Limhi and the Number 30

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

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

Limhi was a son of the evil king Noah$_3$, who ended up being a righteous king over a branch of Nephites who had returned to reinherit the land of Nephi. He essentially was a king in servitude until he and his people escaped and returned to join the main body of Nephites at Zarahemla (Mosiah 7–9). Also mentioned in the Book of Mormon is a set of records presumably made by Zeniff and subsequently kept by Limhi which he ultimately provided to Mosiah, referred to as "plates." It is also of note that the reformed Egyptian glyph for *Limhi* also has the form of a tablet or plate, which is also consistent with this meaning. The Sumerian etymological units which would not involve numbers for which the name *Limhi* appears to be derived are:

li: branch
li: to press (oil)
i: oil; container for oil (indicating priestly/royal authority)
  i$_3$*-am*$_3$ (form of *i*)
im: tablet
  im-a, *im-ma*, *im-e* (form of *im*)
hi: to mix (up); alloy

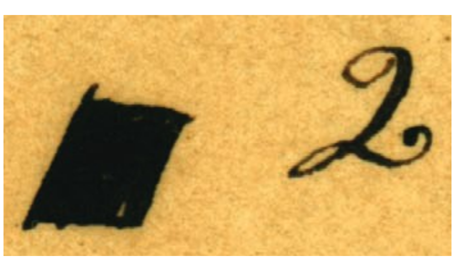
Constructed Compound Word: L**im**hi

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

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

la: to weigh
imin: seven
  imin-na (form of *imin*)

Constructed Compound Word: L(a)**im**in-na



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

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

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

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

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

Table 1

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

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

> 4 Now these are the names of the different pieces of their gold, and of their silver, according to their value. And the names are given by the Nephites, for they did not reckon after the manner of the Jews who were at Jerusalem; neither did they measure after the manner of the Jews; but they altered their reckoning and their measure, according to the minds and the circumstances of the people, in every generation, until the reign of the judges, they having been established by king Mosiah.
>
> 5 Now the reckoning is thus—a senine of gold, a seon of gold, a shum of gold, and a limnah of gold.

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

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

> With growth in communication, and the increasing importance of trade, barter became increasingly inconvient, depending as it does on the whims of individuals or on interminable negotations.
>
> The need grew, therefore, for a stable system of equivalences of value. This would be defined (much as numbers are expressed in terms of a base) in terms of certain fixed units or standards of exchange. In pre-Hellenic Greece, the earliest unit of exchange that we find is an ox. According to Homer's Iliad, … a "woman of good for a thousand tasks" was worth four oxen, the bronze armour of Glaucos was worth nine, and that of Diomedes (in gold) was worth 100. … The Latin word pecunia (money), from which we get "pecuniary," comes from pecus, meaning "cattle"; … The Latin capita ("head") has given us "capital." In Hebrew, keseph means both "sheep" and "money"; and the root-word made of the letters GML stands for both "camel" and "wages." (Ifra 2000, 72)

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

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

Others have also made much about the apparent superiority of efficiency of the Nephite system of gold- and silver-based "weights," indicating the ability to easily combine units of 1/8, 1/4, 1/2, 1, 1 1/2, 2, 4, and 7 into varying totals (Welch 1999). However, the uniform system of units that they are describing is the uniform system of volumetric grain measurements (which does not vary across grain type), not the separate and distinct gold and silver systems. The description of the precious metals classifications is not of a uniform system; it is only uniform within the specific commodity (gold or silver). It can be reasonably assumed that the units of equivalent value between gold and silver were not of equivalent measurement (limnah-onti, etc.) either by weight or volume. Each system has different names, even for the ones of the same value, which is a sure sign that the measurements within each class of metal are consistent only within that particular class of metal. There are no smaller units for gold, indicating that ounce per ounce it was more valuable than silver, as smaller amounts of gold were too small in volume or weight to be used (or possibly even reliably measured). Native gold is also not a good standard weight medium, as the silver content can vary from 5 to 30 percent. Since silver density is much less than gold, this can cause large swings in density in this class of metals. The technology to separate gold from silver is not simple and did not exist in the Old World at the time Lehi left and was not known in Mesoamerica until well after Nephite times, so until one can control the purity of these two metals, they don't make for a good medium in a uniform weight system.

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

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

In relation to the name *Limhi*, some of the names for the gold and silver units were used as personal names elsewhere in the Book of Mormon (i.e., Amnor, 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:

Table 3

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				

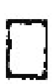
Also shown in the table is the Israelite dry volume measurement sequence, which also follows the Babylonian pattern. The Israelite name for the 24 log dry measure unit is called a "seah," which seems to be linguistically similar to some of the Nephite silver and gold units ("leah," "seon"). The dry measure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

Mosiah$_2$ indicated that he had abandoned much of the previous Israelite system (Alma 11:4), which given the Mesoamerican setting, would indicate the shift from the shekel system to the volumetric Mesoamerican system. The name *Limhi* long predates this change, so it also may be derived from part of the system that was abandoned (likely a residual Jaredite name given its Sumerian etymology). The Israelites still were familiar with and utilized the Egyptian dry-measurement system with the principal unit being the *hekat*, which was discussed previously. The Egyptian royal cubed cubit consisted of 30 hekat, another potential source for the utilization of a hieratic glyph for the number 30. The mark for one hekat in Demotic is a rough match for the Limhi character glyph:

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

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

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



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

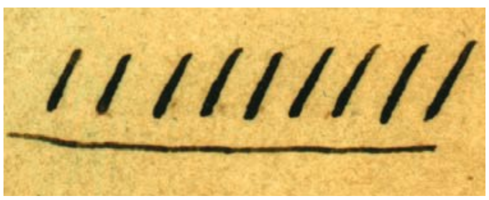
(Brugsch 1898; Vol. 4, p. 1498; www://digi.ub.uni-heidelberg.de/diglit/brugsch1868bd4/0362)

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

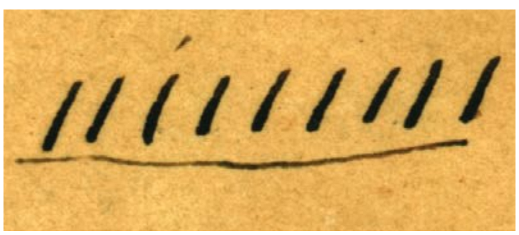
The Number 9 and the 24 Plates Rebus

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

C-47

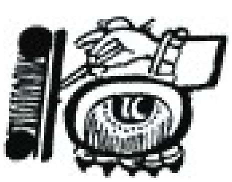


C-58



In context, it clearly does have the numeric value of 9, as the addition of the preceding number 15 gives a total number of 24. Immediately preceding C-58 (C-55 and C-56) are the hieratic/Demotic words “good or pure” and “gold.” The term “pure gold” is only used three times in the Book of Mormon: one for Laban’s sword (1 Nephi 4:9), second to ornament the seats of king Noah$_3$’s high priests (Mosiah 11:11), and the third refers to the twenty-four Jaredite plates recovered by a group sent by Limhi (Mosiah 8:9). It is clear this glyph can have the meaning “9” or “plates,” or both at the same time, a practice we will discover is not uncommon in other Caractors glyphs.

A correspondence in glyph form exists for this character in the Maya language. Below are a few of the Maya glyphs for “scribe,” “he of writing,” and “someone who writes.” While for these two Maya glyphs this part of the glyph has been interpreted as the “someone” or “he of” in relation to the scribe, when that glyph appears separately, at least one instance of it has exactly eight gaps, identical to the 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