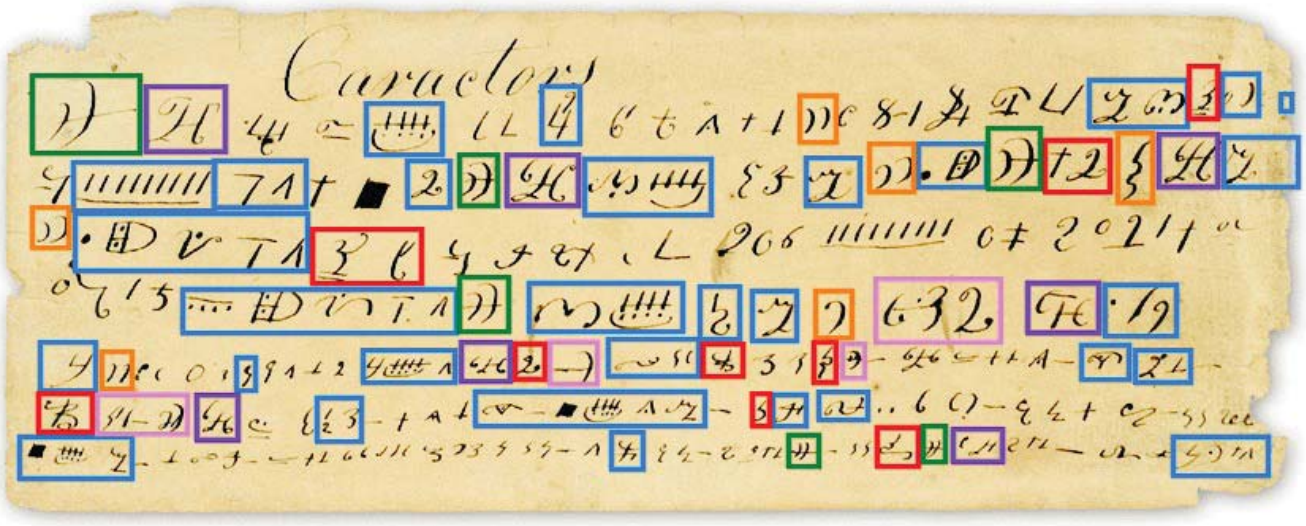
Translation of the "Caractors" Document

Author(s): Jerry D. Grover, Jr.
Published: Self-Published, 2015

TRANSLATION OF THE "CARACTORS" DOCUMENT

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

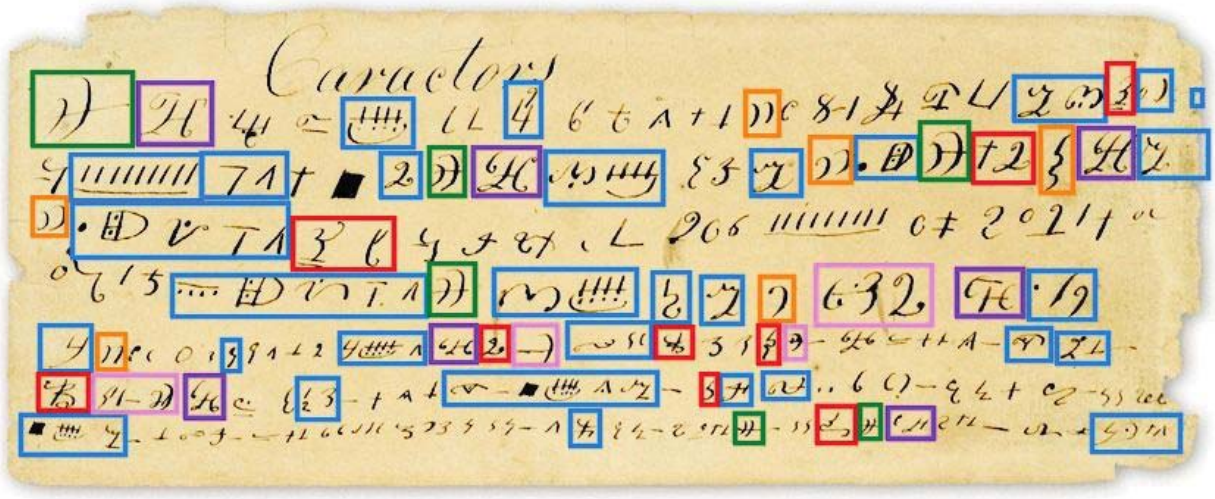


Translation and Commentary by
Jerry D. Grover, Jr.

TRANSLATION OF THE “CARACTORS” DOCUMENT

TRANSLATION OF THE "CARACTORS" DOCUMENT

Mormon's Chronological Summary of the Period from the 19th Regnal Year of the Reign of $Mosiah_I$ 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. 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 BYU 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 with his wife off and on 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 1750-acre Geneva Steel site in Vineyard, Utah.

Acknowledgments: I am thankful for the excellent professional editing provided by Sandra Thorne. I enjoyed the encouragement provided by Brian Stubbs and Dr. John L. Sorenson. Posthumous thanks are in order for Ariel L. Crowley for his unheralded research on the Caractors document in the 1940s, which was quite helpful in this translation. And finally to my wife and kids, who more than once exclaimed to me that I "was reading the Book of Mormon way too much!"

ISBN-10: 0-986318949

ISBN-13: 978-0-9863189-4-8

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

On the back cover: Egyptian and Mayan sources of some of the Book of Mormon Caractors

Contents

Figures

Introduction

When I completed publication of my last book, *Geology of the Book of Mormon*, I started on another research project to identify what exactly was meant by the word "ziff," one of those undefined, untranslated words that are found in the Book of Mormon. Because of the context where ziff is found in the Book of Mormon, it is suspected to be some sort of metal. As part of my inquiry, I also looked at the metallurgy of the golden plates, as some have suggested that perhaps they consisted of ziff. While I was looking at various characteristics of the plates, and specifically at the nature of the engravings, I ran across the "Caractors" document, which in my youth many called the "Anthon transcript."

I recalled seeing the document, in my younger days, but had not really given it much thought. As I was evaluating the document to determine the character density (number of characters per square inch), I noticed something that I had really not noticed before—the bar-and-dot Mesoamerican number 9.

As an engineer, I have always liked to fiddle around with numbers, so I thought to myself that it might be interesting to see if there were any other numbers there, and that perhaps by so doing I could identify a date, which would be helpful to perhaps place the document in some sort of chronological context.

What I found was more numbers than I thought I would find and, proceeding methodically step by step, I have been able to translate the entire document. I need to make it clear that I am not an Egyptologist or a Mayanist, although I have been very interested in ancient Mesoamerica for some time. I do speak a few languages (Chinese and Italian) and have worked with my wife on and off as a translator and interpreter for the last 25 years, mostly in Italian, but have delved into a few other languages as needed.

As a scientist, by nature I am adverse to speculations, and unfortunately, the Book of Mormon studies field is full of persons who aren't so scrupulous. I have taken care to document the source of my translations and any interpretations.

This exercise is not designed to prove the Book of Mormon true; it is not a theological or doctrinal exercise. I leave it up to the reader (and other experts) to evaluate and process the impact of what I have found.

I can tell you I have no motivation to sell books. I publish only for the "thrill" of research, not to become a Mormon-themed retailer. My approach has been to do research and publish a small run of books to cover the cost of donating some to libraries and other centers of research, and then to provide the research free in e-book fashion to anyone who might be interested (not a huge following). I have no interest in fame or firesides; at one point in my life I had the misfortune (as did the electorate) of being elected to public office, so have already seen that side of the briar patch.

Finally, as I have already been hassled by my friends with regards to this particular research, I need to answer a few questions in advance:

"No, I was not helped by a sandy haired angel."

"No, I did not have to give my research and notes back to said sandy haired angel."

"And no, I don't have any interest in starting my own church."

I have also been asked whether the book has been peer reviewed. As a person who started out their career as a respected engineer and geologist, who is now an ex-politician, used car salesman (I restore vintage Fiats), working

for a real estate developer, my journey towards the dark side is now complete. No, I have few peers, and the world is a better place for it.

That being said, I did provide a draft of the book to persons who are experts in Egyptian and Mayan, providing them a small honorarium for their drudgery. Some were intrigued, some did not comment at all. Comments were incorporated, but I did not ask for their endorsement, realizing that even the act of muttering the words "Lamanite" or "Shiz" under their breath would be an act of *hara-kiri* in their secular academic worlds, let alone endorsing a book such as this.

This book will not involve an introduction of the genesis of the Book of Mormon and the golden plates; it is supposed that the reader will already be familiar with the foundations of Mormonism. With that groundwork laid, I invite you to enjoy the book. I'm sure you will find it original and interesting.

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 copyed a considerable number of them and by the means of the Urim and Thummin I translated some of them. (J. Smith 2004, 1:62)

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 (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).

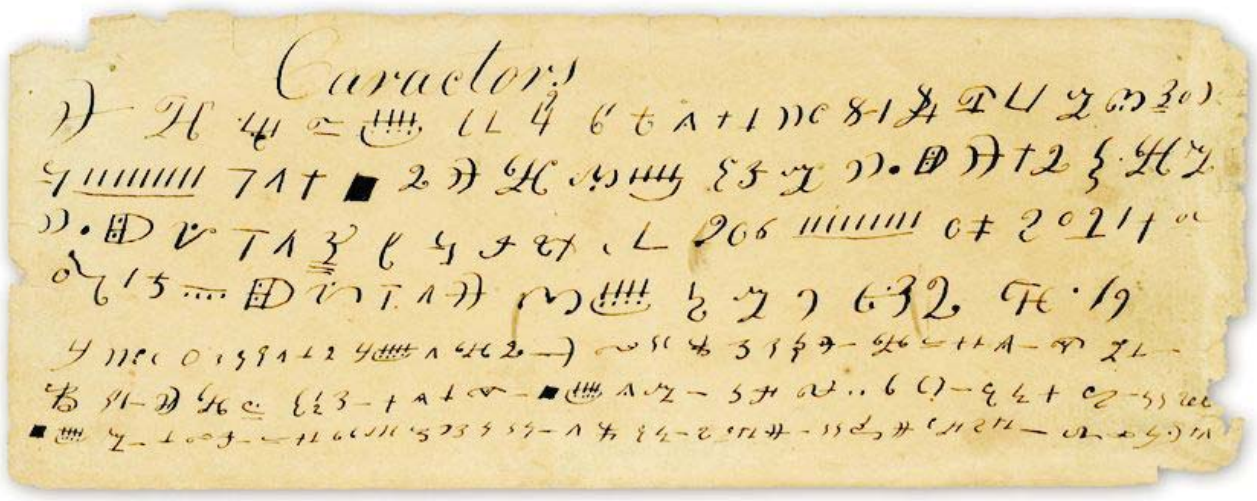


Figure 1. Book of Mormon "Caractors" copied by John Whitmer © Community of Christ (www.forum.newordermormon.org 2015)

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 Mayan text, the five fundamental pillars on which all successful decipherments of unknown texts have rested are:

(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 Caractors 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 been existent 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 5:8 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. It does seem that Mormon himself was at least capable of reading the earlier Egyptian, as that is presumably what the 'small plates' portion of the Book of Mormon was written in (1 Nephi 1:2):

> Yea, I make a record in the language of my father, which consists of the learning of the Jews and the language of the Egyptians.

After 1000 years of assimilation in Mesoamerica, the Nephites were no doubt speaking some Mesoamerican language that may have contained some elements of Hebrew and/or Egyptian. I am currently working with Brian Stubbs as the publisher on his extensive research on the presence of Semitic languages and Egyptian in the Uto-Aztecan language, which indicates there was perhaps a language creole that occurred.

With regards to the cultural context required by Coe, we do have some information from the Book of Mormon itself. Again, the derivation (although 1000 years removed) from Egyptian and Hebrew gives us some platform to operate off of, with the understanding that Mesoamerican elements should also be present. 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 will require 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 should be apparent once the translation is 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) showed 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 potentially not be continuous in text and meaning as compared with the upper portion. The bottom three lines contain fourteen or so periodic dashes ("-") while nonesuch are present in the upper section. This might also be an indicator that the bottom portion is something different.

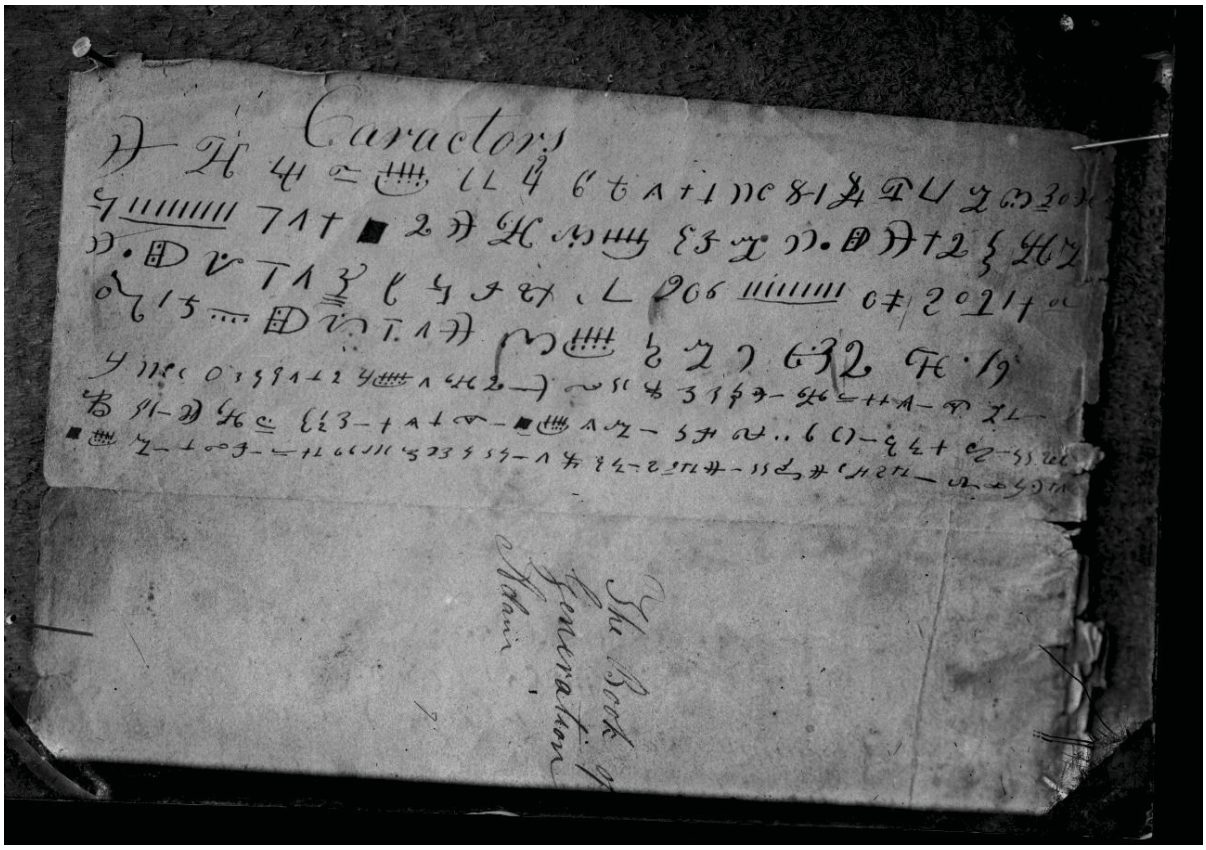


Figure 2. Photograph of the Caractors document prior to early 1886 (Clay County Museum, 2009)

The Reformed Egyptian is a 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 tell-tale characteristic for each type of writing system.

Writing System	Number of Signs
Logographic	
Sumerian	600 (+)
Egyptian	800
Hittite Hieroglyphic	497
Chinese	5000 (+)
"Pure" Syllabic	
Persian	40
Linear B	87
Cypriot	56
Cherokee	85
Alphabetical or Consonantal	
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. It is very clear the "reformed Egyptian" is a logographic language based only on the number of characters.

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 "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. They of course were engraving these words on metal plates, which would only serve to accentuate the problem. Also notable here is

the statement that they stumbled “because of the placing of our words,” which is a clear reference to 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, and is 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 six hundred and nine 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 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?

Joseph Smith stated that between December 1827 and February 1828 he copied some characters that were provided to Martin Harris and are later referred to as the Anthon transcript as they were taken to Charles Anthon for analysis:

> I commenced copying the characters off the plates. I copied a considerable number of them, and by means of the Urim and Thummim 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. (Joseph Smith History 1:62)

It is clear that the Caractors document was not the copy made for Harris, as 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 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 (Anthon quoted in Howe 1834, 271-272) Anthon described what was on the Harris document as:

> 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).

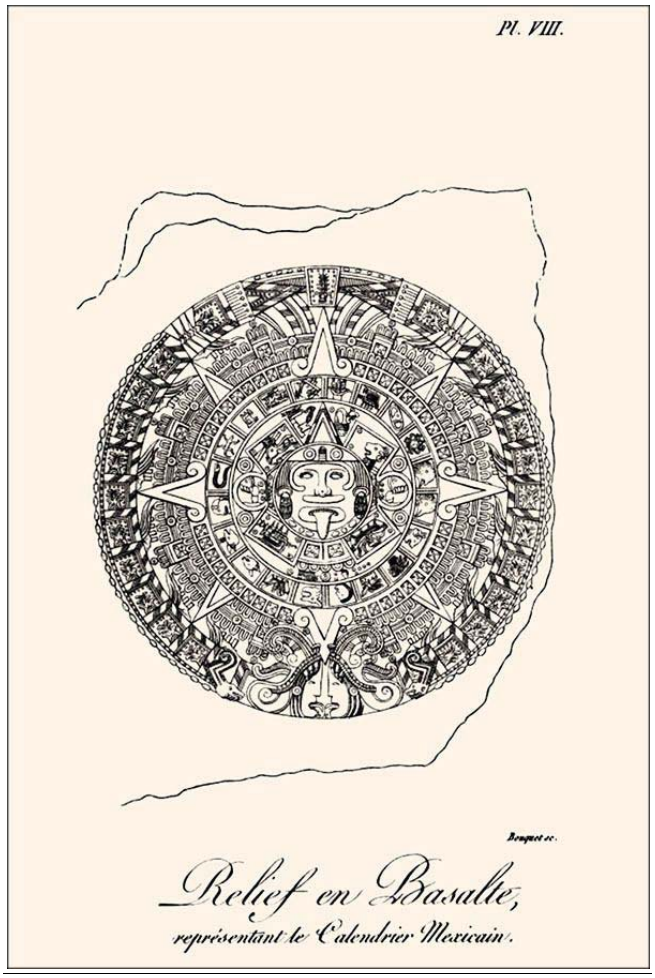


Figure 3. Humboldt's Mexican Calendar

Later in an April 3, 1841, letter to Rev. T. W. Coit, (Anthon 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 unskilfullness 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.

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 which 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's 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.

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 interpretation of languages" (see figures 6 and 7). It would seem that both of these 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 as there are no articles (the) or prepositions (of) in that example, and it is a single glyph per word.

Conclusions with Regards to Plate Source Location of the Caractors

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 translation of 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, knowing it to be a primarily logographic language.

While theoretically any portion of the entire Book of Mormon is in play as 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.

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 reflects 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. For purposes of this inquiry, based on the descriptions suggesting such, we will assume that the Front Plate is 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 7200 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 not only associated with period ending events but 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, nearly all the 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 monuments and altars, Mesoamerican cultures also had written texts, which are referred to as codexes. Unfortunately most of them were destroyed at the time of the conquest. Shortly after the conquest in 1541, Fransciscan 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)

As 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 …

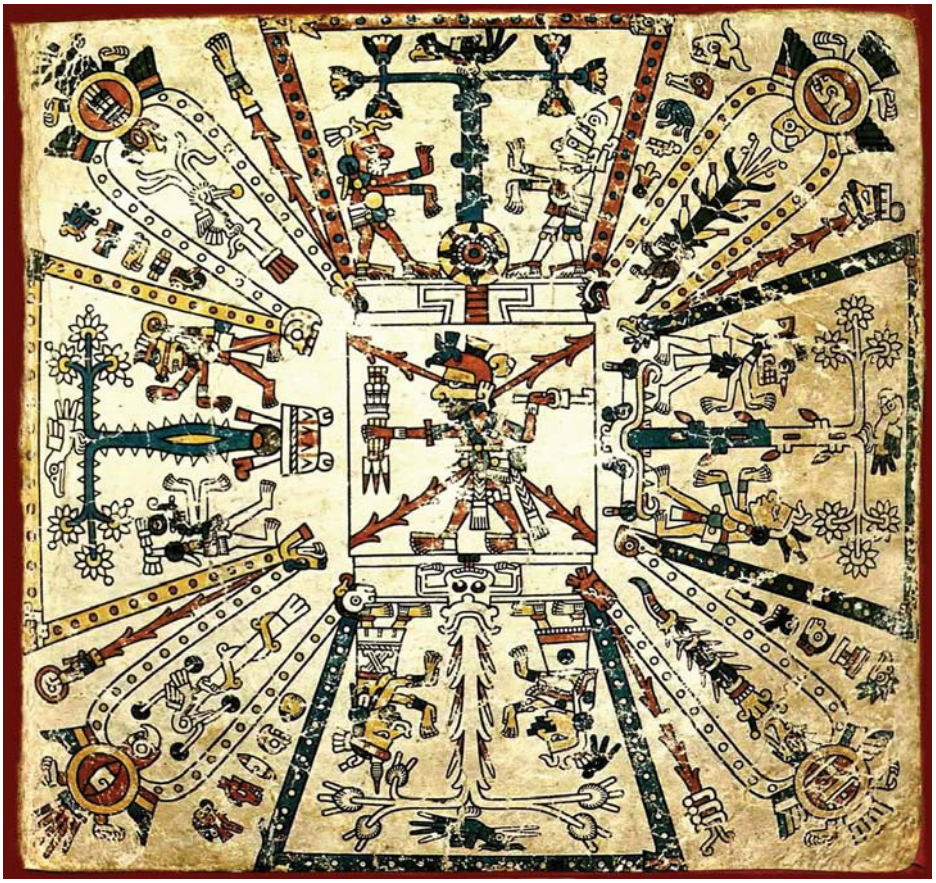


Figure 5. Codex Fejérváry-Mayer, the cross almanac (Wikipedia Commons 2015)

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. 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 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 Book of Mormon itself had an introductory preface summary of some sort, which would reasonably be found on the Front Plate, and would probably have been written by Mormon.

At this juncture, it is reasonable to proceed towards a targeted translation with the assumption that the Caractors came from the Front Plate, and that we might expect to see a significant number of chronological, calendrical, and numeral characters and notations in the Caractors text.

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 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 of which you are unfamiliar is similar to someone who is right handed trying to write with their left. The accuracy of form definitely suffers.

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 300 to 400 AD in Mesoamerica, and that 1000 years earlier it had 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 not necessarily expect a large number of 'direct hits' when comparing Egyptian with the Caractors document. 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 non-existent

Unlike the element critical to the Mayan decipherment, we do not have any absolute knowledge of the spoken language of the 400 AD Nephites. Traces of Egyptian and Semitic languages have been found in the Uto-Aztecan language family (Stubbs 2014) and some calendrical correlations to Egyptian have been noted in the Mayan script (Compton 2010), so it may be of use 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 only have a handful of examples. For later Mayan script, about 80 percent of the known glyphs have been translated to some degree. Even languages that have more script available are limited by the fact that the only 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" languages 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, is there any hope of a complete translation of this document? Perhaps, at least there may be some chance of ferreting out significant information from the 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 to which we have 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 he had to specifically teach his children how to read the Egyptian, so 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.

When it comes to translation involving Egyptian and Mayan, I will state from the start that I have only a limited working knowledge of these scripts. I am conversant in Chinese and fluent in Italian, and have worked as a freelance translator for a few decades, so I do have knowledge of the variation in language structures and translation techniques. As a result, I will not be attempting any "original" translation using Egyptian and Mayan, but will rely upon standard documented 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 to be perfect 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 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 Egyptian. The same was true with the Mayan language, most of the progress in the ancient Mayan

occurred utilizing the Landa Mayan alphabet documented in 1566, even though many of the inscriptions were many hundreds of years older than the Maya language of 1566.

As a result, it will not be possible to compare Egyptian as it was exactly at the precise point in time Lehi left Jerusalem, nor Mayan in AD 400. We will have to rely on whatever sources we can find that reflect the script; for Egyptian, some may be much earlier, some may be daughter scripts found quite a bit later. For the Mayan, most will have to be much later, as the early Mayan (Book of Mormon era) does not have 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. However, from the outset, it is recognized that the Egyptian utilized will not all perfectly match time periods, so that may be a reasonable issue of concern of this effort. This effort is in no way some "final" translation; it is merely an initial attempt which will no doubt require additional research and modification, especially with regards to Egyptian. 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 8 and 9. Even though the lines are virtually the same as the first three lines in the Caractors document, it has been determined that 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). 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 6 and 7). Additional characters from these documents will also be examined as part of the translation process.

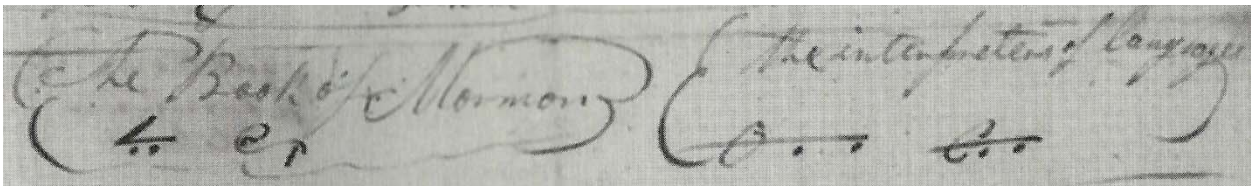


Figure 6. Book of Mormon characters copied by Oliver Cowdery, circa 1835–1836 (MacKay et al. 2013, 137)

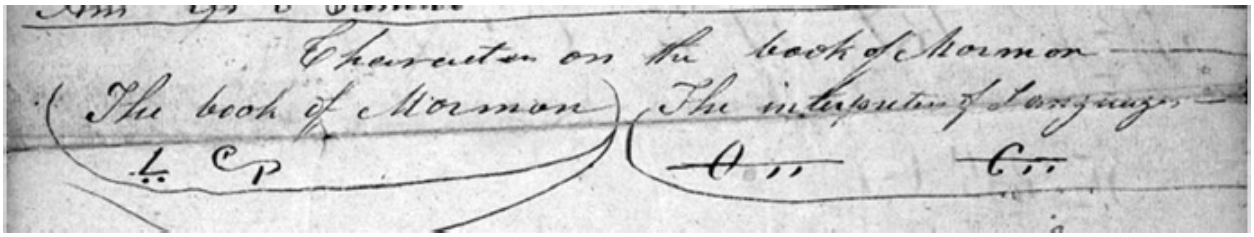


Figure 7. Close-up of the Book of Mormon characters copied by Fredrick G. Williams, circa February 27, 1836 (MacKay et al. 2013, 137)

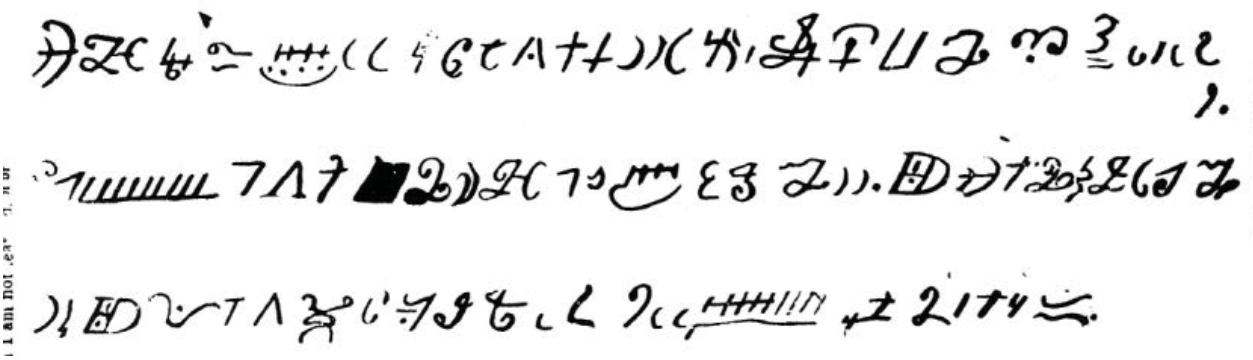


Figure 8. Book of Mormon characters as published in *The Prophet*, December 1844 (MacKay et al. 2013, 136)

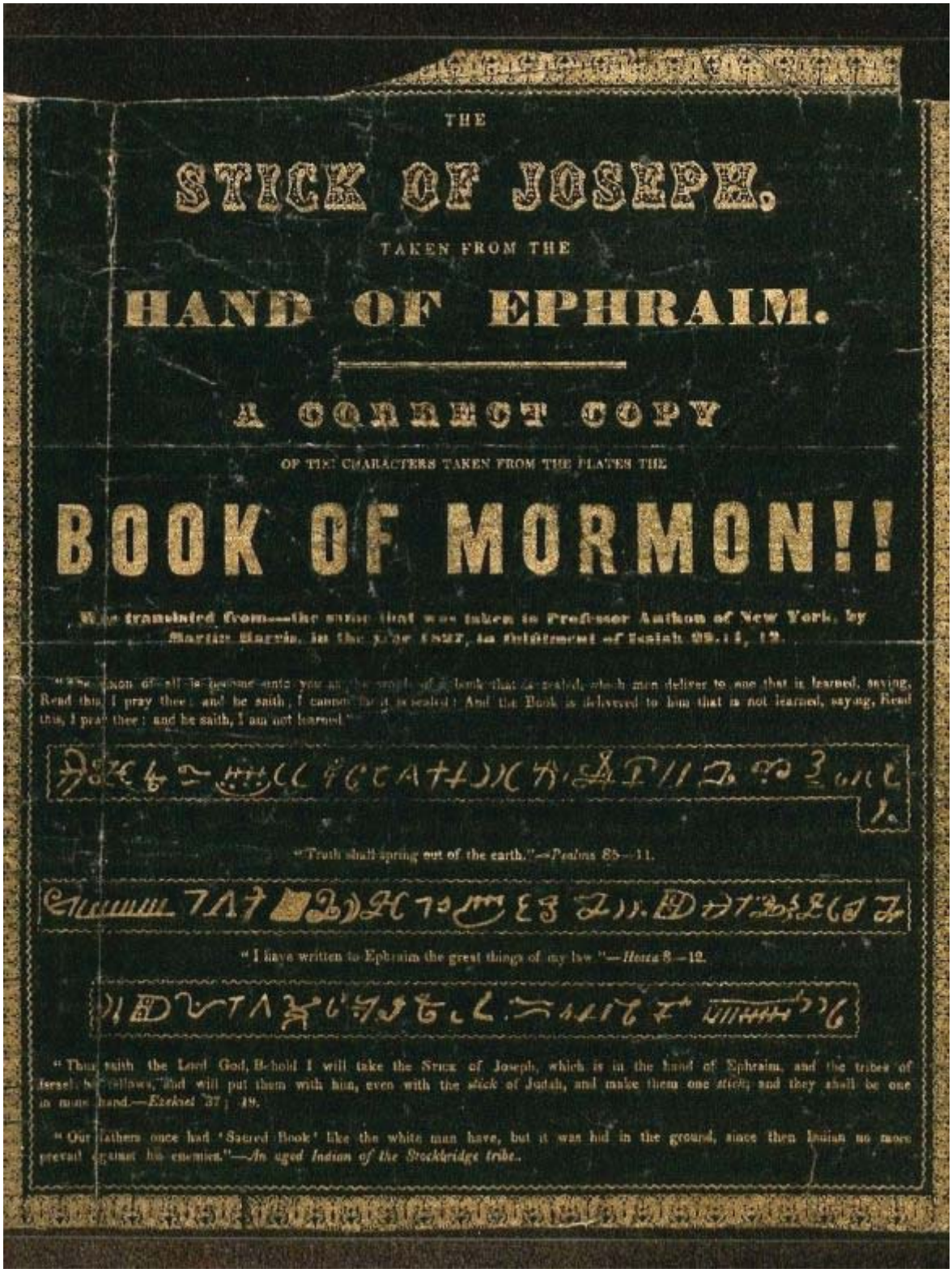


Figure 9. STICK OF JOSEPH, TAKEN FROM THE HAND OF EPHRAIM, broadside (New York: *The Prophet*, 1844), (MacKay et al. 2013, 136)

Previous Classifications

In a September 1970 newsletter of The Society for Early Historic Archeology (S.E.H.A.), an article by Carl Hugh Jones classified the characters without providing much information useable for translation, and also attempted to propose an alphabet of the script. While scholarly in nature, this analysis did not contain much information of value for this translation.

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 a translation of the document, but 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 the translation for 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 10. For whatever reason, he skipped numbers 97-99.

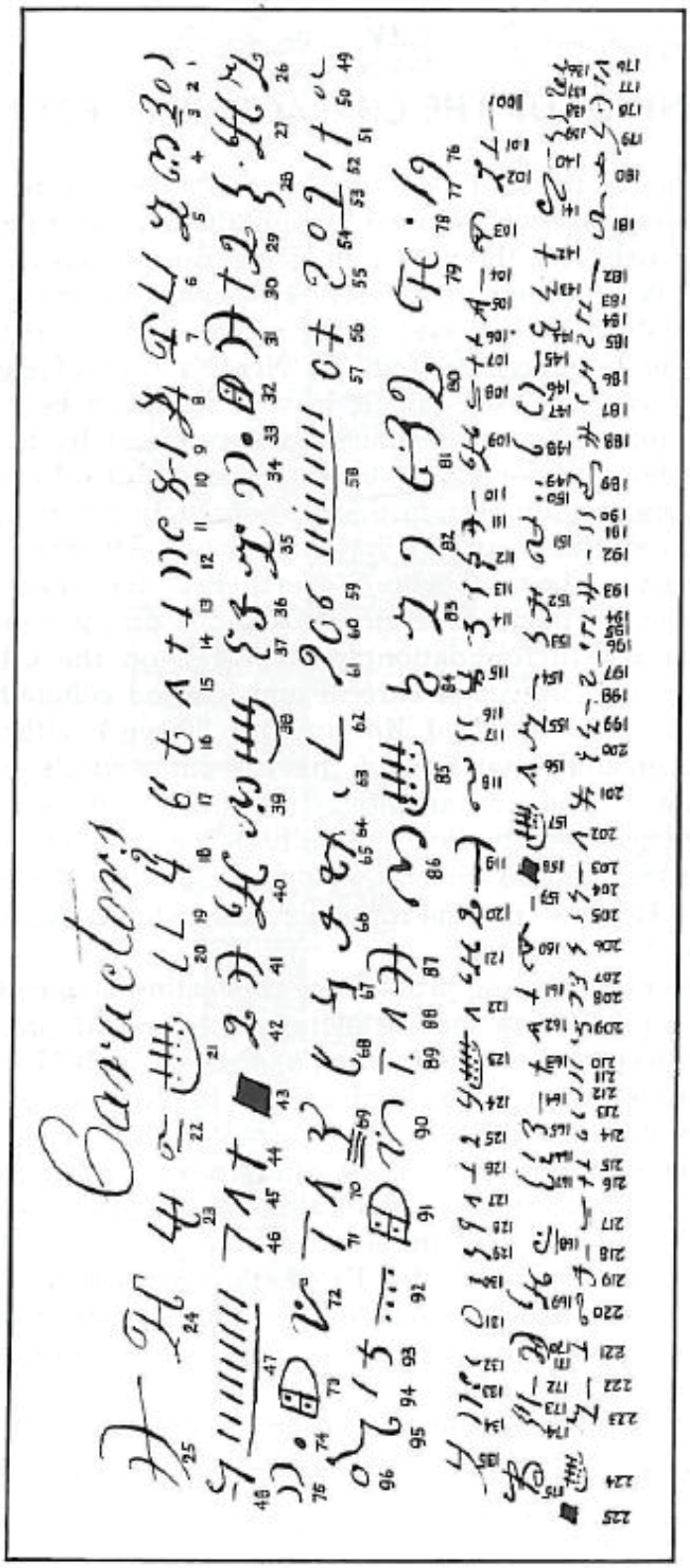
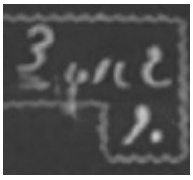


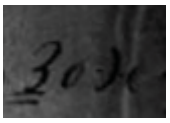
Figure 10. Crowley numeral designations for individual characters (Crowley 1961)

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 designations B1a, B1b, B1c, and B1d for those on the first line (see figure 11). The appearance of these additional characters might seem to indicate a discrepancy in transcription, however, it appears that there is some edge 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 does seem to verify a partial trace of some of the missing characters. The 1886 photograph of the Caractors document does show one of the additional characters.



Location of extra characters in the broadside



1886 photograph

Character B1a

Character B1b

Character B1c

Character B1d

Figure 11. Additional characters and numeration from the broadside

Similarly, the second line also appears to have had a character missing on the right edge, consistent with the first line. A comparison of the broadside and the Whitmer version are shown in figures 12 and 13.

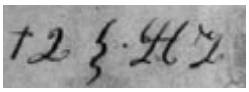


Figure 12. Whitmer characters, start of second line

Figure 13. Broadside characters, start of second line

This missing character, keeping with the numerical convention of Crowley and assigning it the same number as the Whitmer Caractor immediately to the left, is numbered B26a.

Character B26a

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 upside down and reversed into the document (see figure 14). The newspaper story (see figure 8) had the identical version in *The Prophet* without this section being upside down and reversed.

Figure 14. Upside down broadside section

By correcting that section in the third line (see figure 15), 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 15. The upside down section of the broadside reversed and flipped to right side up

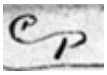
Broadside character B49a

The broadside document does not include any lines beyond the top three of the Whitmer document, so it is possible that there may be other missing characters, especially on the sixth and seventh lines, which extend to the very edge of the paper.

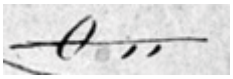
Oliver Cowdery/Frederick Williams Characters

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, so will be assigned designations OF1 – OF4 here. The cropped reproductions shown here come from the Frederick document, as the quality of the image appears to be a bit superior.

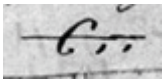
OF1



OF2



OF3



OF4

Chapter 4
Starting from Zero—Translating the Numbers

The first progress made when deciphering the Mayan language involved recognizing the numbers and then 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 unknown numeral characters within a numeral sequence.
6. Evaluate characters on the ends of number sequences.
7. Throughout the process, where possible evaluate other linguistic primers that relate to the Book of Mormon text that might be indicators of, 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, 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 ten, often rounded off to the higher power, written in hieroglyphs, but there was no concept of a place-valued system such as in the decimal system. The system is called “cumulative additive,” and all the signs were added up to together to arrive at the final number. This means there are no specific “places” for 10s, 100s, or 1000s such as in our current modern numerical system. The Ancient Egyptian system used bases of ten, meaning that the maximum of each symbol that would be shown would be nine. 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:

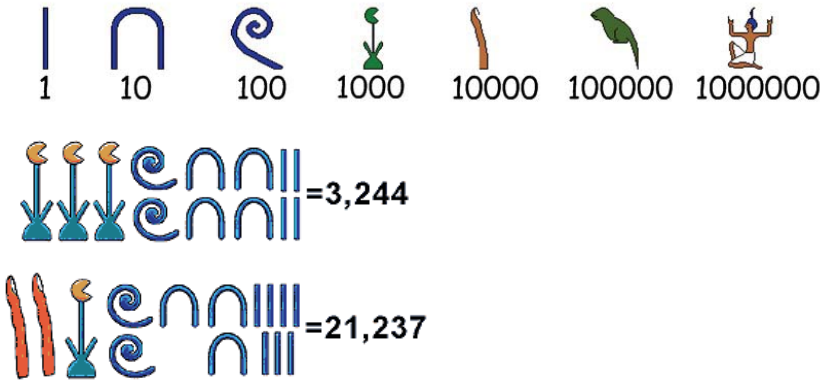


Figure 16. Egyptian hieroglyph numbers and system

To make an ordinal number (1st, 2nd, 3rd, etc.) the number "1," which is a normally a vertical line, would be turned horizontally like "__." For ordinals from 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 19. It should also be noted, as can be seen in the above example, in order to aid in 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 four, and finally 9 as a row of five above a row of four (Chrisomalis 2010). The Egyptian numbers also represent particular items and for 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 and is probably just an abstract stroke. The number 10 is a phonetic rebus and corresponds to the hook or handle, and the pronunciation for 10 mimics the word for hook. The number for 100 is probably a coiled length of rope; 1000 is a lotus plant, 10,000 an extended finger, and 100,000 is a tadpole.

The sign for one million could also mean "multitude" or "countless quantity." After the Early Dynastic period (circa 2700 BC) this non-specific interpretation of one million was the primary one. In some older instances in which the 1000 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 19). The number signs, as well as the overall structure of the Egyptian system remained stable throughout its history, and other than the number for 1 million 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 zero 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 base line as being above or below this line (Joseph 2011, 86).

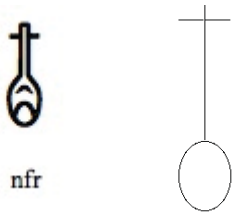


Figure 17. Egyptian zero

There were a few exceptions to this notation; for larger numbers (100, 1000, and 100,000) there was also a multiplicative element, which was accomplished by placing a larger sign over a small sign that indicated 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 2700 (Chrisomalis 2010, 41). This notation is seen in the hieroglyphics but mostly occurs in the hieratic.

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

Egyptian Hieratic and Demotic

The hieratic script is 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 are for the most part distinguishable from each other no matter what the time period. The hieratic form of numerals stressed an exact finite series notation, and is considered a ciphered-additive system. What this means is that 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:

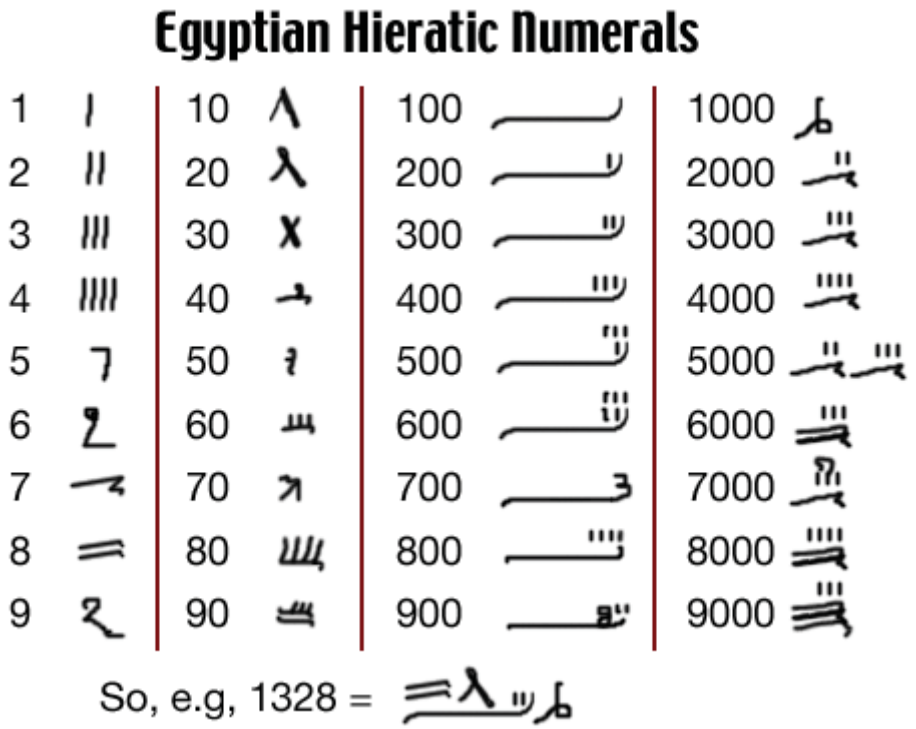


Figure 18. Some forms of Egyptian hieratic numerals

The demotic numbers are identical to the hieratic system, just that they have been further simplified as to form, generally speaking (see figure 19).

	Hiero-glyphic	Hieratic	Demotic	Meroitic		Hiero-glyphic	Hieratic	Demotic	Meroitic
1					100				
2					200				
3					300				
4					400				
5					500				
6					600				
7					700				
8					800				
9					900				
10					1000				
20					2000				
30					3000				
40					4000				
50					5000				
60					6000				
70					7000				
80					8000				
90					9000				
Archaic shapes:					**Large Numbers:**				
2000					10,000				
3000					100,000				
4000					1,000,000				
					10,000,000				

Figure 19. 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 20).

60 80

Figure 20. 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 used 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 two in the form of two vertical lines in front of the *hekat* glyph would mean 200 *hekats*, the number three represented by three vertical lines would be 300 *hekats* and so on. If the numbers 1-9 were used *following* the *hekat* symbol, than it meant they were multiplied by 10 instead of 100. So a notation like "2 *hekat* 3" would be 230 hekats for example. Since the normal vertical lines for the numbers now meant a multiple instead, the regular numbers were represented by dots instead of by 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). 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 the 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.

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 21). In Mesoamerica individual numbers may be expressed as notation, writing, iconography, or a combination of these.

Figure 21. 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 zero 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 twenty (in the same way in which our modern decimal numeral system is based on ten). The common base numbers in the base 10 system (our current modern system) are 10, 100, 1000, and so on. In the vigesimal system, they would be 20, 400, 8000, increasing by factors of 20. In the Maya system, they used the base 20 system in their calendar and used “places” going vertically, just like we use places for 10s, 100s, and 1000s in or number system going horizontally. Examples of how to convert from the Maya based 20 system in the calendar for a few numbers are demonstrated in figure 22.

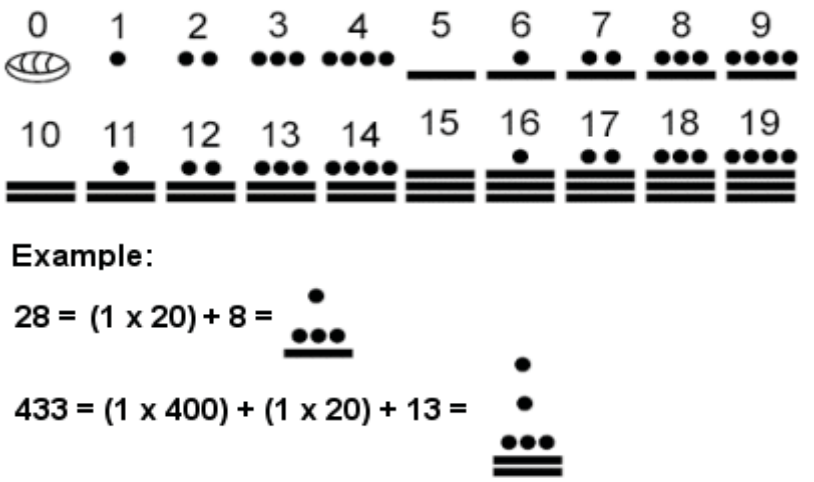


Figure 22. Sample of bar-and-dot numbers in the base 20 vigesimal Maya Calendar system and conversion

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 8000 (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 one through twelve 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 twenty, or score, is *kal*, *may*, *uinic* or forms cognate to one or another of these. Multiples of twenty follow a regular vegisimal 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:

20^1 *kal*

20^2 *bak*

20^3 *pic*

20^4 *calab*

20^5 *kinchil*

20^6 *alau*

The Cakchiquel (another Maya dialect) equivalent of Yucatec *pic*, '8000', 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 twenty.

First System in Spoken Mayan

The first system in spoken Mayan, prevalent today, takes the structure of placing the number within the power of twenty 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 only 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 thirty was "ten two score" meaning "ten in its two (that is second) score," similarly six hundred 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 subbase 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, 8000s in fourth place, and so on (see figure 23). 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).

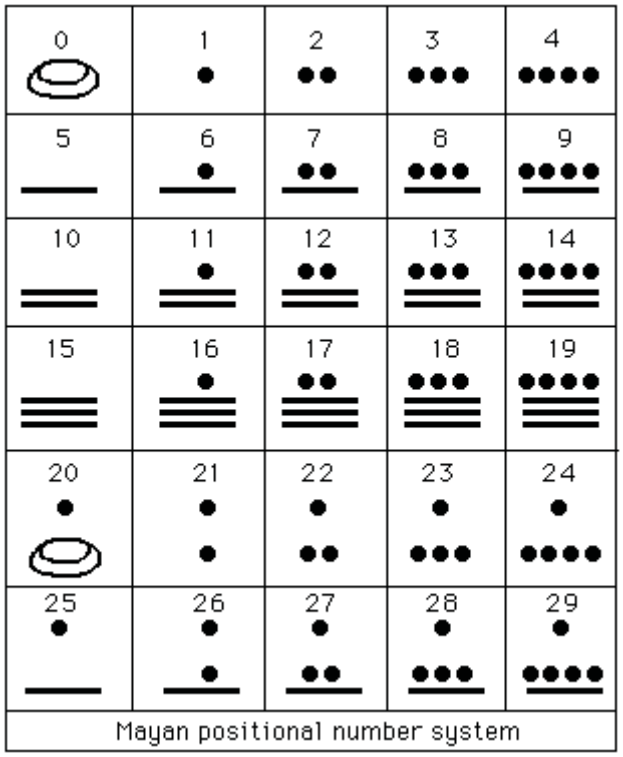


Figure 23. Maya positional number system

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 24).

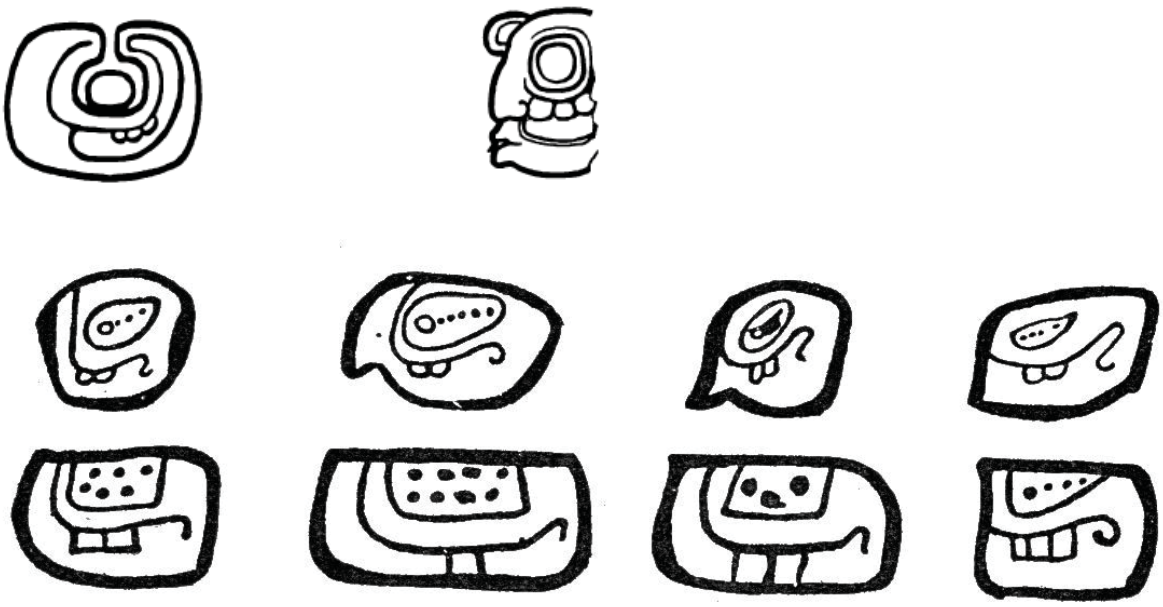


Figure 24. Different signs for 20 in the Maya codices (Morley 1915, 92)

The Maya/Mesoamerican Long Count calendar required the use of zero as a place-holder within its vigesimal positional numeral system. A shell glyph was used as a zero symbol for these Long Count dates. See figures 25 and 26.

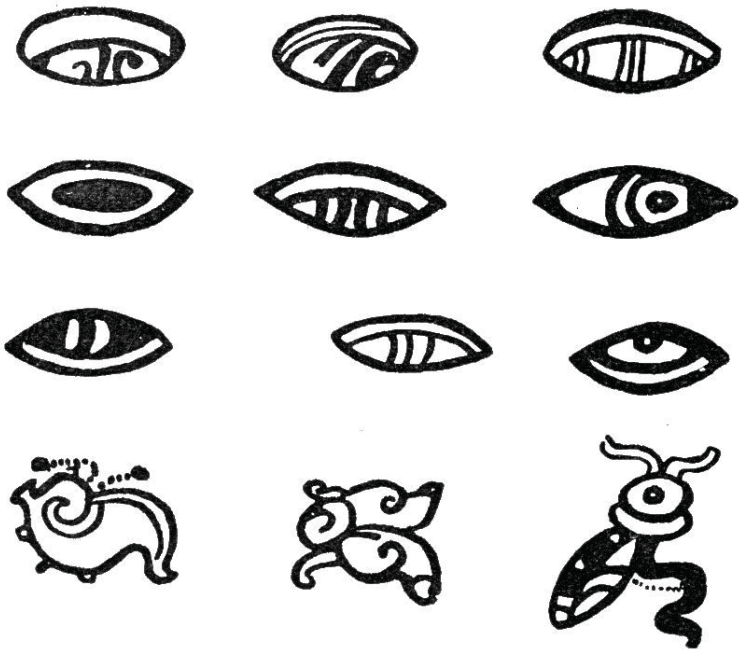


Figure 25. Zero value shell glyphs from Maya codices (Morley 1915, 92)

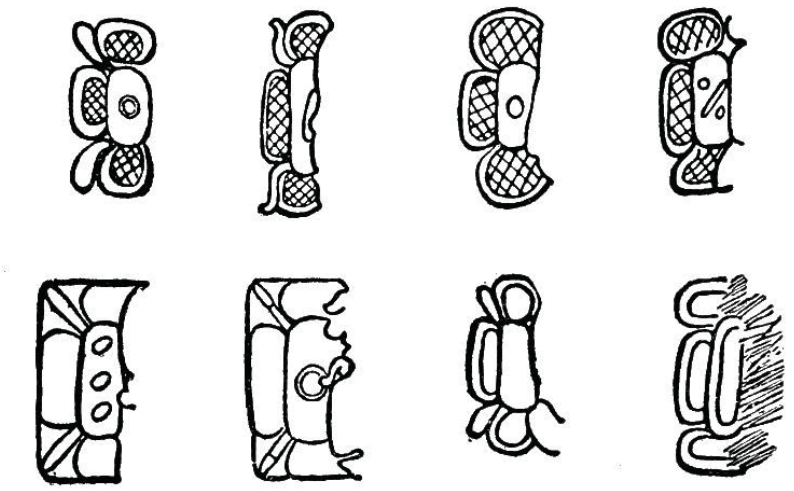


Figure 26. Zero value shell glyphs from Mayan inscriptions (Morley 1915, 93)

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 a certain period of time.

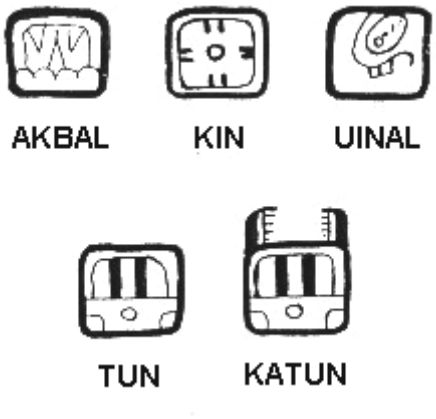


Figure 27. Maya calendar period glyphs

Aztec Number System

The Aztec possessed a vigesimal numerical notation system, with multiple signs for the same numeral (see figures 28 to 31). 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.

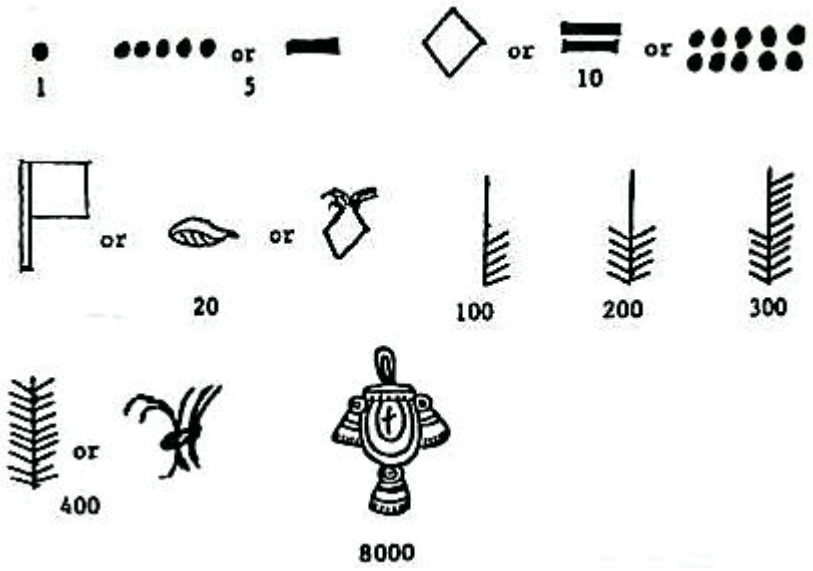


Figure 28. Aztec numbers set 1 (Ortiz-Franco 2002, 239)

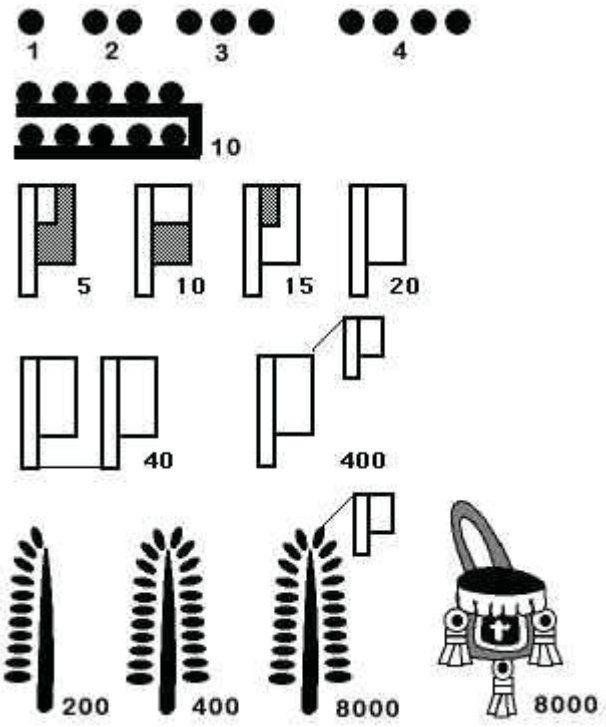


Figure 29. Aztec numbers set 2 (Learning Connection 2015)

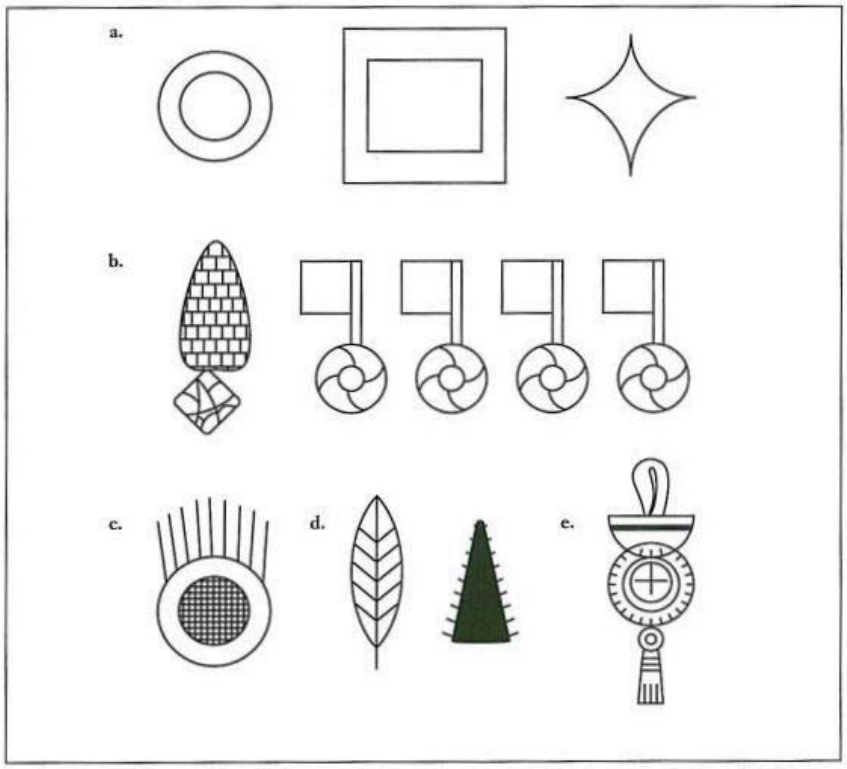


Figure 30. Aztec number glyphs set 3. a) symbols for the number 10; b) symbols for the number 20; c) symbol for the number 80; d) symbols for the number 400; e) symbol for the number 8000 (Aguilar-Moreno 2006, 313)

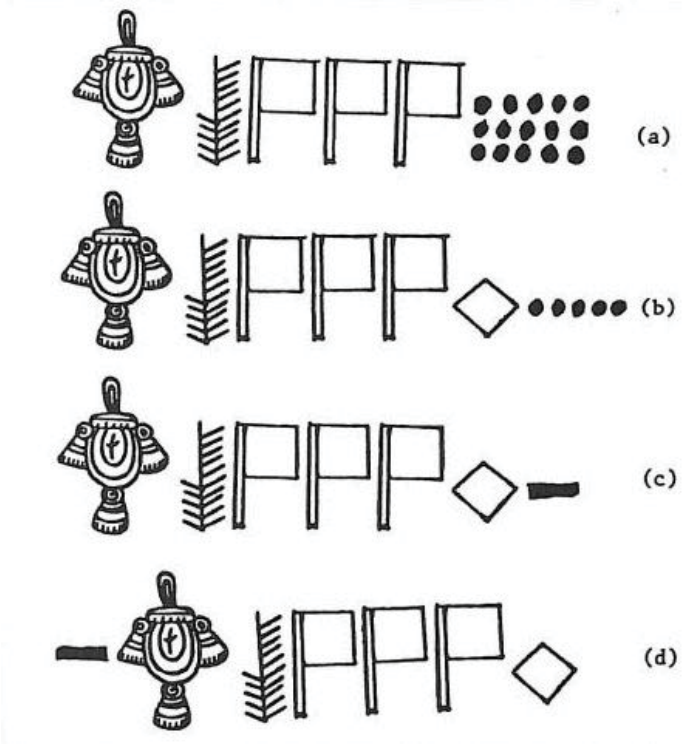


Figure 31. Four ways of writing 8375 with Aztec number symbols (Ortiz-Franco 2002, 241)

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 also a useful comparative tool. While a bit lengthy, when looking at the spoken words in Nahautl, 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 subbase of 10 and 5. From 20 to 100 it is base 20, with a 5 subbase 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 8000 is *xiquipilli*, which refers to a 'bag' or 'sack' containing cacao beans.

Number	Reading	Meaning
0	?	-
1	cë	1
2	öme	2
3	ëyi	3
4	nähui	4
5	mäcuïlli	5
6	chicuacë	$5^{\dagger} + 1$
7	chicöme	$5^{\dagger} + 2$
8	chicuëyi	$5^{\dagger} + 3$
9	chiucnähui	$5^{\dagger} + 4$
10	mahtlactli	10
11	mahtlactli-on-cë	10 and 1
12	mahtlactli-om-öme	10 and 2
13	mahtlactli-om-ëyi	10 and 3
14	mahtlactli-on-nähui	10 and 4
15	caxtölli	15
16	caxtölli-on-cë	15 and 1
17	caxtölli-om-öme	15 and 2
18	caxtölli-om-ëyi	15 and 3
19	caxtölli-on-nähui	15 and 4
20	cem-pöhualli	$1^{*} \times 20$
21	cem-pöhualli-on-cë	$(1^{*} \times 20)$ and 1
22	cem-pöhualli-om-öme	$(1^{*} \times 20)$ and 2
23	cem-pöhualli-om-ëyi	$(1^{*} \times 20)$ and 3
24	cem-pöhualli-on-nähui	$(1^{*} \times 20)$ and 4

25	cem-pöhualli-om-mäcuïlli	($1^{*} \times 20$) and 5
26	cem-pöhualli-on-chicuacë	($1^{*} \times 20$) and ($5^{\dagger} + 1$)
27	cem-pöhualli-on-chicöme	($1^{*} \times 20$) and ($5^{\dagger} + 2$)
28	cem-pöhualli-on-chicuëyi	($1^{*} \times 20$) and ($5^{\dagger} + 3$)
29	cem-pöhualli-on-chiucnähui	($1^{*} \times 20$) and ($5^{\dagger} + 4$)
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 ($5^{\dagger} + 1$)
47	öm-pöhualli-on-chicöme	($2^{*} \times 20$) and ($5^{\dagger} + 2$)
48	öm-pöhualli-on-chicuëyi	($2^{*} \times 20$) and ($5^{\dagger} + 3$)
49	öm-pöhualli-on-chiucnähui	($2^{*} \times 20$) and ($5^{\dagger} + 4$)
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 ($5^{\dagger} + 1$)
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	näuh-pöhualli	$4^{*} \times 20$
81	näuh-pöhualli-on-cë	($4^{*} \times 20$) and 1
82	näuh-pöhualli-om-öme	($4^{*} \times 20$) and 2
83	näuh-pöhualli-om-ëyi	($4^{*} \times 20$) and 3
84	näuh-pöhualli-on-nähui	($4^{*} \times 20$) and 4
85	näuh-pöhualli-om-mäcuïlli	($4^{*} \times 20$) and 5
86	näuh-pöhualli-on-chicuacë	($4^{*} \times 20$) and ($5^{\dagger} + 1$)
87	näuh-pöhualli-on-chicöme	($4^{*} \times 20$) and ($5^{\dagger} + 2$)
88	näuh-pöhualli-on-chicuëyi	($4^{*} \times 20$) and ($5^{\dagger} + 3$)
89	näuh-pöhualli-on-chiucnähui	($4^{*} \times 20$) and ($5^{\dagger} + 4$)
90	näuh-pöhualli-om-mahtlactli	($4^{*} \times 20$) and 10
91	näuh-pöhualli-om-mahtlactli-on-cë	($4^{*} \times 20$) and 10 and 1
92	näuh-pöhualli-om-mahtlactli-om-öme	($4^{*} \times 20$) and 10 and 2
93	näuh-pöhualli-om-mahtlactli-om-ëyi	($4^{*} \times 20$) and 10 and 3
94	näuh-pöhualli-om-mahtlactli-on-nähui	($4^{*} \times 20$) and 10 and 4
95	näuh-pöhualli-on-caxtölli	($4^{*} \times 20$) and 15
96	näuh-pöhualli-on-caxtölli-on-cë	($4^{*} \times 20$) and 15 and 1
97	näuh-pöhualli-on-caxtölli-om-öme	($4^{*} \times 20$) and 15 and 2

98	näuh-pöhualli-on-caxtölli-om-ëyi	($4^{*} \times 20$) and 15 and 3
99	näuh-pöhualli-on-caxtölli-on-nähui	($4^{*} \times 20$) and 15 and 4
100	mäcuïl-pöhualli	$5^{*} \times 20$

* Different form
† Different word

Note:
cem-pöhualli = 20^1 = 20
cen-tzontli = 20^2 = 400
cen-xiquipilli = 20^3 = 8000
cen-pöhual-xiquipilli = 20^4 = 160000
cen-tzon-xiquipilli = 20^5 = 3200000

For example, the number 1976 is read as follows:

näuh	-	tzontli	caxtölli	-	om	-	ëyi	-	pöhualli	caxtölli	-	on - cë
4	×	400	+	(15	and	3)	×	20	+	(15	and	1)

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 subbase 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 32). 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 33). Higher numbers used the Aztec type symbols such as 'bag' or 'sack' for 8000 and the bush or tree for 400.

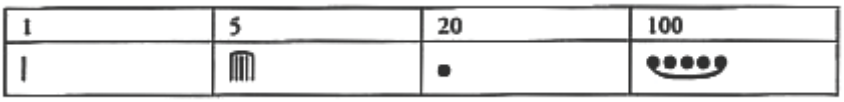


Figure 32. Texcocan line-and-dot numerals (Chrisomalis 2010, 304)

Figure 33. Numerical phrase from the Codex Kingsborough, circa AD 1550, enumerating the population of Tepetlaoztoc at 27,765 (3 x 8000 + 9 x 400 + 8 x 20 + 5) (Chrisomalis 2010, 305)

There were various modifications of this system found. The Códice de Santa María Asunción contains this number system that 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

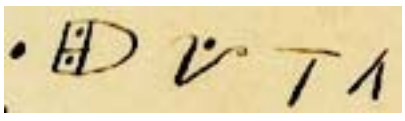
As previously mentioned, the approach to translation was to start with the apparent numeral sequences, augmented as needed with other text definition that might provide some parameters to assist in the number sequences. As not all characters were initially known to be numbers or not, it was not certain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

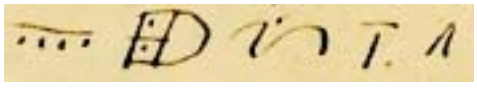
At this point, it is probably best to display the overall individual numerals that the translation identified in the text with a generic reference as to the source. A discussion of each numeral and numeric sequences is then discussed.

The translation of numerals consisted of the following process:

(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, 1000, 20000, 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 raising a power. Numbers determined at this phase of the process consisted of 1 ordinal (dot), 11, 13, 20, 60, 80, and 400.

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 Mayan 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 either date I was looking at could not 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 fifteen, 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 x 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 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 would have been written considering the original Book of Mormon, not the small plates. However, the 479 date put me into the 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 ½, 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 & dot, calendar) --- Characters 33, 74, and 78

C-33  C-74  C-78

Discussion: The dot for the number 1 is well known in Mesoamerica and was previously discussed.

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

C-159

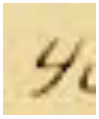
Discussion: This is a well-known Egyptian form and previously discussed in the general description of Egyptian numbers.

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.

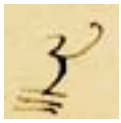
2 (Egyptian hieratic/demotic) Characters 124 and 135

C-124  C-135 

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

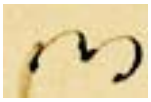
Demotische Glossar (Erichsen 1954, 694)

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: As 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, 155, and 223

C-26  C-155  C-223 

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

Example:

(Erichsen 1954)

[Fourth]

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

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

C-46  C-71  C-89 

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

6 (Palestinian hieratic) -- Characters 5 and B26a

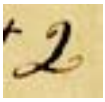
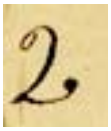
C-5  B26a 

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 (Palestinian hieratic) Character 42 (also used as a calendrical name, Characters 29, 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:

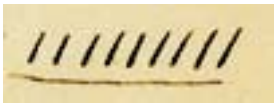
Ostraca Arad 112, 6-7th Century BC, Negev, Palestine (Wimmer 2008, 58-59)

9 (Mesoamerican bar and dot, calendar) – Character 92

C-92 

Discussion: This is a well-known Mesoamerican bar-and-dot numeral.

9 (Mayan form and Egyptian) Character 47

C-47 

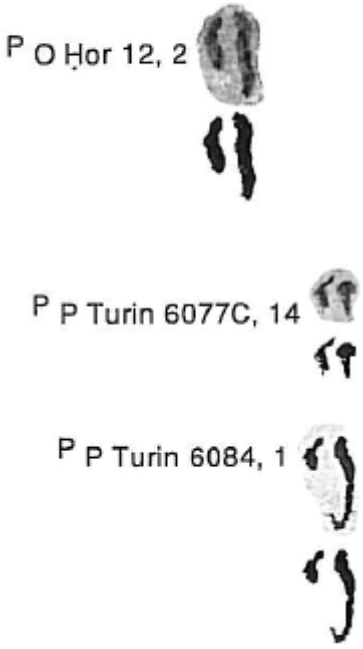
Discussion: This character will be discussed in a later section

9 (Egyptian hieratic/demotic) Characters 116 and 117

C-117, C-116 

Discussion: This is the determinative number 9 found in hieratic/demotic. 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 N (14:1) pages 45-46 (Chicago Demotic Dictionary 2014)

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

C-45  C-70  C-88  C-122  C-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 one.

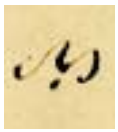
12 (Egyptian hieratic/demotic, serves as an ordinal in the calendar) Character 152

C-152 

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

(Chicago Demotic Dictionary 2014, CDD Numbers (14:1) page 54)

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.

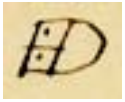
19 (Egyptian hieratic with Mesoamerican dot modification, also calculated in context)

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)

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

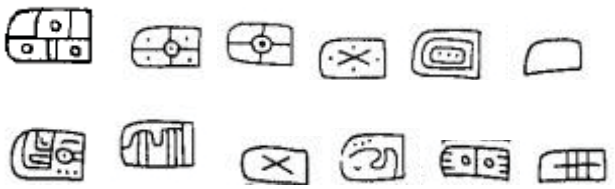
C-32  C-73  C-91 

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 Mayan and Aztec 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 Mayan 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 Mayan. Like Egyptian, the hieroglyphs face different directions depending on the direction they are read.

Examples from Epi-Olmec:



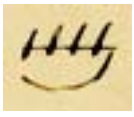
(Kaufmann et al. 2001)

30 (form of Egyptian hieratic/demotic) -- Characters 158 and 225 (Also the name of Limhi, Character 43)

C-43  C-158  C-225 

Discussion: As this character also serves as the name for Limhi, the source of this character will be discussed as a separate section.

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

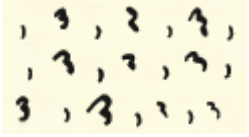
C-38 

Discussion: See the discussion for the number 80.

50 (Palestinian hieratic) Characters 165 and 207

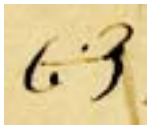
C-165  C-207 

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).



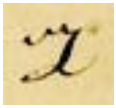
(Erichsen, Demotische Glossar, 1954, 701)

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

C-3  C-81 

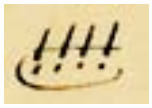
Discussion: As these are calendrical glyphs that incorporate numerals, they will be discussed later in the section on calendrical related characters.

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

C-35   (1886) C-102 

Discussion: See the discussion above for the number 6, the addition of the dot raises the number by a power of 10 to 60.

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

C-21  C-85  C-123  C-157  C-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


D1

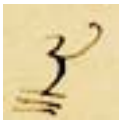
SH1 – Takelothis Papyri, Thebes, 830-880 BC (Wimmer 2008, 226)

D1- (Erichsen 1954)

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.

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

C-69 

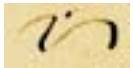
Discussion: As this is a calendrical glyph that incorporates numerals, it will be discussed later in the section on calendrical related characters.

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, indicating it may be raised by a power just by its position as its form is similar to a dot. More likely, this character is deemed to be incomplete in that it probably lacks a dot, as it is the last character in the Caractors document, and the dot may have been present following this character. The dot may have also been omitted when it was copied from the plates or by John Whitmer. The value is known because of calculation using a known Book of Mormon date.

400 (Egyptian heriatic/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 raising the power of 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

(Spiegelberg, 1975, Demotische Grammatik, par. 82)

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

1000 (Egyptian heriatic/demotic)

C-153 

Discussion: This is the well-known Egyptian hieratic and demotic for the number 1000. In the context of its use in the Caractors document, it is referring to the "1000 Year" calendar.

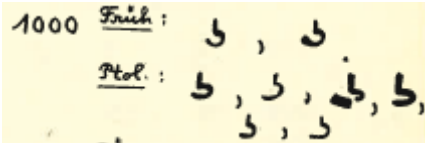
Examples from Palestinian hieratic (Wimmer 2008, 237)

2.1

2.2

2.3

Examples from demotic



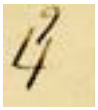
Demotisches Glossar (Erichsen 1954, 702)

1000 (Egyptian heriatic/demotic) used as part of an Introductory Glyph, Character 112

C-112 

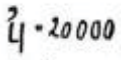
Discussion: As this is a calendrical glyph that incorporates a numeral, it will be discussed later in the section on calendrical related characters.

20,000 (Egyptian heriatic/demotic) Character 18

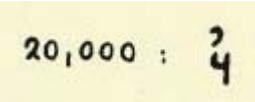
C-18 

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

Examples:



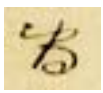
(Spiegelberg 1975, Demotische Grammatik, par. 82)



(Erichsen, Demotische Glossar, 1954, 703)

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

1,000,000 or multitude (Egyptian hieratic) used as part of Introductory Glyph (Character C-175)

C-175 

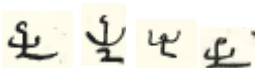
Discussion: As this is a calendrical glyph that incorporates a numeral, it will be discussed later in the section on calendrical related characters.

1,000,000 or multitude (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 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 Ḥ 09:1 p. 248). The hieratic form and derivation are discussed later in the section on calendrical related characters.


1000000



Demotisches Glossar (Erichsen 1954, 328)

1/2 (Palestinian hieratic) Character 101

C-101 

Discussion: This is a straight forward variant for ½ in the Palestian heiratic involving *hekat* measurements.

Example:

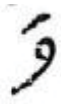
Ostraca Arad 34, 7th Century BC, Negev, Palestine (Wimmer 2008, 42-46)

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

C-77, C-76 

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

Examples:



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

(Spiegelberg 1975, Demotische Grammatik, 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, 1/7th 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 669, Math., page 65)

Ptolomaic/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 the name Limhi are represented by the same symbol, a solid slightly distorted square. One linguistic etymology of Limhi has to do with the number 1000. In Akkadian, *lim/līmu* means "1,000" (Book of Mormon Onomasticon 2015), so it is not surprising that the name Limhi may be represented by a numeric character.

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:

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 primarily from placer-type deposits that generate small pieces or flakes of gold. 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 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.

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 that

> 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 express "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 ½, 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%. 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 (Cortes 1519). Another source reports (unfortunately second hand 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 34). 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 34. 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, Shiblon) 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:

Egyptian Hieratic	1	2	5	10		20	30	40	50	60	70
Israelite Weights (Shekels)	1	2	4	8		16	24	32	40	48	56
Nephite Silver	⅛	¼	½	1		2		4			7
Nephite Gold				1	1½	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 potentially etymologies of the Nephite gold measurement "limnah" is based on derivation from "mina." The word 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 may have actually had a unit value of 30 in either system.

Mosiah 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 also may be derived from part of the system that was abandoned. 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 close match the Limhi character glyph:

Ptolomaic Papyrus, Berlin Museum, 23652=, 4/14; CDD Numbers (14:1) page 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 8000 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” and should not be ignored, although possibly a coincidence.

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.

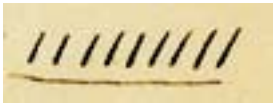
The filled-in square Caractors glyph has been identified in Egyptian in one occasion as being incorporated as part of the number 3000 when talking about a monetary value, (the other character shown below that is to the right of the solid rectangle is the number 3000 [Erichsen, 1954, 703]), so it appears to be a numeral of some sort or a numeral notation found in the Egyptian measurement system:

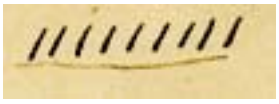
(Brugsch 1898; Vol. 4, p. 1498; www://digi.ub.uni-heidelberg.de/diglit/brugsch1868bd4/0362)

Another possible explanation for the 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 Caracter 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 twice in the Book of Mormon, one for Laban’s sword (1 Nephi 4:9) and

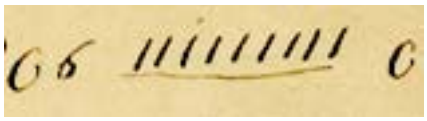
the other refers to the twenty-four Jaredite plates recovered by a group sent by Limhi (Mosiah 8:9). It is clear this glyph can have the meaning “9” or “plates,” or both at the same time, a practice we will discover is not uncommon in other Caractors glyphs.

A correspondence in glyph form exists for this character in the Mayan language. Below are a few of the Mayan glyphs for “scribe,” “he of writing,” and “someone who writes.” While for these two Mayan 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 8 gaps, identical to the Caractors 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 Mayan character is somewhat random in the number of gaps dependant on the scribe, so nothing should be attributed to the number of gaps, other than that the glyph form is similar. In addition, the Mayan glyph is used in many types of instances unrelated to scribes, so no inference of 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 an interesting coincidence.

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

The hieroglyph for "*Mn*" is derived from its depiction of the Egyptian religious ritualistic game called senet. At least 4000 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.

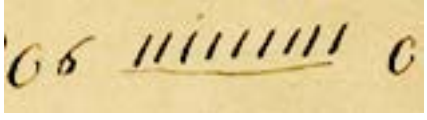
During the Sixth Dynasty in the depiction of certain Hathoric celebrations, the deceased was depicted playing against a living person. The senet board is a physical bridge stretching from the space of the living into the space of the dead, permitting direct physical contact and a conduit of communication 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).

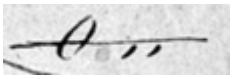
The games came to be incised into flat slabs of stone, wood, or faience. One of these completely inscribed and surely religious boards was found buried in the courtyard of the Eighteenth Dynasty tomb of Kenamun at Thebes. But the board, now in the British Museum, dates to the Twentieth Dynasty and was 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 were probably recovered from an underground tomb of some sort.

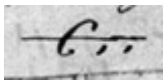
Figure 36. Senet game interred in a ritual burial (Piccone 1980)

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 interpretation 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 interpretation 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 “interpretation” 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. 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.

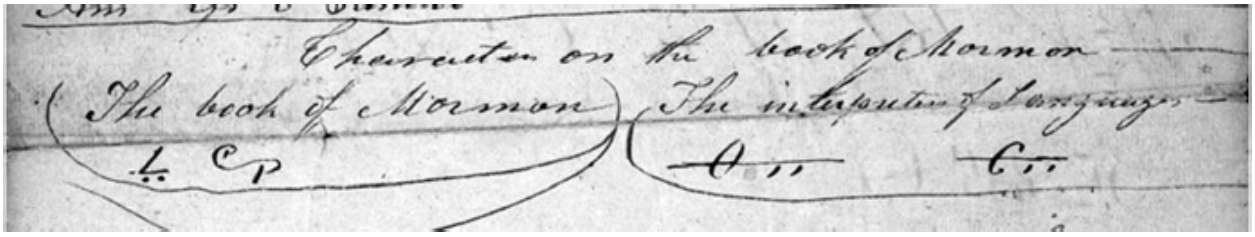


C-60, C-59, C-58, C-57

OF3 

OF4 

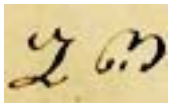
OF1 

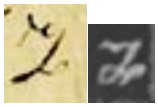


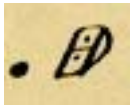
The translation of the OF1 through OF4 characters will be addressed later in the name and general translation sections in chapter 11.

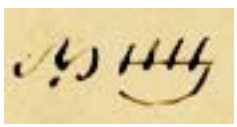
Summary of the numeric sequences (those containing multiple consecutive numerals) present in the Caractors document

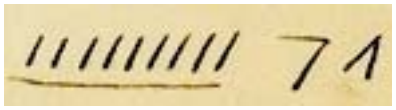
With the individual numerals established, the translation of the number sequences is as follows:

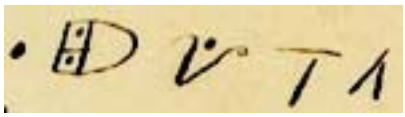
C-4, C-5  6 + 13 = 19

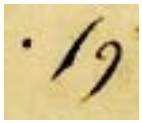
C-26, C-26a  4 + 6 = 10

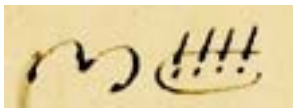
C-32, C-33  1 + 20 = 21

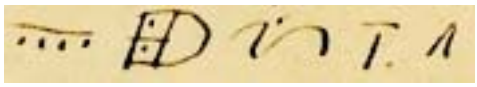
C-38, C-39  13 + 40 = 53

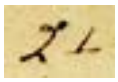
C-45, C-46, C-47  9 + 5 + 10 = 24

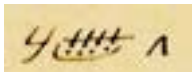
C-70, C-71, C-72, C-73, C-74  1 + 20 + 400 + 5 + 10 = 436

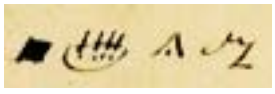
C-76, C-77, C-78  1 + 1/3 = 1 1/3

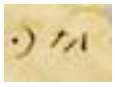
C-85, C-86  3 + 80 = 83

C-88, C-89, C-90, C-91, C-92  9 + 20 + 400 + (5 x 10) = 479

C-101, C-102  60 + 1/2 = 60 1/2

C-123, C-124, C-125  2 + 80 + 10 = 92

C-155, C-156, C-157, C-158  30 + 80 + 11 + 4 = 125

C-176, C-177, C-178  19+5+10 = 34

C-223, C-224, C-225  300 + 80 + 4 = 384

Nephite numeric system

It is apparent that the system is principally a vigesimal system above the number 20, with a mixed base-10 system below 20. The system is primarily based on Egyptian characters, but has some Mesoamerican characters. 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 have incorporated numbers into the character/glyph. Some calendrical numbers show a different variation than non-calendrical ones. A dot within a glyph indicates an addition of 10; for example, the number 20 glyph is a modified shell glyph. In the Maya system it is a zero, in the Aztec it can be 20. In this case, the two dots would make the zero 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).

Nephite numeric sequence and the function of dots

The use of Mesoamerican numeric dots has been blended with the Egyptian hieratic numbers; there appear to be different Mesoamerican and Egyptian variants for some individual 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; a dot at the base between numbers signifies multiplication. A dot above and to the right of the number apparently raises it by a power of 10. In the instance of 400, a dot directly above may indicate the number is raised by the power of 100. A dot underneath or to the side of a number indicates the number is in the teens. There may be a dot related to the number 300 (30 raised by a power of 10) but the single occurrence of the number is at the end of the document so the dot may be missing. A dot internal to the glyph generally indicates the number 10 as an additive feature of the number in numbers below 100.

The change in power caused by the superscript placement of a dot is a logical result of a Mesoamerican feature (such as in the Mayan), which uses a vertical positional placement of dots or bars for increasing powers. It is also not inconsistent with the Egyptian numerical system with regards to volumetric notation where leading or trailing numbers can cause multiplication by a factor of 10 or 100.

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 "1^{st}," 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 system matches the Hebrew system in that it is cumulative additive, with some multiplication on the leading side of the numeration. The sequence of numerals is generally from largest to smallest, with the exception of a leading "10" or "15" (a feature unique to the Mayan system). However, unlike the Mayan, it does not reflect the "10 in the score" system as the leading "10" or "15" are cumulatively additive (unless otherwise indicated by a base dot for multiplication).

There are a few dates in the lower section that go from smallest to largest, and one that changes order like the Aztec system, however, because of the structure of the lower section (spacers and short character patterns), it is suspected that perhaps portions of this may have been tabular or had some geometric element, so perhaps numeration is slightly different in that setting. Also possible are changes in sequence based on "glyphnastics" that occur elsewhere in the Caractors document and will be discussed later.

Numeric 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.

The system that existed initially is assumed to be an Egyptian system adapted somewhat to Hebrew, referred to here as Palestinian hieratic. Based on the early New World geographic location, it would be expected that there was interaction with the Mayan culture, and perhaps some elements of the Epi-Olmec culture. There probably were influences from other smaller culture groups that cannot not be identified from this early period because we know nothing about them.

Upon removal to highland Chiapas, the known contact of the Nephites was with a group that had existed for 400 years during the last of the Olmec period, and co-existed (or possibly been part of) the Epi-Olmec. It is not expected that there was much contact with the Zapotecs or other Oaxaca cultures, though 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.

When evaluating connections between neighboring or ancestral systems, Stephen Christomalis (2010) has 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 are an accurate translation, it is useful to apply these criteria. As discussed above, the geographic proximity and cultural contact are present. As it is not certain exactly how the Nephite system may have continued in some descendant fashion, this 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, which is what would be expected given the Book of Mormon setting.

Notation principally follows Hebrew notation in that all individual numbers are additive, or 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.

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, often 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 Mayan glyphs of this type. Like all Mesoamerican number systems, the Caractors system is a primarily a vigesimal system above the number 20, and is a 10 system below 20. The Maya system had various symbols and variants for numbers, the Caractors system has the same for the numbers above 20.

A glyph was borrowed from Mesoamerica into the Caractors for the number 20, appearing to have occurred with the Epi-Olmec script based on form and increased glyph complexity.

Notation is reflected in traces in some Aztec in that, like Hebrew, 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. The Caractors system is primarily a vigesimal system above number 20 and a 10 system below 20, and like the Mayan, so is the Aztec. 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 Caractors system is a vigesimal system above number 20 and a 10 system below 20, and like the Maya and Aztec, so is the Texcocan.

Chapter 5
Calendrical Series Related Glyphs

As part of the deciphering of 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, it was 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.

Caveat Emptor

Mayanists and Egyptologists may balk at some of the assertions made in this section. However, what is being contemplated here in relation to Mayan is **borrowing**, not linguistic origination. The borrowing could have been from the Reformed Egyptian to the Mayan, or from the Mayan 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 Maya calendar glyphs. Brian Stubbs is a linguist that has done preliminary work looking at the spoken Mayan and has personally told me he does not see much phonetic connection between Egyptian and Mayan. I would expect the same.

No matter what the results of links between the languages may or may not be after this research is furthered by academics, I would strongly assert the following:

1. Whatever the links may or may not be linguistically or iconographically between Mayan and the calendrical characters, the **function** in the Caractors document is similar to the Mayan.
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 a word consists only of a portion of the glyphs that would normally make up the word. Sometimes you have to read the Caractors glyph forwards and backwards to derive all of the meaning. Sometimes the Caractors glyph consists of multiple Egyptian glyphs “smashed” or “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, not 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 Mayan meaning. The Caractors document exhibits the same behavior in the Egyptian, so the fact that it happens to Mayan elements should not be surprising. Egyptologists too will find this research a different approach to Egyptian.

Objection may be taken to the potential Egyptian origination and correspondence with the Maya glyphs. Again, what one is talking about is borrowing, and it may even have been borrowing from a chain of previous borrowers. I am not asserting that the Mayan 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 is 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 5-year count to Christ's birth by Samuel the Lamanite, and the 400-year prophecies to the destruction of the Nephites. The time count since the coming of Christ was initiated retroactively nine years after the actual coming of Christ, and 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 Mayan calendars, a brief summary of the Long Count calendar and its notation is relevant to understand what is going on in the Caractors document. Naturally the calendars are not exactly the same, as the Nephite calendar system would have originated before the Maya, as 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 Mayan glyphs presented here are long after 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 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 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 the Introductory 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). The Calendar Round would no doubt be familiar to the Nephites, but 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 are repeatedly incorporated between the Tzolk'in (260 day year calendar) and the Haab (365 day year calendar) 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 is not discussed further.

Distance Numbers

Distance Numbers (DN) are the intervals between dates in the Maya inscriptions. Distance Number 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). Essentially these glyphs are time indicators that help understand and link the distance numbers.

So a simplistic example in a modern sentence would be:

"Ronald Reagan is the President in 1982, then it came to pass after 4 years he was reelected."

The initial series date would be 1982, the Maya would then have a DNIG (which we don't use), the "then it came to pass" would be a PDI glyph, with the Distance Number being "4 years." Of course this is very basic; the Maya system would often go back or forth in time, with multiple iterations of these units.

Period Ending Glyphs

The Maya marked in the calender/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 Mayan Time System Notation and the Caractors document Time System Notation

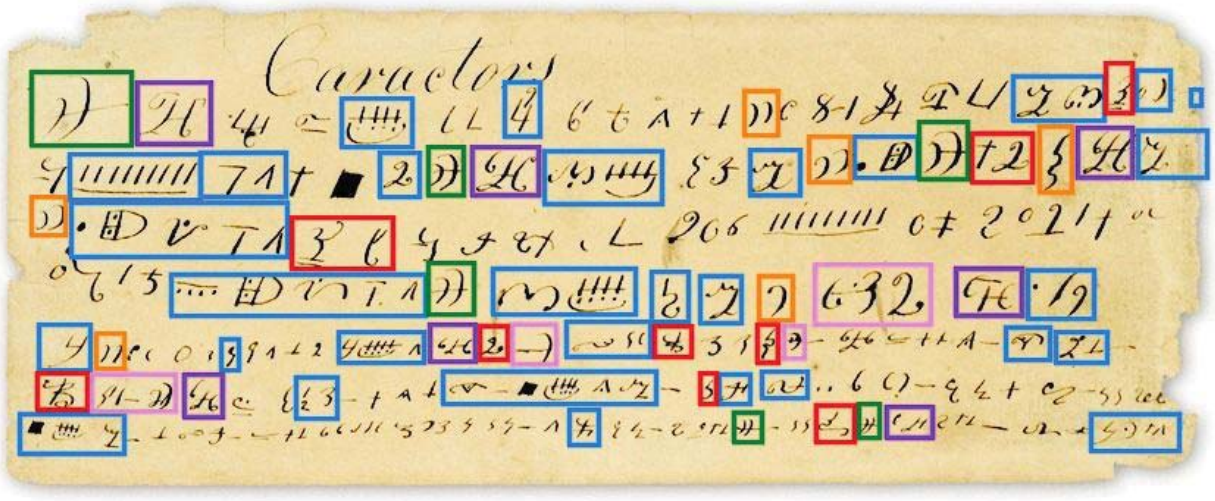


Figure 37. Calendar and number system in the Caractors document

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

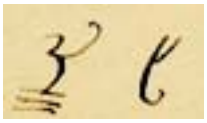
Initial Series Introductory Glyphs within the Caractors Document

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. One of the premier Mayanists, 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). It has been recognized that there is one variable element to the glyph which 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)

There are various Caractors glyphs that are located in front of corresponding date sequences that functionally serve as Introductory Glyphs as known in the Mayan, 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 as the Mayan 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, as 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 19 can be seen the archaic form of the number 2000, where the individual lotus flowers that each represented the individual numbers 1000 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, as 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 Mayan

World Tree forms and Cross forms that have the ‘shepherd crook’ forms at the ends of branches or cross ends so would be consistent with Mesoamerican iconography. This is not to imply that the LDCIG is the source of the Mayan form, 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 38. 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 is the Paleo-Hebrew letter *waw* (to be discussed later).

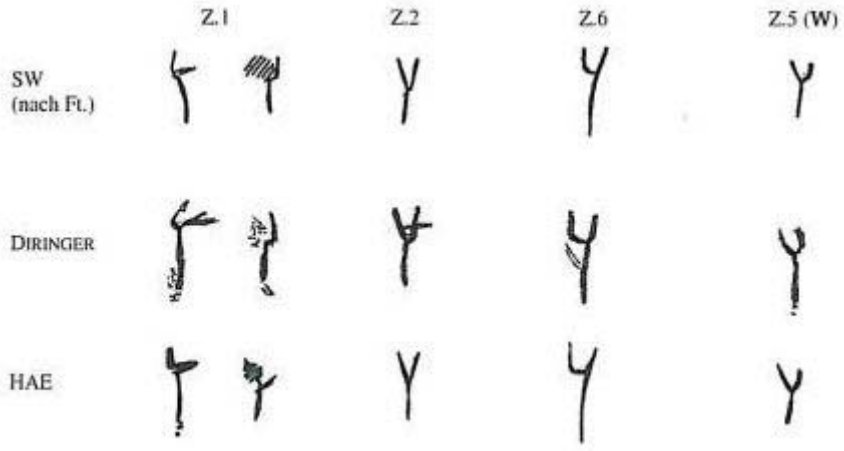


Figure 39. Examples of some “2 Month Glyphs” from Palestinian hieratic (Wimmer 2008, 144)

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 part an integral part of the glyph itself identifying the time that Lehi left Jerusalem. When indicating that it means “2 month” from 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

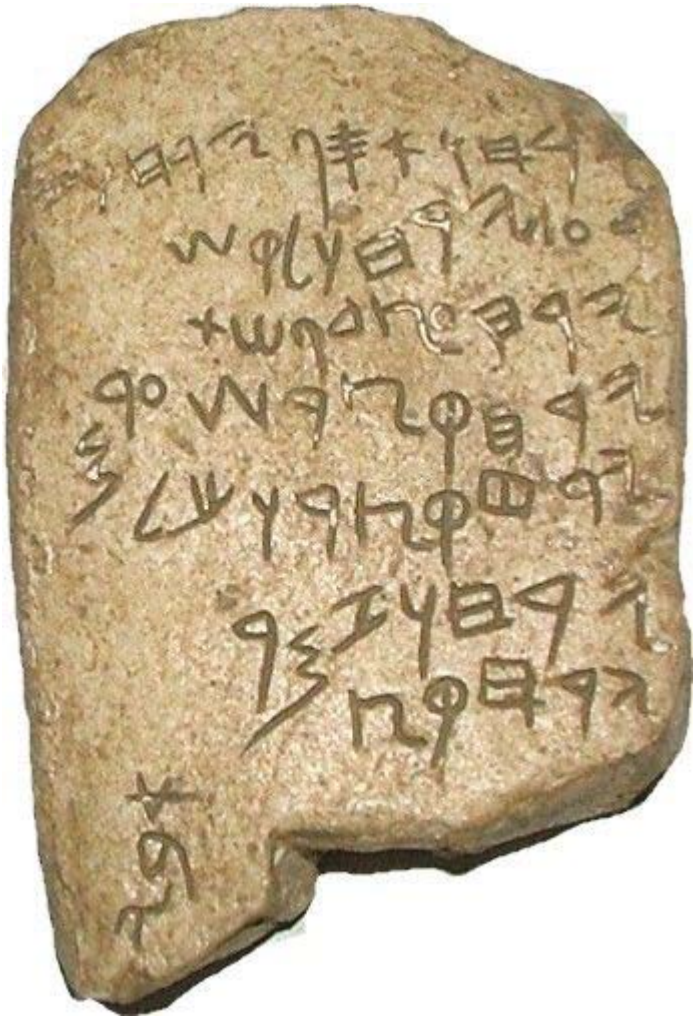
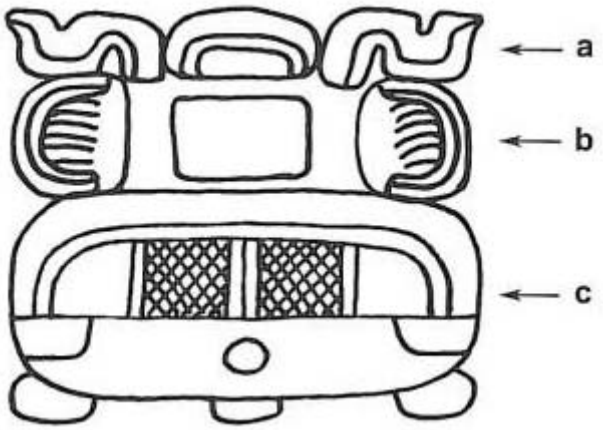


Figure 40. Gezer Calendar (www.bible-archaeology.info/agriculture.htm, 2015)

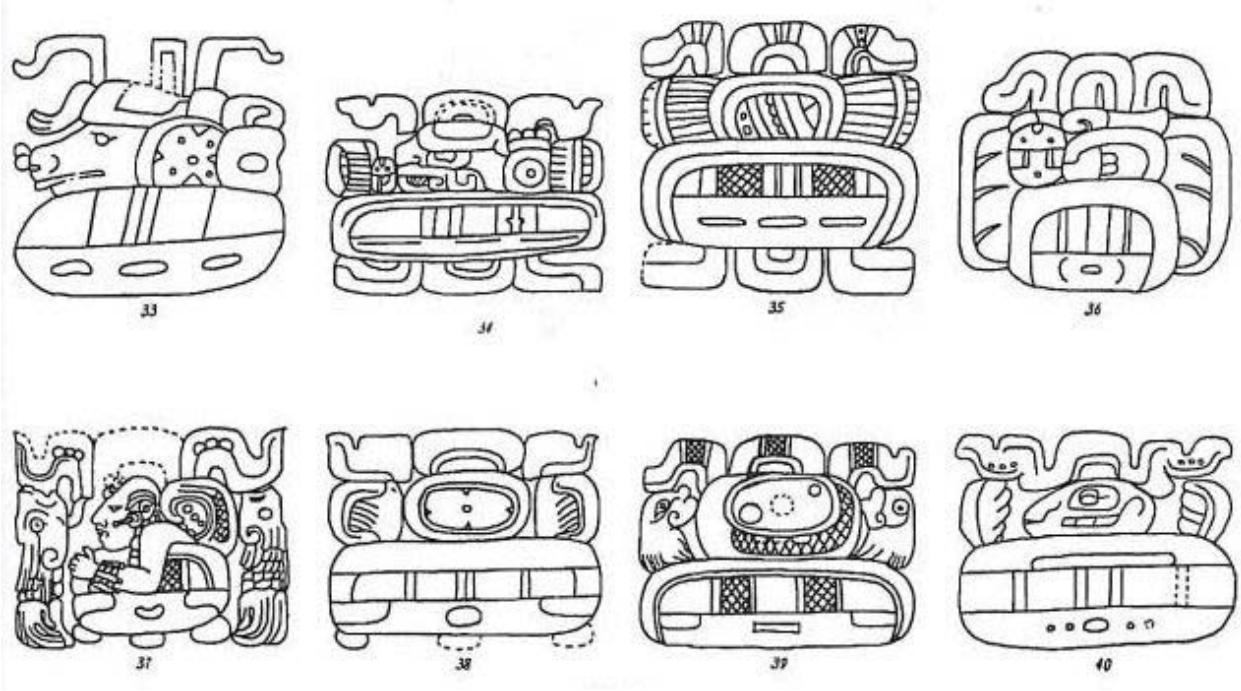
However, since we are not sure which month is being designated we might at least explore the possibility that the interpretation of it being the second month when Lehi left, as it is potentially consistent with when Lehi left Jerusalem (the Hebrew second month is called *Iyyar* and in 587 BC ran from April 29th to May 27th). This is the correct time frame as 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 indicates a particular month of the year.

Maya Calendar Introductory Glyph

The Mesoamerican ISIG begins to appear in the Late Preclassic period (400 BC –AD 100). The ISIG in Mayan 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.

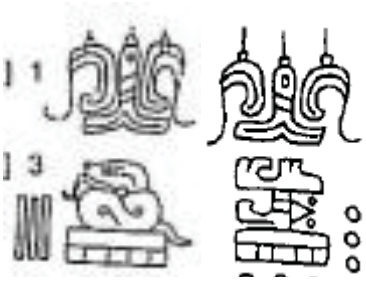


Typical Maya ISIG: a) top trefoil element; b) location of variable patron month sign; and c) the tun with 3-element base (Rice 2007, 174)



Examples of Mayan 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 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 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 (see figures 43 through 45).



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

ISIG Epi-Olmec – Tres Zapotes Stela C 32 BC (Rice 2007, 136)

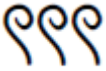
ISIG Epi-Olmec – Tuxtla Statue 162 AD (Rice 2007, 136)

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 Mayan Introductory glyphs would be anticipated to have been borrowed (like the rest of their calendar) and culturally stylized, however, the Epi-Olmec glyphs seen to be closer in form to the Caractors glyph so 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 entendre and word play 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.

S38: 

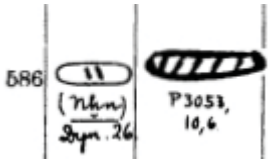
V1b: 

S-38 is the hieroglyph representing the Egyptian king’s scepter (Gardiner 1937, 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 1937, 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 pre-dynastic capitol and capitol at the start of the First Dynasty in Upper Egypt, where the very first Pharoah/King of Egypt came to power.

O47: 

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% 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).

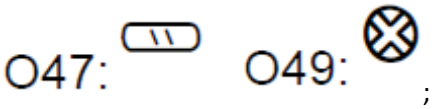
This First King of the First Dynasty in Egypt is known by various names (*Men*, *Aha*, etc.) and was the first king to unite the Pre-dynastic Upper and Lower Kingdoms of Egypt. In a later chapter on directional glyphs, it will become clear that the Nephites used directionality along rivers based on the 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.

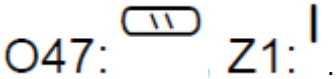
Nekhen was the religious and political capital of Upper Egypt at the end of the Predynastic period (c. 3200–3100 BC) and also during the Early Dynastic Period (c. 3100–2686 BC). Nekhen was the center of the cult of a bird deity, Horus of Nekhen, which raised in this city one of the most ancient temples in Egypt, and it 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.

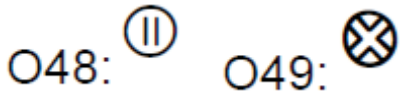
Other common hieroglyphic sequences for the name of Nekhen (Scribd 2010) are:



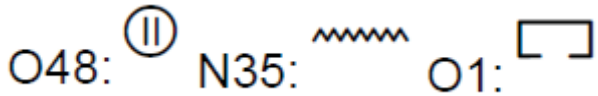
;



;

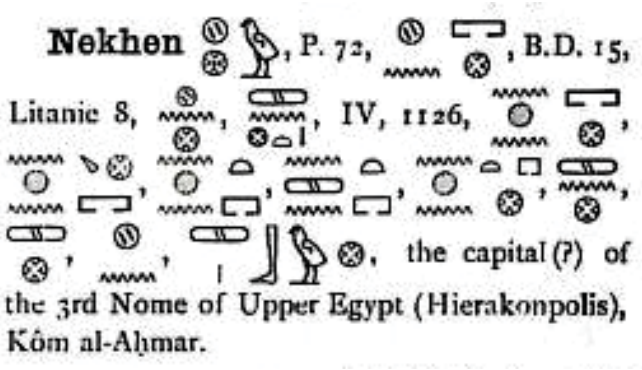


;

and 

.

Under the Budge system of identifying heiroglyphs, the heiroglyphic sequences involving the name of Nekhen are:

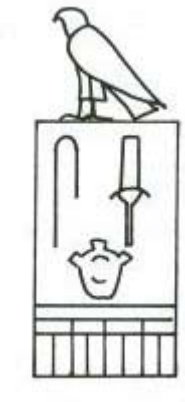


(Budge 1920, 2:1007)

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-culture contact in Mesoamerica are groups identified in the Book of Mormon.

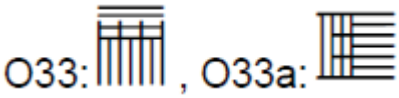
The form of the Epi-Olmec ISIG is also similar in many ways to the earliest forms of display of royal names that predated the well-known cartouche. This form that was used in the First Dynasty is called a *serekh*. It typically features the Horus name of the king, with the Horus Falcon placed on top, 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 it 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 it 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 Mayan 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 above). 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 (and 50 with a stylistic bar) 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 they were 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 in advance of the regnal year count for King Mosiah$_1$.

C-3 

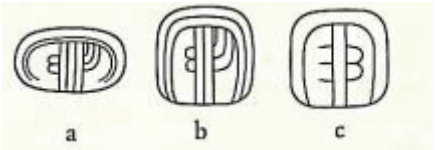
The count in that instance is a limited count within the overall Reign of the Kings period pertaining only to the regnal period of that particular King, which is exactly consistent with the practice in the Book of Mormon text:

> 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 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.

A form of the Reign of the King Calendar glyph appears to be abstractly found incorporated most prominently in the “c” classification of the Muluc (sometimes spelled Muloc) forms of the Mayan glyph for the word “king”:



King Glyphs, Glyph 518 (Muluc Variants) (Thompson 1962, 119)

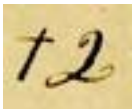
AJAW-wa TE' (*ajaw te'*) (T168:518:130) **>** n. "tree lord"; royal title. King Glyph (Montgomery 2014)

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 'patron' of a specific time period, 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":

Bibliothéque National, Papyrus 217, 5(bis) (Chicago Demotic Dictionary, 2014 CDD S (13:1) Page 23)

The definition of *phyle* is a "tribe" or "clan" (www.dictionary.com, 2015). 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, and ended 475 years after the departure of Lehi. The starting of the period was 10 years after the Nephite's arrival in Zarahemla and encounter with the Mulekites, hinting that the starting of the calendar period probably had a political genesis, and ended when Benjamin renamed the Nephites and left the throne to $Mosiah_2$.

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. It is unknown what the specific tribes might have been; there are a group of seven tribes 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 would not seem likely that the tribes associated with the Lamanites would be part of the organization of the "Seven Tribes" but it may be possible since Mosiah fled out of the Land of Nephi with "as many as would hearken unto the voice of the Lord." These seven tribes are enumerated at later points in the Book of Mormon (4 Nephi 1:38; Mormon 1:8) so appear 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.

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 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, which starts 509 years after Lehi's departure. The Caractors document does not have text present for the start of the time period, but 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 a reasonable assumption that the number of judges was seven. 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.

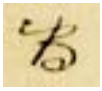
A rational number for a group of judges would be seven—one for each tribe. That number would also avoid tie votes (if that is actually how it worked).

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 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” or “many.” The Egyptian word for this term is *ḥḥ*. In Ancient Egypt it 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 1937, 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 match of the meanings of these glyphs and the coming of Christ to the Nephites does not need any explanation; it is of course is 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.

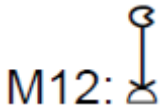
I have been unable to locate any Mesoamerican references to the Coming of Christ Calendar glyph.

6. The “1000 Year” Calendar reference glyph

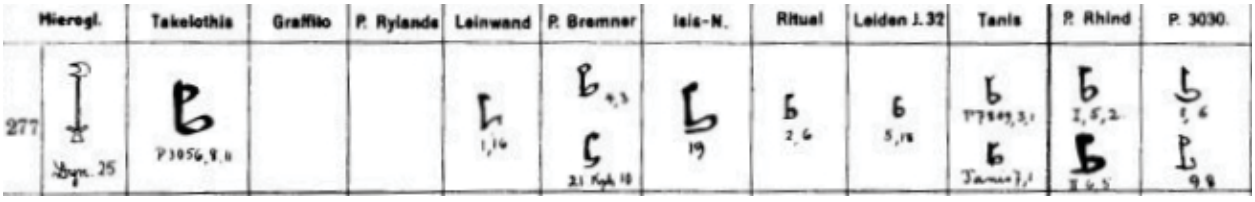
The “1000 Year” Calendar Glyph occurs in one instance in the Caractors Document in the section that deals with the implementation of the Coming of Christ Calendar nine years after the Coming of Christ.

C-112 

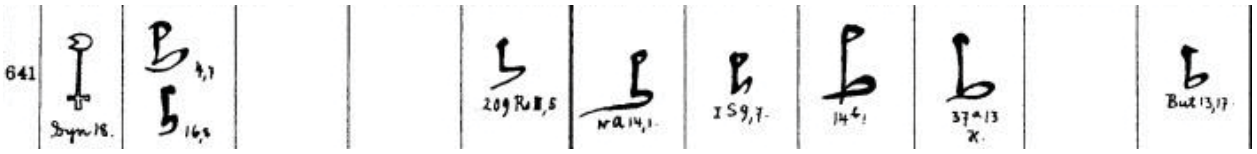
The “1000 Year” glyph is the Egyptian hieratic glyph for the lotus plant hieroglyph and represents the number “1000” as discussed in a previous chapter. This glyph has a Gardiner Number of M-12:



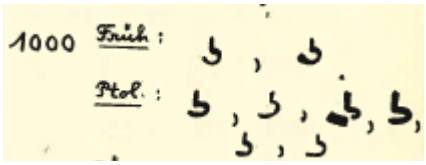
It is found in the hieratic and demotic in a slightly modified form:



Möller Number 277, Bd. III 1-31, pg. III 277-287 (Möller 1965)



Möller Number 641, Bd. II 31-74-Taf, pg. II 641-679 (Möller 1965)



Demotisches Glossar (Erichsen 1954, 702)

The “1000 Year” calendar is not mentioned in the Book of Mormon, but in fact is considered the overall prophetic calendar consisting of the time that 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.

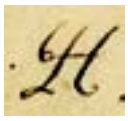
I have been unable to locate any Mesoamerican references to the “1000 Year” calendar glyph.

Distance Number Introductory Glyph (DNIG)

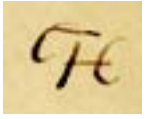
The glyphs known as the Anterior Date Indicator (ADI) and Posterior Date Indicator (PDI) have very important roles in the structure and composition of Mayan inscriptions. Most Maya monumental texts mention certain dates and associated actions or episodes. Elapsed time between different dates and events 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 Mayan elements, functions, and corresponding glyphs. The Caractors DNIG is found as characters 24, 27, 40, 79, 121, 169, and 186-187:

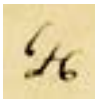
C-24 

C-27 

C-40 

C-79 

C-121 

C-169 

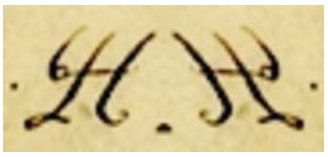
C-186, C-187 

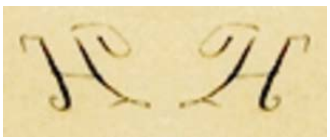
The function of the Caractors DNIG appears to be much more than the Mayan DNIG (at least as far as Mayanists have been able to tell) as it varies in form based primarily based on the orientation of what I call the “curly 6” which is located on the left side of the character. C-24 and C-29 have the “curly 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-186-187 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-186-187 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, a Calendar Introductory/Identifying Glyph, and is followed by a number. C-169 is preceded by an unknown glyph, and is followed by a Period Ending Glyph. C-186-187 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 6”s 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. Perhaps further linguistic analysis of the Egyptian/Hebrew source, or more analysis with the Mayan representations might clarify things.

The Caractors DNIG is found incorporated in the associated Mayan 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 Mayan glyphs:





A stylized Caractors DNIG is found incorporated and embedded in nearly all of the Mayan 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 Mayan DNIG glyphs shown in figures 41 through 44.

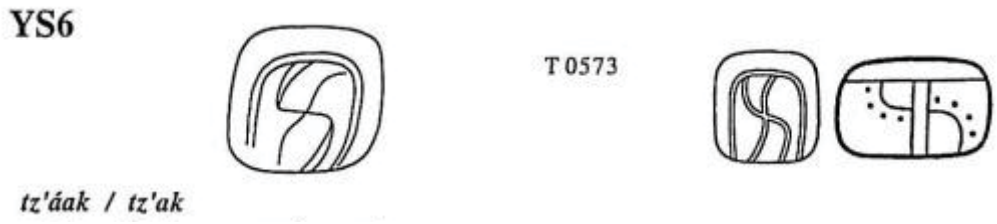


Figure 41. DNIG General Catalogue form (Macri et al. 2003, 211)

Figure 42. 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, BI1A; 15. Quir. Str I, K’ (Thompson 1950, Figure 30)

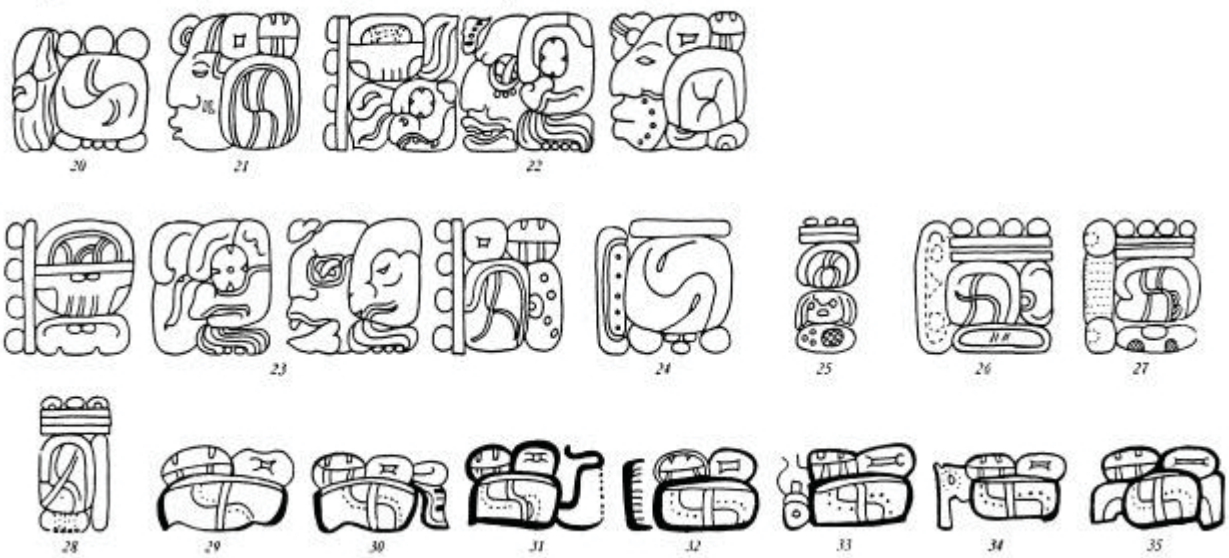


Figure 43. Succession Glyphs – 20. Count of 3 “hel.” Pal. Cross, O8; 21. 1 or 3 “hel.” Pal Inscr. (W), R5; 22. The 9-16-9 “hel” count. Pal. Inscr. (E), S6-S7; 23. The 9-16-9 “hel” count. Pal. Inscr. (M), G10-J1; 24. 5 “hel.” Pal. Sun, Q7; 25. 13 “hel.” Cop. B, BI1a; 26. 14 “hel.” Quir J, C16; 27. 14 “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 44. DNIG – Kuná-Lacanhá, Lintel 1, J5 (Closs 1986, 357)

The “curly 6”s also appear in some of the glyphs, notably figure 42 number 15, and most markedly in figure 43 number 24. The “curly 6” glyph has been determined to be “numeral qualifier” in the Mayan (see figure 45).

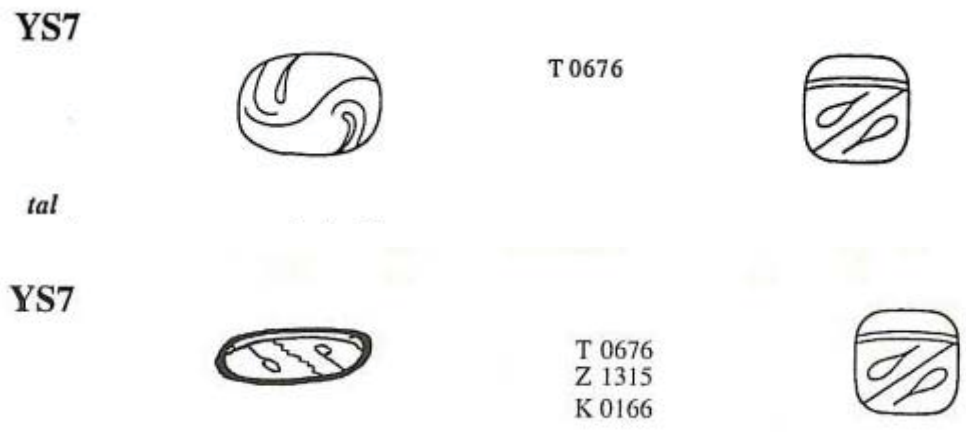


Figure 45. Numeral qualifier general catalogue form (Macri et al. 2003, 211; Macri et al. 2009, 162)

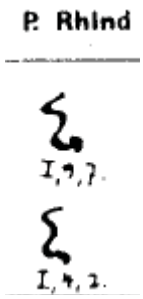
The various Mayanists have indicated the Mayan DNIG indicates "succession," "exchange," "change," and "follow"; and the "curly 6" glyph indicates "succession" or "ordinalizer" (Macri et al. 2003) but have not really proffered a direct translation as such does not really exist in English. Perhaps the most acceptable English word may be something such as "thus."

The Egyptian source for the Caractors DNIG was a tough nut to crack since it is serves principally a calendrical numerical notation function, so what the English word I might be looking for was quite vague. What I discovered was interesting, and demonstrates the saturation of religious elements in the Book of Mormon text.

Egyptian contacts with Palestine occurred in pre-dynastic 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 (c. 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 there are a variety of Semitic words that 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 (c. 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:

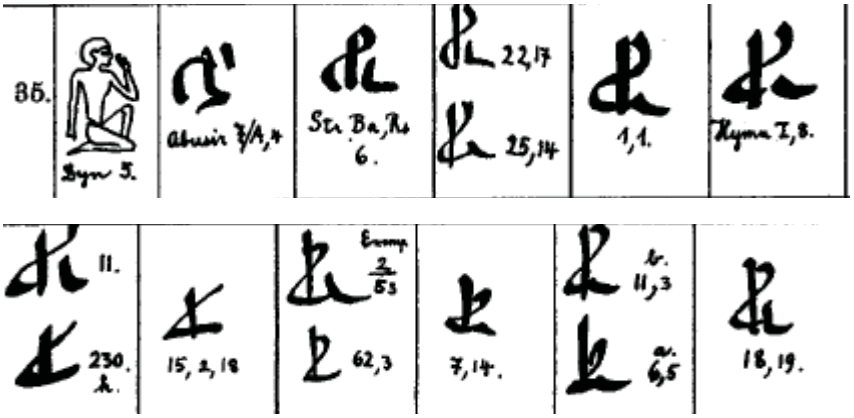
The hieratic form of this word can be derived by looking at hieratic glyphs for each of these glyphs in order—H-6, A-2, and E-23.

H-6:



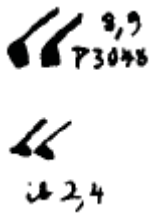
(Möller Number 236, Bd. III-1-31, page III 236-244) (derived from Gardiner Number H-6) Rhind Papyri, I 9, 7; I, 4, 2; British Museum (Möller 1965)

A-2:



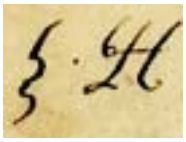
Möller Number 35, Bd. I-1-32, page I 32-40 (derived from Gardiner Number A-2) (Möller 1965)

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)

The Egyptian source for the Caractors DNIG 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” 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 6”s 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 70 AD. 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 46 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, 2nd from the left).

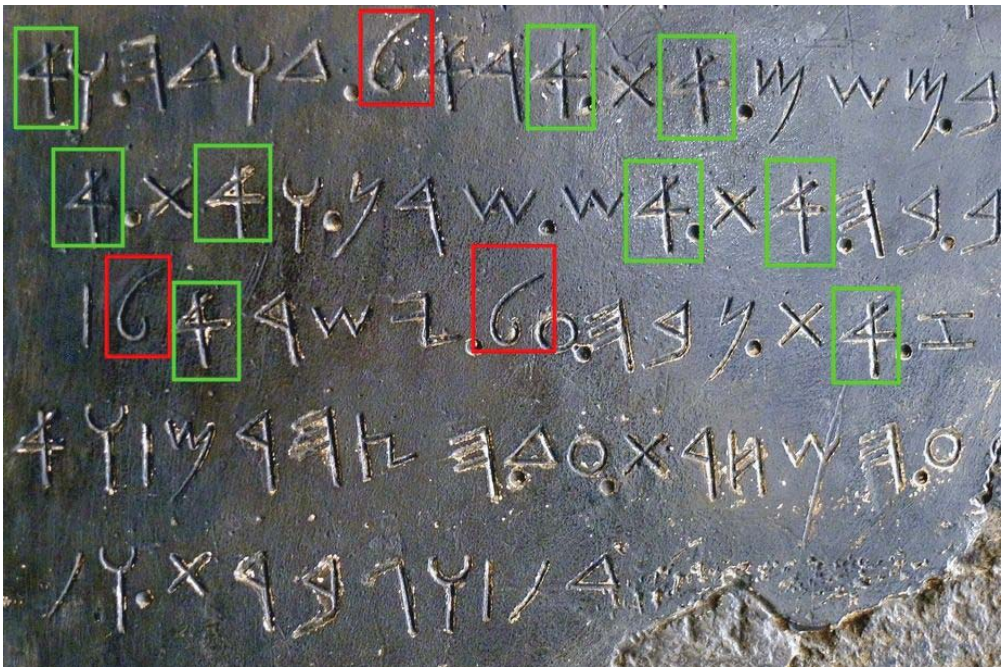


Figure 46. 850 BC Paleo-Hebrew Moab Stone showing the letters *lamed* in red and the letters *aleph* in green (Wikipedia Commons 2015a)

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 47.

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 30 glyphs,

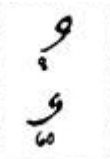
translating their Egyptian names into the Semitic language, and using the initial sounds of those names to represent the sounds of their language.

Figure 47. Proto-Sinaitic script from Serabit el-Khadim, Sinai Pennisula, and dated to c. 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:

F51: , F51a: , F51b: , F51c:

The hieratic form is:



Möller Number 178, Bd. III-1-31 pg. III 176-186 (Möller 1965)

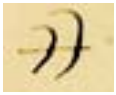
This glyph is a determinative for "flesh," and is also at times a generic determinative for "goddesses" (Gardiner 1957, 467). Multiples of this glyph are also the primary glyphs (in triplicate) in the Egyptian word (after Budge's phonetics) *ḥā neter* which means "God's body" (Budge 1920. 1:466).

At this point, it is clear that the Caractors DNIG and its elements, found directly in the corresponding Mayan DNIG, originated from the name of the Hebrew God, both in Egyptian and in Paleo-Hebrew. In an ironic twist, J. Eric S. Thompson, the high profile Mayanist of his time, labelled this central element of the Mayan DNIG as "vaguely resembling a simple swastika," when in actuality it is the name of God (Thompson 1950, 160).

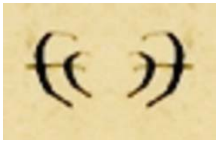
Posterior Date Indicator (PDI) Glyphs

As has been previously discussed, the PDI is oftentimes associated with the Mayan Distance Numbers, although not exclusively so (Stuart 1990), and generally places the number going forward in time. The Caractors PDI is found as characters 25, 31, 41, 87, 188, and 193:

C-25 
C-31 
C-41 

C-87 
C-188 
C-193 

The Caractors PDI is found incorporated into the associated Mayan 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 Mayan PDI affixes. The glyph is quite obvious in the various Mayan PDI glyphs shown in figures 48 through 54. 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 so would move the affixes all around (and even morphed them into the adjacent glyph).

Figure 48. PDI Glyph Affixes, Palenque Temple of Inscriptions Sarcophagus 1-9 (Schele 1982)

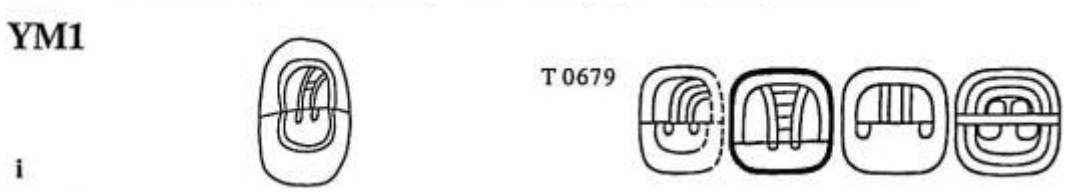


Figure 49. PDI General Catalogue form (Macri et al. 2003, 207)

PDI – Yaxchilan, Lintel 31, I3b

PDI – Palenque, Temple of the Inscriptions, West Panel, S5

Figure 50. Mayan PDI Glyphs (Gloss 1994, 357)

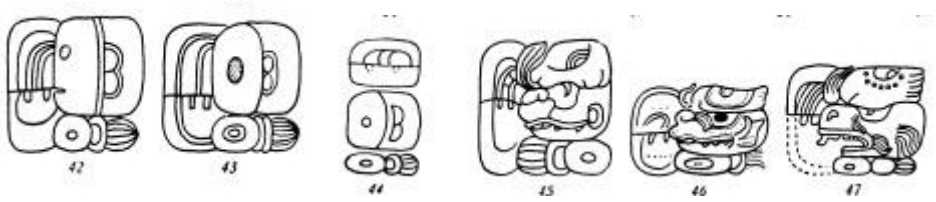


Figure 51. PDI Glyphs — 42. Pal. Inscr. (W), R12; 43. Yax. L 25, N1; 44. Quir. E (W), S5; 45. Pal. Inscr. (W), S5; 46. Pal. 96 Gl. G1; 47. Cop. TI1, E door, S panel, C5. (Thompson 1950, Figure 30)

Figure 52. 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)

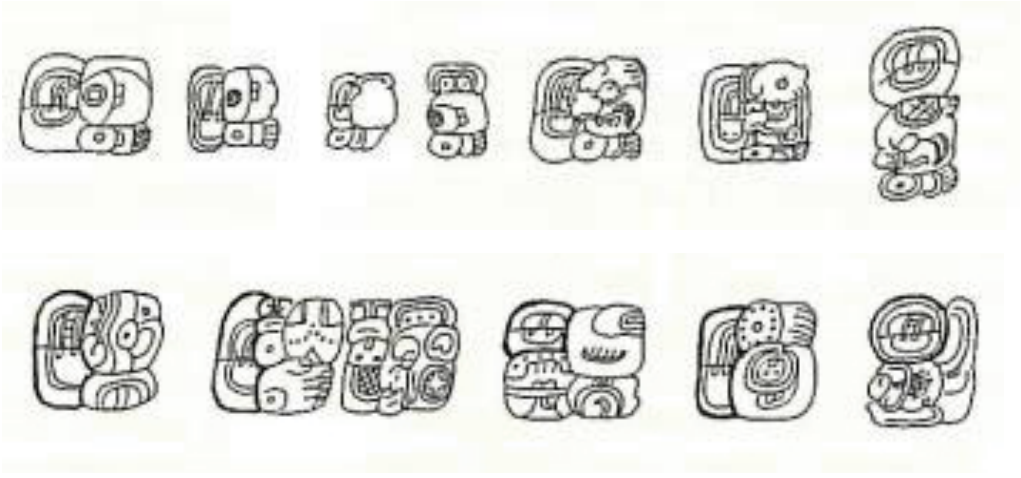


Figure 53. PDI Glyph Affixes, Palenque Temple of Inscriptions Sarcophagus 1-9 (Schele 1982, 22)

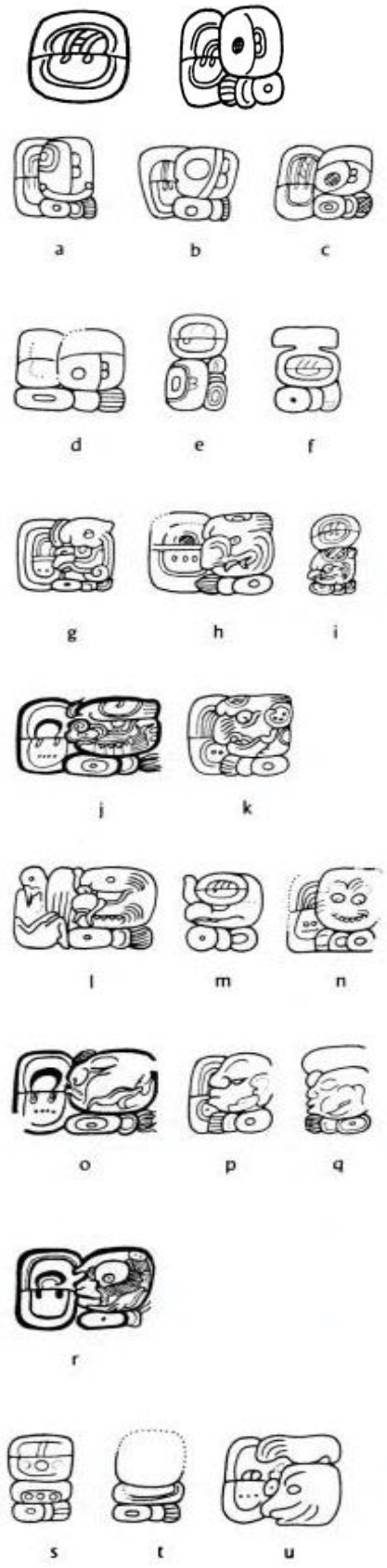
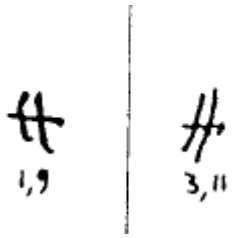


Figure 54. PDI Glyphs (Stuart 1990, 217)

Various Mayanists have translated the Mayan PDI glyph as “and then it came to pass,” “and then,” and “forward.” This translation is well represented in the current text of the Book of Mormon.

The Egyptian source of the Caractors PDI glyph appears to be 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).



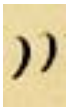
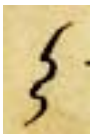
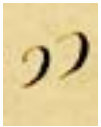
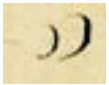
Möller Number 564, Bd. III-32-72-Taf, pg. 554-564B (derived from Gardner Z-11) (Möller 1965)

When placed together with the Egyptian version of the main DNIG sign as occurs in the Caractors document, the meaning is an Old Kingdom variant for “old” (Gardiner 1957, 539). It is also found in some of the negative verb tenses (Gardiner 1957, 262).

This character will require additional research to determine its Egyptian source with more specificity.

Anterior Date Indicator (ADI) Glyphs

As has been previously discussed, the ADI is oftentimes associated with the Mayan Distance Numbers, although not exclusively so (Stuart 1990), and generally places the number counting back in time. The Caractors ADI is found as characters 12, 28, 34, 75, and 82:

C-12  C-28  C-34  C-75 

C-82 

Like the other Caractors calendar glyphs, the Caractors ADI is found incorporated into the associated Mayan ADI affix glyphs. There are two forms of ADI in both the Caractors document and the Mayan; C-28 is the variant “snake” 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. 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 the Mayan ADIs, it is actually identical to the Mayan ADI affixes except the cresents are situated as needed to fit the Mayan glyph. This is quite obvious in the various Mayan ADI glyphs shown in figures 55 through 63. Like the PDI, the ADI is typically an “affix” glyph, again meaning it is 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).

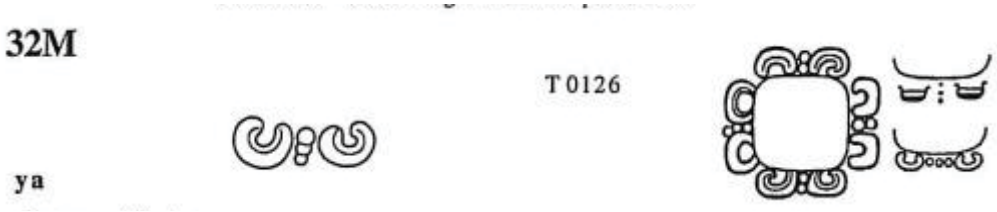


Figure 55. ADI general catalogue form (Macri et al. 2003, 296)

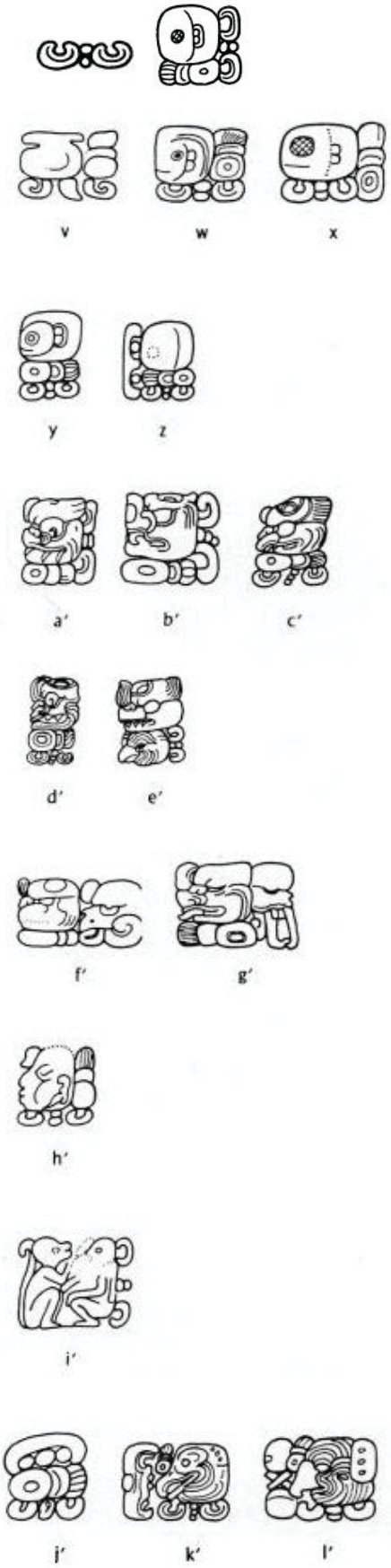


Figure 56. ADI Muloc glyph and other glyphs showing ADI affix (Stuart 1990, 217)

Figure 57. 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 58. ADI glyph affixes (Gloss 1994, 357)

Figure 59. 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)

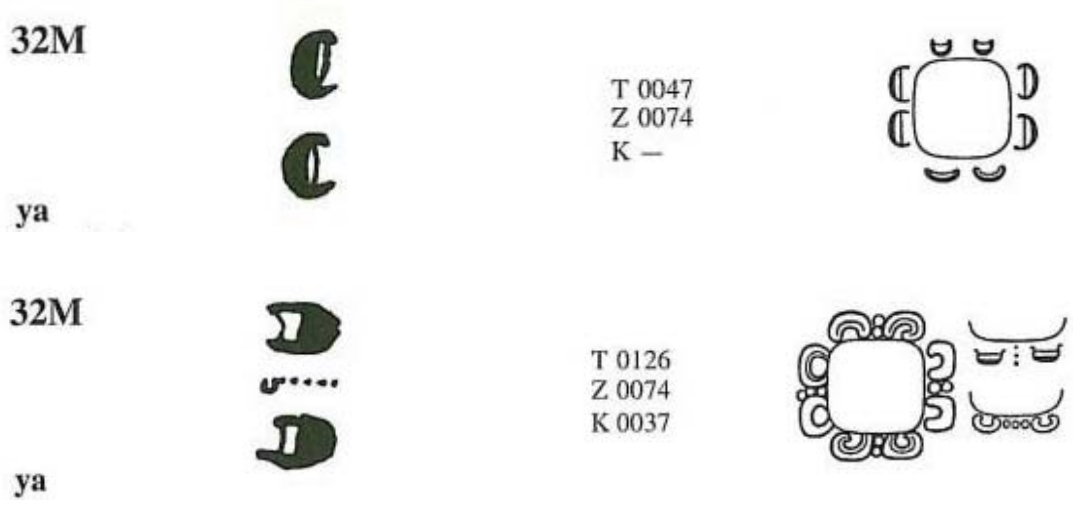


Figure 60. ADI affix for later Codices (Macri et al. 2009, 237)

Snake Variant ADI

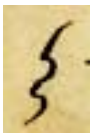
C-28 

Figure 61. ADI snake variant general catalogue form (Macri et al. 2003, 54)

Figure 62. ADI snake variant – Palenque, Tablet of the 96 Glyphs (Gloss 1994, 357)

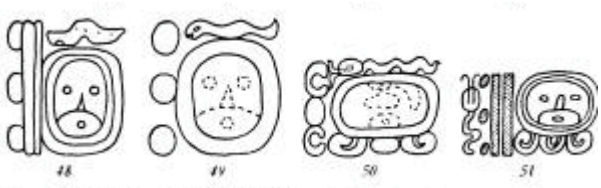


Figure 63. ADI snake variant — 48. With 13 Ahau. Pal. Inscr. (E), M7; 49. With 3 Ahau. Pal. Inscr. (W), R3; 50. With 1 Manik, Pal. I, A10; 51. With 13 Ahau. Pal. 96 Gl., K2 (Thompson 1950, Figure 30)

The various Mayanists have translated the Mayan ADI glyph as “it came to pass,” “since,” “back,” “then,” “time hence,” and “time ago.” This translation is well represented in the current text of the Book of Mormon.

The Egyptian source of the Caractors ADI glyph has not been specifically located, not because of lack of attestation, but because the form is found in many hieratic words. The ADI snake variant Egyptian provenance was discussed as part of the DNIG discussion so won’t be repeated here. The Egyptian source for C-82 will be discussed as part of the discussion on Period Ending glyphs

Period Ending or Completion Glyphs and Transitional Glyphs

General Period Ending Marker

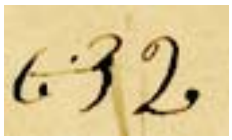
Three period endings are intimated in the Book of Mormon as indicated by using the clause “making in the whole,” which is only used in three places in the Book of Mormon: Mosiah 6:4 (end of the Seven Tribes period corresponding with commencement of the reign of $Mosiah_2$); Mosiah 29:46 (end of the Reign of the Kings Calendar); and Mormon 3:4 (end of a 360 year period after the Coming of Christ).

An element of all the Period Ending Markers is a crescent glyph that is incorporated. The Egyptian definition to this glyph is “behold” or “see” according the Chicago Demotic Dictionary:

Rhind Papyrus I, 2d13, CDD M (10:1) Page 1 (Chicago Demotic Dictionary 2014)

Each of the Caractors Period Ending Glyphs, as expected, is unique to the time period it is closing and each will be discussed individually.

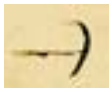
1. Seven Tribes Subcalendar Period Ending Glyph

C-81, C-80 

This glyph has the identifying number “7” starting the sequence (the glyph for tribe is not included), then there is the identification of 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), and then there is a right-facing crescent connected by a line, with 2 dots between the 50 and the right-facing cresent. This ends only a subcalendar period, as the Reign of the Kings Calendar continues to run.

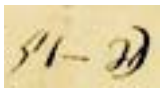
2. Lehi Departure Calendar (600 year) Completion and Transition Glyphs

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 1000 Year Calendar. From a date calculation standpoint, the 1000 Year Calendar continued to run beyond 1000 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-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.” There is the typical horizontal line (that might also be interpreted as a “spacer” line) and then 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 is unclear but may be the equivalent of an ADI type glyph (or may be something entirely different altogether).

4. Fourth Generation Completion Glyph

C-189 

This Period Ending glyph is principally identified in the context of Book of Mormon chronology and 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 to behold your utter 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 near 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 at 200 years after the Coming of Christ. There are no further specific markings of the passage of the generations, but since the second generation was marked after a period of 90 years, it would seem clear that the complete passage of the third generation would have been around 290 years after the Coming of Christ. 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."

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 Mayan Period Ending glyphs. Figures 64 and 65 show Mayan Period Ending glyphs featuring the crescent with two dots that is reflected in the Seven Tribes Period Ending glyph. Figure 65 shows the Mayan 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 64. Period Ending glyph (Macri et al. 2009, 106)

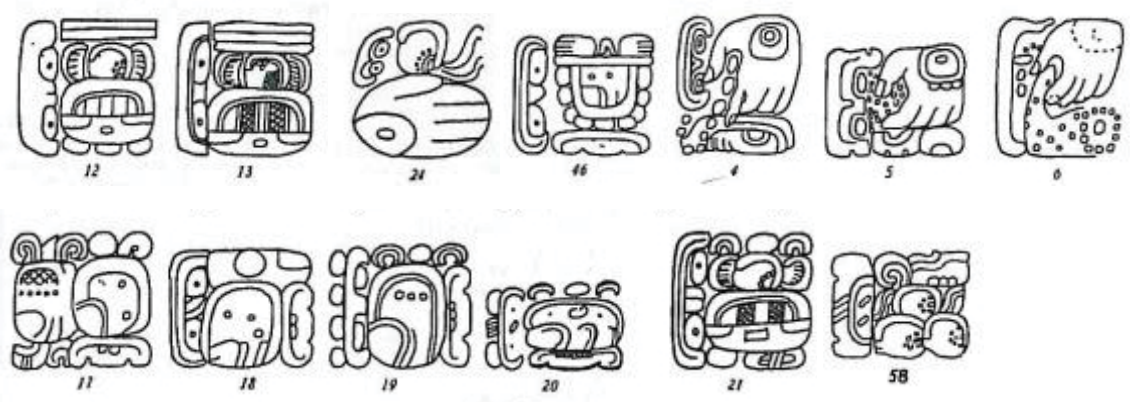


Figure 65. Period Ending glyphs “C with dots”— 12. Tenth Katun Pal. INscr. (E), T2; 13. Fifteenth Katun P.N. Alt 2, H2; 24. Completion of haab, Nar. 25. D4; 46. Half of Period, UAZ 22, B3; 4. Cop. B, B7; 5. Quir. C, C13; 6. Nar. 14, E12; 17. Pal. Inscr. (W) S11; 18. Nar. 24, D8; 19. Tik. T 4, L 2, K1; 20. Pal. 96 Gl., I8; 21. First Katun P.N. L 3, F1; 58. Quir. C, A14 (Thompson 1950, Figure 32)

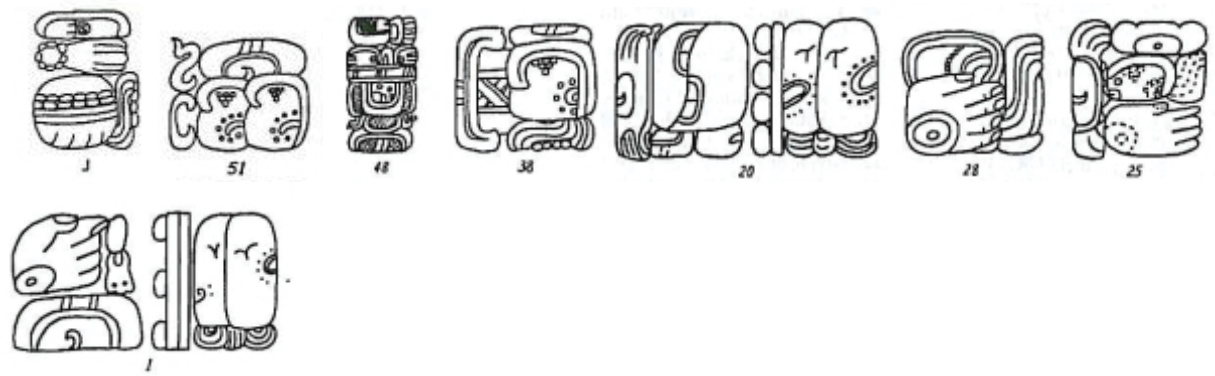


Figure 66. Period Ending glyphs “C with lines”— 3. Cop S. I1B; 51. Cop N, pedestal, 22; 48. At its half period. Cop 6, A7b; 38. Fifth Haab. Quir A. B11; 20. Count of Succession of 9 Baktuns, Pal. Cross. S1-R2; 28. Completion of Haab, Nar. 24, E15; 25. Completion of Count of New Haab, P.N. Alt 2, G3; 1. Completion of 13 Baktuns. Pal. Cross, D4-C5. (Thompson 1950, Figures 32 and 33)

Figure 67. Period Ending glyphs “C only” — 14. Quir. E, D19a; 27. Completion of Expiration of Haab (Thompson 1950, Figures 32 and 33)

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 derived from Egyptian units of measure or numerals. They may have been Egyptian numbers or measurement symbols that did not end up being used in the later Nephite system and so may have been available for use in the Mesoamerican calendar counting system, which may not have had its roots in the Nephite culture but might have originated from the existing Mesoamerican system. There are some Palestinian hieratic glyphs that may in fact match some of the above discussed calendar glyphs:

Number 1

Number 2

Bath - Hebrew liquid volume measurement

Kor - Hebrew dry volume measurement

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 probable source of some of the time measurement glyphs used in the Caractors calendar system.

Egyptian or Semitic Source of Calendar Date Structure

Determination of the source of the calendar date structure will require additional research as to whether it is an entirely Egyptian notation of a Hebrew structure or whether it originates in Mesoamerica (or most likely a mix of both). From the Egyptian element, a good place to start would be the combinations of the Egyptian words *ỉw* and *ḫpr*. 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 *ỉꜣw*. An excerpt from the Chicago Demotic Dictionary of the various combinations is included here:

as introductory word or in introductory clause
ỉw=f r ḫpr ỉw... "it shall/should happen that..." (EG 355)
ỉw=f ḫpr ỉw... "if it happens that..." (EG 355)
mtw=y ḫpr "(&) I should be" (EG 356)
(n-)ḏr.t ḫpr=f "since it happened" (EG 356)
var.
n-tꜣy ḫpr 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 ḏd ḫpr* "of speaking...(there) came (to pass)..."])
r-ḏbꜣ ḫpr ỉw "because it happened that ..." (EG 356 & 621, s.v. *tbꜣ*)
ḫpr(=f) as impersonal *sḏm=f* (often w. zero subject); see Simpson, *Grammar* (1996) pp. 130-31, §8.2.2-4
in constructions
ḫpr + 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
ḫpr ỉw + 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)
ḫpr m-sꜣ=s + main clause "it came to pass afterwards (lit., "after it") ..." (P P Berlin 13603, 2/10)

ḫpr=s + conjunctive "it will come to pass that" (R P Serpot, 3/25)
in formulas
hrw (n) sᶜnḫ X...*ḥr ỉb.t nb ḫpr=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) sᶜnḫ X... ḥr rnp.t nb ḫpr=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 ḫpr=f "it (routinely) comes to pass" (EG 355)
var.
šᶜ-ḫpr=f "it (routinely) comes to pass" (R P Carlsberg 1, 2/18-19; 7/3; R P Carlsberg 1a, 3/29)
on *šᶜ* as phonetic var. of aorist particle *ḥr*, see below

(Chicago Demotic Dictionary 2014, Ḥ pg. 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 well beyond the scope of this translation and is needed for the entire Book of Mormon in comparison with the Bible, for which the Caractors document and translation should provide further insight.

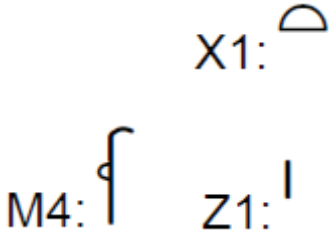
Additional Nephite Calendar Units

Years

For the regular year counts in the Caractors documents, 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 9 years after the birth of Christ. That character is C-118:

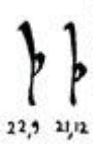
C-118 

The word for Egyptian 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.

The Egyptian hieratic for these hieroglyphs are:



Möller Number 270, 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 Mayan 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 1937, 203). This system is indicated by the designation of a third of a year in the context of "1 1/3 years" with characters C-76, C-77, and C-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 (Deut. 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

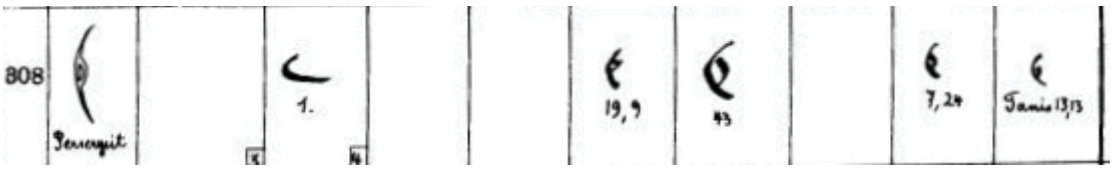
The word month is used in two locations in the Caractors document, C-103 and C-160:

C-103  C-160 

The two standard Egyptian hieroglyphs for month are Gardiner Numbers N-11 and N-12:

N11:  N12: 

There are a fair number of similar forms in the heiratic:

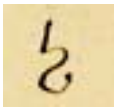


Möller Number 308, Bd. III-1-31, pg. III 300-308 (Möller 1965)

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, (inundaton, winter, and summer). So although the entire

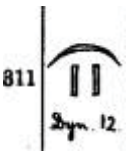
year had twelve months total, there were only designations of first, second, third, and fourth months. The Book of Mormon does not reflect this system, as it uses enumerated months up to at least the eleventh month.

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:



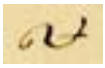
C-84

The glyph in the Egyptian hieratic is:



Möller Number 311, Bd. I-23-76, pg. I 310-319 (Möller 1965)

Character C-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 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 precedence. 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 68.

'alep	'		lamed	l	
bet	b		mem	m	
gimel	g		nun	n	
dalet	d		samek	s	
he	h		ayin	'	
waw	w		pe	p	
zayin	z		tsade	ṣ	
het	ḥ		qop	q	
tet	ṭ		reš	r	
yod	y		šin	š	
kap	k		taw	t	

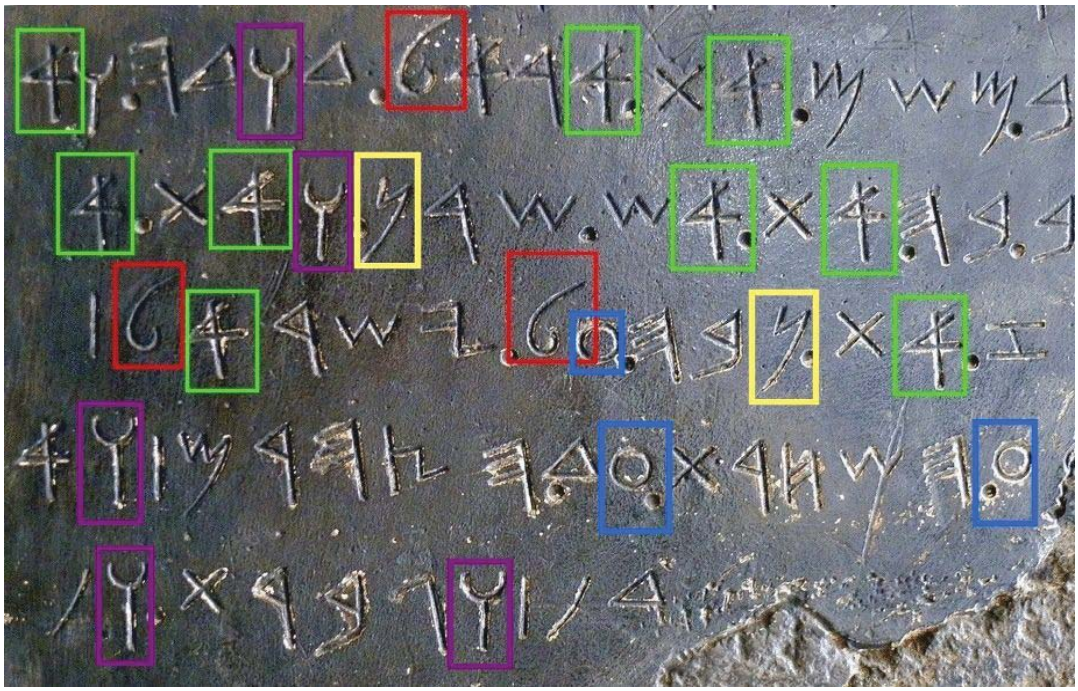
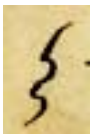


Figure 68. Moab Stone with Paleo-Alphabet—Green *aleph*, red *lamed*, purple *waw*, yellow *nun*, blue *ayin*

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 5-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 deterimined 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.

While not identified in a monthly capacity, the variant snake ADI character may also have a Paleo-Hebrew alphabet origin in addition to the Egyptian one cited.



C-28

During the 2012 excavations at the southern wall of the Temple Mount, archaeologist Eilat Mazar discovered an inscription with the earliest alphabet letters ever found in Jerusalem. The inscription, which was carved on a storage jar, is written in the Proto-Canaanite script and dates to the eleventh- or tenth-century BC (see figure 69). The farthest left character is very close in orthography to C-28.

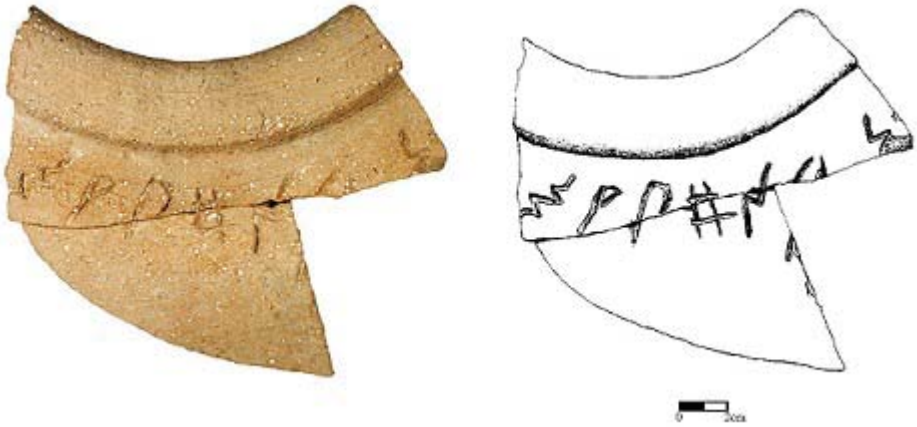


Figure 69. 2012 discovery of early Hebrew Alphabet (Ngo 2014)

Khirbet Qeiyafa, also known as the Fortress of Elah, is located opposite Azekah along a ridge north of the Elah Valley. An inscription on a pottery shard was discovered here in 2010 dating from the tenth-century BC also seems to feature the character (see figure 70).

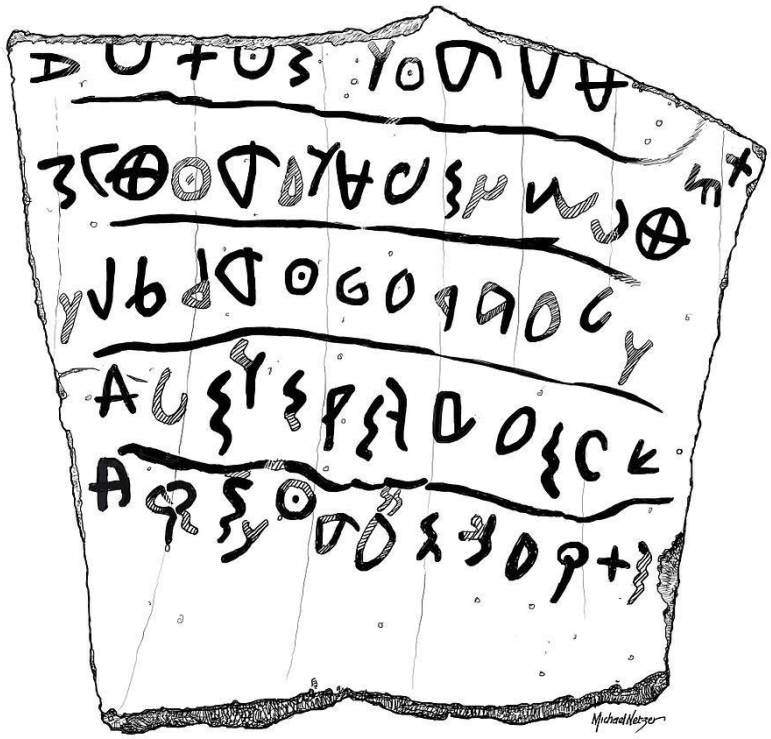


Figure 70. Artist's rendering of pottery shard from Khirbet Qeiyafa (Netzer 2014)

Week

"Week" is mentioned three times in the Book of Mormon (Mosiah 18:25, Alma 31:12, 32:11). There were 7 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 1/7th (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.

Days

There do not appear to be any designations of days in the Caractors document.

Summary

There is a scientifically indisputable direct relationship between the Caractors text and Mayan 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 Mayan 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 Mayan 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 Mayan 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 Mayan, 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 Years' 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.

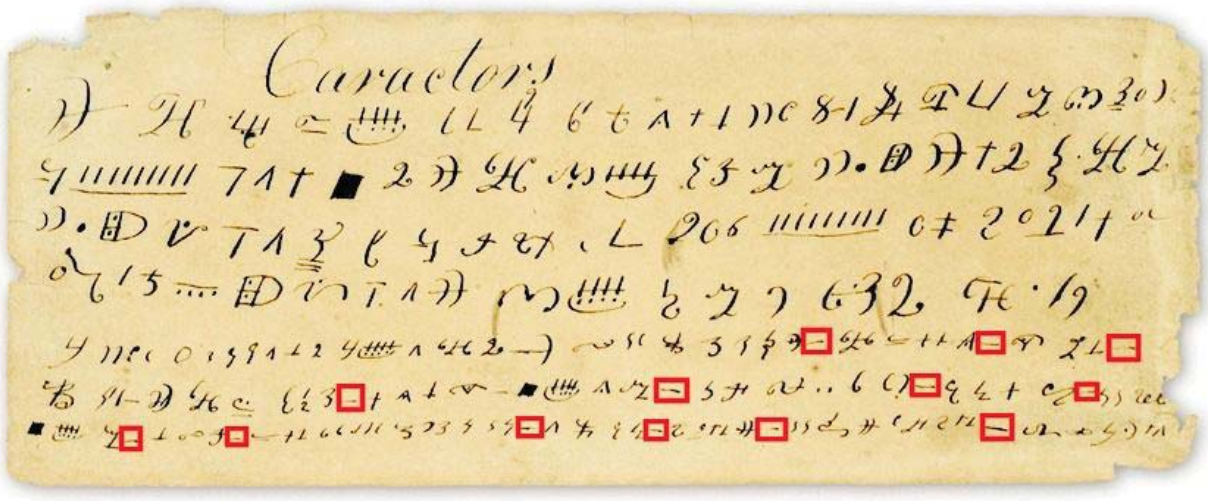
Chapter 6

Macro Linguistic Structure of the Caractors Document

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 happened during the Seven Tribes subcalendar period during the Reign of the Kings. It is complete in that the document does not appear to start mid phrase or end mid phrase. It would seem logical that there are probably other similar chronological summaries located on the Front Plate.

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 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.

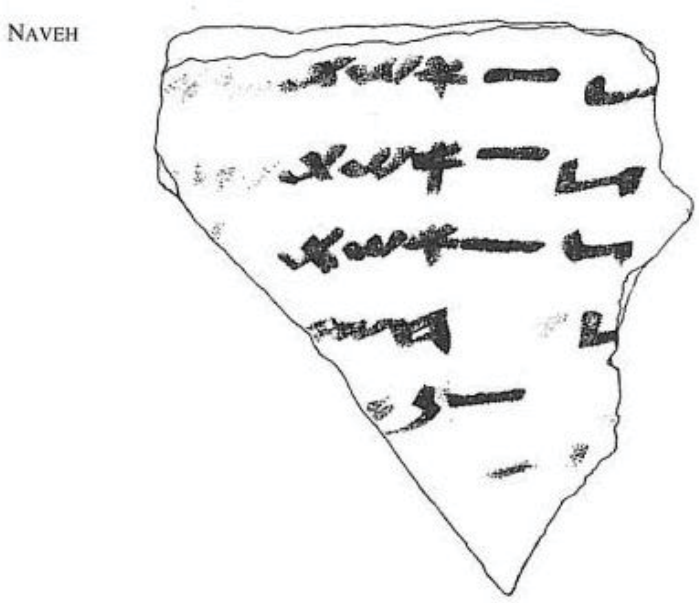


Figure 71. Spacer glyph on Ostraca Jerusalem IN 4, from the Iron Age II Period (1200 - 586 BC; Wimmer 2008)

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 may have contained filler glyphs 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.

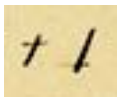
Chapter 7
Christ's Tribe, and Who Is Left?

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 which "-ite" it would have been in some cases 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-13, C-14 

C-106, 107 

C-183, C-184 

C-194, C-195 

C-215, C-216 

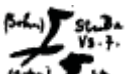
The preceding character best matched in context the Egyptian character for "Son," which is the word *s3* (Gardiner 1957, 471). The simplest hieroglyphic form of the word is the hieroglyph identified as Gardiner Number G-39 (Budge 1920. 2:583):

G39: 

One of the hieratic forms of G-39 is:

Hatnub Papyrus

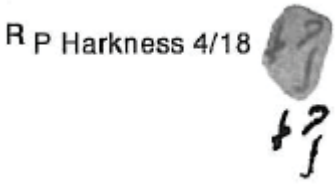
Möller Number 216, Bd. I-1-22, pg. I 215-224 (Möller 1965)

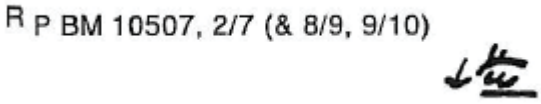


Elephantine Papyrus

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:





(Chicago Demotic Dictionary 2014, CDD S (13:1) pages 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.

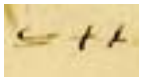
10 And now it shall come to pass, that whosoever shall not take upon him the name of Christ must be called by some other name; therefore, he findeth himself on the left hand of God.

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:

C-106, C-107, C-108  C-215, C-216, C-217 

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

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

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

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

17 There were no robbers, nor murderers, neither were there Lamanites, nor any manner of -ites; but they were inone, 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.

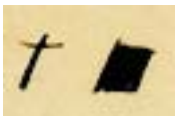
2 For behold, their wars are exceedingly fierce among themselves; and because of their hatred they put to death every Nephite that will not deny the Christ.

3 And I, Moroni, will not deny the Christ; wherefore, I wander whithersoever I can for the safety of mine own life.

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 only refers to "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.

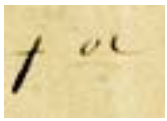
People of Limhi (Limhites)

The translation of the tribal name *Limhi* as represented by the following characters has been discussed in a previous chapter involving the number 30.

C-43, C-42 

Jaredites

The name for the Jaredites consists of characters C-51, C-50, and C-49:

C-51, C-50, C-49 

Characters C-49 and C-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."

As 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 *ꜣḥ* and *ḥꜣ*. Like other creative wordplay associated with names in the Caractors document, this glyph has comparable meanings when read either forward or backwards. Taking the reverse reading first (*ḥꜣ*), 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) pgs 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 (*ꜣḥ*) is:

- "pain, grief, trouble, loss, sorrow, misery, destitution, sadness, ruin, woe" (Budge 1920, 1:7)
- "dispute, battle" (Chicago Demotic Dictionary, 2014, *ꜣ* (02.1) pg. 60)

The short forms in the hieroglyphics for these words (Budge 1920, 1:7, 438) consists of Gardiner Numbers O-4 and G-1:

O4: G1:

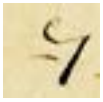
Hieratic forms closest to the Caractors glyphs are:

Möller Number 342, Bd. III-32-72-Taf, pg. III 339-344 (Möller 1965)

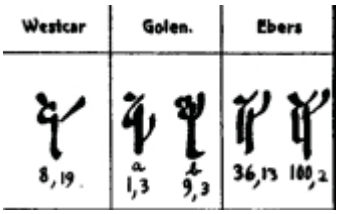
Möller Number 192, Bd. III-1-31, pg. III 187-194 (Möller 1965)

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 C-48 (adjacent to the glyph for the Jaredite plates) is either an adjective used to describe the the Jaredite plates, or 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 

R13:



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, *ỉmnt* (Gardiner 1937, 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,

53). 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.

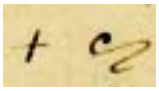
The character set for "Jaredites" has an amazingly number of levels of meaning, all describing the origin, demise, and location of the Jaredites.

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 $Mosiah_2$ 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 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.

Gadianton Tribe (Robbers)

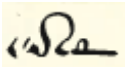
The Gadianton 'tribe' consists of characters C-141 and C-142:

C-141, C-142 

Amongst the etymological possibilities that the Book of Mormon Onomasticon evaluated for the name "Gadianton" was one that they considered unlikely:

> Unlikely are the suggestions from HEBREW * *gādî-ʿānтôn*, "my fortune is oppression/affliction/rapine," from *gād*, "lot, good fortune, riches, name of good fortune" + *ʿĕnût*, "labor upon, exercise upon, oppress, afflict," in *piel* "rape," with noun afformatives *-t* and *-ōn*; or perhaps *gad-ya-nton*, "fortune is given by Yah," with *ntn*, "to give" (RFS). The root of *ʿĕnût* 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 Caractors document indicates is actually the name of the Gadianton tribe. In the Egyptian demotic, according to the Chicago Demotic Dictionary, the following character means "wealth, riches; (good) fortune" (CDD R (01.1) page 50) and constitutes the Egyptian word *mn.t*. The match with the Caractors document and Gadianton is nearly exact:

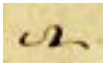


(Erichsen 1954, 250)

P P 'Onch, 8/17 (& 8/18-9/4) 

Ptolomaic Papyrus, Onchsheshonqy, CDD R (01.1) page 50 (Chicago Demotic Dictionary 2014)

Character 181 is also the same character as “Gadianton,” but 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 

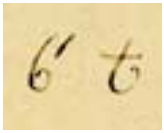
Similar to the name for Jared in relation to the Jaredites, it would seem that the name of Gadianton was applied after the fact, as it describes the nature of the group as opposed to some sort of birth name. There is some precedence for the renaming of individuals after the fact in the Book of Mormon (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.

Chapter 8

Hieing to Zarahemla—Place Names

The name of Zarahemla appears in the first line of the Caractors document, consisting of C-16 and C-17:

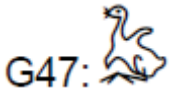


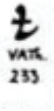
C-17, C-16

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 *zeraʿ hammĕlûkâ, zeraʿ hammamlākâ* "royal descendant" (Jeremiah 41:1, 2; 2 Kings 11:1; 25:25; Ezekiel 17:13; Daniel 1:3), and like Hebrew *zeraʿ ʾĕlōhîm* "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 "*ṯ*" or "*ṯꜣ*" (Chicago Demotic Dictionary, 2014, pg. T 01.1 10), which is an apt characterization as Christ indicates that he gathers like a hen gathers her chickens (3 Nephi 10:4). The Egyptian hieroglyphic word can consist solely of the G-47 glyph and its associated hieratic (Möller Number 224):



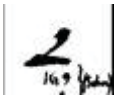


Möller Number 224, Bd. II-1-30, pg. II 219-228 (Möller 1965)

This 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 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 word Egyptian word "*ṯ*" or "*ṯꜣ*" 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" and so 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 Meriam Webster online dictionary, 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.

Land of Desolation

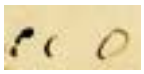
As has been previously discussed with regards to Jared and Jaredites, C-48 is the glyph for Land of Desolation.

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

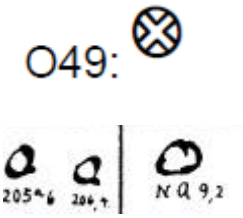
Characters C-131 to C-133 are translated as "the Land of Jerusalem":

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:

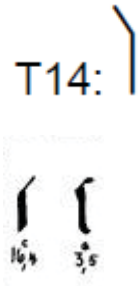
> Without a doubt the second and dominant part of the name [Jerusalem] reminded (then and now) of the word שלום (shalom), meaning peace.
>
> The first part of the name Jerusalem may likely have reminded a Hebrew audience of the verb ירה (yara), throw, cast or shoot. (Uittenbogaard 2015)

C-131 is identified by Budge as the hieratic glyph for the Egyptian word *niwt* or *nut* for “city or town” (Budge 1920, 1:351; Scribd 2014; Dickson 2006) or “community or settlement” and derived from the hieroglyph Gardiner Number O-49:



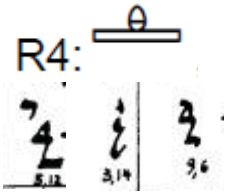
Möller Number 339, Bd. II-31-74-Taf, pg. II 339-352 (Möller 1965)

Character C-132 is the hieratic glyph for the Egyptian word *qmꜣ* or *qma* for “throw” (Scribd 2014) and “to cast away” (Budge 1920, 2:770) and derived from hieroglyph Gardiner Number T-14:



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 *ḥetep* or *Htp* which means “be at peace,” “peaceful” (Dickson 2006; Budge 1920, 1:517) and 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 *ḥetep*. It looks like this is another example of one glyph with two meanings.

(Chicago Demotic Dictionary, 2014, CDD R (01.1): Page 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

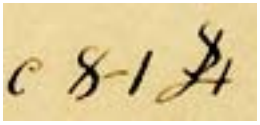
There is a bit of discrepancy in the earlier versions of the Book of Mormon and the Printer's Manuscript as to the spelling of Mulek, or whether there may be two individuals referenced (Book of Mormon Onomasticon 2015). I would suspect, based on Royal Skousen's analysis referenced in the Onomasticon, that the proper spelling is Muloch, but that does not bear any reference to the translation of the name Mulek from the Caractors document, as the names determined so far do not appear to have a phonetic element in the document but are written in Egyptian according to their etymological meanings, not from a transliteration. The Onomasticon provided 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, *puʿail* (*fuʿayl* 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.

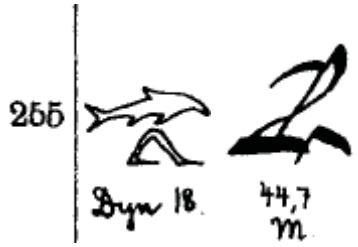
The following characters have been translated as "Mulek." The basis for some of the character definitions in the translation of Mulek is from Crowley's research. Crowley found a few definitions for some of these individual characters; he did not propose that they meant anything as a unit.

The definitions that are relevant to Mulek (including a few found by Crowley) are: C-8 is the hieratic sign for "walking fish"; C-9 is the Egyptian word *rn* meaning "to be young" (Brugsch 1868); C-10 is the Egyptian word *hwtj*, which is a determinative "male" adjective, *ḥwt* is also known to mean "male" in the Chicago Demotic Dictionary (CDD Ḥ (09:1) page 75); and C-11 is *ḥry*, which in Egyptian means "lord," "master," or "chief" (Chicago Demotic Dictionary 2014, (CDD Ḥ (09:1) page 219).

It is a fairly straight 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 

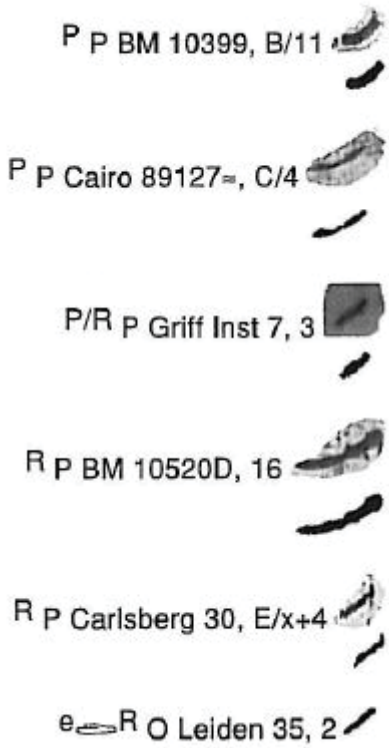
C-8 



Möller Number 255, Harris Papyri H. M. (Möller 1965, Bd II 1-30, 249-257)

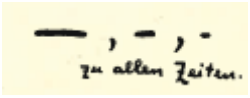
C-9 

Example of "*r*"



(Chicago Demotic Dictionary 2014, CDD R (01.1) Page 1)

Example of "*n*" from the Erichsen's Glossar Demotisches (Erichsen 1954)



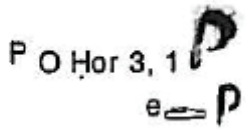
C-10 

Example of *hwt*

Ptolomaic hieratic (Erichsen 1954, 297)

C-11 

Example of *ḥry*



Ptolomaic Ostracon, cited from CDD Ḥ (09:1) Page 219 (Chicago Demotic Dictionary 2014)

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)," *ʿd-mr* (Gardiner 1937, 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 backwards 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 as a fish is presumed to be able to move and swim.

As discussed in a previous chapter, the Mayan PDI and ADI glyph most always features the glyph called in the Mayan "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 (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 Mayan ADI (see figure 72).

Figure 72. 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 would predate the arrival of either the Lehites or the Mulekites, so might point to a Mesoamerican 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 73). The stela was pulled from the Acula River near La Mojarra, Veracruz, Mexico, not far from the Tres Zapotes archaeological site.

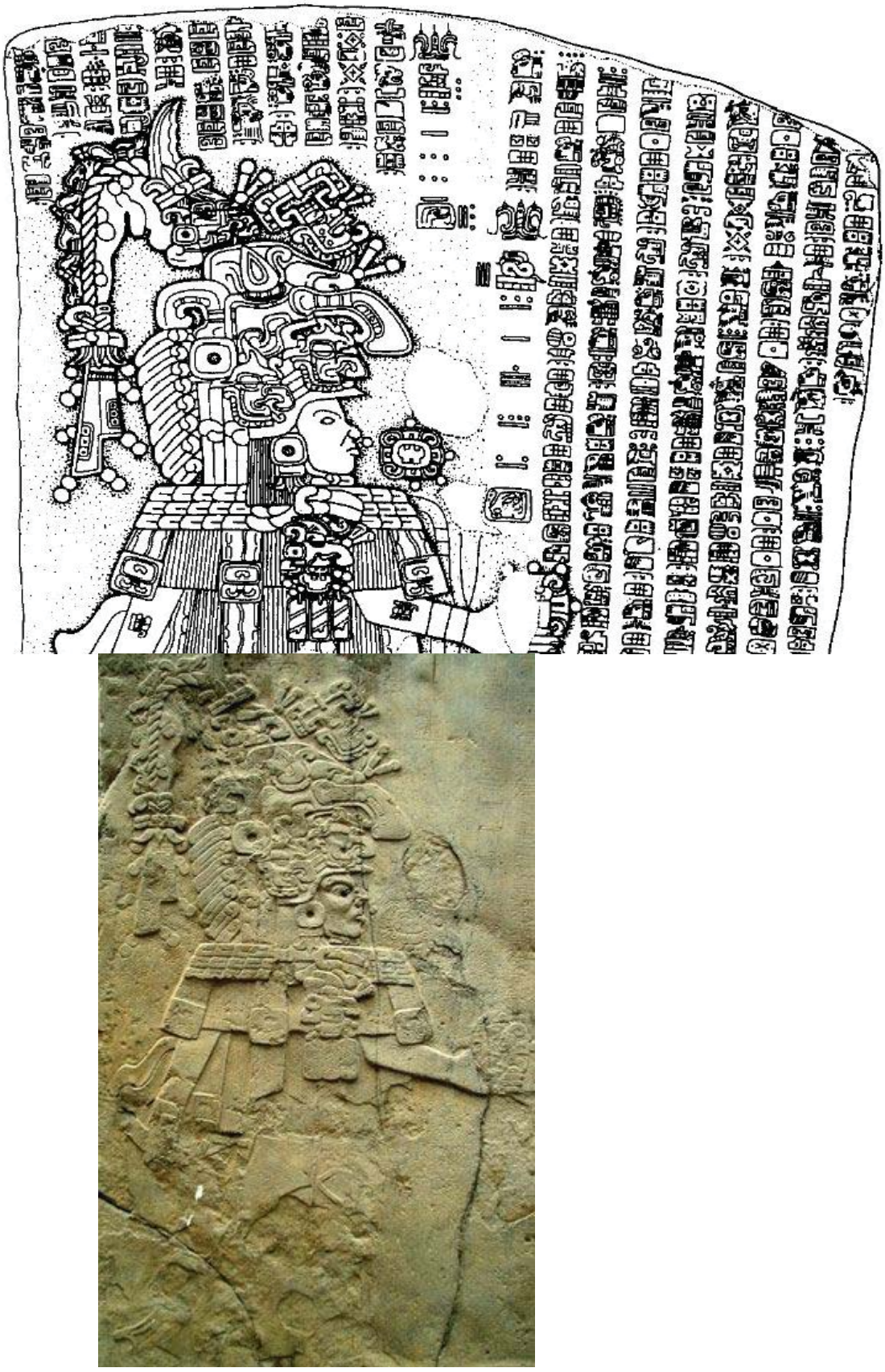


Figure 73. Shark headdress featured on the La Mojarra Stela 1 dating from the 300 BC to the 2nd century AD (Wikipedia.org 2015)

So other than the fish theme for the Mayan 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 (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 the scene depicts the arrival of Mulek (see figure 74). 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 Mayan glyph Muluc, the ADI featuring Muluc, and the La Venta Stela 3 featuring Mulek.

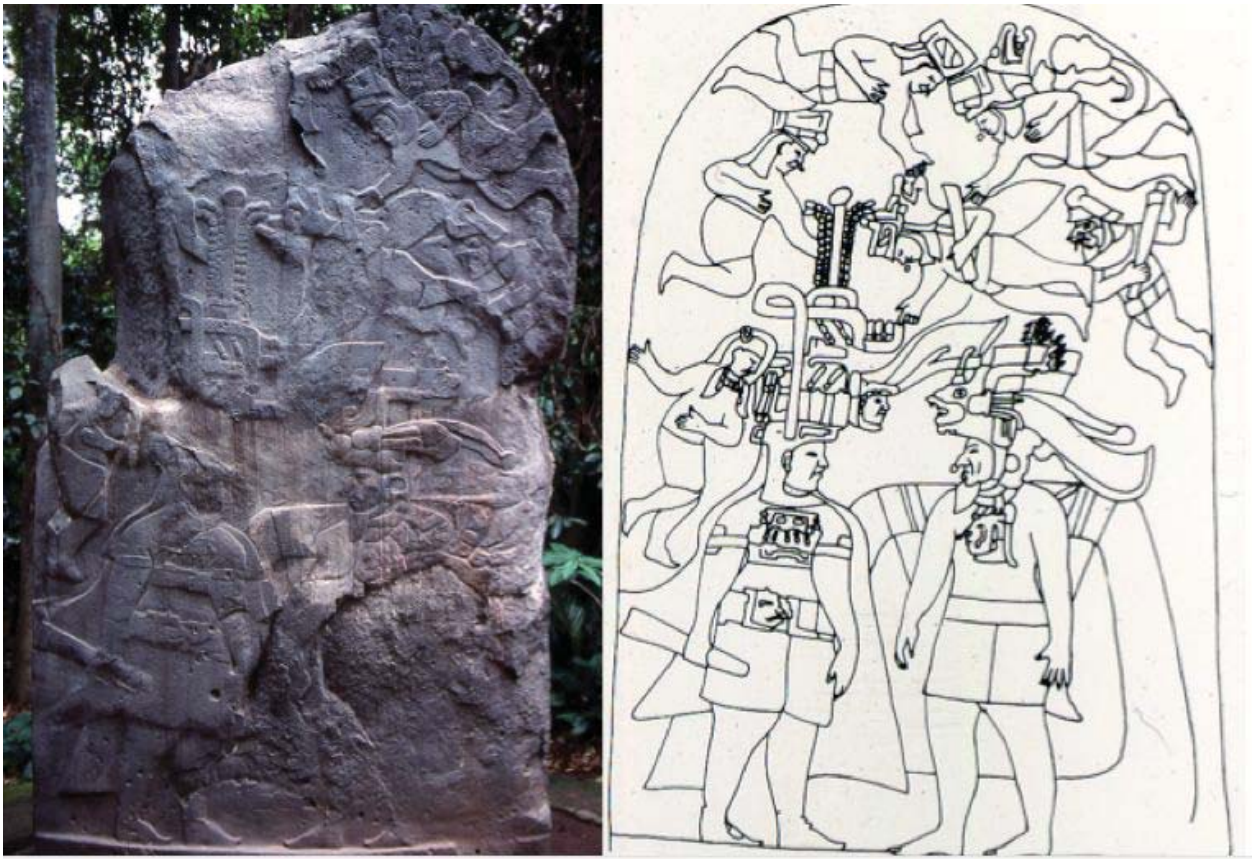


Figure 74. La Venta Stela 3 (Studyblue.org 2015)

Zeniff

According to the Book of Mormon Onomasticon the etymology of the name of 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 

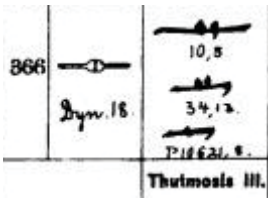
The Egyptian word *snb* as found at the end of royal names is found in the Chicago Demotic Dictionary (S 13:1 pgs. 263-264) and does have the form of the glyph:

Demotisches Glossar (Erichsen 1954, 438)

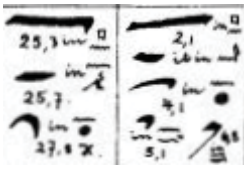
However, phonetically, *snb* has other meanings in Egyptian that also match Zeniff in terms of a Book of Mormon setting as well as glyphically. The first is what Budge (1920, 2:606) identifies as *senb*, which has meanings "to be overthrown" and "to be evilly entreated." The first definition might be 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:

O34:  N35: D58:  G29: 

In the hieratic, Gardiner Numbers O-34 and N-35 become essentially horizontal lines:

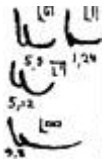


Möller Number 366 (Gardiner Number O-34), Bd. II-31-74-Taf, pg. II 356-366 (Möller 1965)



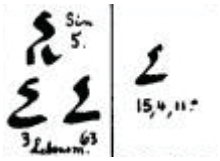
Möller Number 331 (Gardiner Number N-35), Bd. II-1-30, pg. II 326bis-338 (Möller 1965)

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), Bd. III-1-31, pg. III 120-128bis (Möller 1965)

G-29 is reflected in the hieratic as:



Möller Number 208, Bd. I-1-22, pg. I 206-214 (Möller 1965)

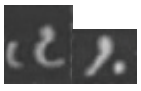
The Zeniff glyph is a compact combination glyph that essentially is a reverse of the hieratic G-29, with the hieratic D-58 of similar form, with the line through the middle of the glyph represented by both O-34 and N-35. Another definition for the Egyptian word *snb* is to "step over boundaries" (Dickson 2006, 170), which has some of the same hieroglyphic elements (O-34, N35, 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.

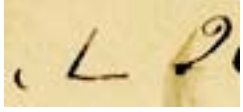
The Zeniff glyph also exhibits the "mirror-image" glyph play as it mirrors the adjacent character (C-37), which means to "depart."

The same mirroring involving the word for "depart" also occurs with the glyph for Nephi that will be discussed later. As was explained, Egyptian can face either direction depending on the direction it is read, but in this case it may have been flipped as a form of glyph play. The morphing together of separate glyphs to make one glyph is a staple in Mayan 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.

Mosiah$_1$, Mosiah$_2$, and King Benjamin—Sharing between father and son

The characters for Mosiah$_1$ and Mosiah$_2$ are:

B1a, B1b, B1c, B1d  Mosiah (1)

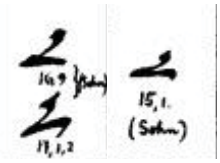
C-63, C-62, C-61  Mosiah (2)

The leading base dot (B1d) character in Mosiah$_1$ is an ordinal number for "first" designating Mosiah$_1$ from Mosiah$_2$.

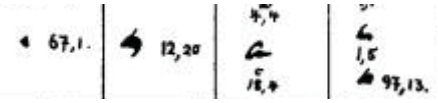
The Book of Mormon Onomasticon indicates the following for the etymology of the name Mosiah

> The name MOSIAH may derive from the Hebrew for *môšīʿyāhū*, "the Lord delivers, saves." The name can be parsed as the hiphil participle of the Hebrew root *yšʿ*, "to save, deliver," with the theophoric element *yāhū*, "Jehovah, Lord." ISAIAH*, yəšaʿyāhū*, "the Lord is deliverance, salvation," presents a compelling analogue. The hiphil participle form—*môšīʿa*—occurs at least 17 times with verbal or nominal force in the Old Testament; cf., e.g., the participle without suffix, *môšīʿa* "deliverer," Judges 3:9; and the participle with pronominal suffixes: Judges 3:15; 2 Samuel 22:42; Isaiah 49:26; Jeremiah 14:18; Psalm 7:11; 17:7; 18:42; 106:21.
>
> Alternatively, MOSIAH may derive from the Hebrew *mšḥ*, "messiah," though this does not produce the o vowel of the first syllable.

In the case of Mosiah the Egyptian root is found in the second suggestion by the Book of Mormon Onomasticon, *Messiah*. The phonetic word for "son" in Egyptian is *s3* with the associated Egyptian hieroglyphs being G-39 followed by A-1 (Gardiner 1957, 442), with the corresponding hieratic symbols as follows:



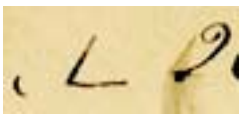
Möller Number 216, Bd. I-1-22, pg. I 215-224 (Möller 1965)



Möller Number 33b, Bd. I-1-22, pg. I 32-40 (Möller 1965)

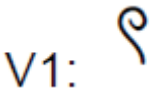
As previously mentioned, it is apparent from prior analysis that the "curly 6" is the abbreviated name for God, or elements related to God, as it derives both through Paleo-Hebrew and through Egyptian from the name of God ("*El*") probably with the phonetic identical to the Paleo-Hebrew letter for "l" 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 for Mosiah is a fairly straightforward phrase for the Messiah, the Son of God or "God's Son," with the translation being:



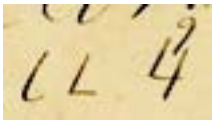
Son God's

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 1937, 521):

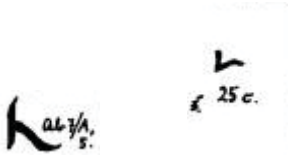


Also, by positioning the word “Son” where it is, it links $Mosiah_2$ to his father King Benjamin.

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:

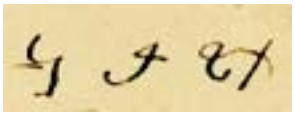


Möller Number 33b, Bd. I-1-22, pg. I 32-40 (Möller 1965)

As the Egyptian word *s3* for “son” is phonetically equivalent to the Egyptian word for daughter *s3.t*, this word could also be translated and interpreted as “sons & daughters” or “children.” The translated phrase would be “20,000 of the children of Mosiah.” One would not expect, given the nature of Mosiah 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, Mosiah 25:2, Mosiah 25:12, 4 Nephi 1:39).

King Benjamin

The name for Benjamin consists of characters C-64, C-65, C-66, and C-67:

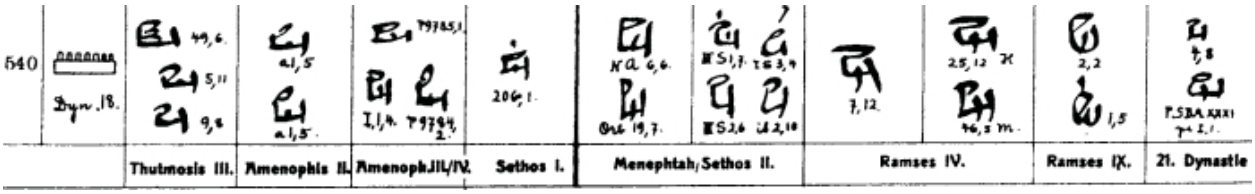
C-67, C-66, C-65, C-64 

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 word play going on with regards to 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 hieroglyphic consisting of Gardiner numbers Y-5 and G-17:

Y5:



Möller Number 540, Bd. II-31-74, pg. II 530-540 (Möller 1965)

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).

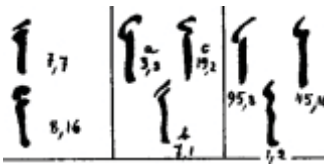
G17:

Golan. Papyri

Möller Number 196, Bd. I-1-22, pg. I 189-196b (Möller 1965)

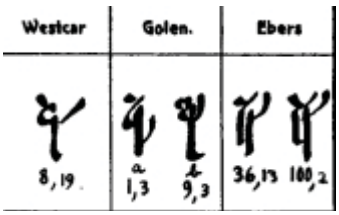
Character C-67 is similar in the hieratic to two hieroglyphs with Gardiner Numbers G-7 and R-13.

G7:



Möller Number 188b, Bd. I-1-22, pg. I 181-188b (Möller 1965)

R13: 

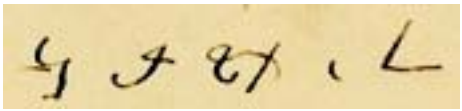


Möller Number 189, Bd. I-1-22, pg. I 189-196b (Möller 1965)

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 the ‘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 *ỉmn*. The letter “ỉ” 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 multi-level phonetic and ideogramatic palindrome (reading the same forward and backwards). 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 mean “son of,” making the complete name “son of the right hand”!



One other interesting aspect of the name of King Benjamin is that it not only means “right hand,” but also means “west.” Because of the Caractors document, we now know that Benjamin was born after his father, Mosiah$_1$, 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.

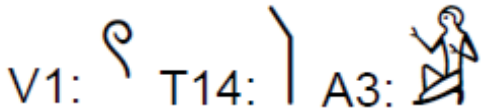
This practice of glyph transference is very definitely consistent with Mesoamerica writing style. Transference of affixes to adjacent glyphs was a practice recognized early on in the decipherment of the Maya script (Thompson 1950, 38-41).

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 *shemuʾēl* meaning the "name of *El*" or "his name is *El*." As previously mentioned, there 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. From the Anastasi Papyri III from the Nineteenth Dynasty (c. 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.



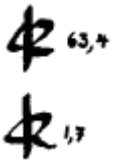
The hieratic form of each glyph can be derived by looking at hieratic glyphs for each of these glyphs in order V-1, T-14, and A-3.

Golen. Papyrus

Möller Number 518 (Gardiner Number V-1), Bd. I-23-76, pg. I 513-521 (Möller 1965)

Ebers Papyrus

Möller Number 457 (Gardiner Number T-14), Bd. I-23-76, pg. I 455-464 (Möller 1965)



Ebers Papyrus

Möller Number 33 (Gardiner Number A-3), Bd. I-1-22, pg. I 32-40 (Möller 1965)

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," so share their meaning with Samuel, creating "Lamanite Samuel" or as the Book of Mormon has translated it "Samuel the Lamanite."

Nephi

The name of Nephi is reflected in C-143 and C-199:

C-143 

C-199 

C-143 is referring to Nephi, father of Nephi 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 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 Nephi 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 is:

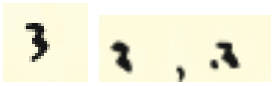
> The most likely derivation of the name is Egyptian *nfr* "good, beautiful." The final r in Egyptian had dropped out of pronunciation about a thousand years earlier, and it is attested as a personal name at the time of Lehi.

While *nfr* was not indicated directly by glyph forms, the demotic article *nꜣ* that is associated with "beautiful" and a few other similar words do match, but in reverse:

n3 def. art. (EG 202)

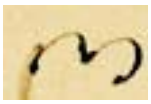
n3 prefix of adj.-verbs (EG 202)
for discussion, w. extensive list of verbal roots w. adj.-verb forms, see Stricker, *OMRO* 43 (1962) 33-34, §§23-24; Johnson, *DVS* (1976) pp. 29-31; Vernus, *RdE* 41 (1990) 170-72, §8
in compounds
n3-ʿ3 "to be great" (EG 202)
n3-ʿn "to be beautiful" (EG 202)
n3-wsḫ "to be broad" (EG 202)
n3-bn "to be bad, evil" (EG 202)
n3-mnḫ "to be excellent" (EG 202)
n3-nw "to be good, pleasing"; see under *ʿn*, above
n3-nfr "to be beautiful" (EG 202)

(Chicago Demotic Dictionary 2014, N:04:1 page 7)

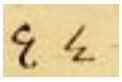


Demotisches Glossar (Erichsen 1957, 202)

The reversal is curious (if this etymology is correct), but may be explained by the reference to the three disciples, as 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-133  C-200, C-199 

In the Caractors prophetic calendar Mormon emphasizes the departure of Nephi 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 3rd 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 regards 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 Nephi, 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 Nephi. 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 Nephi the son of Nephi) (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 Nephi the son of Nephi speaking, that a "just man" was selected to keep the calendar record. It has been noted that in Mesoamerica, time keepers or day-keepers are 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 Nephi the son of Nephi is the day keeper, if the narrative point of view is not being provided by his writing.

In the chronological order of the Caractors document, the departure of Nephi is noted following the establishment of the Gadianton robbers after the birth of Christ, 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.

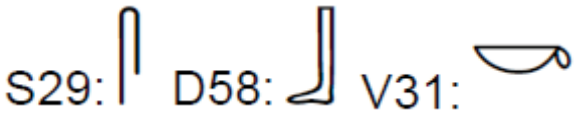
Laman

The Book of Mormon Onomasticon lists a few possible Hebrew etymologies for the name Laman, but no matches to these etymologies were found that corresponded with any potential Egyptian hieroglyphs as reflected by the Caractors glyphs meaning Laman, C-108 and C-217:

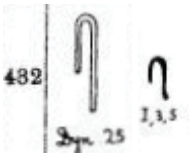
C-108  C-217 

Since we don't yet have a Hebrew etymology with the glyph for Laman, a phonetic match in Mesoamerica is the best approach to analyze 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 who 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 Egyptain Crocodile God. One of the Egyptian forms for Sobek consists of heiroglyphs with Gardiner Numbers S-29, D-58, and V-31 (Budge 1920 2:660):



The hieratic forms of these glyphs for Sobek the Crocodile God most similar to the Laman glyph are:

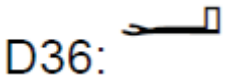


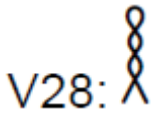
Möller Number 432 (Gardiner Number S-29), Bd. III-32-72-Taf, pg. III 425-435 (Möller 1965)

Möller Number 124 (Gardiner Number D-58), Bd. III-1-31, pg. III 120-128bis (Möller 1965)

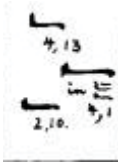
Möller Number 511 (Gardiner Number V-31), Bd. I-23-76, pg. I 504-512 (Möller 1965)

Words for "submerge" in Egyptian most consistent with the Laman glyph are *bāh* (using Budge phonetics) and *ḥs* (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:

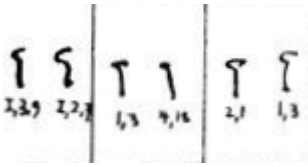




The hieratic forms of these glyphs most similar to the Laman glyph are:

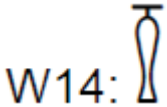


Möller Number 99 (Gardiner D-36), Bd. II-1-30, pg. II 90-99 (Möller 1965)



Möller Number 525 (Gardiner V-28), Bd. III-32-72-Taf, pg. III 518-526 (Möller 1965)

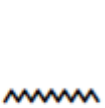
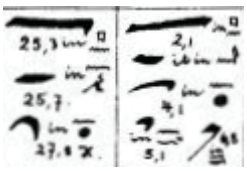
The word *ḥs* consists of three hieroglyphs with Gardiner Numbers V-28, W-14, and S-29. V-28 and S-29 have just been shown above. The remaining glyph W-14 in the hieroglyphic and hieratic form is:

W14: 

Möller Number 502, Bd. II-31-74-Taf, pg. II 498-509 (Möller 1965)

The word *ḥs* also means "filthy" when consisting of only two hieroglyphs V-28 and S-29 (Budge 1920 1:505). Use of the word "filthy" is consistent with references to the Lamanites made by the Nephites in the Book of Mormon (1 Nephi 12:23, Jacob 3:5, Jacob 3:9, Enos 1:20, and Mormon 5:15).

All of the Egyptian hieroglyphs for *Sbk*, *bāh*, and *ḥs* that make up the word Laman are consistent in form with the upper hook portion of the Laman glyph, so the glyph for Laman is considered a multiple combination glyph, with multiple meaning and multiple substitutions. The lower portion of the glyph is consistent with the hieroglyph for water, Gardiner Number N-35:

N35:  

This is consistent in meaning 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 present around them in Mesoamerica. The crocodile was prominent in Mesoamerica religious iconography and diety forms (Pacheco et al 2015). The meaning of Laman as a submerged crocodile is also consistent with the Book of Mormon references to the Lamanites in battle that "fought like dragons."

Finally, the presence of the nearly identical name of the Egyptian Crocodile God in Mesoamerica in the Nahuatl language of the Aztecs (*sipak*) 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 actually linguistically phonetically identical (Stubbs 2014, 63).

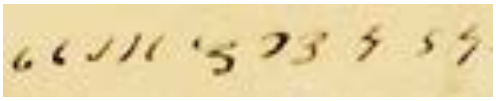
At this point, although a bit speculative, it might be possible to "reverse engineer" some ideas for a Semitic or Egyptian etymology of Laman from the Mesoamerican etymology and the Caractors glyph form. The fact that a river was named after Laman while Lehi's party was traveling through the Arabian 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 *lm* (Chicago Demotic Dictionary 2015, CDD L (01.1) 7).

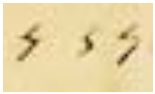
The top of the Caractors glyph for Laman is in the form of a hook, which matches the Paleo-Hebrew letter *lamed* (see figure 67).

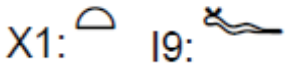
God the Father and Satan

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) that are shown in matching repeating fashion (C-213 and C-214). On the other side of the set is another set of three glyphs that is a mirror meaning set that can be read the same forward and backward with a shared central glyph (C-204, C-205, and C-206). This set has the meaning "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:





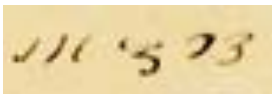
Budge's dictionary shows this word as *tef* (Budge 1920, 2:832) and shows variations that use these two characters multiple repeating times when used in the plural.

Hieratic forms for these two glyphs include:

Möller Number 575 (Gardiner Number X-1), Bd. II-31-74, pg. II 575-586; Bd. I-23-76, pg. I 572-581 (Möller 1965)

Möller Number 263 (Gardiner Number I-9), Bd. I-23-76, pg. I 260-268 (Möller 1965)

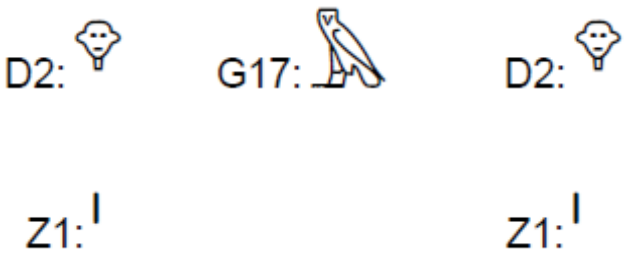
The configuration used is X-1, I-9, X-1, and it can be read the same frontwards as backwards. Sandwiched between these two sets are two additional matching sets that separately mean "Satan":



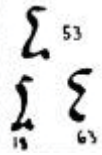
The Book of Mormon Onomasticon identifies the etymology for the word Satan:

> The title comes from a HEBREW word, *śāṭān*, that means "adversary, opponent."

One of the Egyptian words for “opponent” is identified by Budge (1920, 1:493) as *ḥer__*, with the underline indicating that it is placed adjacent to the opponent. Another definition of the word is “face to face” with someone. The Egytian hieroglyphs that make up this word are D-2, G-17, D-2, Z-1, and Z-1 in this configuration:



Some forms of the hieratic for these hieroglyphs are:



Möller Number 80 (Gardiner Number D-2), Bd. III-1-31, pg. III 65-80 (Möller 1965)

Möller Number 263 (Gardiner Number G-17), Bd. II-1-30, pg. II 191-198 (Möller 1965)

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, as is not atypical for hieroglyphs, by placing the Z-1 glyphs to the side instead of underneath for the word “Satan.” As the hieroglyph for “opponent” is typically placed next to the person opposed, in this arrangement the opponent on one side is God (or Gods) and on the other side is Father.

An extra Z-1 glyph has been added, making three in a row, which is not by accident. When three Z-1 hieroglyphs are placed together in this fashion, it forms 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).

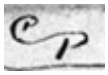
The entire set of glyphs containing “Gods” and “Satan” is followed by the glyph set for the “Nephites and the Lamanites.” The entire set is previous to the battle that occurred 384 years after the Coming of Christ that fulfilled the 400-year prophecy of Samuel the Lamanite. The Book of Mormon contains 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.

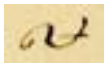
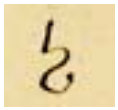
The correct translation of this glyph set is that the Lamanites and Nephites are without Christ and God the Father, and are now led by Satan.

Mormon

While not a part of the Caractors document, the character from Cowdery/Whitmer translated by Joseph Smith by use of the interpreters (Urim and Thummim) translated as “Mormon” finds 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 calender glyphs, there are two glyphs that are the 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 Mormon) are a version of one of the glyphs 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 

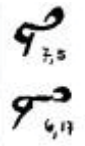
The Book of Mormon Onomasticon lists a wide series of possibilities for the etymology of Mormon and then adds as an afterthought:

> Less likely is EGYPTIAN *mr* (> Nubian and Coptic *mur*, *mor*), “bind, girth”

In fact, this least likely etymology is the correct one. The determinative Egyptian hieroglyph for “bind” is Gardiner Number V-12 (Gardiner 1957, 523):

V12: 

The Egyptian hieratic for this glyph is:



Möller Number 522, Bd. I-23-76, pg. I 522-532 (Möller 1965)

The V-12 glyph also constitutes the simplest form of the Egyptian word *arq* (Budge 1920, 1:131) meaning “the last” or “the end,” which is very descriptive of Mormon. *Arq* also means “to be wise.” In addition, as the glyph represents a band of string to bind rolls of papyri, the V-12 glyph is typically associated and included in Egyptian words related to records such as *art* “roll of papyrus,” *TAw* “book,” *Sat* “document,” *pr mDAt* “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 *mDAt* “papyrus – roll” (Dickson 2006). Of course, the relationship to Mormon and records and recordkeeping is another clear descriptor for Mormon.

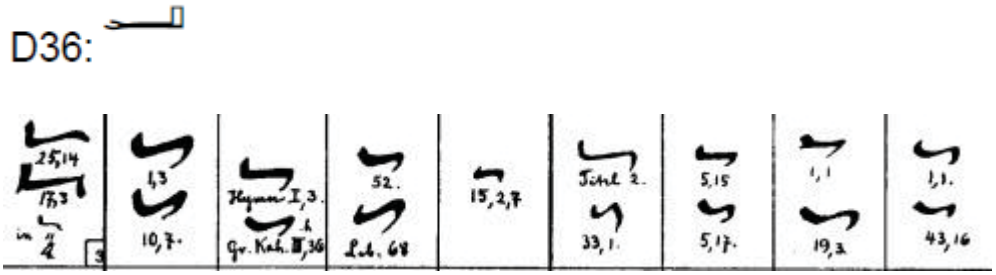
Moroni

The name "Moroni" is contained in the second to last clause in the Caractors document consisting of 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 that 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 potential etymology for the name Moroni as found in the Caractors document. The meaning of Moroni involves the phonetic-roots hieroglyphs for "*m*" and "*a*" ("ˁ"), in the Egyptian language represented by hieroglyphs with Gardiner Numbers G-17 and D-36 making the word *mˁ* 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:



Möller Number 99, Bd. I-1-22, pg. I 98-107 (Möller 1965)

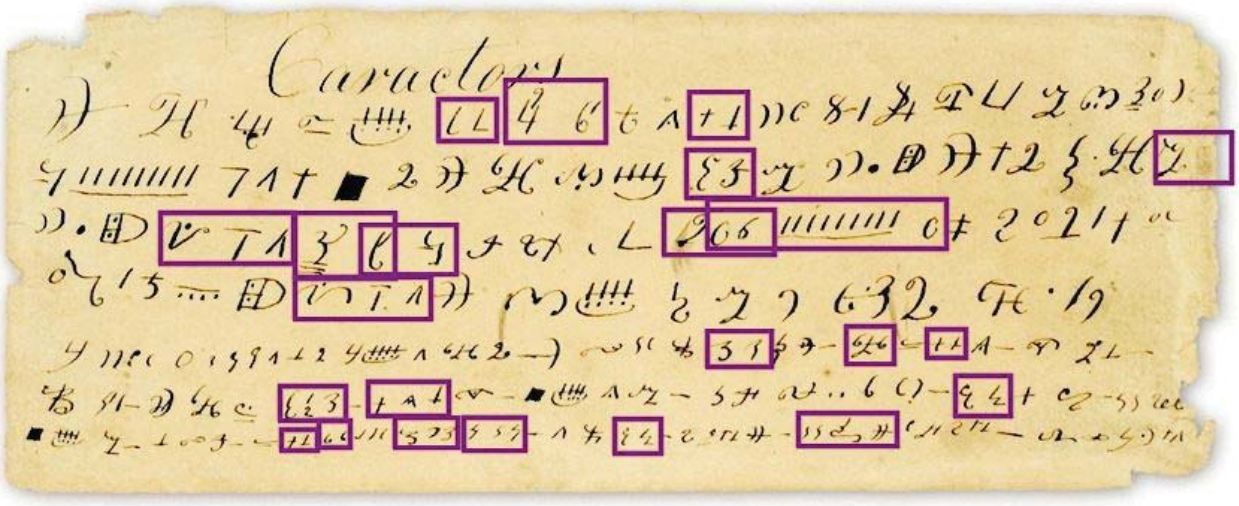
As can be observed from this glyph, it has a similar form to the Mormon name glyph, so the Mormon name glyph replaced it in this glyph set.

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 is only for 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 only Moroni is intended. 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, which 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, as there was a period of truce from the 350th year to the 360th year (Mormon 2:28; 3:1).

Mirror Images and Matching Glyphsmanship

In addition to the word formation and definitional word play 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. Examples are as follows:



C-26, C-26a

Mirror 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 of this curious and unique leading number "10" and "15" pattern found only in spoken Mayan.

Another curious item was the use of the numbers 4 and 6 as Characters C-26 and C-26a to indicate the number "10." It is clear that because of the similarity between the number 10 (the inverted V) and the word "to go" or "to come," the use of the inverted V form is used where it is clearly part of a number sequence, and the confusion and use of the inverted V form for 10 is avoided when it is by itself, which means that an individual 10 must be expressed by the addition of two numbers. The choice in this instance of using the numbers 4 and 6 (instead of 3 and 7 for example) is probably because they have similar forms and thus provide an additional element of "glyphsmanship."

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 Mayan glyph T714 TZAK as it occurs on the underside of Yaxchilán Lintel 25:

The Egyptian hieroglyphs and iconography often featured mirror imaging and matching symmetry (see figure 75).

Figure 75. 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)

Summary

For the most part, all of the names of individuals and tribes are not phonetically expressed in Hebrew, but 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.

Chapter 10

A River Runs through It—Nephite Directional System

There are multiple glyphs relating with 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

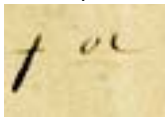
C-108, C-107, C-106 

C-217  south (upriver) on the River Sidon

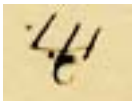
C-217, C-216, C-215 

C-168  Christ ascension to heaven (upriver)

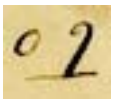
C-50, C-49  (1886) south & north (upriver & downriver) (along the River Coatzacoalcos)

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 academicians 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 defendable 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 76 through 78. 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.

There may have been more Book of Mormon presentations wasted on attempts to resolve apparent contradictions of directions than any other topic.

"Eastward" is only used by $Nephi_1$ in the small plates, and by Ether in the Jaredite plates. The uses of the terms northward and southward in the Book of Mormon are generally referring 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 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, as 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 in the entire 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 Nephi uses terms easily understood to us such as "south-southeast" (1 Nephi 16:13).

It is where Mormon writes the abridgment towards the end of the fourth-century AD where 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 76 and 77 shows 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 not only geographically puzzling, but the Book of Mormon text does 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):

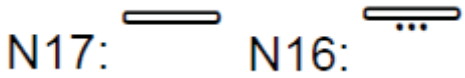
> And it came to pass that they did multiply and spread, and did go forth from the land southward to the land northward, and did spread insomuch that they began to cover the face of the whole earth, from the sea south to the sea north, from the sea west to the sea east.

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

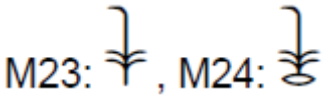
Sorenson has continually noted that varying ancient cultures had different ways of referring to directions. Among the many that he discussed, often citing other sources, he noted that the Egyptian model for naming directions was based on a person facing upstream toward the head of the Nile, south in our terms. That direction was denominated by terms signifying "face," "fore," or "sedge" among others. Our north was labeled by words with meanings "delta," "papyrus," "inundation," "downstream," "flow," "back," "aft or stern," or "hindquarters." Of the terms for our east and west, the terms were synonomous with "left" and "right" respectively (Sorenson 1992, 404-405).

As shown in the map as figure 74, 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 of hieroglyphs Gardiner Number N-17 or N-16:

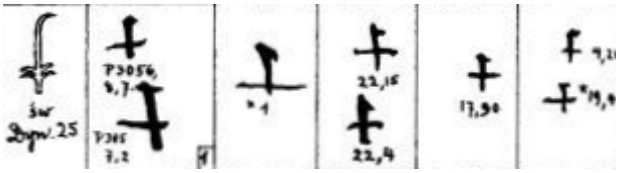


When written in Egyptian hieratic, the bars in these hieroglyphs are written as straight horizontal lines.

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, Bd. III-1-31, pg. III 288-297 (Möller 1965)

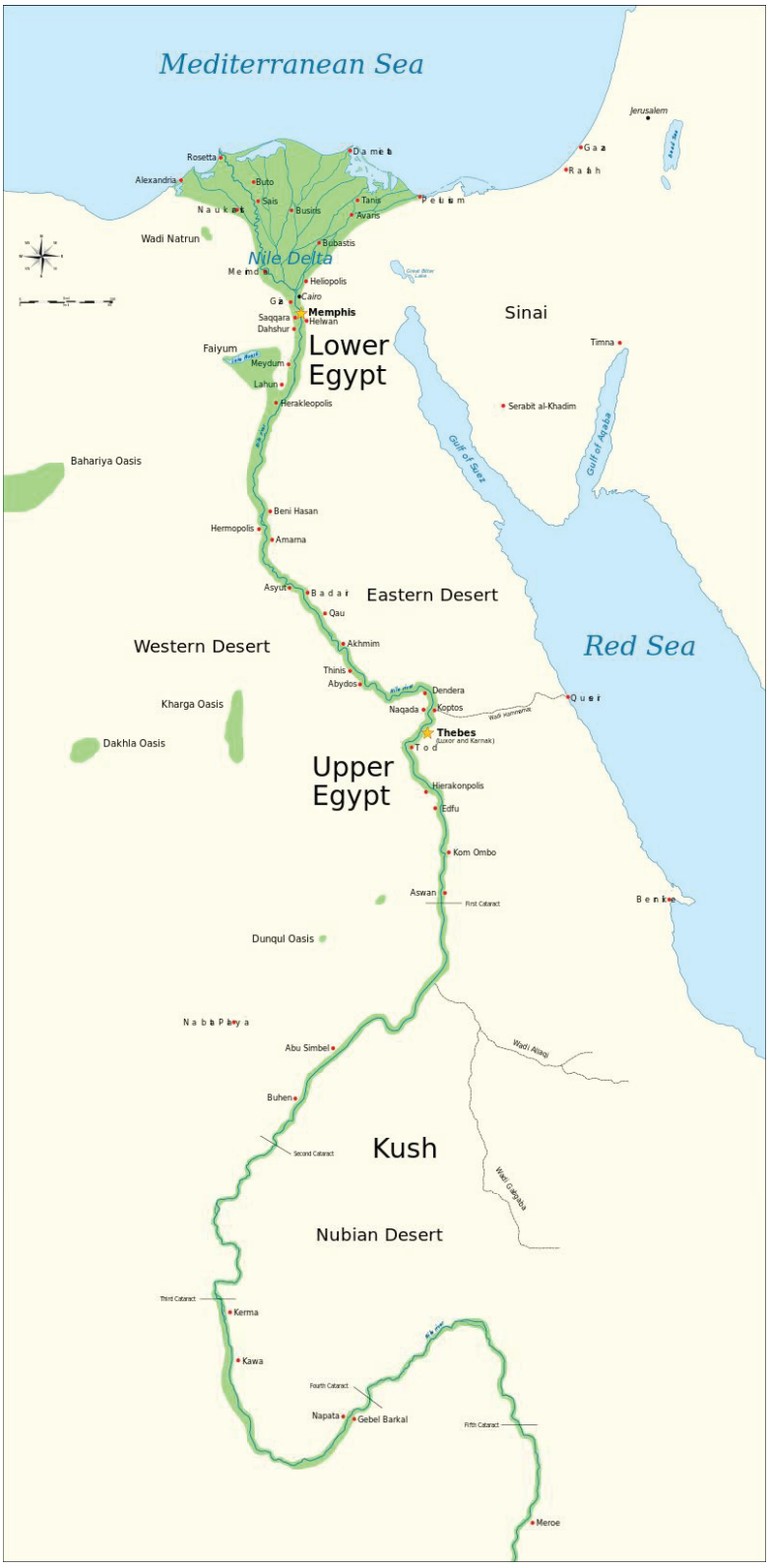
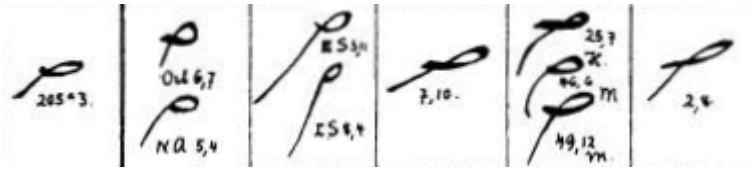


Figure 76. Map of Upper and Lower Egypt, showing the Nile up to the fifth cataract, and major cities and sites of the Dynastic period (c. 3150 BC to 30 BC) (Dahl 2007)

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:

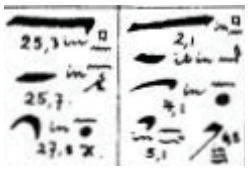
V22: , V23: , V23a:



Möller Number 459, Bd. II-31-74-Taf, pg. II 468-475 (Möller 1965)

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, Bd. II-1-30, pg. II 326bis-338 (Möller 1965)

North

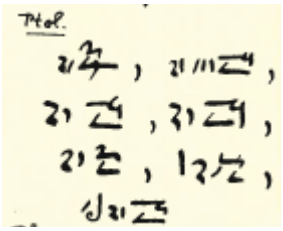
As previously mentioned, the directional system in Egypt was upriver to the southern Upper Kingdom for south, and downriver to the northern Lower Kingdom for north.

The simplest word for the North in Egyptian is *Meḥ-t* (Budge 1920, 1:318) 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":

C-22 

C-196 

One of the Egyptian words for "to travel north, downstream" is *ḥt* (Chicago Demotic Dictionary, 2014, pg. 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

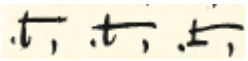
The simplest hieroglyphic form for the Egyptian word for “south” (*rs*) involves a single hieroglyph for the “flowering sedge.” Just as the Caractors glyph for “north,” placing the hieratic form of the “flowering sedge” on top of the line for “water” one approximates the Caractors glyphs for “south” and upriver:

C-106 

C-215 

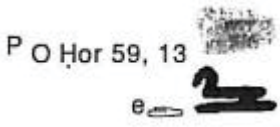
B49a 

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, pg. CDD R (01.1) pg. 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 *ỉn* and the definition found in the Chicago Demotic Dictionary as “to bring” (CDD Ỉ (11:1) pages 144-147).

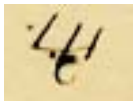


Ptolomaic Ostracon (Chicago Demotic Dictionary 2014, CDD Ỉ (11:1) page 147)

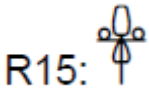
Demotisches Glossar (Erichsen 1954, 33)

East

The Caractors glyph for “east” is C-23:

C-23 

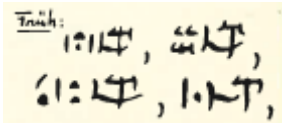
As previously mentioned the Egyptian term for “east” refers to the left side, while the term for “west” refers to the right side. The Egyptian word for “east” is *i3b* (Chicago Demotic Dictionary, Ỉ page (11:1) pg. 13). The Egyptian hieroglyph for “East” is Gardiner Number R-15 (Gardiner 1937, 502) and consists of a spear in its standard:



The hieratic form of the word is a reasonable match to the Caractors glyph:

Möller Number 578, Bd. III-32-72, pg. III 578-587 (Möller 1965)

It also shows a similar glyph in demotic words as well:

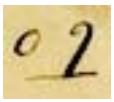


Demotisches Glossar (Erichsen 1954, 17)

The glyph may be a combined glyph as 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.

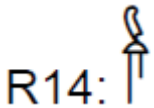
West

The Caractors glyph set for “west” is C-53, and C-54:



C-54, C-53

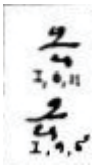
This set of characters is a slight variant for the Egyptian word *ỉmnṯ*, which means “the west” (Chicago Demotic Dictionary, 2014, CDD Ỉ (11:1) pg. 136). This word and words related to it have a wide variety of forms, however, the “hook” portion is seen in most versions in the hieratic and derives from the top feather of the hieroglyphic word for “west,” Gardiner Number R-14 (Gardiner 1937, 502):



In the demotic:

Demotisches Glossar (Erichsen 1954, 31)

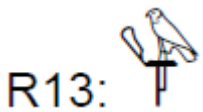
In the hieratic:



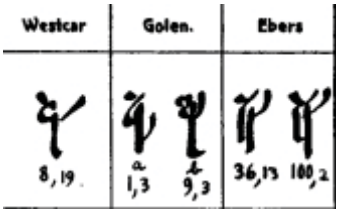
Möller Number 579, Bd. III-32-72, pg. III 578-587 (Möller 1965)

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 a dual meaning, one of which would be “from the west” in relation to where the Jaredite plates originated.

C-48



In the hieratic:



Möller Number 189, Bd. I-1-22, pg. I 189-196b (Möller 1965)

As was mentioned in the discussion of this character in relationship to the characters representing "Jaredite," it is an ideogram for the West, *ỉmnt* (Gardiner 1937, 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). In the context of the Jaredite plates, like other word play 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 down river, C-22 and C-196.

C-22 

C-196 

There are three glyphs for going up river, with two being identical and incorporated into the glyph for "Lamanite" (C-106 and C-215). 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 up river, 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 figures 76 and 77 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 were never located in the land northward, and were, for the most part of the Book of Mormon, above the head of the River Sidon. The Sorenson model has them located in the Valley of Guatamala, so the only two rivers that might be considered for this upriver glyph is the Grijalva or the Usumacinta, as both of these rivers headwater in this area.

The Caractors text utilizes C-22 when discussing the travel of Mosiah 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. Although involving a bit of conjecture, before Benjamin changed the glyph name of the Nephites, there is a good possibility that the glyph designation was a downriver sign, which was clearly on the River Sidon. 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 ZARAHEMLA, and ZARAHEMLA 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 (*ṣidon*, Phoenician *ṣdn*, EGYPTIAN *ddwn3*, ASSYRIAN *ṣiduna*), as most commentaries suggest, this may denote the presence of Phoenician influence among the Mulekites.

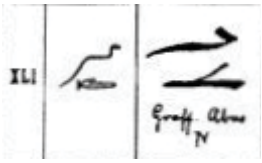
HALOT states that the "etymology [of the Phoenician Geographic Name is] not absolutely certain." DNWSI says "unknown meaning" for *ṣdn*, and "uncert[ain] meaning" for *ṣd*, and has no entry for *ṣwd*. It is possible that it may come from HEBREW *ṣwd*, to catch, hunt, and if it does, *-ôn* may be the fairly common nominalizing ending.

Sidon is actually a known Egyptian hieroglyph. Budge (1920, 2:1064-1065) shows the place name of Sidon as:

Tchiṭuna

Tcheṭṭenna

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:



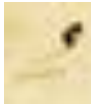
Möller Number XLI, Bd. II-72-32-Taf, pg. II XXXVIII - XLVI (Möller 1965)

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-106  C-215 

C-106 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 $Mosiah_1$ 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).

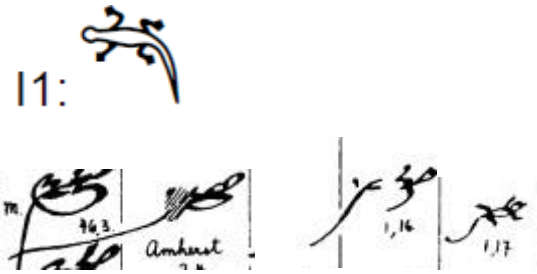
The determination of which river C-196 is referring to is reasonably consistent with the River Bountiful.

C-196 

The Book of Mormon Onomasticon provides the following etymological source for the word Bountiful:

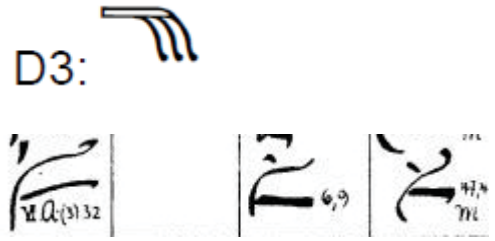
> Another possible HEBREW Vorlage to BOUNTIFUL, *ʿōšer*, "wealth," has a literary analog in the possibly EGYPTIAN cognate of this word, *ʿš?*, "abundant." This word is used to describe the "bountiful" land of Yaa in the EGYPTIAN "Tale of Sinuhe."

The simplest hieroglyphic for this word consists of hieroglyph Gardiner Number I-1 (Petty 2012, 36) with the accompanying hieratic:



Möller Number 240, Bd. II-1-30, pg. II 240-248; Bd. III-1-31, pg. III 236-244 (Möller 1965)

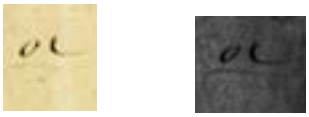
As the river was also the dividing line with the Land of Desolation, it may have incorporated elements of "desolation." One Egyptian word that means "to be destroyed" is *wš* or *gm wš*. The simplest hieroglyph and a few of the hieratic forms for the word are designated Gardiner Number D-3:



Möller Number 81, Bd. II-1-30, pg. II 80e-89 (Möller 1965)

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 78 shows the Sorenson model's geographical depiction, which would follow the Coatacoalcos 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 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.

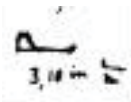
The Book of Mormon text names the River Sidon specifically, but the only other river(s) mentioned is a land of rivers and waters very far to the north (Helaman 3:4, Mormon 6:4). The River Bountiful (as I am calling it) was referred to as the "line Bountiful" (Alma 22:32) and it was this "line" which 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 that means "possess," or "possessions" in Egyptian (Budge 1920, 772), the word *qen*. The hieroglyph and associated hieratic for *qen* is:

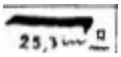
N29: 

N35: 

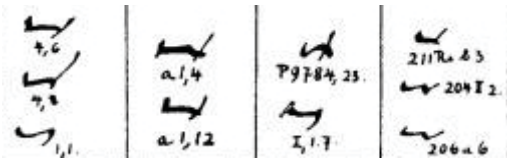
D40: 



Möller Number 319 (Gardiner Number N-29), Bd. III-1-31, pg. III 319-327 (Möller 1965)



Möller Number 331 (Gardiner Number N-35, Bd. II-1-30, page II 326bis-338 (Möller 1965)



Möller Number 105 (Gardiner Number D-40), Bd. II-1-30, page II 100-108 (Möller 1965)

This phonetic word also means "offence," "to be strong," and "to prevail over" 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.

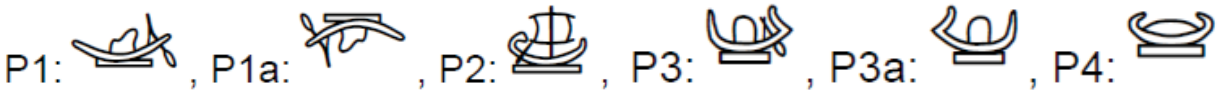
As a bit of verification for this river based directional system, the Caractors document indicates that the Limhites traveled west to get to Zarahemla but in this one instance it does not use any of the directional river glyphs. In

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, as the word is only mentioned 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 down river 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 4-5 mph 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 (spꜣt*). They almost exclusively used rivers as the boundaries between *sepats*, or points along the main Nile River (see figure 77).

Figure 77. *Sepat* 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, 2015)

The hieroglyph known as Gardiner Number Aa-8 is the primary hieroglyph that constitutes the word *sp3t* in its simplest form, and is nearly identical to this form in the hieratic:

Aa8: 

The form is itself a line, 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," *ḫd*, 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," as the Oxford English Dictionary (2015) contains in the definition of the word "line" as "track, course, direction" giving as an example a "river line" describing a defensive military boundary.

Figure 1 – The Sorenson Model

Figure 78. Sorenson model (Sorenson 2013)

Figure 4 – Additional Details of the Sorenson Model

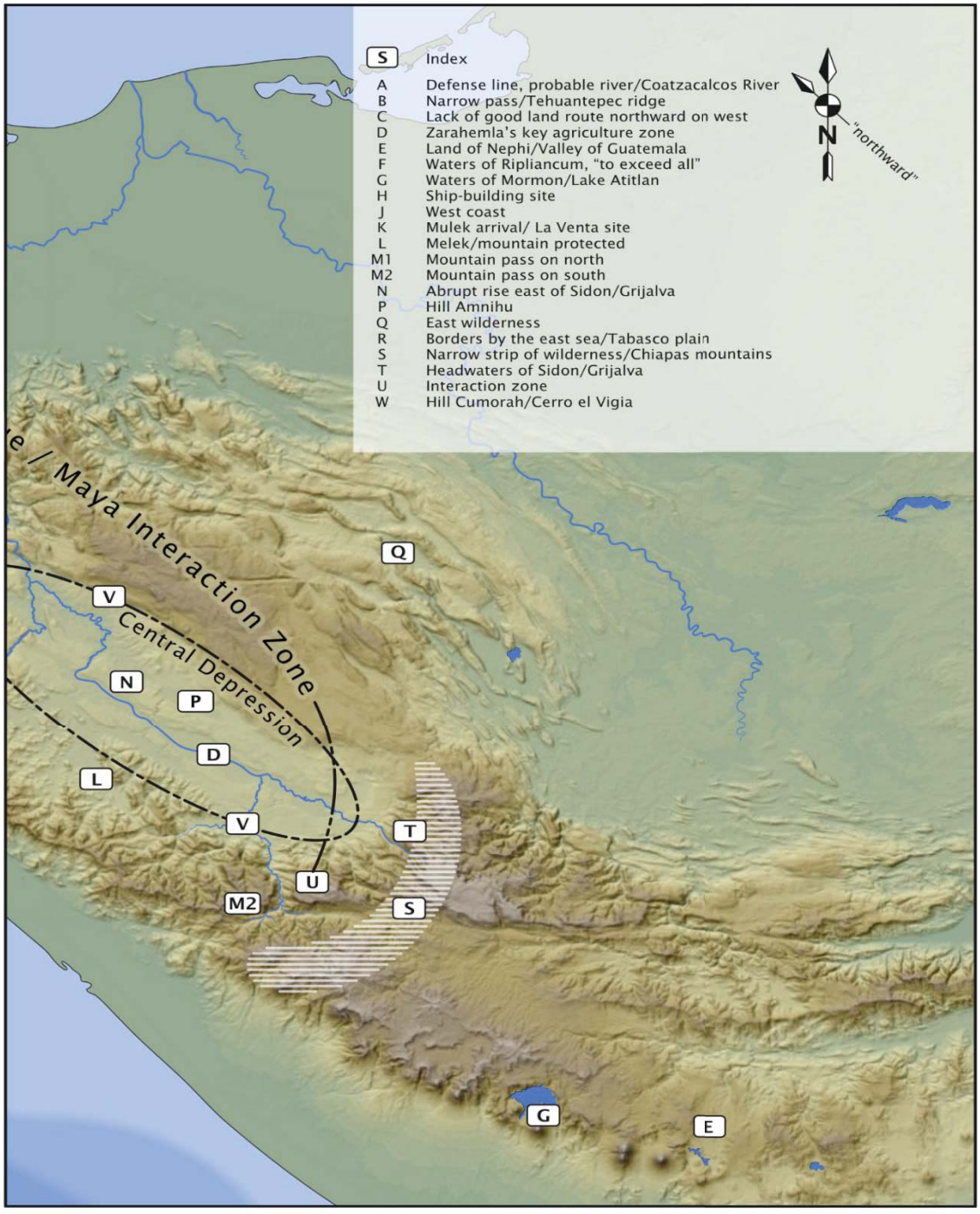


Figure 79. Additional details of the Sorenson model (Sorenson 2013)

Figure 80. 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 has provided 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

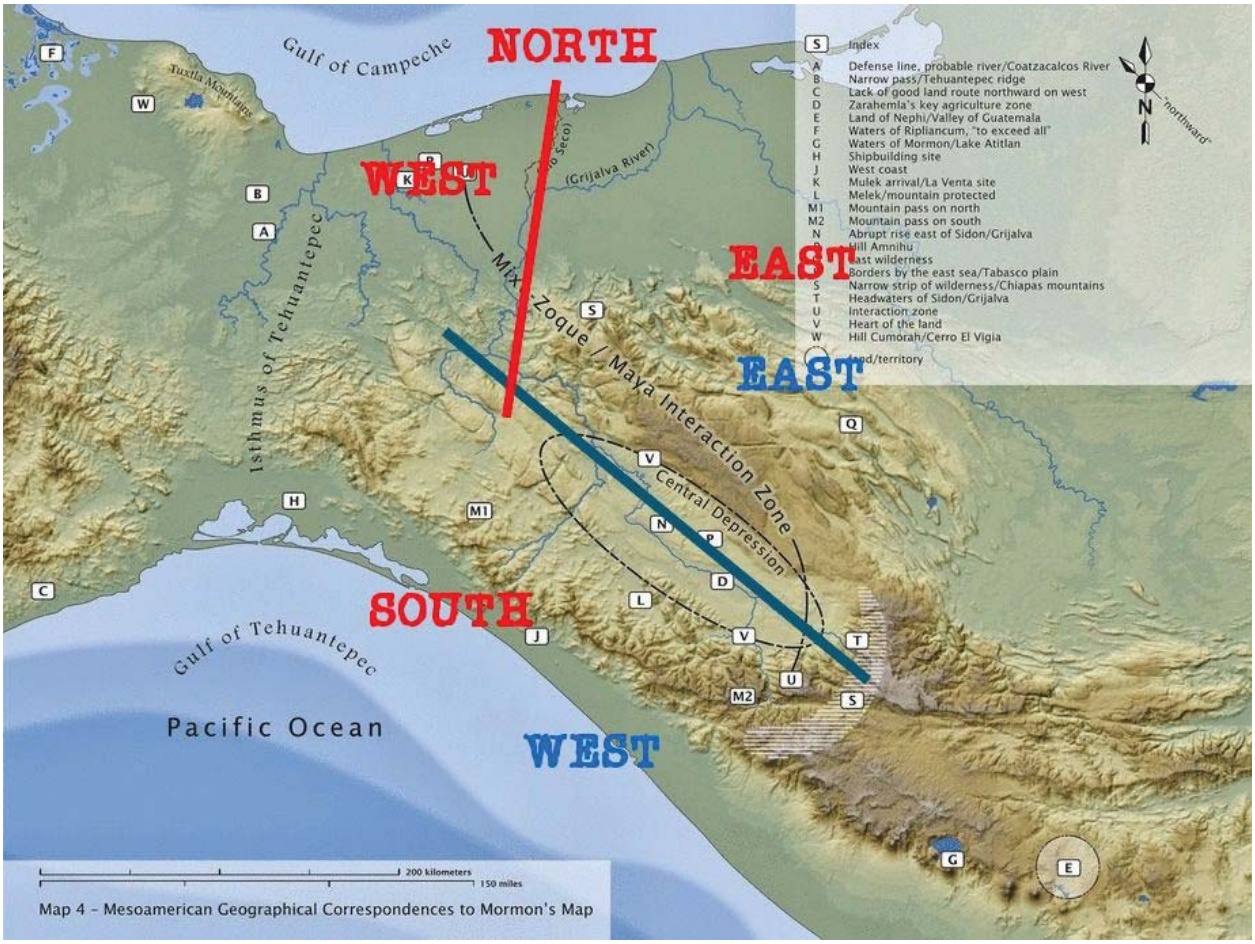


Figure 81. River Sidon based directions: blue line – Upper Grijalva; red line – Lower Grijalva

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 (i.e., Alma 22:27; 50:8). After the expansion to the north, as 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 was 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 necessarily 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)

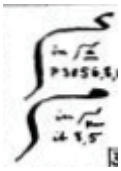
As is to be expected in the Nephite glyphs, this glyph is a stylistic form of the Egyptian word for "eternity" and "estate," *ḏt*, so the glyph can be read as "ascending up to eternity" or to "ascending up to heaven" (Gardiner 1937, 487). The hieroglyph consists of three elements vertically stacked as follows:

I10:

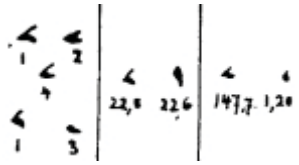
X1:

N16:

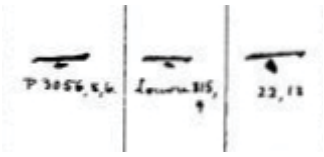
The hieratic the individual glyphs are as follows:



Möller Number 250 (Gardiner Number I-10), Bd. III-1-31, pg. III 245-253 (Möller 1965)

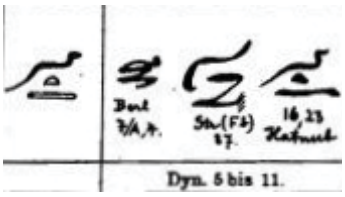


Möller Number 575 (Gardiner Number X-1), Bd. III-32-72-Taf, pg. III 565-575 (Möller 1965)



Möller Number 318 (Gardiner Number N-16), Bd. III-1-31, pg. III 310-318bis (Möller 1965)

An early combined hieratic hieroglyph was found that is nearly identical to the full glyph:



Möller Number LXXVII, Bd. I-23-76, pg. I LXXIV-LXXVII (Möller 1965)

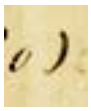
If one reverses the last combined glyph to meet the direction of Character C-168 and moves the dot a bit, although it is not a complete match, the general form and elements for “eternity” are all there.

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 already discussed to this point 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 reference material for the newly translated characters.

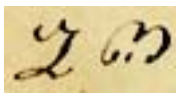
B1a, B1b, B1c, B1d  First King Mosiah (Mosiah$_1$)

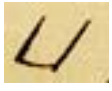
C-1, C-2  Regnal Year

Discussion: This character is a known Egyptian hieratic/demotic glyph for the Egyptian word *ḥsb.t* and *ḥꜣb.t* with the meaning “regnal year” (Chicago Demotic Dictionary 2014, Ḥ (09:1) page 268).

(Erichsen 1957, 288)

C-3  Reign of the Kings Introductory Glyph (55 years)

C-5, C-4  19 (nineteen) years (6 + 13)

C-6  mountains (wilderness)

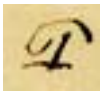
Discussion: This character is fairly straightforward in the Egyptian hieroglyphs as Gardiner Number N-26:

N26: 

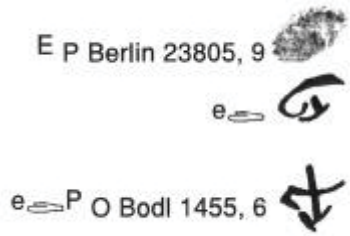
It is one of the principal forms of the hieratic form of this hieroglyph:

Möller Number 320, Bd. II-1-30, pg. II 317-326 (Möller 1965)

It is the main ideogram for the Egyptian word *dw* (Gardiner 1937, 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 *ṭu* 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 Zarahamla.

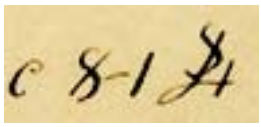
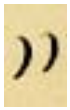
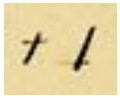
C-7  others, persons of foreign speech

Discussion: This character is the word *ky* or *kꜣ* 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 the 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). The description is correct as the term in the Caractors document is followed by the name of 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, as it does not refer to them as a tribe either.

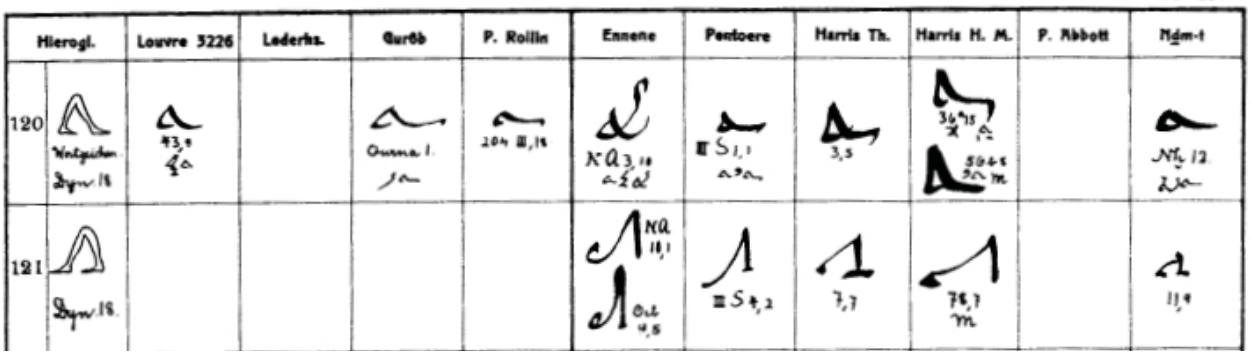


(Chicago Demotic Dictionary 2014, K:01:1 page 7)

(Erichsen 1957, 288)

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		Mayan 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		came/went

Discussion: This character is 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.



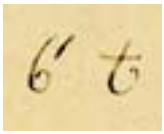
Möller Numbers 120 and 121, Bd. II-1-30, pg. II 120-132 (Möller 1965)

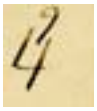
There is a slight variation with the other characters that have the same meaning (C-105, C-122, C-162) regarding the details of the mark below the crest of the inverted "v." It may be some slight difference in the application or meaning of the verb (ie come out, come down), or perhaps because it is small it could be accounted to some extent as inaccuracy of the copying from the original.

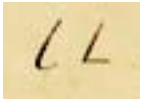
C-105 

C-127 

C-162 

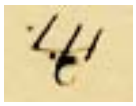
C-17, C-16  Zarahemla

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

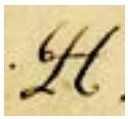
C-24  Mayan Distance Number Introductory Glyph (DNIG)

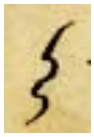
C-25  Mayan Posterior Date Indicator (PDI), then it happened, count forward,
count to, count until, and it came to pass

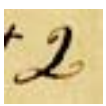
B26a  6 (six) [years]

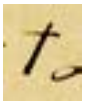
C-26  4 (four) [years]

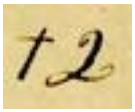
C-26, C-26a  10 (ten) [years] 4 + 6 = 10

C-27  Mayan Distance Number Introductory Glyph (DNIG)

C-28  Mayan Anterior Date Indicator (ADI); count back to, since it happened, count since, count from, and it had come to pass

C-29  7 (seven)

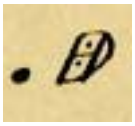
C-30  tribe, phyle (-ite, people)

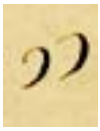
C-30, C-29  “Seven Tribes”

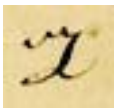
C-31  Mayan Posterior Date Indicator (PDI), then it happened, count forward, count to, count until, and it came to pass

C-32  20 (twenty) [years]

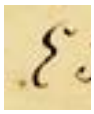
C-33  1 (one) [year]

C-33, C-32  21 (twenty-one) [years] 20 + 1 = 21

C-34  Mayan 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

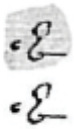
C-37  left, departed

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) pg. 118). Other identical characters with the same meaning are C-144, C-167, and C-200.

C-144 

C-167 

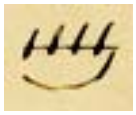
C-200 

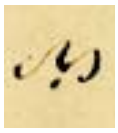
R P BM 10588, 7/5 (& 7/16, 8/8) 

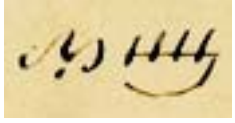
Chicago Demotic Dictionary 2014, CDD Š (10:1) pg. 120

This particular example was used as it is clearer than others but is from a later demotic time frame. However, many others of earlier date and of similar form are found in the Chicago Demotic Dictionary and in Demotisches Glossar by Erichsen, pages 500-525 (Erichsen 1954).

See Omni 1:27-29; Mosiah 9:1-4

C-38  40 (forty) [years]

C-39  13 (thirteen) [years]

C-39, C-38  40 + 13 years = 53 (fifty-three) [years]

C-40  Mayan Distance Number Introductory Glyph (DNIG)

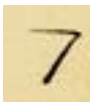
C-41  Mayan Posterior Date Indicator (PDI), then it happened, count forward, count to, count until, and it came to pass

C-42  7 (seven) [years]

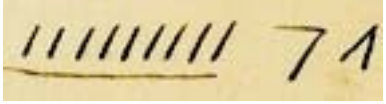
C-43  Limhi

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

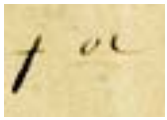
C-48  West, Land of the Dead, Land of Desolation

B49a  upriver (Usumacinta River), also perhaps to bring or brought

See Mosiah 21:25-28

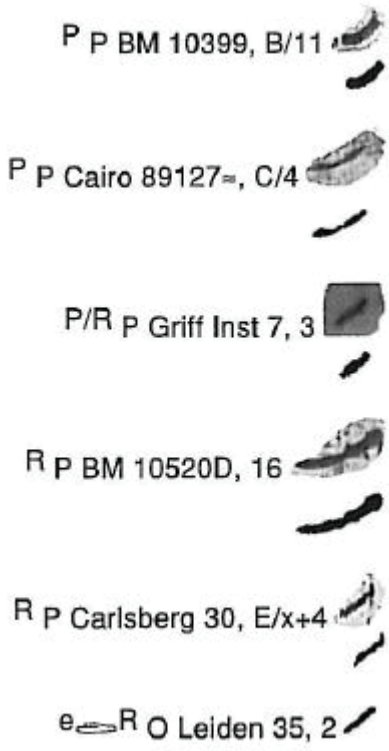
C-50, C-49  Jared

C-51  tribe (-ite, people)

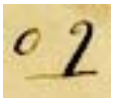
C-51, C-50, C-49  Jaredite

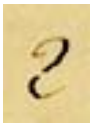
C-52  toward

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:



(Chicago Demotic Dictionary 2014, CDD R (01.1) Page 1)

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) pg. 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) pg. 72).

The phonetic hieroglyph for *nfr* is Gardiner Number F-35 meaning “good” (Gardiner 1937, 465):

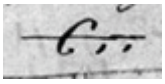
F35: 

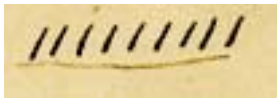
The hieratic versions of the glyph are:

Möller Number 180, Bd. III-1-31, pg. III 176-186 (Möller 1965)

C-57 

portion of translation verb, which includes Characters 57-60; equivalent to OF4



C-58 

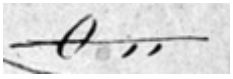
plates

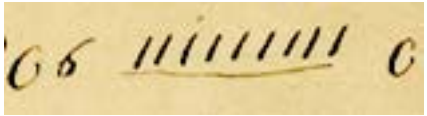
C-59 

by the power of God

C-60 

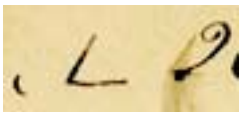
portion of translation verb, which includes Characters 57-60; equivalent to OF3



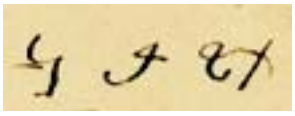
C-60, C-59, C-58, C-57 

translated the plates by the power of God

Discussion: The translation of this set of glyphs was discussed earlier in chapter 4 however the "curly 6" (translated here as "by the power of God") was not discussed as 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 lenses represented by the circular glyphs on each side).

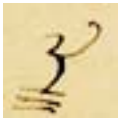
C-63, C-62, C-61  King Mosiah ($Mosiah_2$)

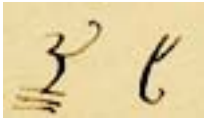
See Mosiah 22:11-14

C-67, C-66, C-65, C-64  King Benjamin

Discussion: Character 67 has been translated as "king." However, it is probable that it also serves as an indicative verb of the ascension to the kingship, as it is followed by the ascension date.

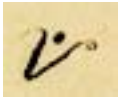
C-68  "2 month," part of Initial Series Introductory Glyph (IGIS) for Lehi Departure Calendar

C-69  Initial Series Introductory Glyph (IGIS), for Lehi Departure Calendar; hieratic, is 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]

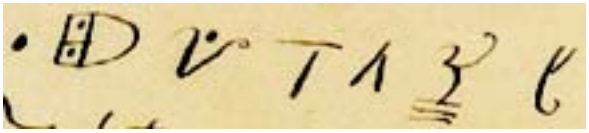
C-73 

20 (twenty) [years]

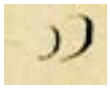
C-74 

1 (one) [years]

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 

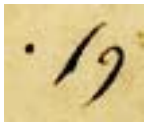
Mayan Anterior Date Indicator (ADI); count back to, since it happened, count since, count from, and it had come to pass

C-77, C-76 

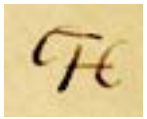
1/3 (one third) [year]

C-78 

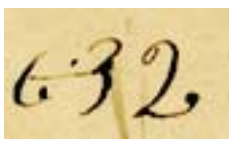
1 (one) [year]

C-78, C-77, C-76 

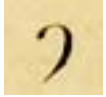
1 + 1/3 = 1 1/3 [years]

C-79 

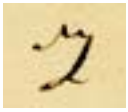
Mayan Distance Number Introductory Glyph (DNIG)

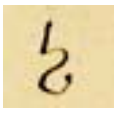
C-81, C-80 

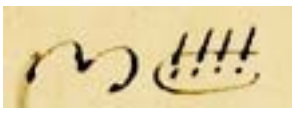
Mayan Period Ending Glyph (PE) for Reign of the Kings – "Seven Tribes" regnal period

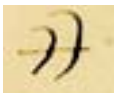
C-82 

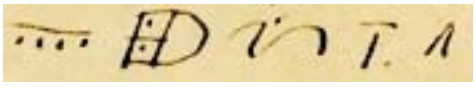
Mayan ADI/PE glyph by context (also "Behold")

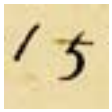
C-83  4 (four) [years]

C-84  Jubilee Year Glyph

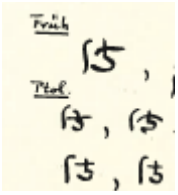
C-86, C-85  83 (eighty-three) [years] (80 + 3 = 83)

C-87  Mayan Posterior Date Indicator (PDI), then it happened, count forward, count to, count until, and it came to pass

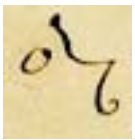
C-92, C-91, C-90, C-89, C-88  479 (four hundred seventy-nine) [years] (9 + 20 + 400 + (5 x 10) = 479)

C-94, C-93  to rise, accession

Discussion: This set is the Egyptian hieratic/demotic word *ḫʿ* defined as “to rise,” or “accession” (Chicago Demotic Dictionary 2014, pg. Ḫ 27-28).



(Erichsen 1954, 350-351)

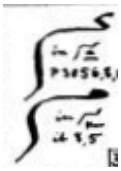
C-96, C-95  eternity

Discussion: This glyph has one of the same meanings as C-168, which is the Egyptian word for “eternity” and “estate,” *ḏt* (Gardiner 1937, 487). The hieroglyph consists of three elements vertically stacked as follows:

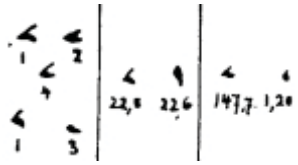
I10: 

X1: 

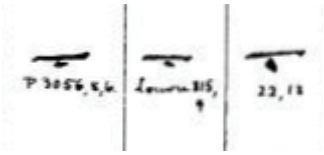
N16: 



Möller Number 250 (Gardiner Number I-10), Bd. III-1-31, pg. III 245-253 (Möller 1965)

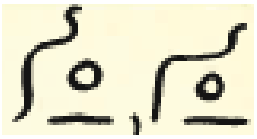


Möller Number 575 (Gardiner Number X-1), Bd. III-32-72-Taf, pg. III 565-575 (Möller 1965)



Möller Number 318 (Gardiner Number N-16), Bd. III-1-31, pg. III 310-318bis (Möller 1965)

The demotic form is:



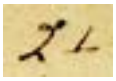
Demotisches Glossar (Erichsen 1954, 688)

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 in reverse form—not an issue in Egyptian.

See Mosiah 6:4-5

**********This is the end of the top 4 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

C-108, C-107, C-106  to the Nephites and Lamanites

C-109  Samuel the Lamanite

See Helaman 13:1-4

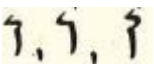
C-110 spacer glyph

C-111  Period Ending/Transition Glyph

C-112  1000 Year Calendar glyph

C-113  going back

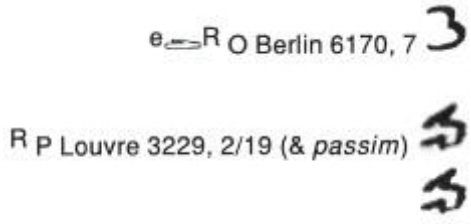
Discussion: This glyph is found in the Egyptian demotic as either the related words *ḥ3* or *ḥ3.t*, meaning “behind” or “front, beginning, before” (Chicago Demotic Dictionary, 2014 CDD Ḥ :09.1 pg. 1, 5):



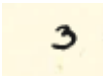
Demotisches Glossar (Erichsen 1954 pgs. 286-287)

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 CDD M :10.1 pg. 2):



(Chicago Demotic Dictionary, 2014 CDD M :10.1 pg. 2)



Demotisches Glossar (Erichsen 1954 pgs. 145-146)

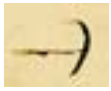
C-115  Coming of Christ Calendar Glyph

C-117, C-116  (9) nine - determinative

C-118  years

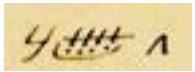
Discussion: This set of characters from C-111 to C-118 is best translated by reference to the Book of Mormon. The full translation of the set by itself would be that "the primary count calendar was shifted from the 1000 Year Calendar to the Coming of Christ Calendar, effective retroactively nine years after the Coming of Christ Calendar started."

See 3 Nephi 2:7-9

C-119  Period Ending/Transition Glyph Lehi 600 Year Calendar

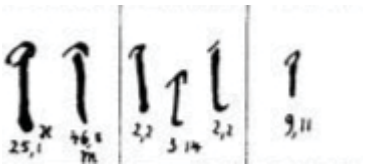
C-120  Introductory Glyph Reign of the Judges (7)

C-121  Mayan Distance Number Introductory Glyph (DNIG)

C-122, C-123, C-124  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 1937, 468) and is identified by Gardiner Number G-7 and the associated hieratic:

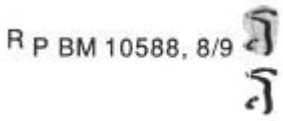


Möller Number 188, Bd. II-1-30, pg. II 182-190 (Möller 1965)

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

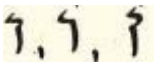
Discussion: C-128 and C-129 are similar glyphs with somewhat interchangeable meanings and forms in the Egyptian. One type of glyph is found in the Egyptian demotic as either the related words *ḥ* or *ḥ.t* which means “first,” or “front, beginning, before,” (Chicago Demotic Dictionary 2014, CDD Ḥ :09.1 pg. 4, 39-40). This second is found in the Egyptian demotic as either the related words *ḥꜣ* or *ḥꜣ.t* which means “one who is in front,” “chief,” “front, beginning, before” and is the same as C-113 (Chicago Demotic Dictionary 2014, CDD Ḥ :09.1 pg. 1, 5):



(Chicago Demotic Dictionary 2014, CDD Ḥ :09.1 pg. 4, 40)

Demotisches Glossar (Erichsen 1954, 289)

(Chicago Demotic Dictionary, 2014 CDD Ḥ :09.1 pg. 4, 40)

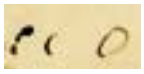


Demotisches Glossar (Erichsen 1954, 286-287)

C-130  Royal Name Suffix

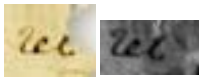
Discussion: The Egyptian word *snb* as found at the end of royal names is found in the Chicago Demotic Dictionary (S 13:1 page 263-264) and does have the form of the Caractors glyph:

Demotisches Glossar (Erichsen 1954, 438)

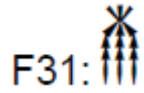
C-133, C-132, C-131  Land of Jerusalem

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).



In the hieratic:

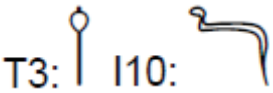
Möller Number 408, Bd. III-32-72-Taf, pg. III 405-414bis (Möller 1965)

A similar form is also found in Egyptian demotic:

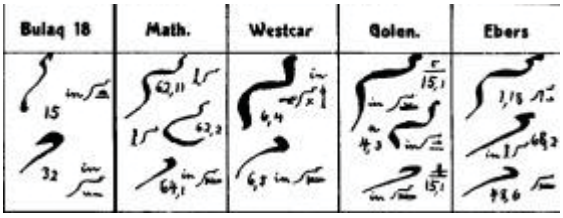
(Chicago Demotic Dictionary, 2014 CDD M (10.1) pg. 224)

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:



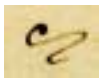
Möller Number 447 (Gardiner Number T-3), Bd. III-32-72-Taf, pg. III 436-447bis (Möller 1965)



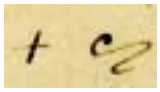
Möller Number 250 (Gardiner Number I-10), Bd. I-23-76, pg. II 250-258 (Möller 1965)

See 3rd Nephi 1:1-15

C-140  spacer glyph

C-141  Gadianton

C-142  tribe (people)

C-142, C-141  Gadianton tribe, Gadianton robbers

C-143  Nephi

C-144  departed

C-145 spacer glyph

C-147, C-146  restrain, dam off

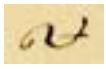
Discussion: This is an Egyptian determinative for "restrain, dam off" (Gardiner 1937, 523), with Gardiner Number V-11a and V-11c. The hieroglyph constitutes half of a cartouche; the interpretation is that it is used twice, similar to the full cartouche sign. The interpretation is consistent with 3 Nephi 3:23 which indicates that the fortifications against the Gadianton 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):

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 interpretation of languages" glyphs discussed later. All of those glyphs contain the double dots present here, so by commonality they must refer to language, and also the Book of Mormon context is consistent with that translation.

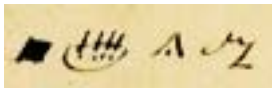
See 3rd Nephi 4:30-33

C-151  Jubilee Year glyph

C-152  12 (twelfth)

C-153  1000 (indicates in the 1000 Year Calendar)

C-154 spacer glyph

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

C-163  to the people (tribes)

See 3rd Nephi 8:5

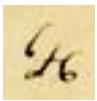
C-164 spacer glyph

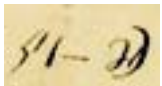
C-165  50 (fifty)

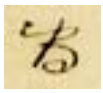
C-166  weeks (of 7 days each)

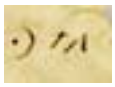
C-167  departed

C-168  upwards to heaven

C-169  Mayan Distance Number Introductory Glyph (DNIG)

C-174, C-173, 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

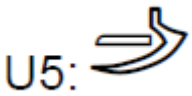
C-175  Introductory Glyph Coming of Christ Calendar

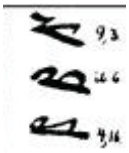
C-178, C-177, C-176  34 (thirty-four) [years] (19 + 5 + 10 = 34)

C-179  twelfth month

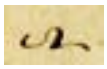
C-180  truth

Discussion: This is the Egyptian word *mꜣʿ* 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:





Möller Number 469 and 469b, Bd. II-31-74-Taf, pg. II 468-475 (Möller 1965)

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 fourthgeneration 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.

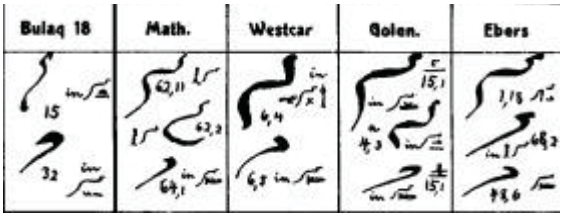
45 And it came to pass that when three hundred years had passed away, both the people of Nephi and the Lamanites had become exceedingly wicked one like unto another.

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		Mayan Distance Number Introductory Glyph (DNIG)
C-188		Mayan 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:

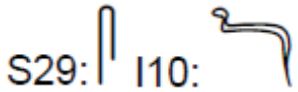
I10:  X1: 



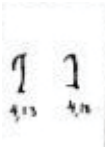
Möller Number 250 (Gardiner Number I-10), Bd. I-23-76, pg. II 250-258 (Möller 1965)

Möller Number 575 (Gardiner Number X-1), Bd. II-31-74, pg. II 575-586; Bd. I-23-76, pg. I 572-581 (Möller 1965)

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 hieroglpyh consists of Gardiner Numbers S-29 and I-10:



The hieratic form for S-29 for this word is:

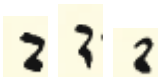


Möller Number 432, Bd. III-32-72, pg. III 425-435 (Möller 1965)

This set of glyphs also could be in the position consistent with ADI, but the form is slightly different, and perhaps could retain both meanings.

C-192		spacer glyph
C-193		Mayan 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, as 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:

> 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 (3 Nephites)

C-200  departed

See Mormon 1:13

C-201  multitude (innumerable) of Lamanites

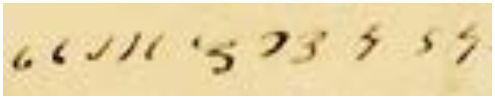
Discussion: Note that the glyph for the Lamanites has been incorporated into this glyph as there is the upper horizontal hook and the lower line from the Lamanite name represented in the glyph.

C-217 

C-202  came

See Mormon 4:17

C-203 spacer glyph

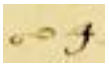
C-214 through C-204 

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

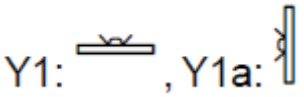
C-222 spacer glyph

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

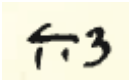
OF1  Book

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 *md3t* (Gardiner 1957, 533; Chicago Demotic Dictionary 2014 CDD M 10:1 pg. 299; Budge 1920, 1:337) and is represented in the hieroglyphs by hieroglyph Y-1 and in the associated hieratic:



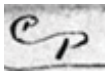
Möller Number 538, Bd. I-23-76, pg. I 534-540b (Möller 1965)

Pretty much the exact character is found in the Egyptian demotic for "bookroll":

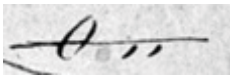


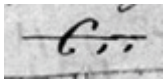
Demotisches Glossar (Erichsen 1954, 194)

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

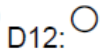
Discussion: The translation of this term was discussed earlier.

OF3 

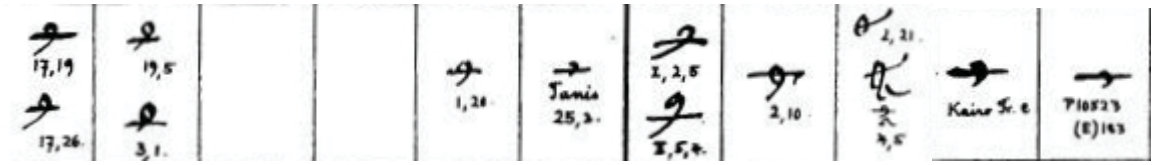
OF4 

Joseph Smith translated both of these glyphs together as "The interpretation of languages" again using the interpreters. Like the above translation of "book," this translation in the Egyptian is fairly straight forward. The Egyptian word *m3ꜣ* has been translated to mean "to see," "to examine," "to inspect," "to perceive," "to look at" "regard," "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). The simplest construction of the word consists of three Egyptian hieroglyphs U-2, D-12, and D-12:

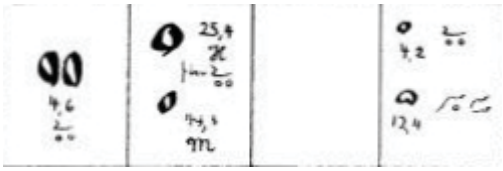
U2: 

D12:  D12: 

Each of the two lower hieroglyphs are derived from the pupil of the eye (Gardiner 1957, 451). In the hieratic the glyphs are as follows:



Möller Number 519 (Gardner Number U-2), Bd. III-32-72-Taf, pg. III 518-526; Bd. I-23-76, pg. I 513-521 (Möller 1965)



Möller Number 88 (Gardiner Number D-12), Bd. II-1-30, pg. I 80c-89 (Möller 1965)

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 Caractors document).

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. In addition, the translation is 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 10 "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.

Translation of the First Four Lines of the Caractors Document

In the nineteenthth regnal year of Mosiah I, the Nephites traveled over the mountains to the foreign speaking people of Mulek. These twenty thousand 'children of Mosiah' traveled downriver on the east side of the River Sidon [Grijalva] for eighty days and reached Zarahemla. And then it came to pass that after ten 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 Limhiites obtained twenty-four plates from the west in the Land of Desolation, returning upriver on the River of Lamanite Possessions [Usumacinta]. After their return upriver, seven years later, the Limhiites traveled west, bringing the pure gold Jaredite plates to Mosiah (II), which he translated.

Previous to the arrival of the Limhiites, 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 --- The Nephite primary count calendar was shifted from the 1000 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; after he was born occurred two days of brightness --- The Gadianton tribe arose; Nephi departed --- Seige of the Gadianton robbers, praise voiced to God; a Jubilee Year takes place which completes the Twelfth Jubilee period of the 1000 Year Calendar --- On the first month of the one hundred and twenty-fifth year of the Reign of the Judges Calendar, Christ came to the people --- After remaining fifty weeks, in the twelfth month of the thirty-fourth year of the Coming of Christ Calendar, Christ ascends upwards 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.

Chapter 13

Correspondence of the Caractors Document with the Known Book of Mormon Timeline

One confirmation of the accuracy of the translation is found when applying 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, with the events in bold being those where the translation provides new dates or verifies known dates. The list has been indented for the first section where there are concurrent happenings in different geographical locations. The first indent indicates events where the people of Zeniff are separated from Zarahemla in the Land of Nephi, and the second further indent is for events involving Alma after separated from the people of Zeniff. Dates that are listed as approximates are derived from the Book of Mormon based on estimated time periods of transfer of records and reasonable life spans and chronological facts. Years are listed in terms of the years passed from Lehi's departure.

First section of the translation

Amaron – 320 years passed away (Omni 1:5) 320 years

Amaron transfers plates to brother Chemish, (estimated 30 years pass) 350 years

Mosiah$_1$ became king, (calculated with Caractors information) 370 years

Amaleki born in the days of Mosiah$_1$, (estimated at 375 years; Omni 1:23) 375 years

Zeniff born in Land of Nephi (estimated at 370); Zeniff knew the land of Nephi (Mosiah 9:1) 370 years

Chemish transfers plates to son Abinadom (estimated 35 years pass) 385 years

Mosiah$_1$ and Nephites fled to Zarahemla and encountered Mulekites, (calculated with Caractors information) 389 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

Large stone brought to Mosiah (estimated at 400 years) 400 years

Abinadom transfers plates to Amaleki (estimated 25 years pass) 410 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
>
> **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

Alma born, (Mosiah 29:44-47) 427 years

$Mosiah_1$ dies, Benjamin takes throne, (date specified in Caractors document) 436 years

Amaleki grows old and transfers plates to King Benjamin (estimated at 437 years) 437 years

Zeniff still king after 22 years, King Laman dies, (Mosiah 10:3; calculated with Caractors information) 442 years

Zeniff in his old age, (estimated at 444 years)(Mosiah 10:10) 444 years

Noah becomes king, (estimated at 445 years) 445 years

$Mosiah_2$ born, (calculated from Mosiah 6:4) 446 years

Alma flees with followers, (estimate at 455 years) (Mosiah 18:35) 455 years

Noah killed, Limhi becomes king, (estimated at 462 years) 462 years

Limhi sends out 43 people, they return with 24 pure gold plates, (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

Benjamin waxed old, (estimated at 475 years)(Mosiah 1:9) 475 years

$Mosiah_2$ takes throne, (Mosiah 29:44-47; Mosiah 6:4) 476 years

Jubilee Year, **(determined with Caractors information)** 477 years

King Benjamin dies, (Mosiah 6:5**) (date also identified in Caractors text)** 479 years

$Mosiah_2$ grants Ammon to go back to Nephi, (Mosiah 7:1) 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, Alma and followers, and Limhites all become Nephites and then are baptized, supporting the glyph change of Nephites being called people of Christ (estimated at 492 years; Mosiah 25:17; Mosiah 25:24) 492 years

$Mosiah_2$ dies, Alma dies, the Reign of Kings ends, (Mosiah 29:44-47) 509 years

Second section of the translation

Samuel the Lamanite preaches to the Nephites and Lamanites, 86th year of the Reign of the Judges (Helaman 13:1-2); **60 and ½ months before the Coming 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 is identified by calculation in the Caractors information**

In the commencement of the 92nd year of the Reign of the Judges Christ was born with the associated signs (3 Nephi 1:4, 19); **the Caractors document indicates that 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 changed 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 to the Coming of Christ Calendar from the 1000 Year Calendar**

In the fourth day of the first month of the 34th year (counted since Christ's birth [3 Nephi 2:8]), there was great destruction (3 Nephi 8:5); approximately 3 days later Christ spoke to the remaining people (3 Nephi 9:1); **the Caractors document indicates that Christ came to the people in the 1st month of the 125th year of the Reign of the Judges, which calculates to be the 1st 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 7 days each, which calculates out to be 350 days; considering that Christ spoke to the Nephites on the 7th day of the first month, that would be the 357th day of the year that he departed, 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 of the 365 day Coming of Christ Calendar, very possibly exactly coinciding with the end of the 126th year of the 12-moon lunar calendar; the Coming of Christ calendrical period commenced at the birth of Christ and overlapped the Reign of the Judges calendrical period**

The siege of the Gadianton robbers occurred from the 16th to 24th year after the Coming of Christ (3 Nephi chapters 3-6); **the Caractors document indicates a Jubilee Year during this period, signifying completion of the 12th Jubilee period under the 1000 Year Calendar**

360 years passed from the Coming of Christ (Mormon 3:4); **Period Ending glyph of the Fourth Generation prophecy, since an interpretation of a date clause in the Book of Mormon text was used to determine a portion of the Caractors date, this date is not necessarily confirmatory of the correctness of the Caractors document**

384 years passed away from the Coming of Christ, Mormon finished his record as the bulk of the Nephites are destroyed (Mormon 6:1, 5, 7-15); **the Caractors document indicates a date of 384 years but the specific event related to this date probably follows the end of the Caractors text; the Caractors document references a 1000 Year Calendar that matches exactly this date.**

More than 420 years pass away from the Coming of Christ with Moroni being the last Nephite (Moroni 10:1) going shortly to rest in the paradise of God (Moroni 10:34); **the Caractors document references a 1000 Year Calendar**

which, if extended 400 years after the resurrected Christ came to the Nephites, provides a date of 421 years after the Coming of Christ

In addition to an exact match of the Caractors dates with 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.

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 "1000 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 (and other prophet's) prophecy 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 5 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 8:5; 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 prophesy and 5-year prophesy 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 don't stand up to much scrutiny. 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 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, as they had a continuously running calendar called the "Tzolkin" sacred calendar that consisted of 13 twenty-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 that 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 5-year prophecy to Christ's birth made by Samuel the Lamanite is reflected by a time period of 60 and ½ 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 it had not been verified calendrically that it was in fact a 12-month year using month counts. The extra half month noted in the Caractors document could also help explain (along with the passage of the 600-year period) 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. 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 5-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 additional 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, as that calendar added an addition 5 days at the end of each year, and no such correction is mentioned or consistent with the 60 ½ 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), so 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, as 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 eighteen months of twenty days and one five-day unlucky month.

Upon evaluating the Caractors document Common Lunar Calendar date, I find that it 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:

> 509 Years (total years to start of the Reign of the Judges) + 125 years (years given in the Caractors document) = 634 years.

Using the Julian day conversion one arrives at 1731714.6 Julian days or March 29, 29 AD. The Spackman date is remarkably within 8 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 change in 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 8 days of the first day of the coming of Christ on the Civil Calendar. If we assume 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 4th 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 <u>exactly</u> at the end of the Common Lunar Calendar year, which would be consistent with the Common Lunar Calendar being the religious calendar for tracking all major religious and prophetic events.

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 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 as each have a different start date, and talk about different prophecy-fulfilling events. The prophecy by Samuel the Lamanite, according to the Book of Mormon, was 5 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 5-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 determine if the 384 year date provided by Mormon and the Caractors document is accurate as follows by making the proper conversions:

(5.042 years [this is 60.5 months converted])(354.367 days/year) + (384 years)(365 days/year) / (354.367 days) = **400.56 years**

The Caractors document also refers to a 1000 Year Calendar, of which the 1000 years would have also been up on the 384-year date. Again, the Caractors document date and calendar corresponds exactly with the Book of Mormon and helps 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. There was probably additional text beyond the 384-year date, as the second portion of the Caractors document has the events related to the date typically identified 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 dedicatorio, 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 1000 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 process (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 would appear to not include the Lamanites, but just surviving Nephites, wherever they may be. Assuming the prophetic 12-moon Common Lunar Calendar controls this final Alma prophecy as well (as it also predated 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 as well. Using a date 33 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:

> 33 years + (400 years)(354.367 days) / 365 days = **421 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 421 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 now provides us 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 1000 Year Calendar) to the demise of Moroni. There may not have been any specific name for this short period, given the circumstances of the few Nephites left that 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.

Summary

It is clear that the second part of the Caractors document, unlike the first portion, is dealing specifically with the calendrical prophecies of the Book of Mormon. It adds additional information that perfectly dovetails with the information given in the Book of Mormon.

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 present of the Hebrew Festival calendar implemented by the Nephites 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 is an indicator of the 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 as to 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 forty-ninth 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 fiftieth year (meaning essentially two sabbatical years in a row) after the sabbatical year, or whether it coincided with the forty-ninth sabbatical year (Baker 1998).

The Jubilee legislation is contained in Leviticus 25 in the Old Testament. The primary features were:

1. Liberty was proclaimed to all of the inhabitants of the land
2. No sowing is to take place in the land, the fields to lie fallow and their yield left to the poor
3. Property was returned to its hereditary owner
4. 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 (Ezk. 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 forty-ninth year. The Caractors document contains four 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, in conjunction with the defeat of the Gadianton robbers

after being under siege, the time period after the coming of the resurrected Christ, and a time predating the final battle.

King Benjamin Jubilee

Welch and Szink suggested the probability of the Jubilee year occurring at the time of the transfer of kingship from King Benjamin 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 is probably an indication of the order of the Jubilee year (discussed below).

There is no Jubilee glyph occurring in the first section of the Caractors document except the one related to King Benjamin. A Jubilee glyph would be expected forty-nine years earlier, which would have fallen within the chronology of the first section of the Caractors document. This would seem to indicate that the Jubilee glyphs were not included unless they corresponded with significant Book of Mormon events.

The year can be calculated in the case of King Benjamin, as 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 (if translated correctly) that the Jubilee Year was 2 2/3 years prior to the death of King Benjamin, which death occurred in the 479th year. It appears that the Jubilee year was probably in the 477th year.

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 forty-nine years after King Benjamin's speech at Alma 30:2-5 in the sixteenth and seventeenth 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 seventeenth year. It would seem from this description of two years that the implication is 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 then been approximately in the sixty-sixth year of the Reign of the Judges; the Book of Mormon does indicate that in the year prior that 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 sixty-seventh year (Helaman 6:14-16). While not definitive, the description is still consistent with a year of Jubilee.

Gadianton 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 Gadianton robbers (3 Nephi chapters 3-4). The Book of Mormon scriptural record would certainly be consistent with this occurrence as 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, forty-nine years from the previous Jubilee would place this Jubilee year at the twenty-fourth year after the Coming of Christ. The Book of Mormon is not exactly specific as to the time of defeat and liberation; it indicates that in the sixteenth year they were instructed to gather together, and that by the end of the seventeenth year they had gathered. The Nephites had left their land desolate (3 Nephi 4:3). In the twenty-first year the Gadianton 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 that would not repent. The verse is not precise, but the year of Jubilee could have occurred on the twenty-fourth 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 sixteenth year, during which all of the fields would have laid fallow. When the robbers came out of the mountains to battle at the end of the eithteenth year the Nephite lands were "desolate" after three years of laying fallow. We can not 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, as the Jubilee Year twenty-four 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.

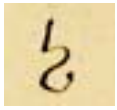
This Jubilee Year was identified in the Caractors document as being the twelfth complete Jubilee Year period within the 1000 Year Calendar. Going back in time from this Jubilee, the previous dates of Jubilee would be (in years after Lehi's departure): 575, 525, 477, 428, 379, 330, 281, 232, 183, 134, 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, Nephi indicates that the first temple was constructed prior to thirty years after Lehi's departure so would have been available for the first Jubilee Year in the New World.

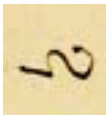
As far as the projected date of the Old World Jubilee Year of 600 BC, it does not seem to align with the guesses of academics as to the ancient Jubilee Year dates (many believe that the Jubilee was not even practiced prior to Lehi's departure). Since this book is limited to the translation of the Caractors document, and there is no reliable independent confirmation of this translation from the Old World, I have chosen not to delve into that issue here.

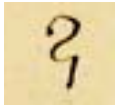
Mormon's Birth Jubilee Year

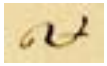
As has been noted, Mormon's name glyph is a mirror image of the Jubilee Year glyph. It would seem clear that Mormon's birth year of 309 years after the Coming of Christ must have been a Jubilee Year. Mormon was "about 10 years of age" 320 years after Christ under the Civil Calendar as indicated in 4th Nephi 1:48 and Mormon 1:2; having completed his tenth year he would have been in his eleventh year. Assuming that the Common Lunar Calendar was used continuing under the prophetic 1000 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 Gadianton robbers), 673, 722, 771, 820, 869, and 918. 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 birthday 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, as it is rotating 90 degrees counterclockwise with every Jubilee Year. For example the Jubilee Years from the King Benjamin Jubilee to the Gadianton Robber Jubilee would be as follows:

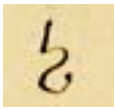
King Benjamin Jubilee 477 years 

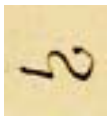
17th Reign of Judges Jubilee 526 years 

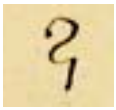
66th Reign of Judges Jubilee 575 years 

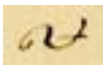
Gadianton Robber Seige 624 years 

This would also be consistent with the calendar premise that there are only four Egyptian months, so every four years one would have a reoccurrence of the same glyph alignment. Continuing with this counterclockwise rotational sequence (arbitrarily utilizing both Caractors Jubilee glyphs):

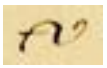
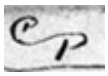
673 years 

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" that is occurring with the names in the Book of Mormon. Unlike the glyph I have projected here (using the Gadianton 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 Period after the Coming of Christ

There might be the appearance of a Jubilee styled glyph (C-180) for the period of righteousness and prosperity after the Coming of Christ. This glyph is translated as "truth," and is a bit different than the previous Jubilee year glyphs so is probably best interpreted as a period of righteousness as opposed to a specific year. Mormon's description of the period is consistent with the terms of the Jubilee as 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
Inplications of Translation of the Caractors Document

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 whether there seems to be any influence from Mesoamerican languages or Hebrew on the linguistics of the underlying language. Even without the study there are still a few initial observations that can be made:

1. The Egyptian used appears to be a "stripped down" version, lacking prepositions, articles and plurals for the most part.
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 forms of hieroglyphic words are used, and the most compact by space, hence the primary use of hieratic. When demotic is used, it is forms that are very simple and short. Determinatives are used as full words, also indicating a conservation of space.
4. There are few instances of phonetic constructions, again probably because those few forms would tend to be shorter than the logographic glyphs in conveying the same meaning.
5. There appears to be some modification of forms and style, but not severely so after 1000 years, which would indicate that the language may have been a form of "dead language" only used by a very limited group.
6. Some early forms of hieroglyphics are represented, so it would appear that the sources for 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 will also be useful in understanding the nature of the language of the English translation for the rest of the Book of Mormon, as 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 a various items in the Book of Mormon.

Population

Based on the addition of 20,000 Nephites to the Mulekites at Zarahemla identified in the Caractors document, we might be able to approximate population counts of the various groups during this time period as 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 1000-year calendar until the destruction of the Nephites. There are also primary political calendars and secondary subcalendars. The primary political calendars would be the Reign of the Kings Calendar that 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 portions of the Caractors document yet to be translated. The political subcalendars would be the reign of each of the kings, and the newly manifest political period of the Seven Tribes.

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 "1000 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

Directionality in the Book of Mormon clarified

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 were just what they said they were. In these days of self-promoting academics and critics looking for the proverbial light switch to expose early LDS Church history often in the most unflattering manner that they can concoct, it was actually refreshing to see something so clear and straightforward from early LDS 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 that occurred to me during the translation as each new element was discovered.

The translation of an ancient text such as is contained in the Caractors document would normally create much interest in the scientific and linguistic community. However because of the nature of its genesis, no such interest is anticipated. Dr. David Stuart, one of the famous Mayanists who helped decipher the Mayan script, dismisses the

concept of external cultural influences on Mesoamerica, and briefly discounts the Book of Mormon where he calls the Nephites “Nephrites” (Stuart 2011, 286).

Michael Coe, another famous Mesoamerican archaeologist, savages archeologist J. Eric Thompson throughout his book *Breaking the Maya Code* for Thompson’s obstinance and ignorance in considering phonetic elements in the Mayan language, but then seems to exhibit similar attitudes of ignorance of details of the Book of Mormon when commenting about it (Sorenson 2012).

It seems that these experts in cracking the Maya code have not bothered to crack open the Book of Mormon and actually read it. Hopefully, this translation will at least be of use for those interested in a serious study of the Book of Mormon, as it does provide some interesting insights into the Book of Mormon itself.

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.

References

Aguilar-Moreno, Manuel. 2006. *Handbook to Life in the Aztec World*. Oxford: Oxford University Press.

Akers, Danielle C. 2008. "Purposeful Ambiguity in *The Presentation of Captives to a Maya Ruler* at the Kimbell Art Museum." MA Thesis. Lubbock, TX: Texas Tech University. www.search.proquest.com/docview/304458660?accountid=13042; retrieved December 5, 2012.

Arnold, Philip J., III. 2005. "The Shark-Monster in Olmec Iconography." *Mesoamerican Voices* 2:1-38.

Baker, David L. 1998. "The Jubilee and the Millennium Holy Years in the Bible and Their Relevance Today." *Themelios* 24 (1): 44-69.

Baudez, Claude F. 1988. "Solar Cycle and Dynastic Succession in the Southeast Maya Zone." In *The Southeast Classic Maya Zone: A Symposium at Dumbarton Oaks, 6th and 7th October*, *1984*, ed. Elizabeth Hill Boone and Gordon R. Willey, 125-148. Washington, D.C.: Dumbarton Oaks.

Book of Mormon Onomasticon. 2015. Laura F. Willes Center for Book of Mormon Studies. www.onoma.lib.byu.edu/onoma/index.php/Main_Page.

Boone, Elizabeth Hill. 2007. *Cycles of Time and Meaning in the Mexican Books of Fate*. Joe R. and Teresa Lozana Long Series in Latin American and Latino Art and Culture. Austin: University of Texas Press.

Brugsch, Heinrich. 1868. *Hieroglyphisch-demotisches Wörterbuch, Leipzig*. Online version, Heidelberg historic literature. Digitized, Heidelberg University Library.

Budge, E. A. Wallis. 1920. *An Egyptian Hieroglyphic Dictionary in Two Volumes*. Dover edition, 1978. New York: Dover Publications.

Chicago Demotic Dictionary. 2014. https://oi.uchicago.edu/research/publications/demotic-dictionary-oriental-institute-university-chicago, University of Chicago.

Chrisomalis, Stephen. 2010. *Numerical Notation: A Comparitive History*. Cambridge: Cambridge University Press.

Clark, Rev. John A. 1842. *Gleanings by the Way*. Philadelphia: W. J. & J. K. Simon.

Clay County Museum. 2009. https://www.flickr.com/photos/claycountymuseum/3607599278/in/set-72157619435838298.

Closs, Michael P. 1986. "The Mathematical Notation of the Ancient Maya." In *Native American* Mathematics, 291-369. Austin: University of Texas Press.

Coe, Michael D. 1999. *Breaking the Maya Code*. New York: Thames & Hudson.

Compton, S. C. 2010. *Exodus Lost*. Self-published.

Cortés, Fernando. 1519. *His Five Letters of Relation to the Emperor Charles V*. Ed. and trans. Francis A. MacNutt. Glorieta, NM: Rio Grande, 1977.

Crowley, Ariel L. 1942. "The Anthon Transcript" (in three parts). *The Improvement Era* 45 (1–3). Salt Lake City.

Crowley, Ariel L. 1961. *About the Book of Mormon*. Salt Lake City: Deseret News Press.

Dahl, Jeff. 2007. Map of Lower and Upper Egypt. Wikipedia commons.

de Borhegyi, Carl. 2012. Decoding the Fleur de Lis, the Origin and Meaning of the Fleur De Lis Symbol, In Pre-Columbian Art. http://www.mushroomstone.com/fleurdelisorigin.htm.

de Landa, Diego. 1556. *Yucatan Before and After the Conquest*. Trans. William Gates, 1937. New York: Dover Publications.

Dee, Michael, David Wengrow, Andrew Shortland, Alice Stevenson, Fiona Brock, Linus Girdland Flink, aand Christopher Bronk. 2013. "An absolute chronology for early Egypt using radiocarbon dating and Bayesian statistical modeling." *Proc R Soc A* 2013 469 (2159): 20130395.

Dickson, Paul. 2006. Dictionary of Middle Egyptian in Gardiner Classification Order, December 1, 2006. http://www.pyramidtextsonline.com/documents/DicksonDictionary.pdf.

Edmonson, Monroe S. 1988. *The Book of the Year: Middle American Calendrical Systems*. Salt Lake City: University of Utah Press.

Erichsen, Wolja. 1954. Demotisches Glossar. Kopenhagen: Munksgaard.

Fairman, H.W. 1963. "Two Ptolemaic Numerals." *The Journal of Egyptian Archeology, Egypt Exploration Society* 49 (Dec. 1963): 179-180.

Foster, Lynn V. 2002. Handbook to Life in the Ancient Maya. WorldFacts on File. New York: Oxford University Press.

Gardiner, Sir Alan. 1957. *Egyptian Grammar, 3rd Edition revised*. Oxford: Griffith Institute.

Gardner, Brant A. 2015. *Traditions of the Fathers: The Book of Mormon as History*. Salt Lake City: Greg Kofford Books.

Graham, Ian. 1996. Corpus of Maya Hieroglyphic Inscriptions Seibal, 7. Part 1. Cambridge: Peabody Museum, Harvard University.

Guerra, Francisco. 1960. "Weights and Measures in Pre-Columbian America." *Journal of the History of Medicine and Allied Sciences* 15 (1960): 342–44.

Gutierrez, Mary Ellen. 1993. "Caracol, Altar 21: A Reconsideration of the chronological framework and implications for the Middle Classic dynastic sequence." *Mexicon* 15 (2): 28-33.

Harvey, Herbert. 1982. "Reading the numbers: variation in Nahua numerical glyphs." In *The Indians of Mexico in Pre-Columbian and Modern Times*, ed. M. E. R. G. N. Jansen and Th. J. J. Leyenaar, 190-205. Leiden: Rutgers.

Hoch, James E. 1994. *Semitic Words in Egyptian Texts of the New Kingdom and Third Intermediate Period*. Princeton: Princeton University Press.

Houston, Stephen D. 1998. "Classic Maya Depictions of the Built Environment." In *Function and Meaning in Classic Maya Architecture*, ed. Stephen D. Houston, 333–372. Washington, DC: Dumbarton Oaks Research Library and Collection.

Howe, Eber D. 1834. *Mormonism Unvailed*. Painesville, NY.

Humboldt, Alexander von. 1814. Researches Volume I. Researches Concerning the Institutions & Monuments of the Ancient Inhabitants of America. With Descriptions & Views of Some of the Most Striking Scenes in the Cordilleras. London:Longman, Hurst, Rees, Orme & Brown, J. Murray & H. Colburn.

Jones, Carl Hugh. 1970. “The Anthon Transcript and Two Mesoamerican Seals.” *Newsletter and Proceedings of the S.E.H.A*. No. 122, September 1970.

Jones, Christopher. 1975. “A Painted Capstone from the Maya Area.” In *Studies in Ancient Mesoamerica II*, ed. John A. Graham, 83–110. Berkeley: University of California Archaeological Research Facility.

Joseph, George Gheverghese. 2011. The Crest of the Peacock: Non-European Roots of Mathematics (Third Edition). Princeton: Princeton University Press.

Joyce, Rosemary A. 1996. “The Construction of Gender in Classic Maya Monuments.” In *Gender and Archaeology*, ed. Rita P. Wright, 167–195. Philadelphia: University of Pennsylvania Press.

Justeson, John S. 1989. “The Representational Conventions of Mayan Hieroglyphic Writing.” In *Word and Image in Maya Culture: Explorations in Language, Writing, and Representation*, ed. William F. Hanks and Don S. Rice, 25–38. Salt Lake City: University of Utah Press.

Kaufman, Terrence, and John S. Justeson. 2001. “Epi-Olmec Hieroglyphic Writing and Texts.” In *The Proceedings of the Maya Hieroglyphic Workshop: The Coming of Kings; Epi-Olmec Writing, March 10-11, 2001*, ed. Phil Wanyerka, 93–224. Austin: University of Texas at Austin. http://www.albany.edu/pdlma/EOTEXTS.pdf; retrieved January 5, 2012.

Kelley, David H. 1960. Calendar Animals and Dieties. *Southwestern Journal of Antrhopology* 3: 317-37.

Kerr, Justin. 2007. RE: [Aztlan] List of reversed glyphs Aztlan Mailing List. August 31. n.d. Maya Vase Database. http://www.mayavase.com/; retrieved December 6, 2012.

Kletter, Raz. 1999. Economic Keystones, The Weight System of the Kingdom of Judah. *Journal for the Study of the Old Testament*, Supplement Series 276. Sheffield Academic Press.

Lapham, Fayette. 1870. “The Mormons Interview with the Father of Joseph Smith Plates, The Mormon Prophet, Forty Years Ago, His Account of the Finding of the Sacred Plates.” *Historical Magazine*, May 1870 8 (5): 305-309.

Learning Connection. 2015. http://www.learning-connections.co.uk/curric/cur_pri/aztecs/handson/hands_5.html

Littell’s. 1851. "Origin of the Mormon Imposture.” *Littell's Living Age* 30 (380, August 1851): 430.

Loprenio, Antonio. 1995. *Ancient Egyptian: A Linguistic Introduction*. Cambridge: Cambridge University Press.

Lounsbury, Floyd G. 1978. “Maya Numeration, Computation, and Calendrical Astronomy.” In *Dictionary of Scientific Biography, Volume XV, Supplement I*, ed. Charles Coulston Gillispie, 759-818. New York: Charles Scribner’s Sons.

MacKay, Michael Hubbard, Gerrit J. Dirkmaat, and Robin Scott Jensen. 2013. “The ‘Caractors’ Document: New Light on an Early Transcription of the Book of Mormon Characters.” *Mormon Historical Studies* 14 (1): 131-152.

Macri, Martha J., and Matthew G. Looper. 2003. *The New Catalog of Maya Hieroglyphs, Volume 1*. The Classic Period Inscriptions. University of Oklahoma Press.

Macri, Martha J., and Gabrielle Vail. 2009. *The New Catalog of Maya Hieroglyphs, Volume 2*. The Codical Texts. Norman: University of Oklahoma Press.

McAnany, Patricia A., and Shannon Plank. 2001. “Perspectives on Actors, Gender Roles, and Architecture at Classic Maya Courts and Households.” In *Royal Courts of the Ancient Maya, Volume One: Theory, Comparison, and Synthesis*, ed. Takeshi Inomata and Stephen D. Houston, 84–129. Boulder: Westview Press, Boulder.

Marée, Marcel. 2009. “Edfu under the Twelfth to Seventeenth Dynasties: The monuments in the National Museum of Warsaw.” *British Museum Studies in Ancient Egypt and Sudan* 12 (2009): 31–92.

Matsumoto, Mallory. 2013. “Reflection as transformation: mirror-image structure on Maya monumental texts as a visual metaphor for ritual participation.” *Estudios de Cultura Maya* 41: 93-128.

Méluzin, Sylvia. 1995. *Further Investigations of the Tuxtla Script: An Inscribed Mask and La Mojarra Stela 1*. Provo: New World Archeological Foundation, BYU.

Miller, Arthur G. 1989. “Comparing Maya Image and Text.” In *Word and Image in Maya Culture: Explorations in Language, Writing, and Representation*, ed. William F. Hanks and Don S. Rice, 176–188. Salt Lake City: University of Utah Press.

Miller, Mary. 1999. *Maya Art and Architecture*. London, UK, and New York, USA: Thames & Hudson.

Möller G. 1965. *HIERATISCHE PALÄOGRAPHIE*. Leipzig, 1909-1936, Neudruck der 2. verbesserten Auflage. Osnabrück.

Montgomery, John. 2007. John Montgomery Dictionary of Maya Hieroglyphs 2007, www.research.famsi.org.

Moran, Hugh A. and David H. Kelley. 1969. *The Alphabet and the Ancient Calendar Signs*. Palo Alto: Daily Press. First edition 1953.

Morley, Sylvanus Griswold. 1915. An Introduction to the Study of the Maya Hieroglyphs. Smithsonian Institution Bureau of American Ethnology Bulletin 57.

Motolina (Toribio de Benavente). 1951. Motolinia’s History of the Indians of New Spain. Translated and edited by Francis Borgia Steck. Washington, D.C.: Academy of American Franciscan History.

Netzer, Michael. 2014. "Khirbet Qeiyafa Ostracon." Wikipedia Commons, www.commons.wikimedia.org/wiki/File:Khirbet_Qeiyafa_Ostracon.jpg#/media/File:Khirbet_Qeiyafa_Ostracon.jpg.

Ngo, Robin. 2014. Precursor to Paleo-Hebrew Script Discovered in Jerusalem. Bible History Daily 05/09/2014. www.biblicalarchaeology.org/daily/biblical-artifacts/inscriptions/precursor-to-the-paleo-hebrew-script-discovered-in-jerusalem.

Nims, C. F. 1936. *Journal of Egyptian Archeology* 22: 51-54.

Oman-Reagan, Michael P. 2009. Crossing The River: The Journey of Death in Ancient Egypt and Mesopotamia. www.religionandtechnology.com/2009/08/21/crossing-the-river-the-journey-of-death-in-ancient-egypt-and-mesopotamia; August 21, 2009.

Ortiz-Franco, Luis. 2002. “The Aztec Number System, Algebra, and Ethnomathematics.” In *Changing the Faces of Mathematics, Perspectives on Indigenous People of North America*, 237-249. Reston, VA: National Council of Teachers in Mathematics.

Oxford English Dictionary. 2015. Online version, www.oed.com.

Pacheco, Ernesto Vargas, and Teri Arias Ortiz. 2015. The Crocodile and the Cosmos: Itzamkanac, the Place of the Alligator’s House. www.famsi.org/reports/03101/02vargas_arias/02vargas_arias.pdf.

Palka, Joel W. 2002. “Left/Right Symbolism and the Body in Ancient Maya Iconography and Culture.” *Latin American Antiquity: Society for American Archaeology, United States* 13 (4): 419–443.

Pendergast, D. M. 1981a. Lamanai, Belize: Summary of Excavation Results, 1974-1980. *Journal of Field Archaeology* 8: 29-53.

Pestman, Les. 1994. Pestman, Les papyrus démotiques de Tsenhor. Les archives privées d'une femme égyptienne du temps de Darius Ier (Studia Demotica 4). [P. Tsenhor]. Leuven, Belgium: Peeters Publishers.

Petty, Bill. 2012. *Hieroglyphic Dictionary, A Middle Egyptian Vocabulary*. Littleton, CO: Museum Tours Press.

Pharo, Lars Kirkhusmo. 2014. *The Ritual Practice of Time, Philosophy and Sociopolitics of Mesoamerican Calendars*. Boston: Brill.

Piccione, Peter A. 2007. “The Egyptian Game of Senet and the Migration of the Soul.” In *Ancient Board Games in Perspective, Ancient Board Games in Perspective*, ed. Irving Finkel, 54-63. London: British Museum Press.

Piccione, Peter A. 1980. “In Search of the Meaning of Senet.” *Archaeology* 33 (4): 55-58.

Revillout, Eugène. RevEg 7 (1892-1896), p. 135 no. 3228 F descr.

Rice, Prudence. 2007. *Maya Calendar Origins: Monuments, Mythistory and Materialization of Time*. Austin: University of Texas Press.

Robertson, Merle Greene, Robert L. Rands, and John A. Graham. 1972. *Maya Sculpture from the Southern Lowlands, the Highlands, and Pacific Piedmont, Guatemala, Mexico, Honduras*. Berkeley: Lederer, Street and Zeus.

Ruppert, Karl. 1935.*The Caracol at Chichen Itza, Yucatan*. Washington, DC: Mexico Carnegie Institution.

Schele, Linda. 1983. *Maya Glyphs: The Verbs*. Austin: University of Texas Press.

Schele, Linda. 1991b. *The Proceedings of the Maya Hieroglyphic Workshop, Austin (1991) March 9-10*. Austin: University of Texas Press.

Schele, Linda, and Jeffrey H. Miller. 1983. *The Mirror, The Rabbit, and The Bundle: “Accession” Expressions From the Classic Maya Inscriptions*. Washington, D.C.: Dumbarton Oaks.

Schele, Linda, and Mary Ellen Miller. 1986. *The Blood of Kings: Dynasty and Ritual in Maya Art*. New York: George Braziller.

Schele, Linda, Nikolai Grube. 1991. Speculations on Who Built the Temple under 11. Copán Note 102. Copán, Honduras: Copán Acropolis Project and the Instituto Hondureño de Antropología e Historia.

Scribd.com. 2010. Ancient Egypt Dictionary, https://www.scribd.com/doc/38027056/Ancient-Egypt-Dictionary.

Severin, Gregory M. 1981. “The Paris Codex: Decoding an Astronomical Ephemeris.” Transactions of the American Philosophical Society, New Series 71 (5): 1–101.

Skousen, Royal, ed. 2001. *The Original Manuscript of the Book of Mormon, Typographical Facsimile of the Extant Text*. Provo, UT: FARMS, Brigham Young University.

Smith, J. 1830. History of the Church, Volume 1. Salt Lake City: Deseret Book Company.

Smith, Joseph. 2004. Joseph Smith—History. Salt Lake City: Church of Jesus Christ of Latter-day Saints.

Smith, Lucy Mack. 1845. Lucy Mack Smith, History, 1844–1845, The Joseph Smith Papers, The Church Historian's Press ID #7896; http://josephsmithpapers.org/paperSummarylucy-mack-smith-history-1844-1845.

Sorenson, John L. 1992. *The Geography of Book of Mormon Events: A Source Book*. Provo, UT: FARMS.

Sorenson, John L. 2012. "An Open Letter to Dr. Michael Coe." *Interpreter: A Journal of Mormon Scripture* 1 (2012): 91-109.

Sorenson, John L. 2013. *Mormon's Codex*. Salt Lake City: Deseret Book.

Spackman, Randall P. 1993. "Introduction to Book of Mormon Chronology: The Principal Prophecies, Calendars, and Dates." FARMS Papers, SPA-93.

Spiegelberg, Wilhelm. 1975. Demotische Grammatik. Heidelberg, Carl Winter Universitätsverlag.

Steiger, Kirstin Rachelle. 2010. "Crosses, Flowers, and Toads: Maya Bloodletting Iconography in Yaxchilan Lintels 24, 25, and 26." MA Thesis. Provo: Brigham Young University. http://contentdm.lib.byu.edu/; retrieved April 29, 2011.

Steindorff, G. "Eine ägyptische Liste syrischer Sklaven." *ZÄS* 38 (1900): 17.

Stuart, David. 1990. "The Decipherment of 'Directional Count Glyphs' in Maya Inscriptions." *Ancient Mesoamerica* 1: 213-224.

Stuart, David. 2012. *The Order of Days*. New York: Harmony Books.

Stubbs, Brian D. 2014. Exploring the Explanatory Power of Egyptian and Semitic in Uto-Aztecan. Preliminary edition, July 2014, unpublished.

Studyblue.org. 2015. www.studyblue.com/#flashcard/view/2127247.

Taube, Karl A. 1988. "A Prehispanic Maya Katun Wheel." *Journal of Anthropological Research* 44 (2): 183-203.

Thompson, J. Eric S. 1950. *Maya Hieroglyphic Writing*. Washington, DC: Carnegie Institution of Washington.

Thompson, J. Eric S. 1962. *A Catalog of Maya Hieroglyphs*. Norman, OK: University of Oklahoma Press.

Uittenbogaard, Arie. 2015. Abarim Publications' Biblical Name Vault, The Name Jerusalem in the Bible. http://www.abarim-publications.com/Meaning/Jerusalem.html#.VeJuhvlVikp.

Viel, René H. 1999. "The Pectorals of Altar Q and Structure 11: An Interpretation of the Political Organization at Copan, Honduras." *Latin American Antiquity: Society for American Archaeology, United States* 10 (4): 377–399.

Wagenaar, Jan A. 2005. *Origin and Transformation of the Ancient Israelite Festival Calendar*. Wiesbaden: Harrassowitz Verlag.

Welch, John W. 1999. "Weighing and Measuring in the Worlds of the Book of Mormon." *Journal of Book of Mormon Studies* 8 (2): 36–45, 86.

Welch, John W., and Terrence L. Szink. 1998. "King Benjamin's Speech in the Context of Ancient Israelite Festivals." In *King Benjamin's Speech Made Simple*, 147-223. Provo: FARMS.

Whittaker, Gordon. 2009. "The Principles of Nahuatl Writing." *Göttinger Beiträge zur Sprachwissenschaft* 16 (2009): 47-81.

Wikipedia Commons. 2015. P1120871 Louvre stèle de Mésha AO5066 détail rwk.JPG.

Wikipedia Commons. 2015a. www.en.wikipedia.org/wiki/Proto-Sinaitic_script#/media/File:Ba%60alat.jpg.

Wikipedia Commons. 2015b. www.en.wikipedia.org/wiki/Proto-Sinaitic_script#/media/File:Ba%60alat.jpg.

Wilson, Hilary. 1993. *Understanding Hieroglyphs*. Leichester: Brockhampton Press.

Wimmer, Stefan. 2008. *Palästinisches Hieratisch, Die Zahl- und Sonderzeichen in der althebräischen Schrift*. Ägypten Und Altes Testament, Band 75. Harrassowitz Verlag in Kommission.

Wright, Mark. 2012. Mormon FAIR-Cast 107: Mesoamerican Connections to the Book of Mormon. www.blog.fairmormon.org/2012/09/19/mormon-fair-cast-107-mesoamerican-connections-to-the-book-of-mormon.

www.amoxcalli.org.mx. 2015. Códice Xochimilco, Plano de Varias Propiedades, plate 034, Amoxcalli. Universidad Nacional Autónoma de México.

www.bible-archaeology.info/agriculture.htm. 2015.

www.forum.newordermormon.org. 2015. www.forum.newordermormon.org/viewtopic.php?f=2&t=43440/viewtopic.php?f=2&t=43440.

www.tierramayaimports.com. 2015. http://www.tierramayaimports.com/TOC1.html.

Zevit, Ziony. 1998. *The Anterior Construction in Classical Hebrew*. Society of Biblical Literature Monograph Series. Atlanta: Scholars Press.

Foreign Words Index

“Caractors” Index

General Index

A small scrap of paper entitled “Caractors” that contained characters copied from the plates from which the Book of Mormon was translated has remained an enigma for more than a hundred years. Finally, the characters have been successfully translated. In a book that is the first of its kind, Jerry Grover, a professional civil engineer, geologist, and translator, has been able to crack the code of the “reformed Egyptian.” The author’s approach is meticulous and scientific. This book is a landmark event in Book of Mormon studies and is a book that must be read by every serious student of the Book of Mormon and of Mesoamerican studies. The author is dedicating all proceeds from the book to additional scientific studies to cast further light on the ancient setting of the Book of Mormon.