Anatolian Hieroglyphs: Logogram vs. Ideogram[1].

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Abstract

The Anatolian Hieroglyphic writing system includes logographic, semi-logographic and phonetic writings. The ideographic and pictographic nature of the signs themselves is contrasted with their logographic function. In the process of extracting meaning from the texts written in this script priority should be given to the logographic aspect of the signs, their capacity to represent words rather than ideas or images. A number of case studies in reading signs of dubious value are pursued to illustrate the methods employed by researchers in reading this script.

Introduction

In this paper I will present a very brief overview of the history of the Anatolian Hieroglyphic script before looking at some of the ways in which the script conveys meaning, or more accurately, the ways in which we as modern readers can gain access to that meaning. I speak from the point of view of someone who is trying to read these texts and much of what I say has

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[1] For the purposes of the following: a logogram I take as any grapheme that expresses a whole word, regardless of which language it is in, eg. 2 = two, deux, zwei. An ideogram is a sub-species of logogram, a grapheme expressing a word, or set of words which are conceptually related, by means of a sign that is itself conceptually related to any word it may express, eg. FOOT = "walk", "stand", "run". These conceptual clusters can vary from language to language. A pictogram does not have to have a lexical realization, although it can do. Any relation between picture and word needs to be situationally and ostensively defined. In all three cases meaning is conventionally established and is defined through use. See WEEDEN 2011: 3-9. One should also note the common use of the term "logographic" in opposition to the term "phonetic", designating a not fully phonetic writing of a word, and the use of the term "ideographic" in theories of writing to refer to non-lexical elements of a text.

relevance only for that purpose. It is my view that the process of reading these texts automatically subordinates those characteristics of a monument that are not lexically realised to those which are. This means subordinating the ideographic and pictographic to the logographic and phonetic. I would contend that the process of reading hieroglyphic monuments as texts involves excluding as far as possible all elements that are extraneous to writing per se, where I understand writing as the notation of spoken word and nothing or very little further.

This sounds old-fashioned in the context of a symposium on *Schriftbildlichkeit*, but it is a methodological principle that I think is only disregarded with a great deal of caution. We are still learning to read these texts and in the process of reading it is important to separate out what they are saying, their lexical realization, from any other facets of the communicative act that is constituted by their creation 3,000 years ago and their rediscovery by us over the last 150 years[2].

The Anatolian Hieroglyphic Writing system was in use in ancient Anatolia from the Late Bronze Age (c. 15th century BC) to the Iron Age (c. 700 BC). During this period the historical cultures that used it were the Hittites, who ruled much of Anatolia and Northern Syria during the second half of the second millennium BC, and the so-called Neo-Hittite states, small to middle-sized territories that existed on the periphery of the great powers of Assyria and Babylonia from the 11th to the 7th centuries BC, as far as they are documented. These Neo-Hittite states occupied an area in Central Southern Anatolia, between the Taurus mountains and the Kızıl Irmak, or just to the north of that, stretching east as far as Malatya, and in northern Syria, with a particularly important centre being at Karkamiš on the middle Euphrates[3].

The repertory of signs that occur in Anatolian Hieroglyphic writing is not unusually large for a logo-phonetic writing system, there being currently some 250 signs, although a definitive list has yet to emerge. Each sign is assigned a number, following the catalogue of signs published by E. Laroche in 1960[4], which included 497 catalogue numbers. There are now some 530 catalogue numbers. Citation of the number is prefaced by an "L" to indicate that one is using Laroche's numeration[5]. Much of the work that remains to be done involves re-assigning sign-forms that have been erroneously catalogued under one sign to the sign with which they in fact belong[6]. We will look at some of the steps and criteria involved in this process below.

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[2]   For the history of the decipherment see HAWKINS 2000: 13-17.
[3]   For the historical and geographical groups constituting the corpus of hieroglyphic inscriptions see HAWKINS 2000: 17-22; 2003: 139-151.
[4]   LAROCHE 1960.
[5]   Another catalogue with different numbering is MERIGGI 1962. Laroche's numbering is followed by the majority of scholars. Occasionally sign-forms not

found in Laroche are to be found in the catalogue of sign-forms for the seals from Boğazköy listed in GÜTERBOCK 1942, e.g. G. 195. The catalogue numbers in that publication are different again.
[6]   The latest catalogue, based on a round-table meeting of scholars at Procida in 1995, is to be found in MARAZZI 1998. A list of signs with bibliographical information is provided by MARAZZI 1990.

Transliteration

As in many logophonetic writing systems, Anatolian Hieroglyphs use signs for whole words (logograms), signs for sounds (phonetic writings) and determinatives. There is little problem with the transliteration of signs that are used phonetically, but the transliteration of logograms has proved problematic. It might be possible to transliterate hieroglyphic texts into the Roman alphabet using exclusively the sign-numbers of the logograms. This means of rendering the text would be slightly difficult to read.

Another option has been to write the word for the concept denoted by the sign in the transliterator's mother tongue using capital letters. However, similar words may have entirely different connotations in different modern languages and this can lead to confusion. For this reason, since the 1970s, a number of scholars have adopted Latin as an international language into which to transliterate logograms as individual words. This does not mean that the inscription is translated into Latin as such, but it does mean that there is an internationally agreed vocalizable word that one can read out in order to identify the logographic sign in question. Some scholars use Sumerian words for this purpose, as Sumerian was the language used for logograms in Hittite cuneiform writing. This practice has the disadvantages of being understood by even fewer people than Latin, and of there being more ambiguity attached to the actual meaning of the Sumerian words in the first place. A further method, sometimes used in concert with the others, is to render the logograms with the Luwian words they stand for, if they are known, in capital letters, usually in italics[7]. Capital italics may also be reserved for logographic writings which have a significant phonetic element, without spelling out the sounds entirely, or at least as completely as the script's conventions allow. Further signs simply cannot be identified, as we have no idea what they are supposed to indicate either as pictures or as words. These have to be transliterated as numbers in any transliteration system. The following example shows two different styles of transliteration for one passage from a Late Bronze Age inscription (13th century BC), Yalburt Block 4:

1) *zi/a-tá-zi/a-pa-wa/i* REGIO-*ní-zi/a* MAGNUS.REX-*zi/a* *HATTI*(REGIO) *a-mi-zi/a* | *TÁ*.AVUS-*zi/a* NEG-*a* REL-*i*(*a*)-*sa-ha* HWI-*i*(*a*)-*tá* [8]

2) *zi/a-tá-zi/a-pa-wa/i* KUR-*na₅-zi/a* UR.LUGAL-*zi/a* HATTI[KUR] *à-mi-zi/a* [K]*TÁ* HUH-*zi/a* *na₄-à* 160-*a/i*(*a*)-*s-ha* 127d-*a/i*(*a*)-*tá* [9]

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[7]   One problem with this method is that it confuses the levels of logographic and phonetic expression. A logogram can render more than one word in one language. Furthermore, the language hiding behind a logogram is not fixed. Without the use of phonetic complements it is impossible to know precisely which language is actually being written. In the case of ancient Anatolia the three most likely candidates for languages to which words expressed by logographic writings belong are Hittite, Luwian and, to a lesser degree, Hurrian. See, for example, HAWKINS 2003: 140; YAKUBOVICH 2008: 12; 2010: 105.

[8]   Transliterated after HAWKINS 1995: 68.

[9]   POETTO 1993: 33.

Bound transcription (approximation):

> *zada*(*n*)*za=pa=wa wadni*(*ya*)*nza uri*(*n*)*zi Hattusasi*(*n*)*zi hantawadi*(*n*)*zi ami*(*n*)*zi tadi*(*n*)*zi huhhi*(*n*)*zi na kwis=ha hwiyada*
>
> "And to these countries, the Great Kings of Hattusa, my fathers (and) grandfathers, no one (i.e. none of them) had run …"[10]

The first example uses minor case italics for phonetically used signs, Latin major case for logograms, which are put in brackets if they have determinative status or are logograms followed by full phonetic writings, and numerals prefaced by a star to indicate reference to the sign's number in the catalogue. The second uses either Sumerian major case or Luwian major case in italics to denote logograms. Determinatives are also written superscript in example (2), and the numbers refer to the entries in Meriggi's list rather than that of Laroche!

Example (1) also uses major case italics for logograms that have a significant phonetic element, e.g. *TÁ* a logographic (abbreviated) writing for Luwian *tadi*(*n*)*zi* "fathers", *HWI* for the sign usually used in the word for "run" (Hittite *ḫuiya-*), whose precise vocalism is not always clear, and which is sometimes used in the late period in place of the relative (L. 329, REL, *kwi/a-*) and in other words that usually contain a /*k*/-sound. This sign was not distinguished from the relative in E. Laroche's entry for L. 329[11].

Development of Writing

Despite the extended inscriptions being exclusively in the Luwian language, it is abundantly clear that Hittite sound-values played a role in the creation of some of the phonetic values of the individual signs, where it is identifiable that the sound-value has been derived acrophonically from a word associated with an ideogram. Thus it is that the sign indicated by a reversed FOOT has the phonetic value *ti* which must be derived from the Hittite word for "to stand", which is *tiya-*, while the Luwian word is *ta-*. The sign which consists of four strokes has the phonetic value *mi*, derived from the Hittite word for "four", *miwa-*, while the Luwian word is *mawa-*[12]. There is some debate about the value of this last sign, *mi*, to which we will return later.

The earliest examples of the use of signs that occur in this writing system are found on seal-impressions that were used to mark property, identity or other forms of exclusivity. Impressions of seals would be stamped onto clay bullae and then attached to objects[13]. Among the earliest cases it is frequently impossible to tell whether the symbol is being used as part of a writing system, i.e. as a means of transporting text, or whether symbols are being used in a manner

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[10] After Hawkins 1995: 69, with slight deviation.
[11] Hawkins & Morpurgo Davies 1993; Hawkins 1995: 75.
[12] See Yakubovich 2008: 25 (Table 2).
[13] For the uses of clay bullae with seal-impressions see Güterbock 1939; Herbordt 2005: 25-39.

that does not correspond to what we might consider to be a text. By text I mean here the communication of somebody's name and possibly their profession. Already this dilemma raises interesting questions about the status of the symbols in this early period. Are they logographic writings for personal names or pictograms denoting objects that the owner wished to be particularly associated with? Similar questions can be addressed to the function of the fortune symbols often found on seals, such as the Egyptian Ankh, "life", or the triangle denoting "goodness". It is not clear that a text as such is associated with these elements[14].

Clearly any text conveys meaning by both linguistic and non-linguistic means, whether it be the footnotes and headings of modern alphabetic writing or the situation and context of public inscriptions. At least by the 13th century BC large display inscriptions begin to appear in Central Anatolia, which also convey connected text, mostly concerned with narration of the genealogy or the exploits of a king, the reasons and circumstances which led to the making of the inscription, and frequently but not always involving public demonstrations. The location of these inscriptions was clearly very important, marking as they often do borders or way-stations on important routes[15].

In Hattusa, the Hittite capital, the two longer inscriptions found thus far are set up in very particular positions, one having a clear funerary function, the so-called inscription of NIŞANTAŞ[16], and the other being apparently related to an underground water cult, the so-called SÜDBURG[17] inscription which was found in a chamber just opposite NIŞANTAŞ. From outside Hattusa in the Late Bronze Age the longest connected text inscriptions are YALBURT[18], which commemorates a Hittite king's campaign against the West of Anatolia, and the EMIRGAZI[19] altars, which appear to be related to the cult of mountains and hunting.

There are numerous peculiar features in these inscriptions when compared to the later Iron Age ones. Firstly they use more logograms, and frequently do not supply the logograms with phonetic complements, e.g. PES (= FOOT) "he went" (YALBURT Block 2)[20]. This is by contrast to the later practice of the Iron Age, when we frequently encounter a logogram followed by a half or complete phonetic writing, e.g. PES-*wa/i-ta* = *awita* "he went" (KARKAMIŠ A1a §18; A1b §15)[21]; ("PES")*á-wa/i-tà* "it came/became (available)" (İSKENDERUN §2)[22].

The Bronze Age inscriptions also frequently show a peculiar use of incomplete phonetic writing: *tu-pi* for *tupita* or *tupiha*, "he" or "I struck" (YALBURT Block 2, EMIRGAZI A, 3); *i-zi/a* for *iziha*, "I did" (SÜDBURG 6). The practice is not attested in the Iron Age. It is almost as though the semantic message has been sufficiently conveyed by the beginning of the

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[14] YAKUBOVICH 2010: 287.

[15] The locations of the Late Bronze Age rock monuments are analysed in ULLMANN 2010, a study which emphasizes their frequently hidden placement and argues against their use as border markers. For a different account see GLATZ & PLOURDE 2011.

[16] EHRINGHAUS 2005: 32.

[17] HAWKINS 1995.

[18] POETTO 1993; HAWKINS 1995: 68-85.

[19] HAWKINS 1995: 86-102.

[20] POETTO 1993: 28, 30, Tav. III; HAWKINS 1995: 68.

[21] HAWKINS 2000: 87-91, 130-133.

[22] HAWKINS 2000: 259.

word, which in fact corresponds to the stem, and it is then no longer necessary to write the endings, which serve only to make the word's position and function in the sentence clear. This can lead to ambiguity in interpretation for us. For the original readers the context would presumably have been clear, possibly because they knew either the exact text or the type of text found in such an inscription. Such a reading-writing praxis would be an example of writing as an aid to memory.

Phonetic complements in the Iron Age inscriptions are usually written after a logogram, identifying part of the word expressed by it or just its ending, and usually only refer to the final elements of a word's phonetic form. However, during the Late Bronze Age, there is the peculiar practice of phonetic complementation to logographic signs that picks up the beginning of the word rather than the end of it: VIR.*zi* = *zidi*- "man", *277.*la*, = *labarna*- "a king's title", MONS.*tu* = Tudhaliya (mountain and personal name). This practice is restricted to only a few words in the Late Bronze Age and again has almost completely disappeared by the Iron Age. Late Bronze Age and Early Iron Age inscriptions also show a phenomenon known as "Initial a-final", where the a-sound from the beginning of a word is written at its end: *mi-sa-a** = *amis* "my"[23]. This disappears in the later Iron Age, leaving a relic in the practice of writing either -*a* or -*i* at the ends of words as a form of punctuation. Comprehensive explanations are not yet forthcoming[24].

Beside the grand display inscriptions it is also clear that some people were using this script for postal communication by engraving hieroglyphic messages on lead. This practice is fairly well documented for the Iron Age[25], but also for the Bronze Age in one case[26].

The Iron Age inscriptions also tend to be grand dominating monuments, either inscribed on stelae, orthostats, statues or rock-faces. The longer texts are generally found on orthostats that lined roads leading into cities or fortresses, interspersed with pictorial representations of a non-textual type. These contexts are surely important for our assessment of the symbolic world inhabited by the people who lived in these places, and may contribute to our overall understanding of the function of the inscriptions. However, to study them is not to study the writing system per se. This is what I am concerned with here. To use slightly old-fashioned critical terminology, it is the message that interests me as a reader of these texts, not the wider code in which it is framed.

One cannot read forgotten scripts without a key. In the case of Anatolian Hieroglyphs the process of learning to read them has been in progress for some 150 years. The most signifi-

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[23] Hawkins 2003: 159-161.
[24] Melchert 2010.
[25] There are 6 lead strips with hieroglyphic letters dated to the 8th century BC, which were excavated in a foundation deposit beneath a house in Assur in northern Iraq (Hawkins 2000: 533-555, plates 306-313). Further lead strips with a very similar writing were said to have been found by locals at Kululu in eastern Cappadocia (Hawkins 2000: 503, plates 286-289; Giusfredi 2010: 185-207).

These are economic documents. A further letter on lead found at Kırşehir-Yassıhöyük has recently been published (Akdoğan & Hawkins 2007-2008; 2010; Giusfredi 2010: 236-239).
[26] Akdoğan & Hawkins 2010. Inspection of photographs of this lead strip provided to me by R. Akdoğan leads me to suspect that there may well be hieroglyphic signs written on it, contra Giusfredi 2010: 203.

cant advances have always been achieved through the use of digraphic texts. These appear for example as those which give us a small cuneiform inscription that runs parallel to a hieroglyphic text expressing the same or similar content. Where names are rendered in each script, for example, we are given a strong indication of what the hieroglyphic sound must have approximated. Most significant were the so-called "new readings" won from hieroglyphic writings of measurements on Urartian pithoi from Altıntepe, which corresponded to cuneiform writings of the same measurements on other containers[27]. These affected the readings of four of the most numerous signs in the syllabary. Their "re-decipherment" affected the identification of the very language used by the inscriptions, which was established as Luwian. Then we have two large bilingual texts, with parallel text in Phoenician alphabetic script. The longest of these contains some 75 paragraphs[28].

Writing and format

Modern theories of writing sometimes refer to non-lexical forms of expression within a text, such as headings, footnotes, paragraphs, as a form of "ideography"[29]. The writers of these inscriptions certainly knew all about arranging their script in order to express as unequivocally as possible what they wanted to say, using non-lexical and non-phonetic means to lead the reader to an understanding of the text. For example, every sign has a particular direction in which it has to stand. If it doesn't face in that direction, it either means something else, or there is something wrong with our interpretation or with the execution. There are various forms of punctuation.

Two little reversed round brackets, which are only used in the later texts, indicate by being written under a sign that the sign is a logogram rather than phonetic; a word-divider is used more or less regularly, such that its status as a word-divider cannot be completely clear in all cases[30]; a personal marker indicates that the following word is a personal name, and three little dots in front of the mouths of animal heads, may indicate a living, breathing non-human being, for whatever purpose. In the case of the personal marker and the three dots indicating the animal it would be difficult not to call these ideographic, in the sense of a non-lexical element of writing outlined above. The other markers, such as direction of the signs, make it clear to us whether the sign is for example functioning as a logogram or a phonogram, or help to aid us as pointers in the process of reading.

The short inscription KARKAMIŠ A1b (fig. 1 and 2) belongs to a lady called Was(a)ti, the wife of Suhi, the Country-Lord of Karkamiš, as she styles herself[31]. It is written in boustrophedon script, which means that the lines follow a spiraling trail. Note how the feet and faces are facing in opposite directions in each line, facing against the alternating directions of script.

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[27] Hawkins, Morpurgo Davies & Neumann 1973. Hawkins 2000: 588-590.
[28] KARATEPE, Hawkins 2000: 45-68.
[29] Raible 1997: 29.

[30] See Hawkins 2011 for the sign's historical development from a logogram marker.
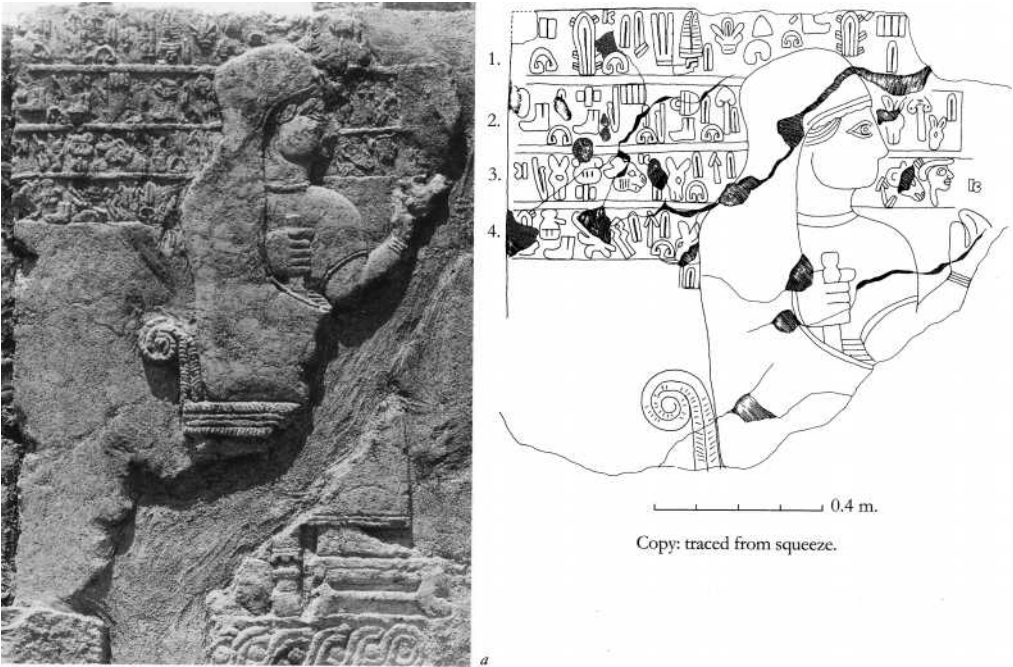[31] Hawkins 2000: 91, plate 8.

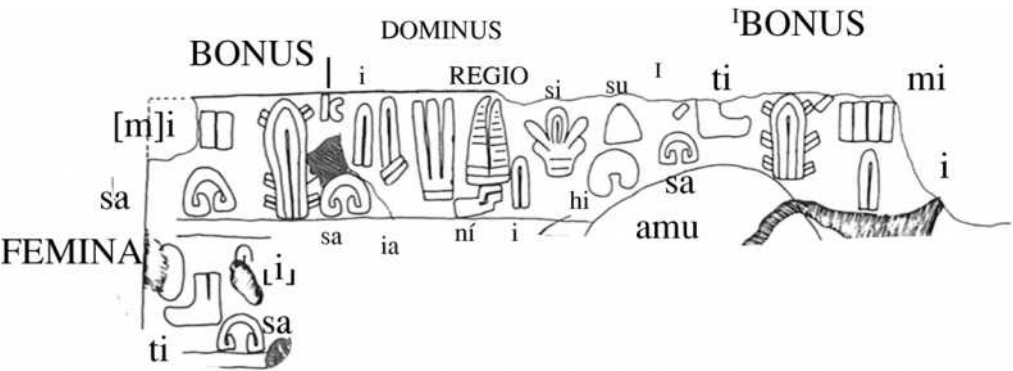Fig. 1: KARKAMIŠ A1b, reproduced from Hawkins 2000 Plate 8

Fig. 2: Detail of KARKAMIŠ A1b, 1 with added sign-values

Clearly the main picture transports a great deal about how Was(a)ti wants to portray herself, showing her sitting in a shawl holding a spindle. This is important information on an iconographic level, but is hardly lexical. However the figure has one feature that shows that it belongs to the script as much as it does to the iconography. The hand that she points at herself immediately indicates that this is not just a picture of her, but a logogram standing for the word *amu* "I". Usually this appears in a far more abbreviated form at the beginning of inscriptions, consisting solely of a head with an arm pointing at it in the same gesture as here. A similar expansion into a whole figure with its arm pointing at its head is found in KAR-KAMIŠ A13d, an inscription of the ruler Katuwa[32].

Thus it appears that the writing and the vehicle used to transport it, the actual form taken by the signs, can be separated out quite well. The writing communicates to us the fact that the pronoun *amu* is being used. The execution of the writing, i.e. the use of the vehicle provided by the sign to carry a statement of whatever the queen wishes to have the world think of her, is something quite different. I would not dare to say what that was without a thorough study of iconographic parallels. Most importantly, however, that message is not lexically realized. The fact that the pointing hand is included, means that there is lexical realization, because this is a logogram. The self-referring hand acts as an index of writing, one might refer to it as a graphic status indicator. For more on this see Aro 2013.

As a parallel, witness also the use of the sign for Stele (fig. 3). The form on the left is the usual form, a box with one or two humps on the left and the arrow type sign, that we usually find appended to objects made of stone and interpret as a chisel of some kind. The form on the right, however, I would not have been able to identify as the sign for stela, Luwian *wanit-*, if the arrow, or chisel, and the two humps had not been there. These features act as signals that we are not in the world of drawing, but that of writing. Presumably the rest of the sign refers in some way to the shape, construction or material of the stele itself,

Fig. 3: The sign for stele

which is clearly not in any way related to the tomb-stone shaped stele on which the stele-sign on the right is found[33].

Returning to the text in fig. 1/2, it is clear that care has been taken in the disposition of the signs over the first line. The sign MI, which consists of four strokes, of which the left hand one is half broken, frames the whole line at beginning and end. The tall sign BONUS again appears symmetrically on either side of the line, once in the name Was(a)tis, once in the epithet wasamis, "beloved" which is clearly a play on Was(a)ti's name. The (folk) etymological play of words is thus iconically reinforced by the double use of the logogram BONUS with this specific and outstanding form. In the middle of the line we also find two large logographic signs, which denote the title of the husband, the country-lord. Such analysis can be extended *ad libitum*. But does it contribute to the meaning in any tangible way?

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[32] Hawkins 2000: 115, plates 24-25.

[33] Taş & Weeden 2010.

KARKAMIŠ A1b, 1:

> EGO-*mi-i* ¹BONUS-*ti-sa* ¹*su-hi-si-i* REGIO-*ní*-DOMINUS-*ia-i-sa* | BONUS-[*m*]*i-sa*
> FEMINA-*ti-i-sa*
>
> *amu=mi Was*(*a*)*tis Suhisi* REGIO-*ni*-DOMINUS-*iais wasamis wanatis*.
> I am Was(a)ti the dear wife of Suhi the country-lord.

The tendency to symmetry is also clearly an organizing principle within the script, in the same way that patterning and subversion of patterning is one hallmark of artistic activity, whether it be poetry, writing or painting. In writing the text they are clearly doing more than simply conveying the meaning. However, for me as a reader of these texts, this element is dispensable. I could clearly understand the text if it was arranged in a different way, using different signs that were not symmetrical. Thus there is a distinction between the writing and the artistic use of the symbols used in the writing. However, on occasion non-lexical aspects of sign-form can be helpful in explaining certain spellings.

The spelling of the name of the Hittite king Suppiluliuma does not have the sound /*mi*/ in it, but always ends with a MI-sign: PURUS.FONS-*MI*, literally "(the one from) the pure spring" (fig. 4). This phenomenon recurs in a number of words and has led to some scholars to posit an extra phonetic value, -*ma*$_x$, so that the sign would in fact be -*mi*/*a*. This is supposed to line up with a number of other bi- or trivalent phonetic signs, particularly: *wa*/*i* and *lu*/*a*/*i*[34]. However, the MI-sign is also used to indicate solely the presence of an /*m*/-sound in at least one sign with no regard for vowel quality. This is the case for the ox-head, BOS. This sign has the phonetic values *u*(*wa*) and *mu*(*wa*). By whatever acrophonic processes these values are derived (Luwian "ox" = *uwa*-), the presence of the four strokes that constitute the sign MI, either written in the jaw of the ox or beneath the head (BOS+*MI*), fixes the phone-

Fig. 4: PURUS.FONS-*MI* = *Suppiluliuma*, SBo I, 1A. Photo M. Weeden, courtesy Ankara Museum of Anatolian Civilizations

[34] Some further writings that can incorporate MI, frequently written in ligature (+), without regard for the vowel quality are OMNIS-*MI-ma-z*[*a*] for *tanima*(*n*)*za*, "all" e.g. KARATEPE Ho §10; AEDIFICARE+*MI-ha* for *tamaha* "I built" KARATEPE Hu §23; (DEUS)LUNA+*MI-sa* for *Armas* "the moon-god" KARATEPE Hu §75; AUDIRE+ *MI-ma-ti-mi-i-sa* for *tumatimis* "famous" KARKAMIŠ A6 §1. A few writings contain MI in the logogram where there does not appear to be an /m/ in the word at all, (SOLIUM+*MI*)*i-sà-nú-wali-ha* for *isanuwaha* "I set up" KARKAMIŠ A1 §16. A number of unknown words also add +*MI* to the logogram: e.g. URBS+*MI*, "city".

tic expression as *mu(wa)* rather than *u(wa)*. While the sign without the four strokes can be either *u(wa)* or *mu(wa)* the one with the four strokes can usually only be *mu(wa)*.

Furthermore, as readers it is in our interest to limit the variability of phonetic values for the signs in the script. We should always assume, as it is almost always the case, that the phonetic signs have discrete and finitely differentiated phonetic values. If they cease to have discrete values, that is due to concrete reasons which could be accounted for in terms of phonological developments and the corresponding attempts to adapt traditional writings in order to keep pace with them.

Thus, rather than propose a further phonetic value for MI, it seems more prudent to assume that it was deployed in certain circumstances due to its symmetry. It assumed the character of what J.D. Hawkins has called a phonetic indicator, as opposed to a phonetic complement, indicating only the presence of an /m/, with the i-vowel being disregarded[35]. This half-phonetic or even half-logographic use of a phonetic sign would appear to be one case where the iconic use of the script has influenced the spelling convention.

The logographic aspect of the ideogram

The "ideographic" elements we have discussed until now have been largely dispositive, of use for determining the status of a symbol, the direction of the script and the associated identification of the individual signs in the script. These are issues that are parallel to questions of layout in a modern text. It is further necessary to approach the question of the usefulness of depiction in the form of a logogram and thus the alleged pertinence of the term ideogram in the discussion of logographic writings.

The sign L. 318 (fig. 5) is frequently interpreted as a logogram. It is thought to be an ideogram representing an axe. It has long been held to be a logogram for the Hurrian storm-god Teššub. The storm-god's name, in this form, is always written with this "logogram", L. 318 with the phonetic complement *-pa*, thus *TEŠŠUB-pa*. Supposing that the ideogram depicts an axe may make some sense, but requires that

Fig. 5: L. 318 = *TA/ES(U)*

the reader conjure up a mythological background that associates the storm-god Teššub with axes to such a degree that he would be represented by them in the writing system.

Here it is important to look at further contexts in order to try to work out what they have in common, irrespective of whether L. 318 is supposed to represent an axe or not (fig. 5). The first three examples in fig. 5 all occur on seals in combination with the phonetic element
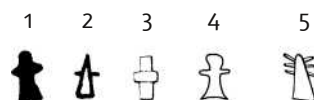
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[35] Hawkins 2000: 28. I. Yakubovich also uses the term phonetic indicator to refer to the use of MI in these circumstances (Yakubovich 2010: 289, 291 fn. 102), but transliterates (-)*MA_x*, following Güter-bock 1998: 203. As the value /ma/ for the sign MI has only been posited in order to explain the reading in such exceptional circumstances I would prefer to retain the MI in transliteration.

-*pa*, writing the names Šarri-Teššub (fig. 5.1-2 = SBo I 39A, 41) and Tehi-Teššub (fig. 5.3 = BoHa 22, 453). The fourth occurs in a name written on several seals from Kaman-Kalehöyük, preceded by the regular logogram for the storm-god, TONITRUS, representing Luwian *Tarhu(nza)*, without phonetic complement (fig. 5.4 = YOSHIDA 1999 Abb. 3 name 1, Abb. 4, Abb. 6). The fifth example is written in ligature with the sign -MI and writes the first element of the Hurrian name Tašmi-Šarruma, as is now suggested for the royal seals of the recently published Nişantepe corpus[36].

In the case of the Kaman-Kalehöyük example, a person's name that consists of names for the same god in two different languages, e.g. Zeus-Jupiter, would be strange in Hittite or Luwian[37]. If we forget that this is supposed to be an ideogram with a fixed meaning, "TEŠŠUB", we can look again at what the contexts have in common. Each permits a comprehensible rendition involving the sound TA/ES(U). Clearly *Tašmi* is simply phonetically written. *Tas(u)-pa* becomes simply a spelling for the name *Teššub*, and *Tarhu-dassu*, meaning "strong like Tarhu(nzas), Tarhu(nza)-strong", although not directly attested, is a credible interpretation of the name rendered at Kaman-Kalehöyük by TONITRUS-L. 318. Tentatively proposed parallels in name construction might be such as *Hantidassu*, "very strong", and *Suppidassu*, "pure-strong", although the last is a name for a body of water[38]. In each case the use of L. 318, far from being logographic, must be a phonetic employment of the sign.

It may well be the case that L. 318 is a pictogram of some kind that would be immediately transparent to anyone reading the script in 1300 BC. It is, however, precisely this information that we need to disregard in the attempt to read the script. It may even be the case that this ideogram was associated with a Hittite or Luwian word that gave its sound to the sign and allowed it to be used in different contexts than those immediately associated with the ideogram. This is what is commonly called a rebus writing, or the phonetic use of a logogram. There are in fact words that suggest themselves[39]. In all cases, however, we are left to reconstruct cultural complexes of which we know nothing, to create our own mythologies for understanding these texts. This should be avoided as far as possible.

In the case of L. 318 we deduced the function of the sign in the writing system (phonetic, possibly rebus) from comparison of the types of names it was used to write and recognition of the fact that they might contain an element with a similar phonetic shape. In a further case, which remains highly disputed, the tentative identification of the object, or at least of the basic characteristics of the shape, help us to connect one attestation of one sign, where neither phonetic nor logographic value is known, with an apparent variant writing of an entirely

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[36] HERBORDT ET AL. 2011: 101-102.

[37] As pointed out by Alexandra von Lieven during the discussion after this paper at the workshop, names consisting of the same god in two languages are attested in other areas and periods.

[38] *A-NA* ᵀᵁ́ᴸ*šu-up-pí-ta-aš-šu-ú-i-ia* KUB 20.99 ii 14, 20, 22. See also Tarhuntassu (CORTI 2007: 114-5).

[39] The Hittite word *ates*(*sa-*) "axe" is an inspired but

tricky candidate for an acrophonic derivation (suggestion R. Oreschko, discussion at symposium), due to the necessity of assuming aphaeresis in the Late Bronze Age to account for the sign's phonetic value. Aphaeresis is not attested with certainty in Luwian until the late 9th and 8th centuries BC. Primacy has to be given to comparative positional use rather than to an alleged genealogy of meaning.
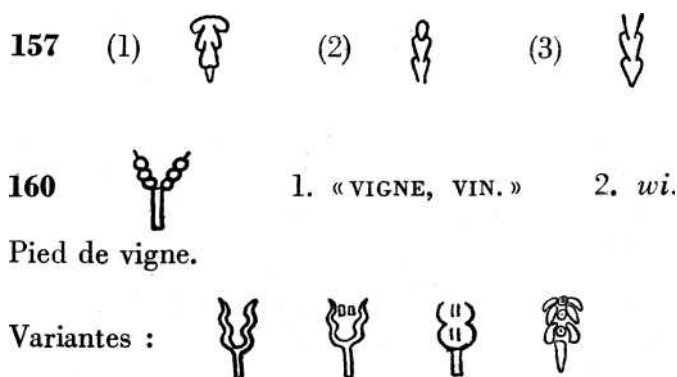
Fig. 6: L. 157 and L. 160, from Laroche 1960: 85

separate sign, of which the phonetic value is known. This phonetic value then makes sense in other attestations of the first sign[40].

E. Laroche in his catalogue of hieroglyphic signs, *Les Hieroglyphes Hittites* (1960), included under the entry number L. 157 three unidentified but similar looking sign-forms (fig. 6). Under catalogue number L. 160 he booked sign-forms that depict a vine and can be read as Hitt./Luw. *wiyana/i-* "wine, vine", or with the phonetic value *wi(ya)*. In 1972, S. Alp proposed that three seals and seal-impressions containing a sign very similar to L. 157 (see fig. 7 no. 5, 6, 8) and other examples containing signs very similar to L. 160 were all using different forms of the same sign, essentially denoting a title, which he understood as an equivalent of Mesopotamian ᴸᵁSUKKAL, "vizier"[41].

Alp also identified L. 157.1 as a ligature of L. 157 with the volute-shaped sign L. 363 "great"[42]. Further to this, B. Dinçol (1998) suggested that L. 157.1 was in fact a ligature of L. 363 (MAGNUS, "great"), with L. 160 (VINUM/VITIS, "wine, vine"), giving the reading "MAGNUS VITIS", "Great Wine", a title which finds an exact correspondence in cuneiform GAL GEŠTIN, similarly "Great Wine". This is made all the more probable in that the seal on which L. 157.1 occurs is that of Halpaziti, who is himself attested in a cuneiform document as a GAL GEŠTIN during the reign of Arnuwanda I[43]. She suggested that the

[40] I am grateful to J.D. Hawkins for discussing the following issue with me.

[41] ALP 1972. The reason for the suggestion of the cuneiform correspondence was the appearance of the sign next to the figure of the Janus-headed god Usmu, Hittite Izzummi, on a seal kept in the British Museum (ALP 1972: figure 7-8; ALEXANDER 1973-1976: plate IV figure 7). In Mesopotamia Usmu was the ᴸᵁSUKKAL, "vizier", of the god Ea. The identity of the sign-forms belonging to L. 157 and L. 160 is qualified on p. 100: the last four sign-forms (i.e. ALP 1972: figures 4-9) "show similarity

among themselves and are a little different from the preceding ones" (my translation). Alp does not mention L. 160 explicitly. YOSHIDA 2006: 156 fn. 28 allocates the sign-forms in Alp's figures 4-9 to L. 160, correctly in my view.

[42] ALP 1972: 101. The volute-shaped MAGNUS would be at the top of L. 157.1. Removing it leaves a sign with an open top.

[43] SBo II (GÜTERBOCK 1942) 58; KBo 5.7 rev. 51; DINÇOL 1998: 165-167. The seal's form and decoration also correspond to this dating.

L. 157

| K-K Yoshida 2006: Abb.7 | K-K Yoshida 2006 Abb.10 | Bo. 834/w | Gulbenkian 104 | Alaca 4 Alp fig. 2 | Alp 1972 fig. 1 | K-K Yoshida 2006 Abb. 9 | SBo II 256 Alp fig. 3 | K-K Yoshida 2006 Abb. 8 |

L. 209

Yal. Poetto 1993 Tav. XV   Mal. inscr. 4   inscr. 5

Fig. 7: L. 157 = L. 209 = *i(a)*?

sign-forms of L. 157 were divided into upright and upside-down forms and further accepted the possible equation of L. 157 and L. 160[44].

The main distinctive features of the sign L. 160, essentially a depiction of a vine, are that it is usually open at the top, and that it usually has a kind of stalk at its base. The removal of the volute L. 363 (MAGNUS) from the top of L. 157.1 shows that it undeniably belongs to L. 160 and adheres to this pattern. L. 157.2 (fig. 7 no. 5), on the other hand, does not correspond to this pattern, being open at the bottom, closed at the top and not having a stalk. It corresponds far more to the signs cited by Alp in his figures 1-3 (here fig. 7 no. 5, 6, 8). These forms, with their closed tops and usually open lower ends, find close correspondences with signs found on a series of seal-impressions from Kaman-Kalehöyük[45] and also on recently published seals from Boğazköy[46], which have also been classed along with L. 157.2 and L. 160[47]. Attention should also be drawn to a seal from Tarsus and a further seal in a British museum collection[48].

[44] DINÇOL 1998: 165-166; YOSHIDA 2006: 156. H.G. Güterbock (BOEHMER & GÜTERBOCK 1987: 46) had assumed that L. 157 was WEIN, phonetic *wi*, and suggested (ibid. 63) that it may be identical with L. 160.

[45] Fig. 7 no. 1, 2, 7, 9. YOSHIDA 1999: 186, 193 (Abb. 2-3) central name and name no. 12, 196 (Abb. 12-13); YOSHIDA 2006: 154-157 Abdruck Nr. 6 (Abb. 7), Abdruck Nr. 7 (Abb. 8), Abdruck Nr. 8 (Abb. 9), Abdruck Nr. 9 (Abb. 10).

[46] DINÇOL & DINÇOL 2008 (BoHa 22) no. 14, 129, 194, 241, 292. The signs on the left in each of BoHa 14/2, no. 122 and 170 (BOEHMER & GÜTERBOCK 1987)

are the normal dextroverse Late Bronze Age form of *a* (L. 450), possibly in "initial a-final" position, and are thus not related to L. 157, *pace* BOEHMER & GÜTERBOCK 1987: 46, 63; YOSHIDA 2006: 156 fn. 28; DINÇOL & DINÇOL 2008: 20.

[47] For Kaman-Kalehöyük YOSHIDA 1999: 186 mentions a similarity of the sign to grapes; provisional acceptance of the connection L. 157.2 = L. 160 is to be found at YOSHIDA 2006: 155f. with cautious skepticism in fn. 30. For Boğazköy see DINÇOL & DINÇOL 2008: 20, 37, 46.

[48] Tarsus: GOLDMAN, MELLINK, GELB & MATSON 1956 plates 404, 408 no. 63 (= MORA 1987 IIb

Signs only usually change their orientation when the script changes direction. Otherwise they mean something different. There are some minor exceptions, with unmistakable signs: e.g. AURIGA, "charioteer" which is written at a right-angle when used as part of the name *Hahla-tarupasani*(?) at BoHa 19, 105-107, *Tarupasani* at BoHa 19, 445-447, BoHa 14/2, 207, BoHa 22, 282, 286?; IACULUM [L. 285, phonetic *zu(wa)*] can also be written horizontally (e.g. BoHa 14/2, 196), rather than at an angle or upright. I cannot think of an upside-down use of a sign.

Rather than posit an identity of L. 157.2, Alp 1972 figures 1-3, the Kaman-Kalehöyük, Boğazköy and Tarsus sign-forms with L. 160, attention can be drawn to the form of an entirely different sign on the Late Bronze Age inscription of Malkaya[49]. Here the sign *i(a)* (L. 209) appears in a form that much resembles L. 157.2 and its most direct comparanda, with a closed top and open bottom half. The usual Late Bronze Age form of this sign has two wings on either side, although these are sometimes realized as circles[50]. It is the latter type of sign-form that the forms under consideration should rather be associated with. It is possible that the object thus represented is an "ear of corn", but this information leads us little further[51].

The ensuing readings using L. 209 with a phonetic value *i(a)* all make relatively good sense, but only one of them produces a name which is actually attested in cuneiform documents, thus lending credibility to the phonetic shape of the name. L. 157.2 (Alaca seal 4): *á-i(a)*[52]; KL 93 N-Se 16: *na-i(a)*[53]; KL 93 N-Se 143: x-*i(a)*[54]; BoHa 22, 14b: *ní?-i(a)*[55]; BoHa 22, 129: G.195-*i(a)*; BoHa 22, 194: *á-i(a)-i(a)*[56]; BoHa 22, 241: ⌜*i*?⌝-*ia*; BoHa 22, 292: *i(a)*-VIR.*zi*[57]; Boğazköy 834/w TONITRUS-*i(a)*[58]; Tarsus no. 63: *i(a)-la*?; Gulbenkian no. 104: URBS-*i(a)*[59].

2.2); Gulbenkian Museum of Oriental Art, Durham: Lambert 1979: 32 no. 104 (= Mora 1987 IIb 2.6). Yoshida 2006: 156 fn. 28.

[49] Fig. 7, L. 209 no. 2-3. Hawkins & Weeden 2008. The dating of the inscription to the 13th century proposed in that article on the basis of the fact that there are no such datable rock-inscriptions in earlier periods, is somewhat relativized here. A fourteenth century date is conceivable on the basis of the palaeographic considerations produced here, as well as an attestation of one of the names found at Malkaya in a fourteenth century context (Süel & Hawkins forthcoming), although this same name is also found on thirteenth century seals.

[50] Regular form with wings at (e.g.) Herbordt 2005: 411; with circles e.g. *i-zi/a-ha* YALBURT Block 4, Poetto 1993: Tav. 5. REL-*i(a)-sa-ha* EMİRGAZİ D §30 (Hawkins 2006: 72, fig. 6).

[51] Speculation about which Hittite/Luwian words this value might be (acrophonically?) derived from is perhaps to be discouraged. However, it does appear that L. 157.2 and its related sign-forms may be archaic variants of L. 209, rather than of L. 160. Alp 1972: 99 comments that his three examples belong to the Old Hittite seal-type.

[52] Koşay 1951 plate 78, resim 2, pictures 2, 4 (from

left); Alp 1972 figure 2. Cuneiform *Aya* Laroche 1966: 23, no. 3.

[53] Yoshida 2006: 156 Abb. 8, Abdruck 9; cf. also central panel of KL 94 N-Se 37 and other impressions of the same seal, Yoshida 1999: 193 (Abb. 2-3); Yoshida 2006: 155-7. Two further seals with similar signs at Yoshida 2006: 156-7, Abdruck no. 7, 9. The name is read *na-wi(ya)* at Dinçol & Dinçol 2008: 46; tentatively also (additionally suggesting *Nawiyani*) Yoshida 2006: 156. *Nawi(ya)* would have a possible hieroglyphic correspondent in *na-wà/ì* (BoHa 22, 169; Dinçol & Dinçol 2008: 42), but there is currently no cuneiform equivalent.

[54] Yoshida 1999: 186, 188, 196 (Abb. 12-13); see further ibid. Abb. 2-3, name no. 12.

[55] Dinçol & Dinçol 2008: 37.

[56] *Ayaya*?; Dinçol & Dinçol 2008: 46 *Awiwi(ya)*. Neither of these names is found in cuneiform documents.

[57] *Ea-ziti* (?), i.e. theophoric name-type. Dinçol & Dinçol 2008: 60 *Wiyani*-ZITI*zi*. Neither name is attested in cuneiform documents.

[58] Collated by J.D. Hawkins and M. Weeden, Ankara, October 2007. *Tarhu(nta)ya* or *Tarhunti(ya)*. None of these names is found in cuneiform documents.

[59] The Hittite word for "city" (URBS) is *ḫappiriya-*. The Luwian word is unknown. There is a name at-

As long as the sign-form in question (L. 157.2) does not appear in connected hieroglyphic text where we would normally expect the vowel or syllable *i(a)* any notion of proof in this matter must remain outstanding. Names that are mostly otherwise unattested with phonetic spellings in cuneiform documents under either interpretation are not good enough[60].

I would thus propose provisionally transferring L. 157.1 and L. 157.3 to L. 160, essentially with Dinçol 1998[61], and attaching these other sign-forms to L. 157, with a possible reference to L. 209 (see fig. 7). With the exception of the Malkaya forms of L. 209 and the Boğazköy 834/w form of L. 157, however, the sign-forms in figure 7 have not been collated by the author. A full and final list of forms would also need to include the five from BoHa 22 (see fn. 46) as well as Tarsus no. 63.

It would no longer be necessary to posit that the sign-form, as an upside-down realization of L. 160, is sometimes used as a logogram and sometimes used phonetically. Cases where the sign appears to occur somewhat to the side of the central name, where a professional title might usually occur, can also be compared to cases where the phonetic complement *i(a)* is written to the side of, slightly lower than, and frequently at a slight angle to the name of which it forms the end: Alp 1972 fig. 1: URBS?-*155?-*i(a)*[62].

The one sign-form which does not fit the pattern is to be found in a seal-impression on a pithos: SBo II 256[63]. Here it is clear that the sign-form, which resembles an ear of corn, is found in a position where we are forced to accept a reading as a professional title due to the presence of L. 363 (MAGNUS, "great", Luw. *ura-*) above it[64]. There is no candidate known from cuneiform documents that is likely in this position other than L. 160, the vine, with the cuneiform correspondence for the rank of the person being GAL GEŠTIN, "Great Wine"[65]. One can only assume that a mistake has crept in. While the sign-form looks like an ear of corn, and belongs visually with L. 157, it appears to be functioning in the same way that the vine (L. 160) does. It is the position and what one expects to find there through numerous comparisons that are more important than what the actual sign looks like. The only other

tested in cuneiform ¹*Ḫapiri*, spelled ¹*ḫa-pí-ri* (HKM 48 obv. 3), ¹*ḫa-pí-ri-in* (ibid. obv. 5, accusative). Could this be a hieroglyphic spelling of this name? The cuneiform name is unlikely to be related to the Hittite word for "city" etymologically, due to the single writing of the /*p*/.

[60] For some of the criteria used in assessing the likelihood of the phonetic shape of a name's reading on Hieroglyphic seals, see Weeden 2013.

[61] Also Yoshida 2006: 156 fn. 28.

[62] Mora 1987: XII(b).1.76. On the other hand, the professional use of the sign could be compared with SBo II 256, see below.

[63] The alleged "deciphering" of the name on SBo II 256 in Massi 2010 is not accepted here. For a different view of one of the signs other than the title to the right see Alp 1972: 101 ("prince"). The main elements are essentially unreadable at present.

[64] Alp 1972: 99 points out a similarity between L. 157.2, the sign on the right in Alaca Seal 4 (his figure 2), and the sign designating the title in SBo II 256 (his figure 3). The alleged presence of both L. 157.2 and L. 160 stamped on the same vessel (Seidl 1972: 41, A152), which is asserted to be a proof of the two sign's identity in Massi 2010, does not appear to be very credible. I would hesitate to call these vessel markings writing in the first place (Glatz 2012). Furthermore, the symbols that are supposed by Massi to be different appear to be merely the same drawing reproduced antithetically for reasons of symmetry.

[65] Dinçol 1998: 165-166.

conclusion, excluding an upside-down variant of L. 160, could be that it is a different but otherwise unattested title ("Great Corn"?) and does not belong with L. 160 at all.

The impetus for this transfer of L. 157.1 and 3 to L. 160, and for the retention of L. 157.2 under a separate lemma, comes from recognizing certain fundamental shared properties between the shapes of signs. We might theorize that the one sign (L. 160) represents a vine, and that the other (L. 157 and L. 209) essentially represents an ear of corn. These identifications may help us to navigate our way among the sign-forms, in the same way that we can tell the difference between bottles and flasks without every bottle or flask we encounter being identical in all its attributes to any particular bottle or flask that we have met in the past. However, it is not until we encounter the sign-form in a lexically or phonetically transparent context that we are able to make any real sense of it, either to understand what group of signs it belongs to in a pictographic sense, nor to comprehend the role it plays in the writing system, whether as a logogram or phonetic element. It may sound banal, but the essence of the writing is the words.

Concluding Remarks

As a rule of thumb I would want to cling to the following principle. The ideographic and pictographic interpretation of the individual signs has to be irrelevant to the interpretation of meaning. It is the context and function in a written context that matters to the reader of the text, the use of the sign in its writing system, where its function is defined by its position, its combination with other signs. This is not to say that we cannot use an ideographic or non-lexical interpretation of a sign when we have nothing else. It is frequently the case that this is all we have to guide us. I would argue, however, that this level of interpretation has to be secondary to that of lexical realization. That means that I am seeking to interpret phonetic signs and logograms as a means of conveying text. As a reader of these texts I want to know what they say, not the general conceptual area in which they function. Interpretation of ideograms on a non-lexical level can help me to arrive at that goal, although it may also lead me down blind alleys.

We have seen however, that there are levels of non-lexical arrangement and a suite of prompts in this writing system, without which it would not function. These correspond to the functions fulfilled by layout in modern alphabetic texts, which are referred to as "ideography" by modern theorists of writing. We have repeatedly mentioned the direction of the script and the direction and orientation of the signs within that script. There are such things as the requirement for symmetry, a persistent although not necessary use of this writing, that can help us to make up our minds as to how to interpret issues of grapheme-status. There are status-indicators that help us decide whether something is an element of script or simply a drawing, the hand pointing at herself and the humps and "chisel" on the stela. I am sure the experience of these monuments was and can be multi-facetted. My foremost interest is to be able to read them properly.

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