the Caractors Document and that the end of that document section corresponds with the last date in the document. It is possible there was additional text beyond the 384-year date, since the second portion of the Caractors Document has the events related to the date typically enumerated following the date.

It would seem probable that Mormon is the author of the Front Plate information, with Moroni adding his contribution at the end of the record, along with his dedicatio, which was the last plate and our current Book of Mormon Title Page. It would therefore follow that the Front Plate information would have ended with the 384-date event.

It is curious that the Alma prophecy contained the proviso that the prophecy would “not be made known, even until the prophecy is fulfilled.” Perhaps that is partly because it extended beyond the 1,000 Year Calendar.

Although we lack information on the Caractors Document to verify completion of the Alma 400-year prophecy, the calendar used for the Alma prophecy can still be determined using dates in the Book of Mormon. From the text of the Book of Mormon, it does not appear that Mormon was killed in the final battle but was one of those hunted down as part of the final prophetic extinction (Mormon 1:1–3):

1 Behold I, Moroni, do finish the record of my father, Mormon. Behold, I have but few things to write, which things I have been commanded by my father.

2 And now it came to pass that after the great and tremendous battle at Cumorah, behold, the Nephites who had escaped into the country southward were hunted by the Lamanites, until they were all destroyed.

3 And my father also was killed by them, and I even remain alone to write the sad tale of the destruction of my people. But behold, they are gone, and I fulfil the commandment of my father. And whether they will slay me, I know not.

Mormon did record the account of the final battle and provided a future message to the “remnant of this people who are spared,” which interestingly appears to not include the Lamanites, but only surviving Nephites, wherever they may be. Assuming the prophetic 12-moon Common Lunar Calendar controls this final Alma prophecy as well (since it also predates the 365-day calendar), one can convert the additional dates recorded by Moroni to see if they are consistent with the Alma 400-year prophecy being tied to the Common Lunar Calendar. The prophecy indicates that the 400 years would be from the time that “Jesus Christ shall manifest himself unto them,” which was at the end of the 34th year. Using a date 34 years after the birth of Christ (Civil Calendar) for the date when the prophecy starts the year count, it can be converted and calculated as follows:

$34 \text{ years} + (400 \text{ years}) (354.367 \text{ days}) / 365 \text{ days} = \mathbf{422 \text{ years}}$ on the Civil Calendar.

Moroni records that Mormon was “slain in battle” (Mormon 8:5) along with Moroni’s kinsfolk. Moroni then records that 400 years had passed away since the coming of Christ and then recounts the process of final extinction of the Nephites as they were hunted down “from city to city and from place to place.” Moroni’s final entry in Moroni 10:1 indicates that “more than four hundred and twenty years have passed away since the sign was given of the coming of Christ” and indicates in the last verse of the Book of Mormon that “I soon go to rest in the paradise of God.” This date squares perfectly with the 422-year Common Lunar Calendar calculated date for the extinction of the Nephites, the last one being Moroni’s death. The 400-year prophecy by Alma clearly does follow the prophetic Common Lunar Calendar, just like all of the other prophecies do in the Book of Mormon. Thanks to the Caractors Document, this fact is now made clear.

The Caractors Document provides an almost complete identification and naming of all calendars and dates for all prophecies and calendars implied in the Book of Mormon. The only small remaining calendrical item that we don’t know is whether there was any calendrical name for the time from the final battle (completion of the 1,000 Year Calendar) to the demise of Moroni. There may not have been a specific name for this short period, given the circumstances of the few remaining Nephites who were being hunted down; it is clear from the Alma prophecy and Moroni’s identification of dates that no change occurred in the calendar counting.

Selective Use of Reformed Egyptian Lunar and Solar Glyphs

Further evidence of the lunar calendar being the first calendar used is the selective use of the number 20 glyph in the date glyphs in the first section of the Caractors Document. As previously discussed, this glyph is also a form of the glyph for “moon” in Mesoamerica, consistent with it being a date in the lunar calendar. After the primary count calendar shifted to the solar calendar after Christ, the number 19, which is also the Egyptian glyph for “sun,” is included, consistent with it being a date in the solar calendar.

Chapter 15

Nephite Jubilee and Festival Calendar

Also contained in the Caractors Document are elements of the Nephite Festival Calendar, which is an implementation of the Hebrew Festival Calendar, descriptions of which are contained in the Old Testament. The elements of the Hebrew Festival Calendar implemented by the Nephites that are present are:

1. Implication of the three pilgrimage festivals that occur within a year
2. Implications involving the importance of the New Year
3. Identification of the Jubilee Calendar

The reference to 1/3 of a year period indicated by C-76 and C-77 indicates a measurement of time in 1/3 of a year increments, which would correspond to the three annual pilgrimage festivals. The New Year implication, as previously discussed, involves the probable ascension of Christ at a year-end or New Year time frame under the prophetic calendar. The main festival calendar that is identified in the Caractors Document is the Hebrew Jubilee Calendar.

Jubilee Years

Some evidence has been previously presented for the presence of the festival calendar within the Book of Mormon by John W. Welch and Terrence L. Szink (1998), mostly pertaining to the speech of king Benjamin. This inquiry will not go into all of the liturgical detail of the elements of the Jubilee but will deal with what is indicated in the Caractors Document and what is evidenced in the Book of Mormon.

The ancient Hebrews had a practice that every seventh year was considered a sabbatical year, which involved a variety of practices ranging from leaving agricultural land fallow and releasing debts. Every seventh sabbatical year was considered a Jubilee Year, which means that every 49th year would be a Jubilee Year. A Jubilee Year was considered something of a "super-sabbatical." There is some disagreement as to whether the Jubilee would take place on the 50th year after the sabbatical year (meaning essentially two sabbatical years in a row) or whether it coincided with the 49th sabbatical year (Baker 1998).

The Jubilee legislation is contained in Leviticus 25 in the Old Testament. The primary features were as follows:

1. Liberty was proclaimed to all of the inhabitants of the land.
2. No sowing was to take place in the land; the fields were to lie fallow and their yield left to the poor.
3. Property was returned to its hereditary owner.
4. It was a time of peace.

(Baker 1998; Welch et al. 1998)

Perhaps the most important theme of the Jubilee is freedom, and Ezekiel refers to it as the year of freedom (Ezekiel 46:17).

Scholars have debated whether the Jubilee existed prior to the exile; the Caractors Document puts an end to that speculation. The Caractors Document is also most consistent with a Jubilee on the 49th year. The Caractors Document contains two glyphs that represent the year of Jubilee; the Egyptian etymology was discussed in the calendrical section in chapter 5. The Jubilee glyph occurs in the Caractors Document in conjunction with king Benjamin relinquishing the kingship to his son Mosiah and the defeat of the Gaddianton robbers after being under siege, and there are two others (C-180 and C-220) that appear to have the form of this glyph as well; they occur at the time period after the coming of the resurrected Christ and at the time predating the final battle.

King Benjamin Jubilee Year and Prior

Welch and Szink suggested that the Jubilee Year may have occurred at the time Benjamin transferred his kingship, based primarily on elements of his speech. In fact, the Caractors Document also documents a Jubilee Year at that time with a Jubilee glyph (C-84). It is oriented vertically, which probably indicates the order of the Jubilee Year (discussed below).

It is possible to calculate the year in the case of king Benjamin, since Mosiah “did cause his people that they should till the earth” (Mosiah 6:7) just after the death of king Benjamin, which was 479 years after Lehi’s departure. The Caractors Document indicates that the Jubilee Year was $2\frac{2}{3}$ years prior to the death of king Benjamin, which occurred in the 479th year. It appears that the Jubilee Year was probably in the 477th year.

There is no Jubilee glyph in the first section of the Caractors Document except the one related to king Benjamin. A Jubilee glyph would be expected 49 years earlier, which would have fallen within the chronology of the first section of the Caractors Document. Since the idea is that the first section is a preface to the Book of Mosiah, the glyph may have actually appeared somewhere in the portion of the lost 116 pages containing the first part of the Book of Mosiah. The second section of the Caractors Document, containing the prophetic calendar running from five years prior to Christ, also does not identify all of the Jubilee Years during the chronological time frame. This would seem to indicate that the Jubilee glyphs were not included in the Caractors Document text unless they corresponded with significant Book of Mormon events.

There is no correlation of the Jubilee Years prior to king Benjamin Jubilee Year (477 years after arrival) in the Book of Mormon text itself, which is likely a result of the loss of the 116 pages, which would have encompassed the Jubilee Year immediately prior (428 years after arrival) and all those before then. This period was covered by the small plates. This is further reinforced by the fact that there is pretty good correlation in the text for nearly all of the subsequent Jubilee Years following the king Benjamin Jubilee Year in the Book of Mormon text.

17th Year of the Reign of the Judges Jubilee Year and 66th Year Jubilee Year

Szink and Welch also note the apparent presence of a Jubilee Year 49 years after king Benjamin’s speech at Alma 30:2–5, in the 16th and 17th year of Reign of the Judges. If the 477th year is correct for the king Benjamin Jubilee Year, then the Jubilee Year here would be in the 17th year. It would seem that this description of two years implies that there was a practice of a sabbatical year followed by a Jubilee Year. This time frame does not fall within the time frames of the Caractors Document so could not be verified.

The next Jubilee Year would have been approximately in the 66th year of the Reign of the Judges; the Book of Mormon does indicate that in the year prior there was “great joy and peace” and “much preaching and many prophecies,” but in what would have been the Jubilee Year, the chief judge and his son were murdered, and then the people began to be wicked again at the start of the 67th year (Helaman 6:14–16). While not definitive, the description is still consistent with a year of Jubilee.

Gaddianton Robber Defeat Jubilee Year

The Caractors Document does indicate a Jubilee Year for the next cycle in conjunction with the siege and ultimate defeat of the Gaddianton robbers (3 Nephi 3–4). The Book of Mormon scriptural record would certainly be consistent with this occurrence since all the elements occurred in relation to the Jubilee—namely, the people were set free from the siege; they were able to return to their lands, which had lain fallow during the time of siege; and it instituted a time of peace and righteousness (however brief).

From a chronological standpoint, 49 years from the previous Jubilee would place this Jubilee year at the 24th year after the birth of Christ. The Book of Mormon is not exactly specific as to the time of defeat and liberation; it indicates that in the 16th year they were instructed to gather together and that by the end of the 17th year they

had gathered. The Nephites had left their land desolate (3 Nephi 4:3). In the 21st year, the Gaddianton robbers laid siege (3 Nephi 4:16). The next time reference is after the defeat of the robbers, preaching to the robbers in prison, and putting to death those who would not repent. The verse is not precise, but the year of Jubilee could have occurred in the 24th year within the time frame given.

3 Nephi 5:7

And thus had the twenty and second year passed away, and the twenty and third year also, and the twenty and fourth, and the twenty and fifth; and thus had twenty and five years passed away.

Also of note, the prior sabbatical year (eight years earlier) would have been the 16th year, during which time all of the fields would have lain fallow. When the robbers came out of the mountains to battle at the end of the 18th year, the Nephite lands were “desolate” after three years of lying fallow. We cannot quite tell from this particular description whether the Jubilee Years were being measured after the birth of Christ under the Civil Calendar or under the Common Lunar Calendar, since the Jubilee Year 24 years after the coming of Christ is too short a time to differentiate a separate year—the calendar difference would have been around eight months. The Book of Mormon reference here is not specific enough.

This Jubilee Year was identified in the Caractors Document as being the 12th complete Jubilee Year period within the 1,000 Year Calendar. From what can be determined, it appears that the 1,000-year Calendar is necessary to “host” the Jubilee Year count, as well as the other 600- and 400-year prophecies. Going back in time from this Jubilee, the previous dates of Jubilee would be (in years after Lehi’s departure): 575, 526, 477, 428, 379, 330, 281, 232, 183, 134, 85, and 36. The Jubilee Year prior to 36 would have taken place in the Old World at or around 600 BC. Prior to king Benjamin, there is no indication in the Book of Mormon of a Jubilee Year; however, Nephi₁ indicates that the first temple was constructed prior to 30 years after Lehi’s departure and so would have been available for the first Jubilee Year in the New World.

As far as the projected date of the Old World Jubilee Year of 600 BC, it does not seem to align with the guesses of academics as to the ancient Jubilee Year dates (many believe that the Jubilee was not even practiced prior to Lehi’s departure). Since this book is limited to the translation of the Caractors Document, and there is no reliable independent confirmation of the Jubilee Year from the Old World, I have chosen not to delve into that issue here.

4 Nephi Jubilee Years

Assuming that the Common Lunar Calendar was used continuing under the prophetic 1,000 Year Calendar, the Jubilee Years would have occurred in 624 (which is in conjunction with the Jubilee Year when the Nephites were under the siege of the Gaddianton robbers, as already noted), 673, 722, 771, 820, 869, 918, and 1016. Because of the shift to the Civil Calendar dates in 4th Nephi, it is necessary to convert the Jubilee Years from the underlying Common Lunar Calendar to Civil Calendar dates. The conversion arrives at the Jubilee Year dates as follows:

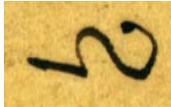
<u>Common Lunar Calendar</u>	<u>Civil Calendar</u>
673	70.82
722	118.36
771	165.90
820	213.44
869	260.98
918	308.52
967	356.06
1016	403.60

The 70.82 date correlates with 4 Nephi 1:11–13, which indicates that in the 71st year there was fasting and prayer and “no contention among the people.” It does note that they did not “walk any more after the performances and ordinances of the law of Moses” so the Jubilee Year may have lessened in importance after Christ appeared. The 118.36 and 165.90 years occurred during a time when there was prosperity and “no contention in all the land” (4 Nephi 1:15–18). The 213.44 year is not specifically noted and occurs during a time when wicked churches arose, but many miracles are also noted (4 Nephi 1:27–33). The 260.98 year does get a specific note in 4 Nephi 1:41 for no apparent reason, which may indicate that the Jubilee Year at this point of wickedness may just be a calendrical unit and doesn’t represent a practice amongst the Nephites. The 308.52 year (309th year), the last one that would have occurred during the 4th Nephi time frame is discussed next.

Mormon’s Birth Jubilee Year

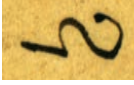
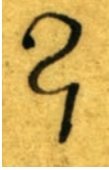
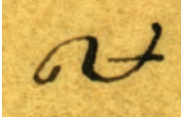
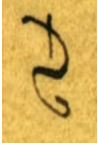
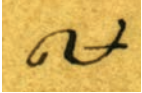
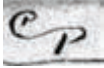
As has been noted, Mormon’s name glyph is a mirror image of the Jubilee Year glyph. It would seem clear that Mormon’s birth year of 309 years after the coming of Christ must have been a Jubilee Year. Mormon was “about 10 years of age” 320 years after Christ, under the Civil Calendar as indicated in 4 Nephi 1:48 and Mormon 1:2; having completed his 10th year, he would have been in his 11th year. In converting Mormon’s birthyear of 309 years to the Common Lunar Calendar, it is equivalent to the Common Lunar Calendar Year of 918, so his birth did occur in a Jubilee Year.

At this juncture, it is also possible to see what is happening with the orientation of the Jubilee Year glyph; it is rotating 90 degrees counterclockwise with every Jubilee Year. For example, the Jubilee Years from the king Benjamin Jubilee to the Gaddianton Robber Jubilee would be as follows:

King Benjamin Jubilee, 477 years	
17th Reign of Judges Jubilee, 526 years	
66th Reign of Judges Jubilee, 575 years	
Gaddianton Robber Siege, 624 years	

This would also be consistent with the calendar premise of only four Egyptian months in each of the three annual seasons, so once every four years the same glyph alignment would reoccur. The following continues this counterclockwise rotational sequence (arbitrarily utilizing both Caractors Jubilee glyphs):

673 years	
-----------	---

722 years		
771 years		
820 years		
869 years		
918 years		 Mormon's name glyph

We can see that Mormon's glyph is a mirror glyph to the Jubilee Year glyph that occurred in his birth year, another excellent example of "glyphnastics" occurring with the names in the Book of Mormon. Unlike the glyph I have projected here (using the Gaddianton Robber Jubilee glyph), the actual glyph that represented Mormon's Jubilee Year probably had the tick mark on the end of the line of the glyph, just like his name glyph did.

Jubilee Years during the Time of Mormon and Moroni

The 356.06 Jubilee Year occurred while the Nephites and Lamanites were at peace because of a treaty that lasted from AD 350 to 360 (Mormon 2:28–29; 3:1), so this is also consistent with a Jubilee Year occurrence. The 403.60 Jubilee Year occurred after the Nephite nation was destroyed, with only Moroni left, so one would not expect the Book of Mormon text to note any Jubilee Year.

Jubilee Period after the Coming of Christ

A Jubilee styled glyph (C-180) might appear for the period of righteousness and prosperity after the coming of Christ. This glyph is translated as "truth," and it is a bit different than the previous Jubilee Year glyphs; it is probably best interpreted as a period of righteousness instead of a specific year. Mormon's description of the period is consistent with the terms of the Jubilee: they "had all things in common," and there were not "rich or poor, bond and free, but they were all made free, and partakers of the heavenly gift" (4 Nephi 1:3). As was previously noted for the translation of the Introductory Coming of Christ glyph, one of the Egyptian sources for the glyph was the Egyptian glyph meaning "jubilation."

Chapter 16

Caractors Document and Plate Stack Character Density

One question regarding the Caractors Document that arises is whether the translation is consistent with the Book of Mormon actually being able to fit on the surface area of the plates in the plate stack. Based on a metallurgical analysis, there were calculated to be 300 to 600 plates in the plate stack (Grover 2015, chapter 11); lacking other information, an assumption was made that the plates in the sealed portion were of identical dimension and alloy as the plates that were not sealed. Descriptions were given by original witnesses that one half to two-thirds of the plate stack was sealed. Assuming half of the stack is sealed and using the higher number of 600 plates, that leaves 300 plates, double sided at 6 by 8 inches, which equals 48 square inches per side, or 28,800 square inches of total available surface area.

The Caractors Document is 8 by 3.25 inches; there are 222 characters, so the reformed Egyptian character density is $222/(8 \times 3.25) = 8.54$ characters per square inch. The translation of the Caractors Document rendered 499 words, or 2.25 English words per reformed Egyptian character. As previously discussed, because there is no loss of translation continuity between individual lines on the Caractors Document, with the copying likely being from left to right and the reading direction being the opposite, the individual lines on the Caractors Document likely match the lines on the original plates. Because the Caractors Document is wider than the plate description (8 inches versus 6 inches), the character density of 8.54 needs to be adjusted proportionately: $(8.54 \times (8/6)) = 11.39$ characters per square inch.

The number of English words based on the current Book of Mormon text is approximately 268,000 (which includes the small plates). The number of additional words from the 116 lost pages (excluding the title page) is calculated as follows: $(1 + 116/605 \text{ Original Manuscript pages [Skousen, Original Manuscript]}) \times 268,000 = 51,828$ words. The total number of English words in the unsealed portion of the Book of Mormon is the sum of the words in the 116 pages and the current Book of Mormon text, which equals 319,828 total English words.

Since there are 2.25 English words per reformed Egyptian character, the total number of expected reformed Egyptian characters (assuming the small plates in the stack were an interpreted version) is 142,146 characters $(319,828/2.25)$. Assuming that the Caractors Document is identical to the original scale of character placement on the plates and using 11.39 reformed Egyptian characters per square inch, the surface area needed is 12,480 square inches $(142,146/11.39)$.

So for the question of whether the reformed Egyptian (based on the English translation proffered) is consistent with the available space on the plate stack, the answer is in the affirmative, since on 300 plates, (28,800 square inches) was available. One can also project the actual number of plates based on the reformed Egyptian character density using proportionality: $(300 \text{ plates}/28,800 \text{ in}^2) \times 12,480 \text{ in}^2 = 130$ plates. If the unsealed portion consisted of half of the plate stack, the total plate stack would be 260 plates. If the unsealed portion consisted of a third of the plate stack, the total plate stack would be 390 plates. The English translation of the Caractors Document is thus consistent with what is known and calculated of the original plate stack and the English translation of the Book of Mormon.

There are other possible calculations if one assumes a wider margin of unusable area where the plate binder rings are located. Considering a reasonable margin of $\frac{1}{4}$ inch around the edge of the plates and a $\frac{1}{2}$ -inch margin on the D-ring side of the plates, the total engraving surface area per plate would be 78.75 square inches (on both sides). Using this parameter, approximately 159 plates would be needed for the Book of Mormon, including the missing 116 pages—still within the acceptable parameters of the entire plate stack (318 plates if half the stack, and 477 plates if a third).

There are obviously ranges for each variable used in this evaluation, so exact calculations are not possible, but the translation does fall within the parameters of the expected number of plates in the Book of Mormon plate stack.

Chapter 17

Potential Sumerian Numeric Glyph Traces Found in Mesoamerica

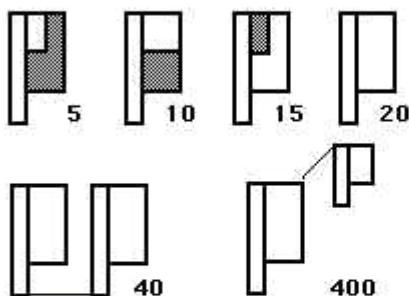
Discussion of Evidence of Sumerian in Mesoamerica

A small group of Jaredites arrived around 2500 BC and had a cultural end of around 400 BC; as such, even with them participating in the ruling lineage, one would not expect to see much, if any, cultural influence in Mesoamerica at the time of the Spanish conquest, which occurred around 4,000 years later. However, there may be some traces, so it is useful to attempt a look. The scope of this inquiry does not involve looking at all common cultural features between Mesoamerica and Mesopotamia (cylinder seals, etc.) but is limited to looking at potential glyphic links to numeric systems, which surfaced as a result of the identification of Sumerian proto-cuneiform elements in the Caractors Document. As previously discussed, elements of number systems sometimes do have significant longevity.

It has recently been determined that calculating the surface area of large or irregularly shaped fields among the Acolhua-Aztec utilized the mathematical method and proto-geometry found in ancient Sumer (Williams and Jorge 2001, 197; Williams and Jorge 2008, 73). The Acolhua are considered a sister culture to the Aztecs, with their capital Texcoco. Similarities between the Aztec and Texcoco system and some of the Caractors Document numbers have been previously noted. Thus, the Aztec and Acolhua numbers system seem to be a place to look for some potential Sumerian parallels. In comparing the Sumerian/Elamite proto-cuneiform with these number systems, there are some interesting possibilities.

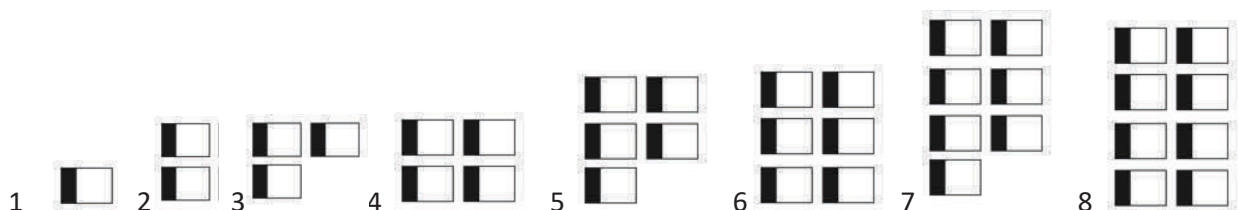
Flag-Style Numbers

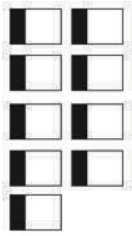
Aztec flag-style numbers



(Learning Connection 2015)

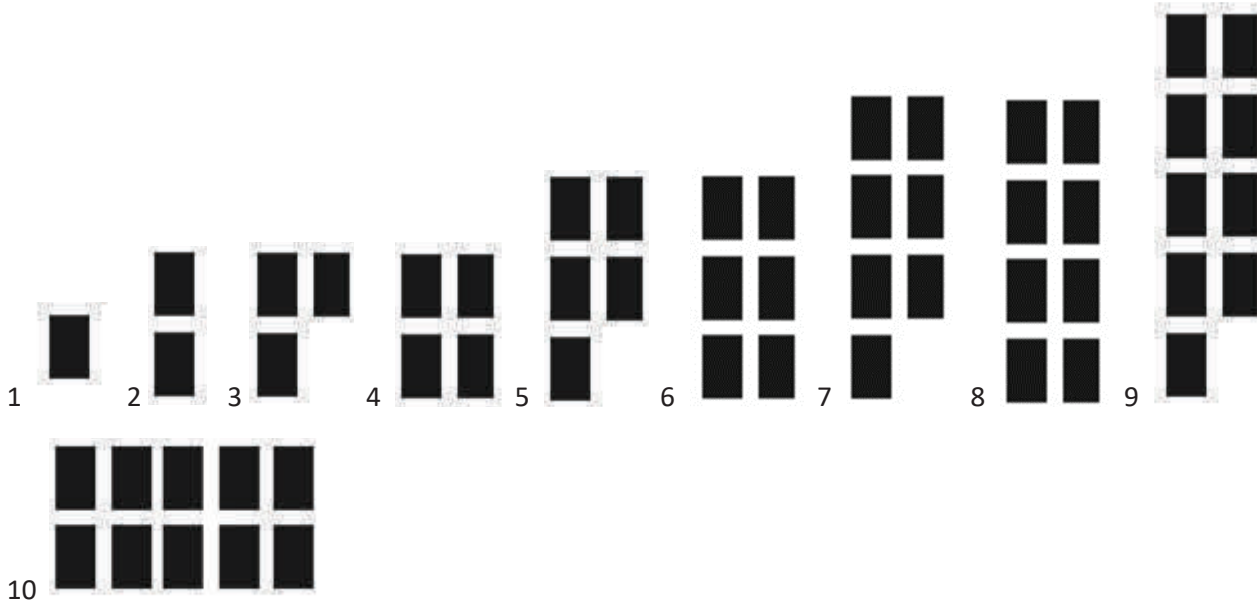
Uruk Period (3300–3100 BC), proto-cuneiform flag-style numbers





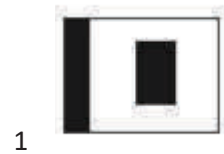
9 (CDLI 2018, 1–9 (N01@f))

There is also a second series of numbers (not depicted), which is identical to the above sequence except that the glyph sizes are larger (CDLI 2018, 1–9 (N34@f)).

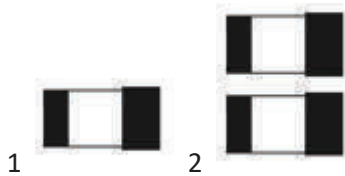


(CDLI 2018, 1–10 (N14@f))

There is also a second series of numbers (not depicted), which is identical to the above sequence except that the glyph sizes are larger (CDLI 2018, 1–9 (N45@f)).



(CDLI 2018, 1 (N48@f))



(CDLI 2018, 1–2 (N22@f))

Early Dynastic 1 Period (2800–2700 BC), flag-style numbers

As previously discussed, these numbers are found in the Early Dynastic 1 Period (2800–2700 BC).

C	●	<p>I, ■ ten, passim. [In 225 apparently units precede tens. Cf. also 51 rev. ?]</p> <p>b(2), theoretic analogue to g, is rare: supplied from 185 (gur).</p>
G	■	<p>88 ii 4: following traces of eight or more sixties. Probably six hundred. If so, the same tablet contains both a longer and a shorter writing of six hundred. Cf. longer and shorter writings of ten bur in System III (10 bur = sign III-H and also sign III-G repeated 10 times).</p>

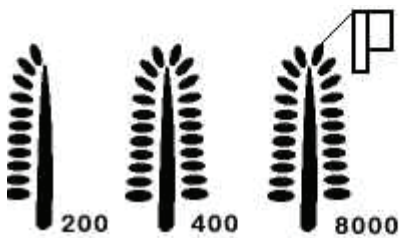
Early Dynastic I Period ca. 2800–2700 BC. Burrows, Archaic Texts (UET 2; London 1935)

Caractors Document flag-style numbers



Grain/Tree Style Numbers

Aztec grain/tree-style numbers



(Learning Connection 2015)



(Ortiz-Franco 2002, 239)



400 (Aguilar-Moreno 2006, 313)

Uruk Period (3300–3100 BC) proto-cuneiform grain-style numbers

Proto-cuneiform numbers one, two, and three in different grain-type formats



(CDLI 2018, 1–3 (N07≈a) (N07≈b))

Concentric-Circle Style Numbers

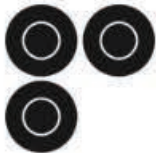
Aztec concentric-circle style number



10 (Aguilar-Moreno 2006, 313)

Uruk Period (3300–3100 BC), proto-cuneiform concentric-circle style numbers

Uruk proto-cuneiform concentric-circle style numbers 1–5:



(CDLI 2018, 1–5 (N50))

Early Dynastic IIIa (Fara) Period (ca. 2600–2500 BC), concentric-circle style number

A proto-cuneiform number from the Early Dynastic IIIa (Fara) Period (ca. 2600–2500 BC) also has the concentric-circle form:

Glyph Designation 860



10800

A. Deimel, Liste der archaischen Keilschriftzeichen (WVDOG 40; Berlin 1922)

Shell Style Numbers

Aztec shell-type number



20

(Ortiz-Franco 2002, 239)

Uruk Period (3300–3100 BC) proto-cuneiform shell-style numbers

Uruk Period (3300–3100 BC) proto-cuneiform numbers 1–4:



(CDLI 2018, 1–4 (N42≈b) 1,4 (N43))

Hollow Square/Diamond-Style Numbers

Aztec hollow square/diamond style numbers



Uruk Period (3300–3100 BC), proto-cuneiform hollow square/diamond style number



(CDLI 2018, |1 (N34F@t)|)

Proto-Elamite (ca. 3100–2900 BC), proto-cuneiform hollow square/diamond style number

Undeciphered Proto-Elamite glyphs (possibly numbers) are possible matches to the diamond form:



M218

M249



M249~c



M249~f



J. Dahl's working Elamite sign list (2006), Proto-Elamite Period, ca. 3100–2900 BC.

Circle-with-Lines Style Numbers

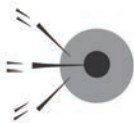
Aztec circle-with-lines style number



80 (Aguilar-Moreno 2006, 313)

Proto-Elamite (ca. 3100–2900 BC), proto-cuneiform circle-with-lines style number

An undeciphered Proto-Elamite glyph (possibly a number) is a possible match to the circle-with-lines form:



M351~m

J. Dahl's working Elamite sign list (2006), Proto-Elamite Period, ca. 3100–2900 BC.

Uruk Period (3300–3100 BC), proto-cuneiform circle-with-lines style numbers

Uruk proto-cuneiform circle-with-lines style numbers 1–3:



(CDLI 2018, 1 (N45≈a), 1-3 (N46))

Early Dynastic IIIa (Fara) Period (ca. 2600–2500 BC), circle-with-lines style number

A proto-cuneiform number from the Early Dynastic IIIa (Fara) Period (ca. 2600–2500 BC) also has a circle-with-lines form:

Glyph Designation 861

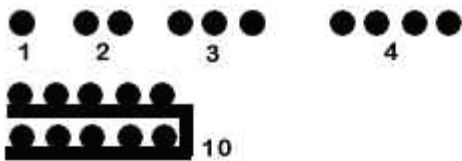


10800

A. Deimel, Liste der archaischen Keilschriftzeichen (WVDOG 40; Berlin 1922)

Bar/Dot/Tally Line Style Numbers

Aztec bar/dot/tally-line style numbers



(Learning Connection 2015)



(Ortiz-Franco 2002, 239)

Acolhua (Texcoco) bar/dot/tally-line style numbers

1	5	20	100
		■	☺

Proto-Elamite (ca. 3100–2900 BC), proto-cuneiform bar/dot-style numbers

The Proto-Elamite bar/dot style is known in the number system in the Sumerian region, with glyph forms that are found in the Elamite proto-cuneiform, documented from the Proto-Elamite Period (ca. 3100–2900 BC):



M001+M379~c

M001+M379~d

J. Dahl's working Elamite sign list (2006), Proto-Elamite Period ca. 3100–2900 BC

Proto-Elamite (ca. 3100–2900 BC), proto-cuneiform tally-line style numbers

The tally-and-line form of numbers essentially identical to the Texcoco form is known in the number system in the Sumerian region with glyph forms that are found in the Elamite proto-cuneiform, documented from the Proto-Elamite Period (ca. 3100–2900 BC):



M001+M379~d MO41

M041~c

M041~d

J. Dahl's working Elamite sign list (2006), Proto-Elamite Period ca. 3100–2900 BC

Uruk Period (3300–3100 BC), proto-cuneiform tally-line style numbers



Numbers 1–12 (CDLI 2018, 1–12 (N58))

Uruk Period (3300–3100 BC), proto-cuneiform dot-style numbers



Numbers 1–12 (CDLI 2018, 1–12 (N14))

There is also a second series of numbers (not depicted,) which is identical to the above sequence except that the glyph sizes are larger (CDLI 2018, 1-9(N45)).

Summary

At this juncture, it can be said that there are some interesting features and parallels, with at least the borrowing of Sumerian/Elamite number glyphs into the Acolhua-Aztec. In at least one mathematical approach to the calculation of irregular areas is similar. Outside of glyph similarities, the underlying numeric systems themselves are not so parallel, even though Sumerian does have some base-20 features as part of its system. Dot and tally marks are not rare or unique as far as ancient number systems go; however, their similarities in configuration are interesting. The additional parallels and similarities of the remainder of the Aztec number glyphs and Sumerian/Elamite proto-cuneiform provide some evidence of a possible ancient connection.

Chapter 18

Traces of Egyptian and Semitic Script and Language Found in Mesoamerica

Similar to the evaluation of Sumerian, the scope of this inquiry involving Egyptian is not to look at the many cultural parallels between Egypt and Mesoamerica; it is limited to seeing any traces of Egyptian script in Mesoamerica. Egyptian traces incorporated into the Maya glyphs involving the calendrical markers found in the Caractors Document have already been discussed. Also previously discussed is the Mexican-year sign in relationship to the number 400, as found in the Caractors Document.

Before looking at additional potential examples of Egyptian in Mesoamerica, it is important to establish criteria for what may be acceptable examples of Egyptian script. Unfortunately, the attempt to connect the Old World with the New World has been fraught with hoaxes and fraudulent archaeological discoveries. As a result, this inquiry will evaluate only items or text that have been discovered as a result of standard, academic archaeological methods.

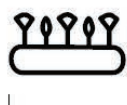
Similarities between Mesoamerican script and Semitic and Egyptian

Certain similarities between Egyptian and Mayan are fairly obvious: they are both hieroglyphic languages that use pictographs, phonetic glyphs, and determinatives, and both feature the use of the cartouche. As has been previously mentioned, famous Mayanist David H. Kelley (Kelley 1960) noted a Hebrew connection to the Maya calendar involving the sequential Maya day names *Manik*, *Lamed*, and *Muluc* that correspond with three sequential Hebrew letters. S. C. Compton (2010, 59–61) has noted a correspondence between the meanings of the Proto-Sinaitic alphabet and the Maya and Zapotec day names. Since Proto-Sinaitic is derived from Egyptian hieroglyphs, and given the hieratic infixes of reformed Egyptian in the Mayan calendar glyphs, a further analysis of Compton's correlations looking at this aspect might provide additional evidence of hieratic Egyptian infixes in Maya glyphs. Some of the Maya day-name glyphs are essentially representations of animals or other entities, so infixes would not be expected in glyphs formed after this manner.

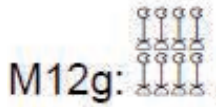
Maya day name *Imix*



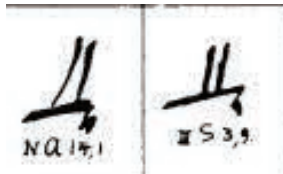
The first Maya day name, *Imix*, represents a water lily blossom within a cartouche (T501) (Montgomery 2014). The corresponding Egyptian hieroglyph for “lotus” or a “lotus blossom” is Gardiner M-8 with the corresponding Möller Number 274:



Lotus are also used in the designation of numbers of 1,000, with the form having eight lines, as in the *Imix* glyph being hieroglyph M-12g:

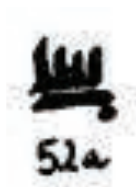


Each lotus is 1,000, and each vertical line in Egyptian hieratic represents a lotus. For example, the number 2,000 in hieratic is:



Möller 642 (Möller 1965, Bd. II-31-74taf, pg. II 641–649)

It would seem that if they are infixes, the hieratic lotus vertical lines could be extrapolated to 8,000, since there are eight lines in the *Imix* glyph. Notably, 8,000 is one of the principal numbers in the vigesimal system (20^3). However, in hieratic, four of the vertical lines are essentially substituted by an additional horizontal line. The designation of lotus flowers in the hieratic form of 8,000 is:



Möller 648 (Möller 1965, Bd. I-23-76, pg. I 641–649)

It is thus possible that an Egyptian infix of the lotus flower is included in the form of the eight vertical lines within the *Imix* glyph. It is also interesting that the Egyptian words for “flower,” *hrrt* and *hʿw*, and the Egyptian word “to bloom,” *prh*, although not phonetically correlated to *Ik*, are correlated in the Uto-Aztecan language family (Stubbs 2015; 131, 148, 299).

Maya day name *Ik*

The second Maya day name, *Ik*, means “wind, breath, and life” and consists of the T503 Maya glyph (Montgomery 2014):



The Egyptian infix for this glyph is the Egyptian-determinative glyph for “breath” or “wind,” consisting of the Gardiner P-5 glyph (Gardiner, 1957, 499) that in hieratic is the Möller 379 glyph:



Möller 379 (Möller 1965, Bd. III-32-72taf, pg. III 377–384)

Just like the Caractors Document calendar glyphs and their associated Mayan glyphs, the Maya word *Ik* is phonetically correlated to Hebrew and Semitic. The Hebrew word *naphach*, which means “blow, breathe,” is phonetically correlated by Stubbs to the Uto-Aztecan **nika*, meaning “be windy, blow”; the Semitic *hauḡaaʿ*, meaning “hurricane, tornado, cyclone,” is phonetically correlated to the Uto-Aztecan **hika*, meaning “wind, blow”; and the Hebrew *npš*, meaning “to breath,” is phonetically correlated to the Uto-Aztecan **hikwis*, with some forms like *ʿiihk* (Tübatülabal) and *hiik* (Serrano) being essentially phonetically identical to the Mayan day name *Ik* (Stubbs 2015; 213, 267).

Maya day name *Akb'al* or *Ak'ab'*

The third Maya day name, *Akb'al* or *Ak'ab'*, means “darkness” or “night” and consists of the T504 Maya glyph (Montgomery 2014):



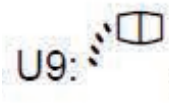
The glyph is a representation of a side view of a serpent’s body, showing the ventral scales at the bottom and the dorsal markings at the top (Montgomery 2014). As a representation of an animal, no infix is expected.

Maya day name *Kan*

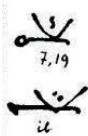
The fourth Maya day name, *Kan*, means “a kernel of corn” and consists of the T506 Maya glyph (Montgomery 2014):



The determinative for “grain” in Egyptian is Gardiner Number U-9:



This glyph could be the upper infix in the *Kan* glyph. With some modification, the lower infix element could be the hieratic form of the U-9 glyph, which is Möller Number 470:



Möller 470 (Möller 1965, Bd. III-32-72taf, pg. III 467–475)

It is also interesting that the Proto-Sinaitic corollary for this glyph as found by Compton is the Egyptian *gml*, meaning “to ripen, to wean,” and Stubbs (2015, 229) found correlation between the Hebrew *gml* and words in Uto-Aztecan meaning “to grind fine corn meal.”

Maya day name *Chicchan*

The fifth Maya day name, *Chicchan*, is a depiction of a snake bite or the head of a snake and consists of the T508 and T764 Maya glyph (Montgomery 2014):



As a representation of an animal or snake bite, no infix is expected.

Maya day name *Kimi*

The sixth Maya day name, *Kimi*, depicts a human skull within a cartouche representing the death god and consists of the T509hv Maya glyph (Montgomery 2014):



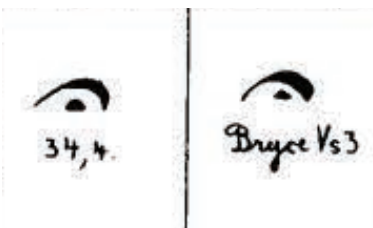
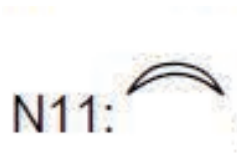
As a representation of an individual, no infix is expected.

Maya day name *Manik'*

The seventh Maya day name, *Manik'*, depicts a human hand within a cartouche and consists of the T671 Maya glyph (Montgomery 2014):



As part of the design, the base of the hand has what appears to be a glyph form as a potential infix glyph. Compton indicates that the corresponding Proto-Sinaitic symbol to *Manik'* is *Kaph*, meaning “palm of the hand.” The Egyptian word *šsp* means “palm of the hand” and is represented by the Gardiner N-11 glyph with the hieratic Möller 309 (Vygus 2018, 1109):



Möller 309 (Möller 1965, Bd. II-1-30, pg. II 306–315)

This infix glyph is fairly straightforward. A phonetic correlation to Egyptian likely through Uto-Aztec borrowing into Maya is also indicated; the Egyptian for “arm and hand” is *mni'*, which in the Uto-Aztec corollary is **man* (Stubbs 2015, 155).

Maya day name *Lamat (Lamed)*


The eighth Maya day name, *Lamat (Lamed)*, is the symbol for "star" (EK') or Venus (the morning star) within a cartouche and consists of the T510 Maya glyph (Montgomery 2014):

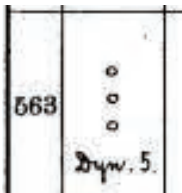


As pointed out by Kelley (1960), this glyph is equivalent in sequence to the Hebrew letter *lamed*. The word *lamed* in Hebrew means "to teach" (www.abarim-publications.com 2018). In Egyptian, the word *sba* can mean both "star" and "to teach" (Vygus 2015, 1111, 1601). Stubbs has also correlated the Hebrew *lmd* into Uto-Aztecan in the form of **mata / mati*, with the meaning "to teach" and other similar meanings. Stubbs also correlated *lmd* to Uto-Aztecan in the form of **maci / ma'ci*, which means "appear, be visible, known, light," and to Tohono O'odham as *maasi*, with one meaning being "dawn" (Stubbs 2015, 191–192). Thus, phonetically, this glyph looks to be a borrowing from Uto-Aztecan as well.

As far as glyphic correlation to Egyptian, one of the forms of *sba* meaning "star" consists of the star glyph (Gardiner Numbers N-14, Z-1, and Z-3 (Budge 1920, 2:655):



Z1:  One form of the Z-3 glyph has hollow dots:



Möller 563 (Möller 1965, Bd. I-23-76, pg. I 561–571)

The Z-1 glyph in hieratic can take the form of a dot:



Möller 614 (Möller 1965, Bd. I-23-76, pg. I 614–622)

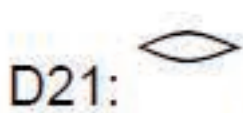
The N-14 glyph has not been found in hieratic to have a diamond form as is found in the Mayan glyph. Most of the Egyptian forms are the same or similar to the standard N-14 monumental Egyptian hieroglyph star. So while it is not an exact glyphic match to the Maya *Lamat* glyph, some of the basic elements of the Mayan glyph were present in Egyptian.

Maya day name *Muluk*

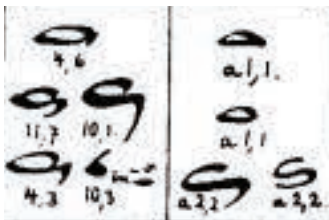
The ninth Maya day name, *Muluk*, depicts a fish within a cartouche and consists of the T513 Maya glyph (Montgomery 2014):



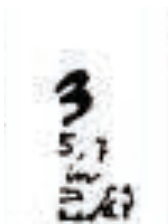
While this glyph has the form of a fish, it also incorporates infixes of Egyptian hieratic glyphs to form the glyph. The corresponding word for “fish” in Egyptian is *rm*, which consists of the Gardiner Numbers D-21 and J-15 (Aa-15) glyphs:



The corresponding Möller Numbers are 91 and 327 with hieratic forms:



Möller 91 (Möller 1965, Bd. II-1-30, pg. II 90–99)



Möller 327 (Möller 1965, Bd. I-23-76, pg. I 320–329)

The eye and the little fins of the fish appear to be Egyptian hieratic infixes. Possible phonetic borrowing from Uto-Aztec terms for *muluk* was correlated by Stubbs (2015; 114, 113); Egyptian words for “fish” and “water” involving the phoneme “mu” are **muti* and **musi*/**muci* for “fish” and **muwa/i* for “water” in Uto-Aztec.

Maya day name *Ok*

The tenth Maya day name, *Ok*, depicts a dog or other canine within a cartouche and consists of the T765a Maya glyph (Montgomery 2014):



As a representation of an animal, no infix is expected. Compton also did not find any correlation of this day name to Proto-Sinaitic.

Maya day name *Chuwen*

The eleventh Maya day name, *Chuwen*, is a glyph within a cartouche and consists of the T520 Maya glyph (Montgomery 2014):



Chuwen means “artist” in Mayan (Montgomery 2014). The eleventh Maya day is also often represented by the head of the howler monkey (Braakhuis, 1987, 26). Among the Classic Mayas, the howler monkey god was a major deity of the arts—including music—and a patron of the artisans, especially of the scribes and sculptors (Coe 1977). As recounted in the Popol Vuh, the two older half-brothers of the Hero Twins (One Howler Monkey and One Artisan) are transformed into howler monkey gods as punishment for their behavior toward their younger siblings.

Notably, in Egyptian mythology there are also two gods involving writing. Thoth is one of the ancient Egyptian deities. In the later history of ancient Egypt, Thoth became heavily associated with the system of writing. In art, he was often depicted as a man with the head of a baboon, an animal sacred to him.


Thoth’s feminine counterpart was Seshat (under various spellings), who was the ancient Egyptian goddess of wisdom, knowledge, and writing. She was seen as a scribe and record keeper, and her name means “she who is the scribe”; she is credited with inventing writing.

The hieroglyphic name *isdn* for the god Thoth actually incorporates the hieroglyphic depicting a baboon (Gardiner Number E-35).

The Chuwen day glyph is a mirror glyph, meaning if cut vertically down the middle, each side would reflect the other, which is consistent with the duality of the Maya monkey gods (and the Egyptian scribal gods). Some forms of *Chuwen* have the top circle divided in half vertically. Therefore, when looking for an Egyptian-based infix, it is likely that there is only one which is then mirrored.

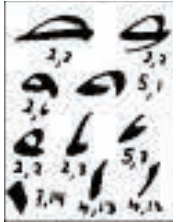
The name for female scribes and the name *Sheshat* in Egyptian is spelled *sšyt*, and another of the words for scribes in Egyptian is *sšw* (Vygus 2015, 2214). The glyph name for *Sheshat* consists of Gardiner Numbers Y-3 and X-1, and the word for “scribes” is Y-4 and A-1:

Sheshat

X1: 



The Möller Numbers and hieratic forms for these glyphs are 575 (X-1) and 537 (Y-3):

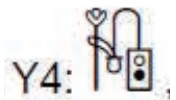


Möller 575 (Möller 1965, Bd. II-31-74-Taf, pg. II 575–586)



Möller 537 (Möller 1965, Bd. II-31-74-Taf, pg. II 530–540)

Scribes



The Möller Numbers and hieratic forms for these glyphs are 33 (A-1) and 537 (Y-4). Note that Y-4 is a mirror image of Y-3, and the hieratic would be the same, just potentially mirrored:



Möller 33 (Möller 1965, Bd. III-1-31, pg. III 20–35)

The Chuwen Egyptian infixes consist of the upper circle, which represents either X-1 in its monumental form, rotated and mirrored (in the Chuwen form that has this upper circle divided in half), or the hieratic forms of X-1 or A-1. The lower mirrored glyph consists of the hieratic and mirrored forms of Y-3 and Y-4.

Maya day name *Eb'*

The twelfth Maya day name, *Eb'*, is a glyph within a cartouche and consists of the skeletal head of the Lord of Death with the T528 Maya glyph *Kawak* as an infix (Montgomery 2014). *Eb'* can also represent jaw, tooth, grass, or stairway (Rice 2007, 67).



The skeletal head itself would not be expected to be an infix. The Kawak is an infix and is a day glyph by its own right, which will be discussed later. Phonetically, the Egyptian word *ibḥ* means “tooth” and is phonetically similar to *Eb’* (Vygyus 2015, 400).

Maya day name *B’en*

The thirteenth Maya day name, *B’en*, is the T584 Maya glyph within a cartouche and consists of what is thought to be a depiction of reeds or groups of reeds (Montgomery 2014). *B’en* can also represent jaw, tooth, grass, or stairway (Rice 2007, 67).



The reed representations themselves would not be expected to be an infix. Possible phonetic borrowing from Uto-Aztec terms for *b’en*—correlated by Stubbs (2015, 257)—include the Hebrew and Arabic words for “reed, papyrus,” ‘*ébeh* and ‘*abaa’*.

Maya day name *Ix*

The fourteenth Maya day name, *Ix*, is the T524 Maya glyph within a cartouche and consists of what is thought to be a depiction of three glints within an eye (below the eyelid), with the glints possibly doubling as jaguar spots or a jaguar itself. (Montgomery 2014; Rice 2007, 67).



The eye representation itself would not be expected to be an infix.

Maya day name *Men*

The fifteenth Maya day name, *Men*, is the T1017v Maya glyph within a cartouche and consists of what is thought to be a depiction a zoomorphic head, tentatively identified as an eagle or other bird (Montgomery 2014; Rice 2007, 67).



The eagle or other bird representation itself would not be expected to be an infix.

Maya day name *Kib’*

The sixteenth Maya day name, *Kib’*, is the T525 Maya glyph. The meaning of the glyph is “wax” (Montgomery 2014) or “buzzard” or “vulture” (Rice 2007, 67).



(Macri et al. 2009, 145)

The Egyptian word *ḥkʿw* means “vulture (as an amulet)” (Vygus 2018, 617). It consists of Gardiner Numbers G-36, X-1, V-28, D-28, and Z-2:

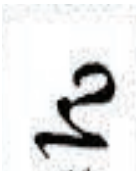


The Egyptian elements of the glyph are stylized by the Maya, likely to match depictions of other meanings. All of the Egyptian elements are found in the glyph. The monumental form of D-28 mirrored is found as the upper band. The line elements within the upper band consist of the placement of the Z-2 line glyphs. The X-1 glyph is found at the base of the above left glyph or at the top of the above right glyph. The central smoke-like element of the glyph consists of the hieratic form of the V-28 glyph:



Möller 525 (Möller 1965, Bd. III-32-72-Taf, pg. III 520–529; Bd. I-23-76, pg. I 522–532)

The mirrored hieratic form of the G-36 glyph also is incorporated in the central smoke-like element:



Möller 217bis (Möller 1965, Bd. II-1-30, pg. II 211–218)

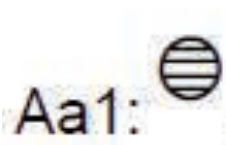
This appears to be one of the more creative applications by the Maya of these Egyptian infixes.

Maya day name *Kab'an*

The seventeenth Maya day name, *Kab'an*, is the T526 Maya glyph. The meaning of the glyph is “earth”; it appears inside a cartouche (Montgomery 2014) and also means “earthquake” (Macri et al. 2009, 161).

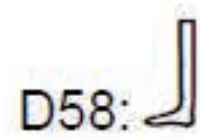


The elements of this glyph are found in the Egyptian word *ḥbh*, which means “crawl in the earth, slip” (Vygus 2018, 749). This word is represented by Gardiner glyphs J-1 (Aa-1), D-58, and an additional J-1. The hieratic Möller Numbers for these two glyphs are 574 and 124:





Möller 574 (Möller 1965, Bd. III-32-72-Taf, pg. III 565–575)



Möller 124 (Möller 1965, Bd. II-1-30, pg. I 120–132)

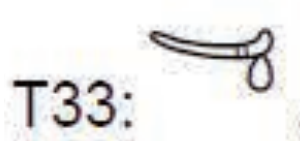
The glyph form matches in that there are two J-1 glyphs with an additional D58 glyph that tails down from one the top J-1 glyphs. As in Maya tradition, these Egyptian elements are likely styled and arranged to depict something else.

Maya day name *Etz'nab'*

The eighteenth Maya day name, *Etz'nab'*, is the T527 Maya glyph. The glyph represents the surface pattern of a pressure-flaked flint blade inside a cartouche (Montgomery 2014) and also means “flint knife” (Macri et al. 2009, 151) and “flint” (Macri et al. 2003, 199).




The Egyptian word *sšm* means “flint knife sharpener” (Vygus 2018, 1843) and consists of the hieroglyph Gardiner Number T-33, with an additional form as the primary glyph meaning “Butcher” or “Slaughterer.” T-33 is defined by Gardiner as “knife sharpener carried by butcher” and an ideogram for “butcher” (Gardiner 1957, 515). The hieratic form of this glyph is Möller Number 444, with one matching form:



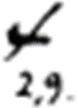
Möller 444 (Möller 1965, Bd. I-23-76, pg. I 443–454)

Given that the flint knife was the preferred ritual weapon for performing human sacrifices by cutting out hearts, this particular Egyptian glyph, relating to the sharpening of the flint knife and a butcher or slaughterer, is a perfect match. The Maya do appear to have artistically stylized the lines to match the edge pattern of a flint blade.

In addition, in perhaps a corollary match, the Gardiner Number Z-9 glyph also matches the form in the Maya glyph and is an Egyptian determinative glyph for the verb “break” (Gardiner 1957, 538). The hieratic forms of Z-9 are basically the same form.

Z9: 

Another possibility is the Egyptian word *swA*, which contains the Z-9 and D-40 glyphs and means “break, cut (throat), cut off, cut down” (Dickson 2006, 290). One hieratic form of the D-40 glyph has a cross form as well:


2,9.

Möller 105 (Möller 1965, Bd. III-1-31, pg. III 101–111)

Maya day name *Kawak*


The nineteenth Maya day name, *Kawak*, is the T528 Maya glyph. It is postulated that the glyph may represent rainclouds (the so-called bunched grapes), and the rainbow is within a cartouche (Montgomery 2014). It has many meanings, including “stone,” “jade,” “precious stones,” “tun year,” “haab year,” “rain,” “the male organ,” “thunder and lightning,” and “to serve” (Macri et al. 2003, 216).



(Macri et al. 2009, 169)


There is some variety to these glyphs, as shown above. The apparent match from Egyptian for these glyphs are the word *drtt* (meaning “a precious stone” and consisting of Gardiner Numbers M-36, D-21, X-1, X-1, N-33, and Z-2) and, less possibly, the word *sdwt* (which means “precious things” and consists of Gardiner Numbers S-19, X-1, Y-1 and Z-2) (Vygus 2018, 1094, 1566).

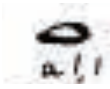
The corresponding Egyptian hieratic for *drtt* is:

M36: 



91,2

Möller 294 (Möller 1965, Bd. I-23-76, pg. I 290–299)

D21: 




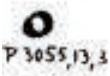
Möller 91 (Möller 1965, Bd. II-1-130, pg. II 90–99)

X1: 




Möller 575 (Möller 1965, Bd. II-31-74-Taf, pg. II 575–586)

N33: 




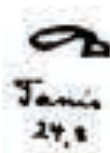
Möller 329 (Möller 1965, Bd. III-1-31, pg. II 328–338)

Z2: 

The vertical lines in Egyptian can sometimes be substituted with small circles (Gardiner 1957, 535–536).


The corresponding Egyptian hieratic for *sdwt* is:


S19: 



Möller 423 (Möller 1965, Bd. III-32-72-Taf, pg. III 415–424)

X-1 is shown above.

Y1: 


5.3

Möller 538 (Möller 1965, Bd. III-32-72-Taf, pg. III 530–540)

Z-2 is also shown above.

Infix possibilities for *dr̄tt* involve the center version of the Maya glyph with the Egyptian hieratic version of the M-36 glyph matching the comb-like infix on the left part of the glyph, with the rest of the Egyptian glyphs being the equivalent of circles. That would mean seven circles, which does not match the number in the central glyph (nine) but does match the other two versions of the glyph, which have seven circles.

Infix possibilities for *sd̄wt* involve the right version of the Maya glyph with the Egyptian hieratic version of the S-19 glyph matching the loop-like infix on the right side of the glyph, with the rest of the Egyptian glyphs being the equivalent of circles. This word renders only five circles.


It is recognized that, like the other Maya day-name glyphs, the infixes have been modified, stylized, and even rearranged in order for the form to depict one or multiple meanings of the glyph; in this case, the circles have been arranged to form a depiction of rainclouds.

Maya day name *Ajaw*

The twentieth Maya day name, *Ajaw*, is the T533 Maya glyph. It is postulated that the glyph represents the Sun God and a face within a cartouche. Phonetically, the Mayan word *ajaw* means “‘lord’; royal title, office; designates first-rank nobility of both sexes” (Montgomery 2014). It has other meanings, including “king,” “flower,” “child,” “owner,” “mook,” and “idol, effigy.” (Macri et al. 2003, 65; Macri et al. 2009, 47).

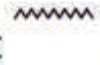


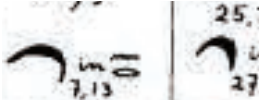
Because this depicts a face, it is not expected that there would be Egyptian infixes. There are a few possibilities, but since the glyphs are not complex and do not include all elements of the Maya glyph, they are considered only possibilities. The Egyptian word *rn* means “name (of the king)” and consists of Gardiner Numbers D-21, N-35, and V-10 (Vygyus 2018, 116):

D21: 




Möller 91 (Möller 1965, Bd. II-1-30, pg. II 90–99)

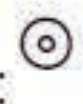
N35: 




Möller 331 (Möller 1965, Bd. II-1-30, pg. II 326bis–338)

V10: 

Essentially, the V-10 is the cartouche around the glyph; the N-35 hieratic glyph would reflect the line below the nose, with the D-21 serving as the mouth. The other possibility is the word *r'yt*, which means “Sun Goddess (of queen)” and consists of Gardiner Numbers N-5 and X-1 (Vygus 2018, 1104):

N5: 

X1: 



Möller 575 (Möller 1965, Bd. II-31-74-Taf, pg. II 575–586)

While not extremely convincing, this possibility would include the mouth and cheeks matching the N-5 glyph and the mouth or one eye being represented by the X-1 glyph.


Possible phonetic borrowing involves the term for “brother” from Hebrew as *'ah* and from Aramaic as *'ah-aa'*, which Stubbs (2015, 220) correlated with the term for “younger brother” in Uto-Aztecan. Interestingly, the corresponding Zapotec day name for *Ajaw* is *Loo*, also meaning “ruler” or “lord” Compton (2010, 61). In Sumerian, one of the words for “ruler” is *lu* (Pennsylvania Sumerian Dictionary 2006).

Summary

Of the twenty Maya day names, eight depict animals or personages and would not be expected to have Egyptian infixes. But two of these names do have Semitic/Egyptian phonetic correspondences. The other twelve day names all have Egyptian infixes. Of these twelve, five also have Semitic/Egyptian phonetic correspondences.

Water

One form of the Egyptian ideogram for water is three wavy lines.

N35a: 

The form in Mesoamerica is very close to the Egyptian form. An example from a mural in Teotihuacan that has been interpreted as water is shown here:



(Langley 1986, 273)

While one might argue that it is a simple glyph that the correspondance may be a coincidence, it is a possible correlation that must be considered.

Chiapa de Corzo cylinder seal

During a standard archaeological excavation in 1957, the New World Archaeological Foundation excavated a cylinder seal at Chiapa de Corzo, Mexico (see figure). An impression of the cylinder seal was submitted to Dr. William F. Albright, an expert at the time in Egyptian language among other things, and he observed that the seal contained “several clearly recognizable Egyptian hieroglyphs” (Warren et al. 1987, 203). Mayanist David H. Kelley commented on this analysis, acknowledging the triangle symbol matched an Egyptian glyph, but was unconvinced, though he indicated that “if it is plausible to make a translation of whole seal as Egyptian,” he might accept that Egyptian hieroglyphs were present (Kelley 1966, 745).



Figure 102. Cylinder seal 1 from Pit 78 at Chiapa de Corzo, excavated in 1958 (600–300 BC) (Warren et al. 1987, 272)

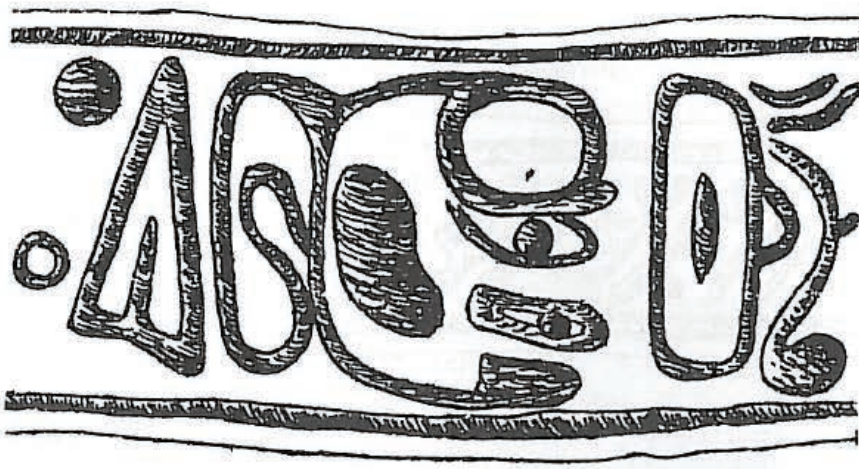


Figure 103. Cylinder seal 1 script impression from Pit 78 at Chiapa de Corzo (600–300 BC) (Warren et al. 1987, 205)



Figure 104. Cylinder seal 1 script impression from Pit 78 at Chiapa de Corzo (600–300 BC) (Lee 1969, 74)

Since Albright was not specific as to which Egyptian glyphs he was seeing, an analysis here is appropriate. David Kelley noted that the element following the triangle glyph “is almost certainly a head, probably human, with an additional element affixed.”

In looking at a likely translation, the purpose and use of cylinder seals is important. Cylinder seals existed widely in ancient Mesoamerica (Lee 1969, 74–75). The subject cylinder seal was discovered during the excavation of Mound 4c at the Chiapa de Corzo site; the excavation was identified as Pit A-78 (Lowe 1962, 35, 40–42), and the seal itself was as assigned the number A-78-6b (Lee 1969, 73). The Chiapa III strata, in which the cylinder seal in Mound 4c was found, contained burials and dedicatory offerings (although slightly higher stratigraphically) (Warren 1961, 78–79).

It has been noted that the use of cylinder seals in Mesoamerica evidences ancient contact with the Near East, where cylinder seals were extensively used (Alcina Franch 1958). Since the seal at issue is expected of a people that had prior Egyptian contact, it seems logical to look at the uses of Egyptian cylinder seals. It is, of course, possible that cylinder seals were introduced much earlier, since cylinder seals were in use in Sumer before 3000 BC. Since the Jaredite migration postdates that time period, it is possible they were introduced to them, although no cylinders have been found in Mesoamerica at these earlier dates.

In Egypt, cylinder seals were used as early as the First Dynasty (3150–2890 BC). Cylinder seals that bear royal names and titles have been found in the First through Sixth Dynasty, Twelfth Dynasty, and the Twenty-Fifth Dynasty (3150–2181 BC, 1991–1803 BC, and 732–653 BC). During other times in Egyptian history, Egyptian seals were predominantly amulets or votive objects. *Votive* means being offered in fulfillment of a vow or in gratitude or devotion. Near Eastern seals from various periods originating outside of Egypt have been found in Egypt. Egyptian hieroglyphics have been found on cylinder seals. In the Near East, by Akkadian times (2300 BC), the inscriptions were frequently enclosed within frames or lines, such as a top and a bottom line, as occurs with the Chiapa de Corzo cylinder seal (Collon 1987, 10–11, 18–19).

The people of Mulek would have come sometime around 560 BC, so a cylinder seal having a royal name would not be unexpected since this type of use was known shortly before their departure. Consistent with Egyptian practice, the inscription on the cylinder seal would likely contain some sort of votive statement or act as an amulet.

The first obvious character that all recognized as Egyptian was the triangle glyph:



In Egyptian, this glyph is fairly straightforward as being Gardiner Number X-8 with hieratic Möller Number 569:



Another glyph that Albright was likely referring to as being a clearly recognizable Egyptian glyph was the rounded rectangle with the little cap (shown rotated):



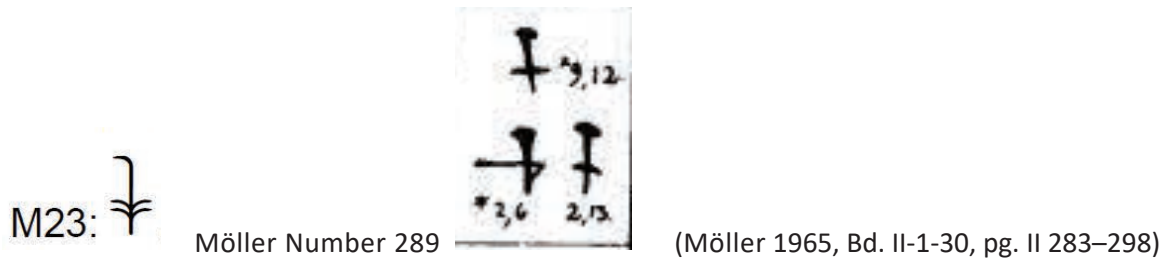
This glyph is very close to Gardiner Number R-4 with hieratic Möller Number 552:



Still another glyph that Albright was possibly referring to as a clearly recognizable Egyptian glyph was the serpentine glyph with a central tick mark (shown rotated and reversed):



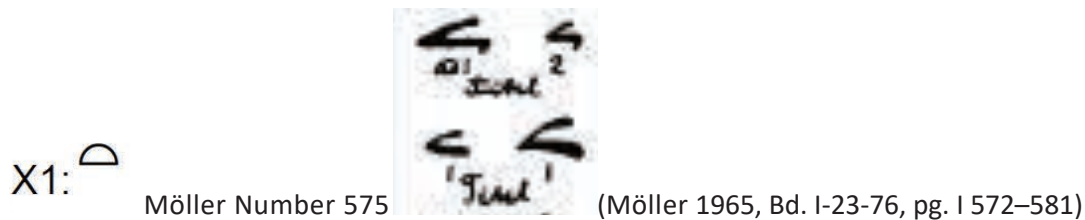
This glyph looks to be a form of Gardiner Number M-23 with hieratic Möller Number 289:



Finally, the last glyph that looks to be a slight variant of an Egyptian glyph is the double like side V glyph (shown rotated):



This glyph looks to be a variant form of Gardiner Number X-1 with hieratic Möller Number 575:



The Egyptian meaning of these four glyphs together is *Htp di nsw*, meaning “an offering the king gives” (Dickson 2006, 126; Vygus 2018, 1082).



This is entirely consistent with what is to be expected on a cylinder seal, since one of the known historical uses of a cylinder seal is as a votive offering, as previously discussed.

The dot and the circle appear to be a Mesoamerican number, which could be either the number 2 (two dots) or perhaps an 11 (one dot as a 10, the other a 1).



Now we need to turn our attention to what David Kelley called “a head, probably human, with an additional element affixed.” The face itself has the form of a rabbit, with what appears to be a circular headpiece, perhaps a Mesoamerican mirror, similar to that seen on Olmec figures (see figure 105):



Figure 105. Olmec twins from El Azulul, showing a large circular headpiece on the forehead (SolarLunar 2012)

The archeological history of Chiapa de Corzo would be consistent with the use of Olmec cultural features, such as the headpiece, during the time horizon of the cylinder seal (600–300 BC):

Archaeological and linguistic findings suggest that Chiapa de Corzo was settled around 1200 BC by Mixe-zoquean speakers who had strong ancestral ties to Olmec people residing in the Gulf and Pacific Coastal regions of Mesoamerica. By 900 or 800 BC, the small Mixe-zoque village of Chiapa de Corzo established a strong, possibly direct relationship with the Gulf Olmec center of La Venta.

The subsequent historical period known as Escalera or Chiapa III (700-500 BC) is among the most important yet least understood at the site. During this era, Chiapa de Corzo became a planned town with formal plazas and carefully arranged public monumental buildings made of clay. The public ceremonial precinct formed 20 of the site's 70 hectares. The people maintained their Olmec heritage, incorporating the early ceremonial pond into their urban design and depositing a massive offering of ritual axes in front of an astronomical building that included, among other things, vessels of Gulf Olmec origin and/or inspiration. Ties were simultaneously forged with the Maya region, as similarities are observable with Lowland Maya pottery and Highland Maya censer pots. (BYU 2018)

The form of the head as a rabbit mirrors the well-known Copan Maya king Uaxaclajuun Ub'aah K'awil, originally referred to as 18-Rabbit, based on his name glyph, except that the cylinder seal image has long ears. The 18-Rabbit glyph has since been determined by Mayanists to likely be the image of a gopher. His name glyph can be seen in figure 106.



Figure 106. 18-Rabbit/Gopher glyph from Copan (Bialick 2018)


By isolating and reversing the cylinder seal head to match the facing direction of 18-Rabbit, one can see the animalistic similarities, including the extended tongue.



The elemental affix referred to by Kelley is attached to the back of the head and actually appears to be the ears of the rabbit. The rabbit is one of the Mesoamerican divinatory day names and is referred to as *K'anil* among the Quiche' Maya and *Tochitli* among the Aztec.

The rabbit ears element themselves are also similar to the hieratic form of the Egyptian glyph for rabbit, which is Gardiner E-4 with Möller Number 575:



E34: 

Möller Number 575



(Möller 1965, Bd. I-1-22, pg. I 128–137)

Thus, with all of these elements, a reasonable translation of the Chiapa de Corzo cylinder seal in this form of Mesoamerican-style Egyptian would be “an offering King 11-Rabbit gives.” This statement is completely consistent with what one would expect on an Egyptian-style cylinder seal in that it contains a royal name and a votive statement, as previously discussed.

The hieratic forms of Egyptian included here (although other forms of different time periods also match) would all predate the cylinder seal (Möller 132, 575, 18th Dynasty [1550–1292 BC]; Möller 552, 5th Dynasty [2498–2345 BC]; Möller 569, 6th Dynasty [2345–2181 BC]; Möller 289, 21st Dynasty [1069–945 BC]).

According to the Sorenson model, the Nephites would not have been in the area of Chiapa de Corzo (as part of the land of Zarahemla) until much later, so the Egyptian source of the cylinder seal script would have had to have come from the people of Mulek, who may have carried some Egyptian with them, or some other Egyptian contact. The Book of Mormon states that the people of Zarahemla had no records (Omni 1:17), but

some of the original people that came with Mulek may have had Egyptian records. It is not exactly clear in the Book of Mormon when the people of Zarahemla arrived in the area; the arrival may have post-dated the cylinder seal.

Chapter 19

Implications of the Caractors Document

Translation

Linguistic Observations

Further study of the underlying linguistics of the Caractors Document is needed to determine how much Egyptian linguistic structure remains and to determine if there is any apparent influence from Mesoamerican languages or Hebrew on the linguistics of the underlying language. But even without the study, a few initial observations can still be made:

1. The Egyptian used appears to be a stripped-down version, with few prepositions, and no obvious articles or plurals for the most part. The plurals and articles are implied by context.
2. The primary glyphic preference is the hieratic Egyptian, with some augmentation by Demotic Egyptian.
3. The controlling factor in glyph selection is the limitation of space. The simplest and most compact forms of hieroglyphic words are used—hence the primary use of hieratic. When Demotic is used, the forms are very simple and short. Determinatives are used as full words, also indicating an effort to conserve space.
4. There are few instances of phonetic constructions, again probably because those few forms tend to be shorter than the logographic glyphs in conveying the same meaning.
5. It appears that the forms and style were somewhat modified, but not severely so after 1,000 years, which indicates that the language may have been a form of “dead language” only used by a very limited group.
6. A few early forms of hieroglyphics are represented, so it would appear that the Nephite Egyptian contained some earlier sources of Egyptian.
7. It seems as if the script has changed over time to reflect its limited use on an engraved medium, preferring simple, non-complex ideograms.

The linguistic information gained is also useful in understanding the nature of the language of the English translation for the rest of the Book of Mormon, since the underlying reformed Egyptian text structure is now clearer.

Understanding of the Book of Mormon

The two short initial sections of the Book of Mormon that comprised the Caractors Document do not provide any earth-shattering doctrinal information, but they do add some new information and provide new insights into various items in the Book of Mormon.

Population

Based on the Caractors Document’s indication of 20,000 Nephites to the Mulekites at Zarahemla, we might be able to approximate population counts of the various groups during this time period, since we have some ratios provided in the Book of Mormon 90 years later (Mosiah 25:2–3):

2 Now there were not so many of the children of Nephi, or so many of those who were descendants of Nephi, as there were of the people of Zarahemla, who was a descendant of Mulek, and those who came with him into the wilderness.

3 And there were not so many of the people of Nephi and of the people of Zarahemla as there were of the Lamanites; yea, they were not half so numerous.

More Accurate and Detailed Internal Book of Mormon Chronology

There are now more dates for events in the Book of Mormon, especially those that are found in the period of Omni. In addition, we now know that the Reign of the Judges ran all the way to the visitation of Christ to the Nephites. It is now clear that there was a prophetic calendar that consisted of the 600-year calendar up to the birth of Christ, and then the calendar that ran from the coming of Christ in toto, comprising a 1,000-year Calendar until the destruction of the Nephites. There are also primary political calendars and secondary subcalendars. The primary political calendars would first be the Reign of the Kings Calendar, which commenced 55 years after Lehi left Jerusalem and was replaced 509 years after Lehi left Jerusalem with the Reign of the Judges Calendar, which, as mentioned, ended 34 years after Christ was born when he appeared to the Nephites. It is not clear what the political calendar was after that time; it may be manifest in the additional portions of the plates associated with Caractors Document that were not translated. The political subcalendars would be the reign of each of the kings and the newly manifest political Period of the Seven Tribes.

Other Discoveries

- At least some of the personal names are not phonetically based in the underlying language but reflect the meaning of the name in Hebrew.
- Previously unknown “1,000 Year” calendrical period
- Previously unknown Jubilee Calendar
- Previously unknown calendrical Period of the “Seven Tribes”
- Number of judges during the Reign of the Judges
- Verification of the 12-moon year, allowing better correlation of Book of Mormon calendar
- The name of Christ incorporated into the glyph for Nephites
- Clarified directionality in the Book of Mormon
- Underlying sacred number internal chronological structure

Conclusions

Perhaps above all, the translation of the Caractors Document shows that the Book of Mormon was written in just the way and in just the language it says it was. The translation of the four separate characters written down by Oliver Cowdery and Frederick G. Williams was just what they said it was. In these days of self-promoting academics and critics looking for the proverbial light switch to expose early Latter-day Saint Church history, often in the most unflattering manner they can concoct, it was refreshing to see something so clear and straightforward from early Church history, unsullied by the cacophony of historical fog. That little scrap of yellowed paper sat peacefully for more than a hundred years, just waiting for someone to take it seriously. I hope I have respectfully done that. I must admit that, although this project was a lot of work, I was a bit saddened as I translated the last character because I had so much enjoyed the illumination I received during the translation as each new element was discovered.

In Munro Edmonson’s landmark book on Mesoamerican calendars, *The Book of the Year*, he stated:

The idea that the day count, or a(t) least the order of the named days, was a diffusion from the Old World has been systematically explored by Kelley (1960) and Moran and Kelley (1969). The theory is difficult to falsify and impossible to prove. (Edmonson 1998, 98)

It is clear that, because of the Caractors Document, this statement will need to be amended.

Appendix 1

Comparison of Glyphs from the Caractors Document and the Broadside

Translation

Caractors Document

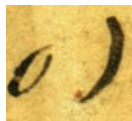
Broadside/Newspaper

Mosiah₁



𐑁𐑂

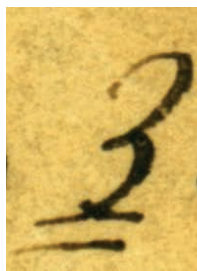
B1d, B1c, B1b, and B1a



Regnal Year

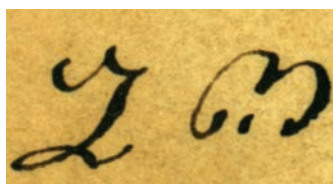
C-2, C-1

Reign of the Kings C-3
Introductory Glyph (55 years)

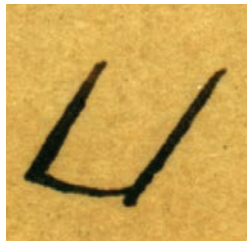


19 (nineteen) years (6 +13)

C-5, C-4

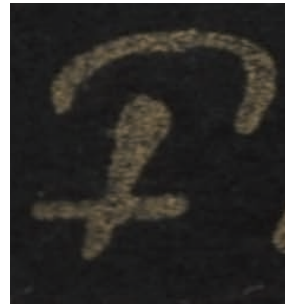
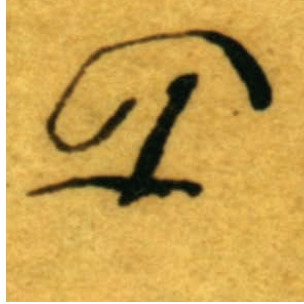


𐑁𐑂

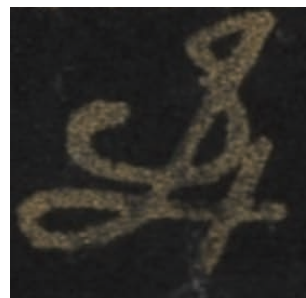


Mountains (wilderness)

C-6



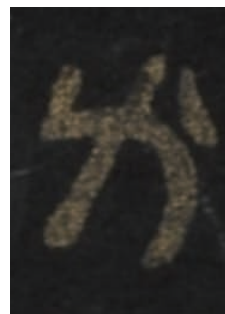
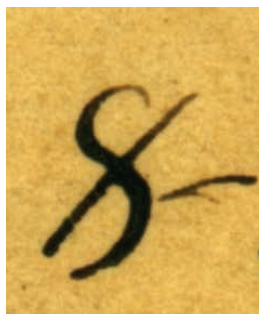
Others, persons of
foreign speech C-7



Walking Fish (title) C-8



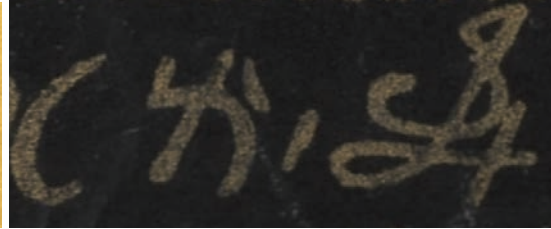
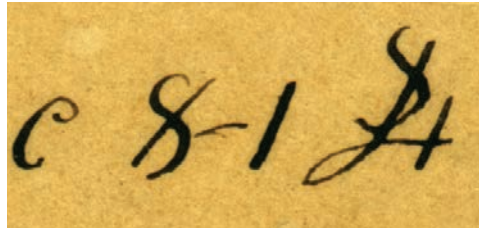
to be young C-9



male determinative C-10

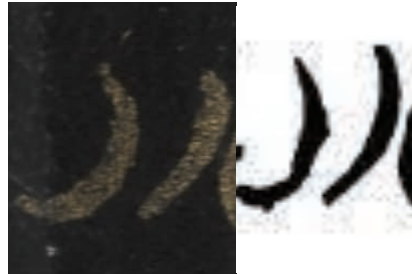
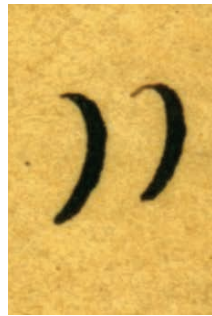


lord C-11

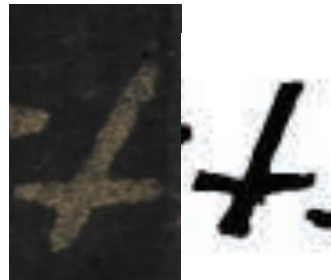
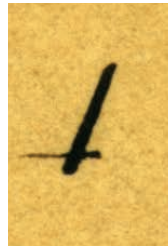


Mulek

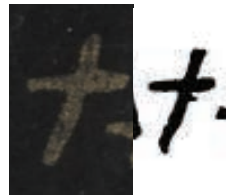
C-11, C-10, C-9, C-8



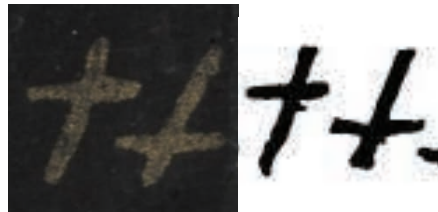
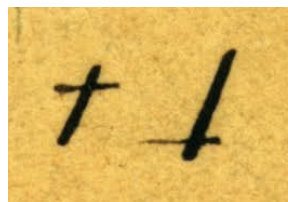
ADI C-12



Son C-13



Tribe C-14



Nephite C-14, C-13

came/went C-15

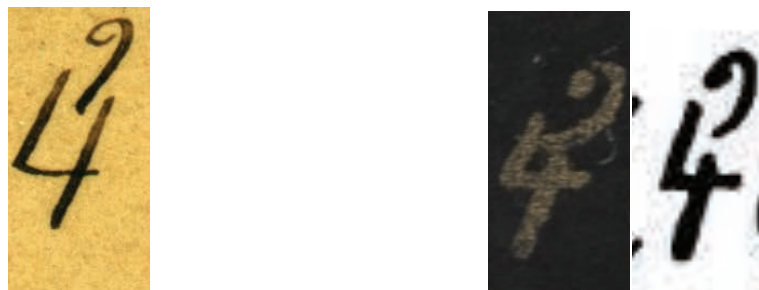


Zarahemla C-17, C-16



20,000 (twenty thousand)

C-18



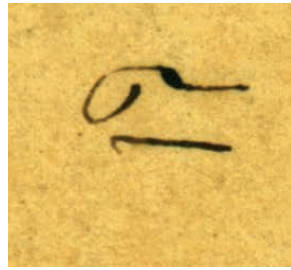
children of Mosiah C-20, C-19



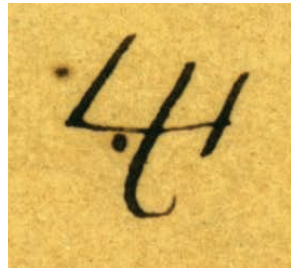
80 (eighty) [days] C-21



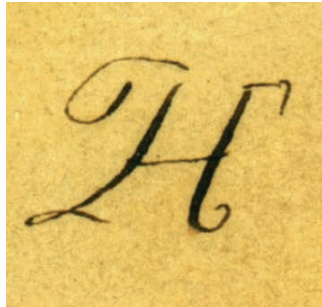
traveled downriver C-22
(River Sidon)



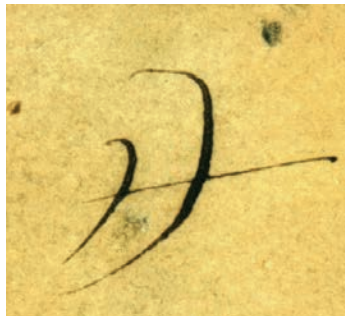
on the east side C-23



DNIG C-24

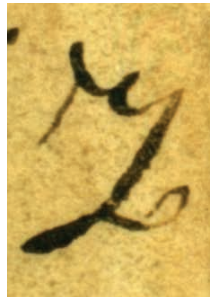


PDI C-25

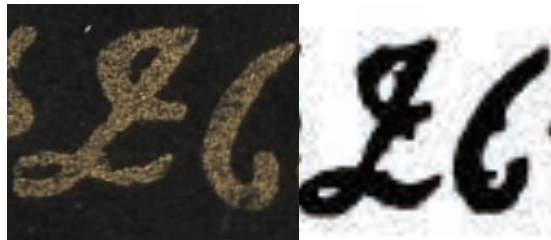
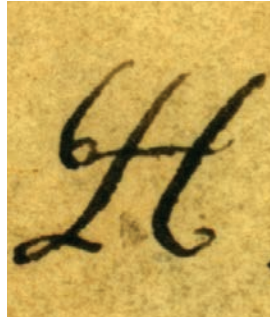


See discussion B26a

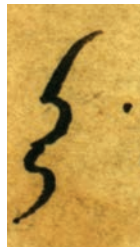




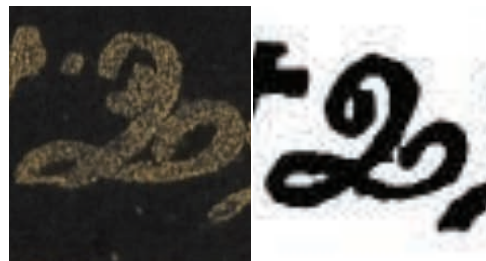
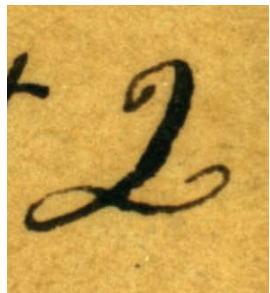
See discussion
C-26/B26b



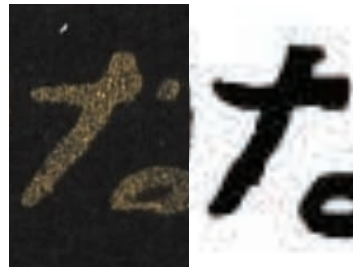
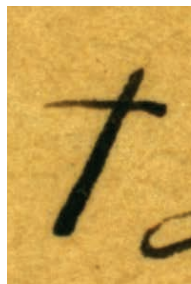
DNIG C-27



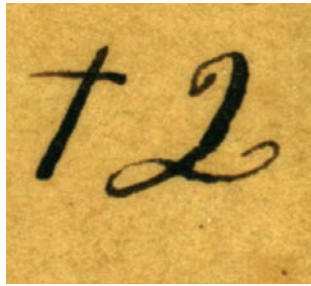
ADI C-28



7 (seven) C-29



Tribe C-30



"Seven Tribes"
C-30, C-29



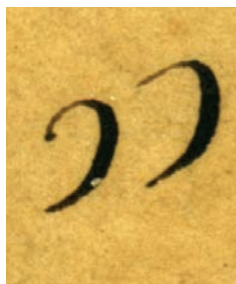
PDI C-31



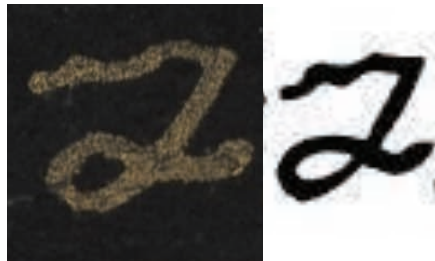
20 (twenty) [years]
C-32



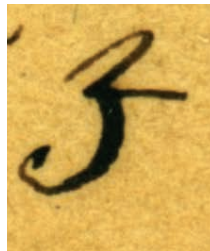
1 (one) [year] C-33



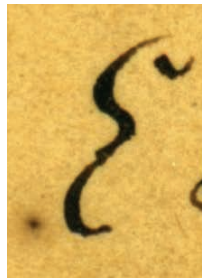
ADI C-34



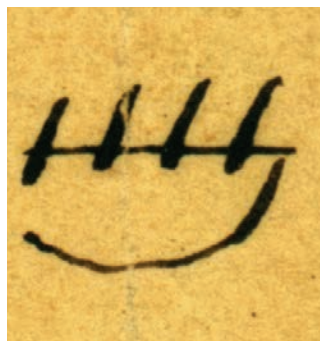
60 (sixty) persons
C-35



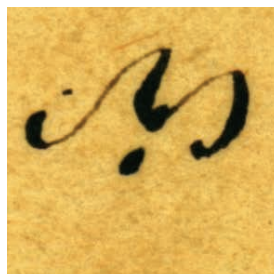
Zeniff C-36



left, departed C-37



40 (forty) [years]
C-38

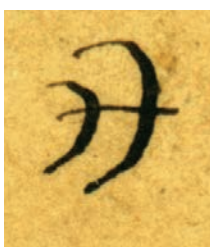


13 (thirteen) [years]
C-39

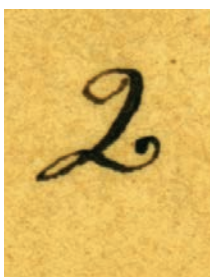
DNIG C-40



PDI C-41



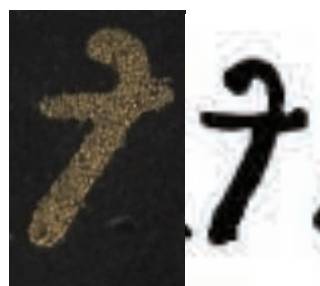
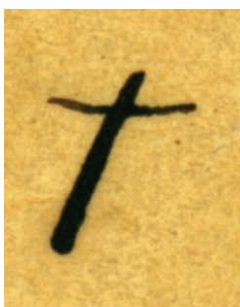
7 (seven) [years]
C-42

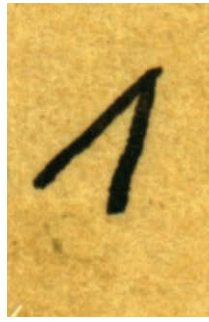


Limhi C-43

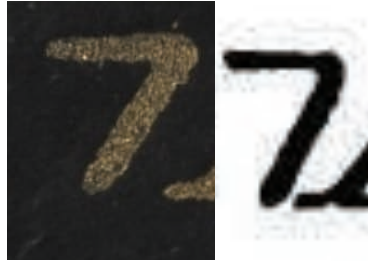
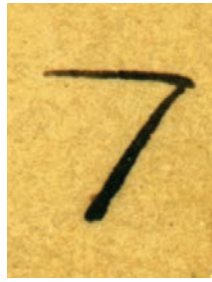


Tribe C-44

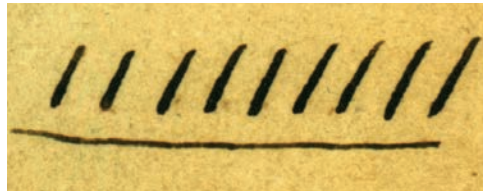




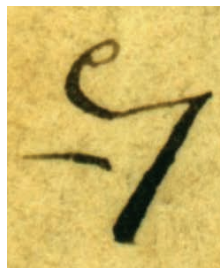
10 (ten) C-45



5 (five) C-46



9 (nine); plates C-47

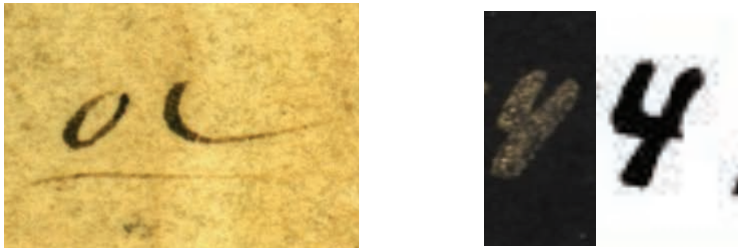


West, Desolation
C-48

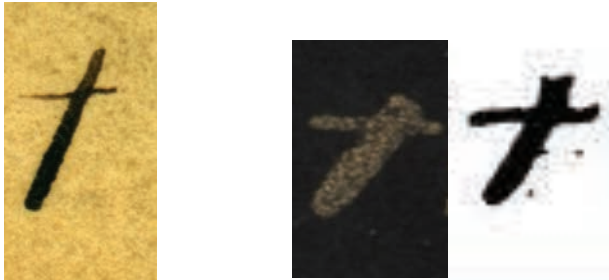


Upriver; to bring
B49a

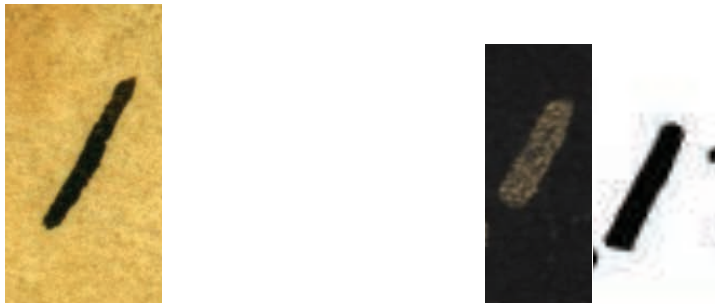
Jared
C-50, C-49



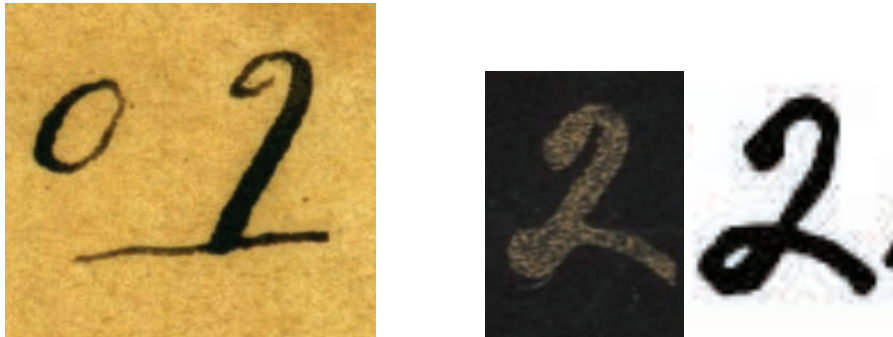
Tribe C-51



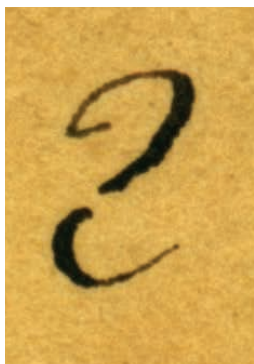
toward C-52



the west
C-54, C-53



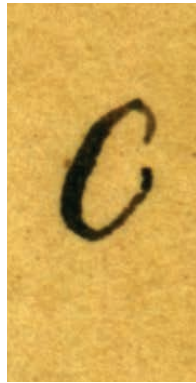
gold C-55



No discrete character in Broadside

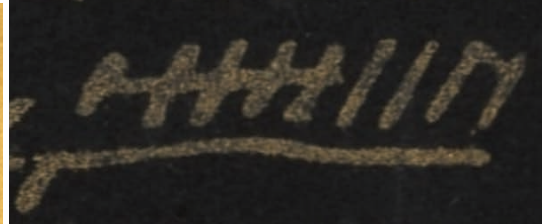
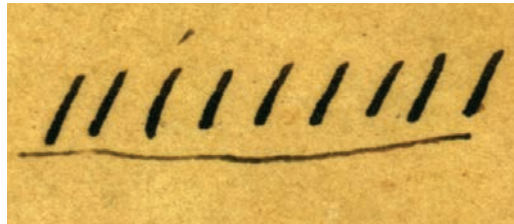


good (pure)
C-56

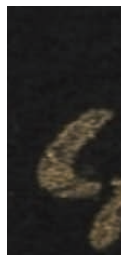
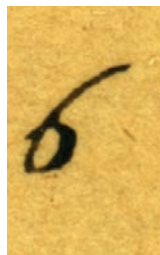


No discrete character in Broadside – likely attached to previous glyph

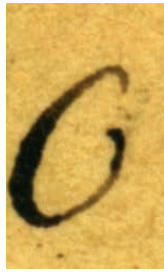
translate (initial)
C-57



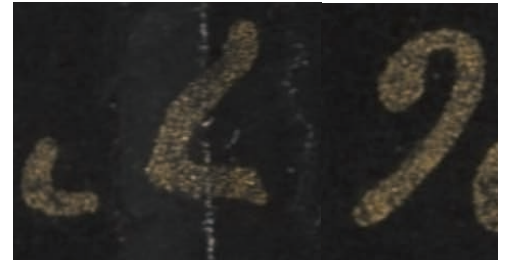
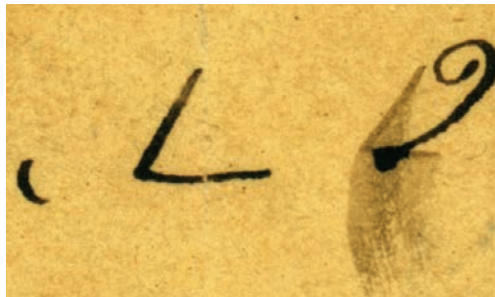
plates C-58



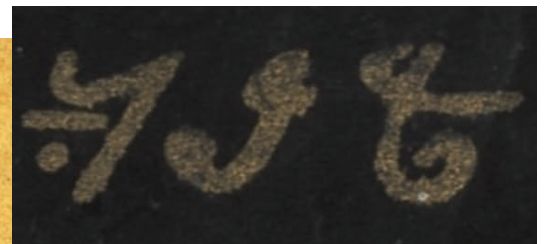
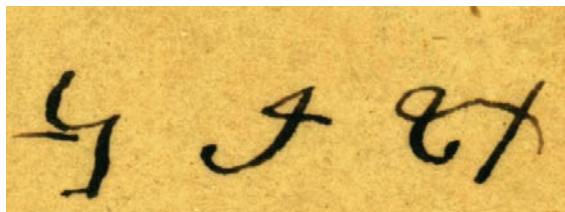
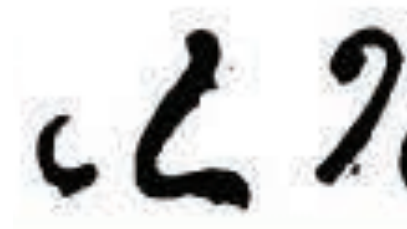
by the power of God
C-59



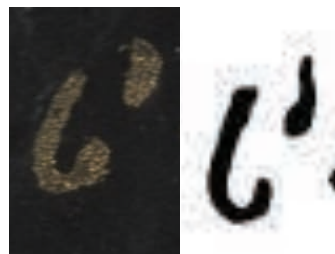
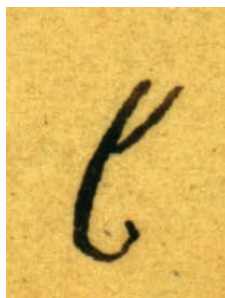
translate (last)
C-60



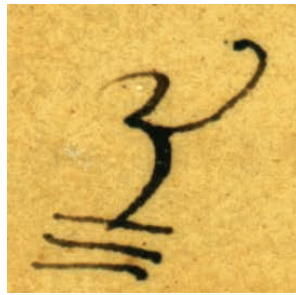
King Mosiah₂
C-63, C-62, C-61



King Benjamin
C-67, C-66, C-65, C-64



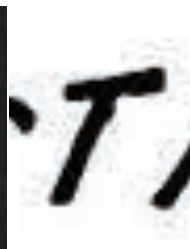
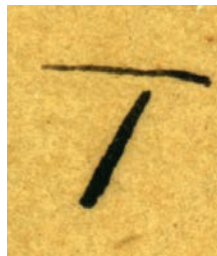
"2 month" C-68



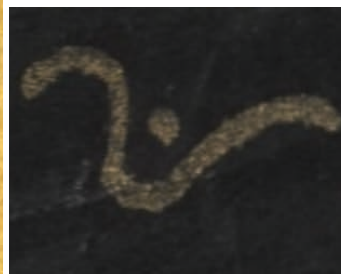
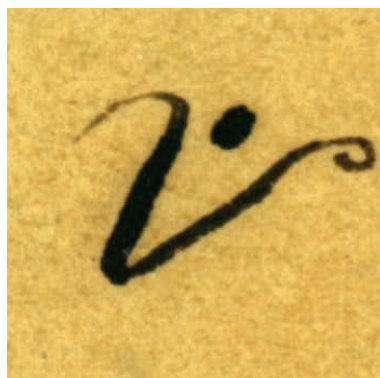
IGIS Lehi Departure
C-69



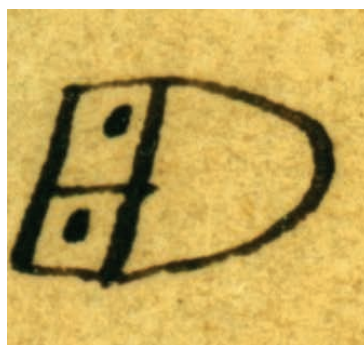
10 (ten)[years] C-70



5 (five)[years] C-71

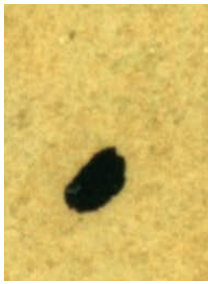


400 (four hundred)
[years] C-72



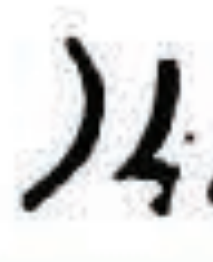
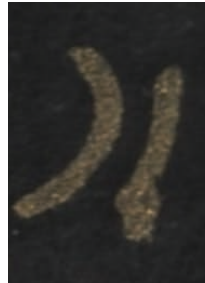
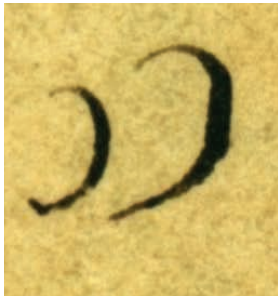
20 (twenty)[years]

C-73

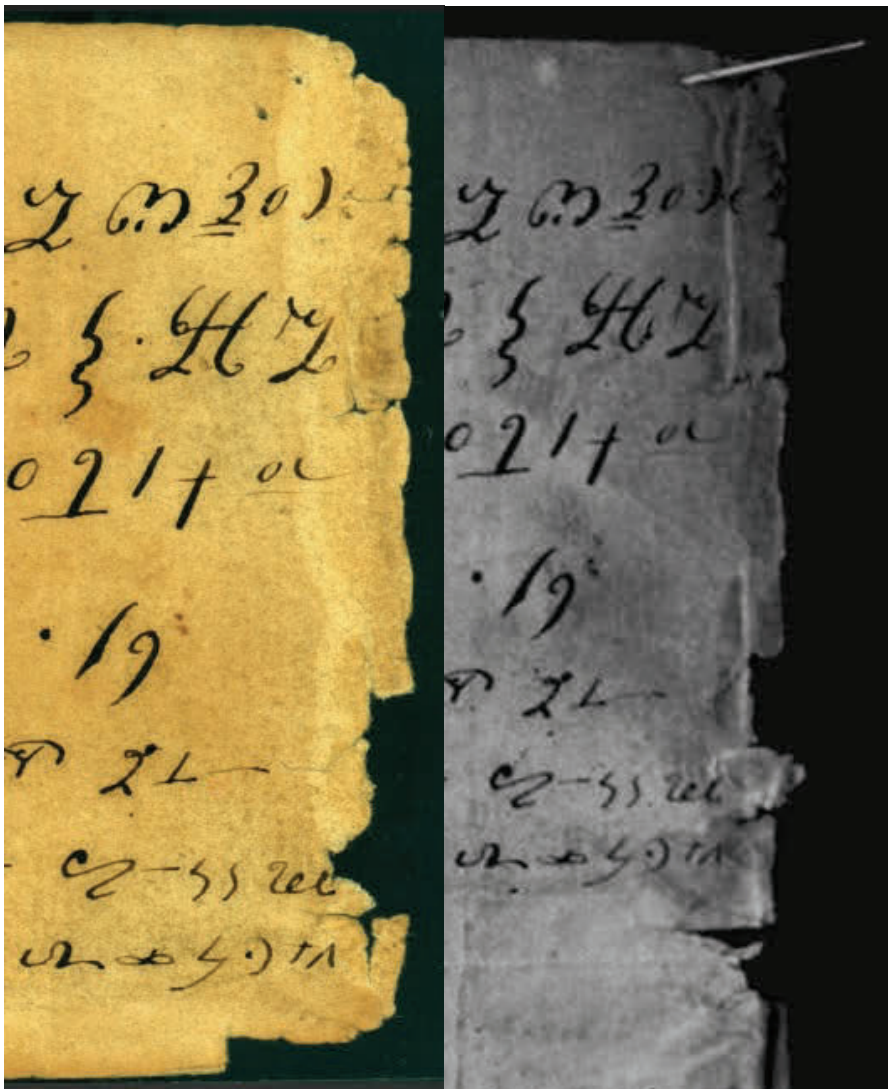


1 (one)[years] C-74

Missing in the Broadside



ADI C-75



Appendix 2

Caractors Addendum Showing Egyptian Source Time Frames

Character	Egyptian Source	Time Period
1	<i>Demotisches Glossar</i>	650–630 BC
2	<i>Demotisches Glossar</i>	650–630 BC
3	Multiple	650 BC–AD 452
4	Louvre E 3228d; Tsenhor Papyri, Thebes	675–676 BC; 556–487 BC
5	Ostraca Arad 34	700–600 BC
6	Möller 320	1386–945 BC
7	<i>Demotisches Glossar</i>	650–30 BC
8	Möller 255	1100–945 BC
9	Möller 719, Strasbourg Ostraca	1650-1500 BC; Demotic period undefined
10	Horizontal line ubiquitous, hwt	Includes Lehi time frame; 650–30 BC
11	<i>Demotisches Glossar</i> , p. 324	650–400 BC
12	Mesoamerican, Sumerian, Möller 258	NA; 2345–2166 BC; 1392–1149 BC
13	Möller; CDD	2345–2061 BC; 200 BC–AD 100
14	Ubiquitous, Gardiner V-17, Moeller 389	Includes Lehi time frame
15	Ubiquitous, Gardiner D-54 and D-55, Möller 120 and 121	Includes Lehi time frame
16	Möller 224	1382–1334 BC
17	Ubiquitous (Möller 125)	Includes Lehi time frame
18	<i>Demotisches Glossar</i> ; Ptolomaic Papyrus	400–30 BC
19	Möller 33 and 33b, ubiquitous	Includes Lehi time frame

Character	Egyptian Source	Time Period
20	Möller 33 and 33b, ubiquitous	Includes Lehi time frame
21	Takelothis Papyri, Thebes; Qudeirat, Sinai	830–880 BC; 700–600 BC
22	Ubiquitous (Möller 331 and 459); <i>Demotisches Glossar</i>	Includes Lehi time frame; 650–30 BC
23	Möller 578; <i>Demotisches Glossar</i>	1200–30 BC
24	Mesoamerican; ubiquitous (Möller 571)	Ubiquitous; 1155–1111 BC; 650–400 BC
25	Proto-cuneiform, ubiquitous Möller 564	Includes Lehi time frame
26	Early Demotic; Ashmoleum Ptolomaic Stela	650–30 BC
27	Mesoamerican; ubiquitous (Möller 571)	Ubiquitous; 1155–1111 BC, 650–400 BC
28	Mesoamerican, Sumerian; Proto Hebrew, Möller 250, ubiquitous	Includes Lehi time frame
29	Ostraca Arad 112	700–500 BC
30	Ubiquitous, Gardiner V-17, Moeller 389	Includes Lehi time frame
31	Proto-cuneiform, ubiquitous, Möller 564	Includes Lehi time frame
32	Mesoamerican, Sumerian	NA
33	Egyptian and Mesoamerican, ubiquitous	Includes Lehi time frame
34	Mesoamerican, Sumerian, Moeller 258	NA; 2345–2166 BC; 1392–1149 BC
35	Ostraca Arad 34	700–600 BC
36	<i>Demotisches Glossar</i> ; Moeller 208	Undetermined in 650 BC–AD 50; 1991–1633 BC
37	<i>Demotisches Glossar</i>	650–30 BC
38	Takelothis Papyri, Thebes; Qudeirat, Sinai	830–880 BC; 700–600 BC

Character	Egyptian Source	Time Period
39	Louvre E 3228d; Tsenhor Papyri, Thebes	675–6 BC; 556–487 BC
40	Mesoamerican; ubiquitous (Möller 571)	Ubiquitous; 1155–1111 BC, 650–400 BC
41	Proto-cuneiform, ubiquitous, Möller 564	Includes Lehi time frame
42	Ostraca Arad 112	700–500 BC
43	Sumerian	NA
44	Ubiquitous, Gardiner V-17, Möller 389	Includes Lehi time frame
45	Ubiquitous	Includes Lehi time frame
46	Ubiquitous	Includes Lehi time frame
47	Mesoamerican, Elamite, Egyptian Monumental form ubiquitous; Hatnub Inscriptions, Elephantine Papyri, Abusir Papyri, Graffito, P. Rylands Papyri	2498–1991 BC; 664–404 BC
48	Möller 189	1800–1500 BC; other time frames have no examples
49	Ubiquitous	Includes Lehi time frame
50	Ubiquitous	Includes Lehi time frame
51	Ubiquitous, Gardiner V-17, Möller 389	Includes Lehi time frame
52	BM 10399, Cairo 89127 papyri	400–30 BC
53	<i>Demotisches Glossar</i>	650–30 BC
54	<i>Demotisches Glossar</i>	650–30 BC
55	<i>Demotisches Glossar</i>	650 BC–AD 400
56	Möller 180, Rhind Papyrus	1650 BC
57	Rhind Papyrus, Möller 519	1650 BC, 732–350 BC
58	Mesoamerican, Elamite, Egyptian Monumental form ubiquitous; Hatnub Inscriptions, Elephantine	2498–1991 BC; 664–404 BC

Character	Egyptian Source	Time Period
	Papyri, Abusir Papyri, Graffito, P. Rylands Papyri	
59	Ubiquitous (Möller 125)	Includes Lehi time frame
60	Rhind Papyrus, Möller 519	1650 BC, 732–350 BC
61	Ubiquitous (Möller 125)	Includes Lehi time frame
62	Möller 216, ubiquitous	Includes Lehi time frame
63	Möller 33 and 33b, ubiquitous	Includes Lehi time frame
64	Möller 540, ubiquitous	Includes Lehi time frame
65	Möller 540, ubiquitous	Includes Lehi time frame
66	Möller 196	2500–1279 BC; 945–720 BC
67	Möller 188 or 189, ubiquitous	Includes Lehi time frame
68	Paleo Hebrew <i>waw</i>	Includes Lehi time frame
69	Ubiquitous	Includes Lehi time frame
70	Ubiquitous	Includes Lehi time frame
71	Ubiquitous	Includes Lehi time frame
72	Ptolomaic Papyri; <i>Demotisches Glossar</i>	400–30 BC
73	Mesoamerican, Sumerian	NA
74	Egyptian and Mesoamerican, ubiquitous	Includes Lehi time frame
75	Mesoamerican, Sumerian, Moeller 258	NA; 2345–2166 BC; 1392–1149 BC
76	Ptolomaic Papyrus; <i>Demotisches Glossar</i>	400–30 BC
77	Ptolomaic Papyrus; <i>Demotisches Glossar</i>	400–30 BC
78	Egyptian and Mesoamerican, ubiquitous	Includes Lehi time frame
79	Mesoamerican; ubiquitous (Möller 571)	Ubiquitous; 1155–1111 BC; 650–400 BC
80	Ostraca Arad 112	700–500 BC

Character	Egyptian Source	Time Period
81	Multiple, Mesoamerican, Sumerian, Moeller 366, ubiquitous	650 BC–AD 452; NA
82	Mesoamerican, Sumerian, Moeller 258	NA; 2345–2166 BC; 1392–1149 BC
83	Early Demotic; Ashmoleum Ptolomaic Stela	650–30 BC
84	Möller 311	1991–1649 BC; 1129–1111 BC; 1069–945 BC
85	Takelothis Papyri, Thebes; Qudeirat, Sinai	830–880 BC; 700–600 BC
86	Louvre E 3228d; Tsenhor Papyri, Thebes	675-6 BC; 556-487 BC
87	Proto-cuneiform, ubiquitous Möller 564	Includes Lehi time frame
88	Ubiquitous	Includes Lehi time frame
89	Ubiquitous	Includes Lehi time frame
90	Ptolomaic Papyri; <i>Demotisches Glossar</i>	400–30 BC
91	Mesoamerican, Sumerian	NA
92	Mesoamerican	NA
93	<i>Demotisches Glossar</i>	650–30 BC
94	<i>Demotisches Glossar</i>	650–30 BC
95	<i>Demotisches Glossar</i>	650–30 BC
96	<i>Demotisches Glossar</i>	650–30 BC
97	No character designated	
98	No character designated	
99	No character designated	
100	Palestinian Hieratic–Wimmer	Includes Lehi time frame
101	Ostraca Arad 34	700–600 BC
102	Ostraca Arad 34	700–600 BC
103	Ubiquitous	Includes Lehi time frame

Character	Egyptian Source	Time Period
104	Palestinian Hieratic–Wimmer	Includes Lehi time frame
105	Ubiquitous, Gardiner D-54 and D-55, Moeller 120 and 121	Includes Lehi time frame
106	Ubiquitous (Möller 289 and 331); Möller (Sobek); CDD; <i>Demotisches Glossar</i>	Includes Lehi time frame, 2345–2061 BC; 200 BC–AD 100; 650–30 BC
107	Ubiquitous, Gardiner V-17, Möller 389	Includes Lehi time frame
108	Möller 432, 124, 511, 99, 525, 502, N35; ubiquitous	Includes Lehi time frame
109	Ubiquitous (Möller 125), (Gardiner V-1, T-14), (Möller 33)	Includes Lehi time frame; 1549–1292 BC
110	Palestinian Hieratic–Wimmer	Includes Lehi time frame
111	Mesoamerican, Sumerian, Egyptian ubiquitous	Includes Lehi time frame
112	Wimmer, <i>Demotisches Glossar</i>	700–30 BC
113	<i>Demotisches Glossar</i>	650–30 BC
114	<i>Demotisches Glossar</i>	650–30 BC
115	Ubiquitous	Includes Lehi time frame
116	Archive of Hor Ostraca 12, 2; P Turin 6077C, 14; P Turin 6084, 1	200 BC
117	Archive of Hor Ostraca 12, 2; P Turin 6077C, 14; P Turin 6084, 1	200 BC
118	Ubiquitous	Includes Lehi time frame
119	Mesoamerican, Sumerian, Egyptian, ubiquitous	Includes Lehi time frame
120	Ostraca Arad 112	700–500 BC
121	Mesoamerican; ubiquitous (Möller 571)	Ubiquitous; 1155–1111 BC; 650–400 BC
122	Ubiquitous	Includes Lehi time frame

Character	Egyptian Source	Time Period
123	Takelothis Papyri, Thebes; Qudeirat, Sinai	830–880 BC; 700–600 BC
124	Multiple	650 BC–AD 452
125	Möller 188, ubiquitous	Includes Lehi time frame
126	Moeller; CDD	2345–2061 BC; 200 BC–100 AD
127	Ubiquitous, Gardiner D-54 and D-55, Moeller 120 and 121	Includes Lehi time frame
128	<i>Demotisches Glossar</i>	650–30 BC
129	<i>Demotisches Glossar</i>	650–30 BC
130	<i>Demotisches Glossar</i> ; Möller 208	Undetermined 650 BC– AD 50; 1991–1633 BC
131	Möller 339, ubiquitous	Includes Lehi time frame
132	Möller 457, ubiquitous	Includes Lehi time frame
133	Möller 552, 'Onch papyri	1803–1649 BC; 1100–945 BC; 70 BC
134	Mesoamerican, Sumerian	NA
135	Multiple	650 BC–AD 452
136	Möller 408	400–30 BC
137	Möller 408	400–30 BC
138	Möller 447, ubiquitous	Includes Lehi time frame
139	Möller 250, ubiquitous	Includes Lehi time frame
140	Palestinian Hieratic–Wimmer	Includes Lehi time frame
141	<i>Demotisches Glossar</i> , 'Onch Ptolomaic Papyri	Demotic; 400–30 BC
142	Ubiquitous, Gardiner V-17, Möller 389	Includes Lehi time frame
143	Magical, Mythus, Setne, 'Onchsheshonqy	400 BC–AD 452
144	<i>Demotisches Glossar</i>	650–30 BC
145	Palestinian Hieratic–Wimmer	Includes Lehi time frame

Character	Egyptian Source	Time Period
146	Monumental Egyptian, ubiquitous	Includes Lehi time frame
147	Monumental Egyptian, ubiquitous	Includes Lehi time frame
148	Möller 125, ubiquitous	Includes Lehi time frame
149	Unknown	NA
150	Unknown	NA
151	Möller 311	1991–1649 BC; 1129–1111 BC; 1069–945 BC
152	Nur-el Dim, Leiden Museum, Thebes, Ptolomaic	400–30 BC
153	Wimmer, <i>Demotisches Glossar</i>	700–30 BC
154	Palestinian Hieratic–Wimmer	Includes Lehi time frame
155	Early Demotic; Ashmoleum Ptolomaic Stela	650–30 BC
156	Ubiquitous	Includes Lehi time frame
157	Takelothis Papyri, Thebes; Qudeirat, Sinai	830–880 BC; 700–600 BC
158	Sumerian	NA
159	Ubiquitous	Includes Lehi time frame
160	Ubiquitous	Includes Lehi time frame
161	Moeller; CDD	2345–2061 BC; 200 BC–AD 100
162	Ubiquitous, Gardiner D-54 and D-55, Möller 120 and 121	Includes Lehi time frame
163	Ubiquitous, Gardiner V-17, Möller 389	Includes Lehi time frame
164	Palestinian Hieratic–Wimmer	Includes Lehi time frame
165	Multiple	650 BC–452 AD
166	Ubiquitous	Includes Lehi time frame
167	<i>Demotisches Glossar</i>	650–30 BC

Character	Egyptian Source	Time Period
168	Ubiquitous (Möller 289 and 331); ubiquitous (Möller 250, 575, and 318); CDD; <i>Demotisches Glossar</i>	Includes Lehi time frame; 200 BC–AD 100; 650–30 BC
169	Mesoamerican; ubiquitous (Möller 571)	Ubiquitous; 1155–1111 BC, 650–400 BC
170	Mesoamerican, Sumerian, Egyptian, ubiquitous	Includes Lehi time frame
171	Ostraca Arad 112	700–500 BC
172	Mesoamerican, Sumerian	NA
173	BM 10399, Cairo 89127 papyri	400–30 BC
174	<i>Demotisches Glossar</i>	650–30 BC
175	Ubiquitous	Includes Lehi time frame
176	Ubiquitous	Includes Lehi time frame
177	Ubiquitous	Includes Lehi time frame
178	Multiple	650 BC–452 AD
179	Paleo Hebrew <i>nun</i>	Includes Lehi time frame
180	Möller 459 and 469b	1391–945 BC; 672–525 BC
181	<i>Demotisches Glossar</i> , 'Onch Ptolomaic Papyri	Demotic; 400 BC–30 BC
182	Palestinian Hieratic–Wimmer	Includes Lehi time frame
183	Moeller; CDD	2345–2061 BC; 200 BC–AD 100
184	Ubiquitous, Gardiner V-17, Möller 389	Includes Lehi time frame
185	<i>Demotisches Glossar</i>	650 BC–AD 400
186	Mesoamerican; ubiquitous (Möller 571)	Ubiquitous; 1155–1111 BC, 650–400 BC
187	Mesoamerican; ubiquitous (Möller 571)	Ubiquitous; 1155–1111 BC, 650–400 BC
188	proto-cuneiform, ubiquitous Möller 564	Includes Lehi time frame

Character	Egyptian Source	Time Period	
189	<i>Demotisches Glossar</i>	400 BC–AD 425	
190	Möller 250, Ubiquitous	Includes Lehi time frame	
191	Möller 575	2134–1292 BC	
192	Palestinian Hieratic–Wimmer	Includes Lehi time frame	
193	proto-cuneiform, ubiquitous Möller 564	Includes Lehi time frame	
194	Moeller; CDD	2345–2061 BC; 200 BC–AD 100	
195	Ubiquitous, Gardiner V-17, Möller 389	Includes Lehi time frame	
196	Ubiquitous (Möller 331 and 459); <i>Demotisches Glossar</i>	Includes Lehi time frame; 650–30 BC	
197	<i>Demotisches Glossar</i>	650 BC–400 AD	
198	Palestinian Hieratic–Wimmer	Includes Lehi time frame	
199	Magical, Mythus, Setne, 'Onchsheshonqy	400 BC–AD 452	Janet H. Johnson, <i>The Demotic Verbal System</i> , Studies in Ancient Oriental Civilization, No. 38 (Chicago: The Oriental Institute of the University of Chicago, 1976)
200	<i>Demotisches Glossar</i>	650–30 BC	
201	Ubiquitous	Includes Lehi time frame	
202	Ubiquitous	Includes Lehi time frame	
203	Palestinian Hieratic–Wimmer	Includes Lehi time frame	
204	Ubiquitous (Möller 575)	Includes Lehi time frame	
205	Ubiquitous (Möller 263)	Includes Lehi time frame	
206	Ubiquitous (Möller 575)	Includes Lehi time frame	
207	Ubiquitous (Möller 80)	Includes Lehi time frame	
208	Möller 196	1129–1111 BC	
209	Ubiquitous (Möller 80)	Includes Lehi time frame	
210	Ubiquitous (Z1)	Includes Lehi time frame	
211	Ubiquitous (Z1)	Includes Lehi time frame	
212	Ubiquitous (Z1)	Includes Lehi time frame	

Character	Egyptian Source	Time Period	
213	Ubiquitous (Möller 125)	Includes Lehi time frame	
214	Ubiquitous (Möller 125)	Includes Lehi time frame	
215	Ubiquitous (Möller 289 and 331); Möller (Sobek); CDD; <i>Demotisches Glossar</i>	Includes Lehi time frame, 2345–2061 BC; 200 BC–AD 100; 650–30 BC	
216	Ubiquitous, Gardiner V-17, Moeller 389	Includes Lehi time frame	
217	Möller 432, 124, 511, 99, 525, 502, N35; ubiquitous	Includes Lehi time frame	
218	Palestinian Hieratic–Wimmer	Includes Lehi time frame	
219	Möller 196	2500–1279 BC; 945–720 BC	
220	Möller 522	945 –720 BC	
221	Moeller; CDD	2345–2061 BC; 200 BC–AD 100	
222	Palestinian Hieratic–Wimmer	Includes Lehi time frame	
223	Early Demotic; Ashmoleum Ptolomaic Stela	650–30 BC	
224	Takelothis Papyri, Thebes; Qudeirat, Sinai	830–880 BC; 700–600 BC	
225	Sumerian	NA	
B1a	Ubiquitous	Includes Lehi time frame	
B1b	Möller 216, ubiquitous	Includes Lehi time frame	
B1c	Ubiquitous (Möller 125)	Includes Lehi time frame	
B1d	Möller 33 and 33b, ubiquitous	Includes Lehi time frame	
B26b	Ostracan Pisa 87 (x + 6 and x + 11)	100 BC–AD 100	Source: “Ostraka demotici da Ossirinco.” E. Bresciani, E. Della Valle, M. P. Giangeri, G. Giannessi, S. Pernigotti, <i>Studi Classici e Orientali</i> , Volume XXII, Università degli Studi di Pisa, Istituto per Le Scienze Dell’Antichità; Pisa Libreria

Character	Egyptian Source	Time Period
		Coliandica Edizione—1973; pg. 241 and Tavola XVII, No. 26
B49a	Ubiquitous (Möller 289 & 331); Möller (Sobek); CDD; <i>Demotisches Glossar</i>	Includes Lehi time frame, 2345–2061 BC; 200 BC– AD 100; 650–30 BC
OF1	Möller 538	2134 –1290 BC
OF2	Möller 522	945 –720 BC
OF3	Rhind Papyrus, Möller 519	1650 BC; 732–350 BC
OF4	Rhind Papyrus, Möller 519	1650 BC; 732–350 BC

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A small scrap of paper entitled “Caractors” that contained characters copied from the Book of Mormon plates remained an enigma for more than a hundred years, until it was translated in 2015 by Jerry D. Grover, Jr. This volume provides updates and some minor revisions to the translation, including the indication of some minor Sumerian proto-cuneiform influence. It adds significant information on the number system found in the document, the time periods of the hieratic Egyptian glyphs found in the document, and evidence of Egyptian in Mesoamerica. A must read for anyone serious about Book of Mormon studies.

