HITTITE LOGOGRAMS

STUDIES IN THEIR ORIGIN AND DISTRIBUTION

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ABSTRACT

The current thesis addresses the use and origin of logograms in Hittite cuneiform, be they of Sumerian or Akkadian origin. It is intended as a contribution to the history of Hittite cuneiform writing. It is divided into four parts and an introduction.

The introduction deals with issues of definition, education, palaeography and textual criticism as key factors in establishing contexts for logographic writings. Part One addresses the context of the origin of Hittite cuneiform and the framework of scribal education at Hattusa, with particular attention to the lexical lists.

Part Two investigates selected logograms as they are used in the "Historical Texts", touching on issues of reading, dating and relationship to the rest of the cuneiform world. An appendix (I) provides a catalogue of all logograms occurring in a substantial number of historical texts.

Part Three investigates further selected logograms, that are characterised either by being restricted to Hittite cuneiform or by being used differently in Hittite cuneiform to Mesopotamia. An appendix (II) provides a catalogue of all logograms that are defined as being thus different to Mesopotamian usage, as well as a documentation of attestations for most of these.

Part Four presents summaries of general themes arising from the previous chapters: the phonetic pronunciation of logograms, the Akkadian of the Akkadograms, palaeography and orthography and the lines of transmission leading Hittite cuneiform culture to Hattusa in as far as it is possible to ascertain these.

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FOREWORD

This dissertation was begun at SOAS under the supervision of Professor J. David Hawkins. After his retirement I was privileged to find a willing supervisor in his successor at SOAS, Dr. Daniel Schwemer, while Professor Andrew George was the official supervisor during the transition period. To all of these I am sincerely grateful for the support they have given me.

This is a large topic, and where I have run into difficulties I have not been afraid to ask. I have benefited from discussion with numerous scholars on the topics treated here during the last three years, all of whom have been generous with their time. Among these I would like to thank in particular I. Singer, J.L. Miller, J. Klinger, G. Wilhelm, N. Veldhuis, J. Taylor, Y. Cohen and H.C. Melchert. Any mistakes or misinterpretations are of course my own responsibility.

I visited the Forschungsstelle Hethitologie of the Akademie der Wissenschaften in Mainz three times during the course of this work to use the card catalogue and the photo collection, and am very grateful to G. Wilhelm, J.L. Miller, S. Košak and Chr. Rüster for their hospitality during my stays. One of these visits was paid for by a grant of £500 from the Central Research Fund of the University of London.

I also visited the Near Eastern Department of the State Museum in Berlin twice in order to collate tablets, and would like to thank J. Marzahn and his team for their facilitation of my visits.

A further resource that has been available to me has been the card-catalogue of O.R. Gurney, which J.D. Hawkins kindly allowed me to use.

ABBREVIATIONS

Bibliographical:

AHw. *Akkadisches Handwörterbuch. Unter Benutzung des lexikalischen Nachlass von Bruno Meissner*, vol. I-III, W.F. von Soden, Wiesbaden, 1965-81.

CAD: *Chicago Assyrian Dictionary*, published by the Oriental Institute, Chicago, Illiinois, U.S.A, 1956 - ongoing.

CHD: *Chicago Hittite Dictionary*, as above, 1980 - ongoing.

CTH: *Catalogue des Textes Hittite*, E. Laroche, Paris, 1971.

GAG: W. von Soden, *Grundriss der akkadischen Grammatik. 3. ergänzte Auflage unter Mitarbeit von Werner R. Mayer*, Rome, 1995.

ePSD: *Electronic Pennsylvania Sumerian Dictionary* http://psd.museum.upenn.edu/epsd.

HWb²: Friedrich, J., Kammenhuber, A., Hoffman. I.: *Hethitisches Wörterbuch: Zweite, völlig überarbeitete Auflage auf der Grundlage der edierten hethitischen Texte*, Heidelberg, 1975 - ongoing.

HZL: *Hethitisches Zeichenlexikon. Inventar und Interpretation der Keilschriftzeichen aus den Boğazköy-Texten*, Wiesbaden, 1989.

Konkordanz: S. Košak, *Konkordanz der hethitischen Keilschrifttafeln*, at www.hethiter.net.

MSL: *Materials for a Sumerian Lexicon*

MZL: R. Borger, *Mesopotamisches Zeichenlexikon*, AOAT 305, Ugarit-Verlag, 2003.

PSD: *Pennsylvania Sumerian Dictionary*, A. Sjöberg et al. vol. 1 (A), vol. 2 (B), 1984.

StBoT: *Studien zu den Boğazköy-Texten*, Wiesbaden, 1965 - ongoing.

Technical:

OS Old Script	ah "althethitisch" in S. Košak's
MS Middle Script	*Konkordanz*
NS New Script	jh "junghethitisch" id.
ENS Early New Script	mh "mittelhethitisch" id.
LNS Late New Script.	sjh "sehr-junghethitisch" id.
OB Old Babylonian	GN Geographical Name
MB Middle Babylonian	PN Personal Name
NB Neo-Babylonian	DN Divine Name
OA Old Assyrian	CV(C) Consonant-Vowel(-Consonant)
MA Middle Assyrian	ms. Manuscript
NA neo-Assyrian	

INTRODUCTION

0.1 General Background

The Hittites inherited the cuneiform script ultimately from Mesopotamia, although the precise date and manner of this transfer are essentially unknown[1]. They used it over a period of some 400 years through the middle of the second millennium, not only to write their own language, but also to write in the Akkadian language, which served as a *lingua franca* of international diplomacy and commerce during that period. Further to this, the archives excavated at their capital city of Hattusa, modern Boğazköy but today Boğazkale, contain documents in a number of other languages: Sumerian, the language for which the cuneiform script was invented and which formed the basis of scribal education in Mesopotamia; Hurrian, the language of the Mittani Empire which flourished during the early 14th century BC; Hattic, most probably the language of the pre-Hittite inhabitants of Hattusa; Luwian, a language closely related to Hittite originating in the West of the kingdom which gained ascendancy in the whole of the Hittite dominated area of Anatolia towards the end of the Hittite period; and Palaic, an older Anatolian language related to Hittite which had almost certainly died out by the beginning of the period covered by the archives[2].

This was an intensely multi-lingual scribal environment, and awareness of the difference between different languages, even when they are closely related, is displayed by the tendency to write Luwian words with a single or double diagonal wedge (or *Glossenkeil*) before them towards the end of the period, although the precise significance of this remains obscure[3]. It should be noted, however, that these *Glossenkeilwörter* do not include the Sumerian and Akkadian words used as logograms or otherwise in Hittite texts. The characterisation of a Sumerian word in a Hittite text with a *Glossenkeil* indicates almost without exception that the underlying word is Luwian rather than Hittite[4].

Adaptations made to the syllabic values of the cuneiform writing system as opposed to that current in Mesopotamia, either by the Hittites or by their predecessors in the line of transmission, conform to a certain general framework. The number of possible phonetic

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[1] Hypotheses range from an adoption of the script during the Syrian campaigns of Hattusili I around 1600 BC to an adoption from a Syrian cuneiform culture using Old Akkadian orthography nearer the beginning of the second millennium BC. The evidence is reviewed in Part I.1.

[2] For a recent overview of the languages of Hattusa, see Vanséveren 2006: 5-11.

[3] For a summary of the discussion and proposal to see *Glossenkeilwörter* as taboo words see Zorman 2007: 753-769.

[4] e.g. Starke 1990: 478f. with fn. 1752; None of the logographic writings listed in Melchert 1993: 286-293 are supplied with a *Glossenkeil.*

readings for an individual cuneiform sign is drastically reduced. While polyvalence is a defining characteristic of Mesopotamian Akkadian cuneiform of all periods, the Hittite cuneiform syllabary generally eschews it. This has never been systematically investigated. We may mention here[5]:

Sign	Mesopotamian value	Hittite value
PI	*pi, wa, we, wi, wu, à*	*wa*
NE	*ne, dè* (etc.), *bí*	*ne*
BAD	*be, mid^{tt}, pít, pát, til, ziz*	*pát^d, pít^d, pè, pì*
RU	*ru, šub*	*ru*
UD	*ud$^{t/t}$, u$_4$, tam, tú, pir, par, ḫiš*	*ud^t, pir*

The Hittites developed other means to write the sounds that were not represented by the sign-values they used. Apart from the obvious replacement of CVC values by CV-VC constructions in the older stages of the script, we also find that care was taken to distinguish in writing the various values of PI. Thus *we/wi* was written *-ú-i/e-* in Hittite texts, while the signs *we$_e$*, *wi$_i$*, *wu$_ú$* were invented for texts in other languages by placing a tiny subscript sign under the horizontal of PI in order to clarify its vocalism. This last innovation is restricted to the writing of foreign language texts, notably Hurrian and Hattic. Clearly the Hittite scribes understood what was meant in their own language, but needed to clarify the matter for words written in a foreign language. This phenomenon alone displays not only a surprisingly modern tendency to systematise according to discrete units of signification, but also a remarkably conscious approach to the writing of foreign languages. This is partly explained by the largely cultic and thus linguistically prescriptive nature of the majority of contexts in which Hattic and Hurrian phrases occur in Hittite texts.

0.1.2 Logograms, Ideograms, Allograms.

The cuneiform script as imported from Mesopotamia distinguished between signs representing syllables and signs representing words. The latter are called logograms in the following work. This is done in order to allow the investigation to proceed in as neutral a fashion as possible, without prejudicing the issue from the beginning through choice of terminology. A logogram is simply a sign or word that is written to represent

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[5] Mesopotamian Akkadian phonetic values taken from von Soden/ Röllig 1976. Hittite phonetic values rely on HZL. See also Vanséveren 2006: 23-26.

another word. This is opposed to an ideogram, which is a symbol representing an object used in a writing system to represent that object and the word for it as well as semantically related concepts[6]. The cuneiform script partially developed out of ideograms that were gradually formalised out of all resemblance to that which they were supposed to represent. The use of phonetic elements is, however, attested from the very earliest stages of the script[7]. There can be little question of the Hittites having understood cuneiform signs in an ideographic or pictorial manner. Can the logographic signs in Hittite be said to have been used as words in their own right, meaning that they were perceived as functioning elements from a different language, i.e. Sumerian or Akkadian? This question is addressed in Part IV.1

While an ideogram cannot be used to represent anything other than the object it refers to iconically, for example a FOOT, or an activity or concept connected with that object, such as WALK, a logogram is not conceptually bound in this way. It stands for a word, not a thing, and can thus be used more flexibly. The process of development from an ideographic to a logographic system of denotation, and simultaneously to the establishment of syllabic values for signs based on the words rather than the things they represent is one defining constituent of the distinction between writing and pictorial representation[8]. The logogram and the ideogram should thus be kept entirely separate[9].

One typical extension of the use of a logogram involves rhyme-formations based on similarity between the word represented by the logogram to other words in the language. A good example of this is the once frequent French writing of the word "cassette" as K7, for "ka-sept", at least when the product thus denoted was still widely distributed. Similarly we can observe similar abbreviation practices in mobile phone communication or "text-messaging", for example "2u" for "to you".

This is called a rebus writing in Ancient Near Eastern Studies. An excellent example from a late tablet (from Uruk) in Standard Babylonian is the use of the Sumerian word for "river" (Sum. íd, Akk. *nāru*) to represent the third person singular (S3) stative of the Akkadian verb *nâru*, "to strike, kill" with the meaning "it is struck, killed" (Akk.

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[6] Gelb 1963: 35, 65, against the use of the term "ideogram" in Oriental Studies.
[7] Glassner 2003: 101.
[8] For criticism of an approach which sees the origin of writing in pictorial representation see Glassner 2003: 49-53.
[9] Many recent publications still refer to "ideograms" when discussing logographic writings: Christiansen 2006; Miller 2004.

nāru)[10]. It is thus important to keep the terms "logogram" and "ideogram" separate for pragmatic reasons. A logogram can represent a semantically wholly unrelated word.

Akkadian texts in Mesopotamia used Sumerian words as logograms, or heterograms, to denote Akkadian words. The difference between calling this use of Sumerian "logographic" or "heterographic" depends on whether we interpret the Sumerian sign as a means of writing only the Akkadian word, or whether it is a peculiarly Sumerian way of writing the Akkadian word, the selection of which would have indicated an intention on the part of the writer, perhaps to signal a particular stylistic register. In the latter case we need to call them Sumerograms. Sumerian words are generally monosyllabic, which speaks in favour of abbreviation as a selection criterion, but the signs for them are are often very complex. Furthermore, it is far from clear whether and, if so, in which cases, the Sumerian words used as logograms in Akkadian texts were always pronounced as the "underlying" Akkadian word or as the Sumerian one.

The earliest evidence for Akkadian, in fact, comes from texts of the mid 3rd millennium from Fāra and Abu Ṣalābikh, which are written almost entirely using Sumerian words as logograms, but for which the underlying language is made clear by the writing of prepositions and various other particles in Akkadian, as well as the occasional use of Akkadian word order for the Sumerian logograms[11]. The use of Sumerian signs as logograms in Akkadian texts continued throughout the history of cuneiform writing, with the development of Akkadian phonetic complements to indicate the reading. These are rare in Old Babylonian literary texts, but become more frequent towards in the first millennium, when knowledge of Sumerian had died out:

Gilgameš OB II 52[12]:   SB I 206[13]

is-sà-qa[r-am] a-na ^{d}*en-ki-du*$_{10}$ =   [^{f}*ḫa-rim-tu a-n*]*a šá-šú-ma* mu^{ra} ...

"she speaks to Enkidu"   =   "[the harlot] speaks to him..."

In OB letters and other everyday documents, on the other hand, phonetic complementation is already very frequent.

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[10] *ki-ma ṣe-ri šá qaq-qa-su* íd(*nāru*) *i-te-eṭ-ṭi* "(his head) kept going dark like a snake whose head has been struck", von Weiher 1983: 23, l. 62; 239 ii 62.

[11] George 2007: 37f.

[12] OB Pennsylvania Tablet (PBS I/3), George 2003: 174.

[13] Mss. B and P from Nineveh, George 2003: 550. mu^{ra} = *izakkara*.

While it is clear, on one level, that logographic writings in a poetic Akkadian text are used as means of writing the Akkadian words of the underlying text, there is some evidence to suggest that at another level, even in texts such as these, Sumerian signs were at least occasionally phonetically pronounced[14]. Whether this is happening at the level of dictation, or as an error in the individual scribe's education that has slipped into the copying process, is practically impossible to gauge. The semiotics involved here are extremely complex. The Sumerian sign is used to denote an Akkadian word, but at the same time remains a Sumerian sign, with a Sumerian sound, along with whatever further associations may have been attached to it by the scribe's education.

Such multi-faceted semiotic relationships are well embraced by the comparatively modern linguistic and semiological distinction between "code" and "message". Thus the denotative semantic function of the graphic elements, their "message", also expresses meaning on the superordinate level of the relevant linguistic and cultural code in which they appear. The latter includes connotative rather than denotative semantic elements. This has been expressed by linguists and semioticians in various fashions over the last half-century[15]. While it is a theoretical view-point which may well accommodate the complex semiotics of partially logographic and ideographic writing systems, it is deemed to be of little use in the present investigation as anything other than general background. The information on the cultural context is so fragmentary and biased by the nature of the sources, that only a philological approach to the material can bring advances at this stage.

The tension between a logographic interpretation of the Sumerian sign, meaning that it is solely representing the Akkadian word, and the heterographic or Sumerographic interpretation, meaning that the Sumerian value is indicating meaning in some way, is

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[14] Such writings are extremely rare in later tablets. Possibly one should include here SB Gilgameš I 198, which may have a "phonetic" writing ZU-*šu* in ms. B, as opposed to the correct logographic writing in ms. P: SU-*šu*, both for Akkadian *zumrīšu* (ms. n: *zu-mur-i-*[*šú*]). This may, however, have been merely the omission of a single wedge by accident, but the scribe of B does not otherwise make such mistakes. In the OB period evidence is more plentiful, especially in areas of the cuneiform "periphery". See for example kù.zi for kù.sig$_{17}$ (KÙ.GI) at Mari, and elsewhere in Akkadian texts, under Borger MZL II 745 (p. 195).

[15] The best theoretical model to accommodate such semiotic complexity is that developed by R. Barthes as a reaction to the sign-theory of Ferdinand de Saussure, building on the linguistic work of R. Jakobson. Barthes essentially allows for an interplay of two theoretically separate levels of analysis: the paradigmatic (or vertical) and the syntagmatic (or horizontal). While the paradigmatic level functions on the level of selection, what could have stood in a sign-sequence instead of any given sign, the syntagmatic level refers to the level of combination with other elements of the sequence. By allowing semiotic value to paradigmatic associations of elements in sign-sequences Barthes is able to explain the construction of cultural meanings. For a striking practical illustration of this approach see the analysis of a Paris Match cover at Barthes 1957: 223-225; Jakobson 1960: 209-248; Barthes 1967: 58-88.

to be evaluated on a case by case basis. It is rare, however that evidence exists which helps us to decide on any individual attestation. The third millennium Sumerian writings of Akkadian words are almost certainly logographic, as this was the only means available of writing Akkadian at the time.

A complex semiotic situation is precisely what we should expect to find. It is a hallmark of many early systems of writing and a number of modern ones.

Middle Persian (Pahlavi) employs in some of its forms a writing system which relies heavily on logographic writings, this time in Aramaic, the language of scholarship of the Achaemenid and Parthian periods[16]. These are referred to as *huzwareš* in the Parsee tradition and as "ideograms" in most modern scholarship. Similar transliteration-practices obtain as in Assyriology and Hittitology. Thus the same sequence of letters will be written in capitals to indicate an "ideogram" and minor case to indicate a phonetic writing: lḥyk = rahīg, "child", while LḤYK = dūr, "far"[17]. In the one case the Pahlavi word is written phonetically, in the other an Aramaic word is written instead. Similarly to the later Akkadian and Hittite practices, the Aramaic words are frequently complemented by a phonetic or grammatical indicator referring to the word's "underlying" Pahlavi form. Thus YKTYBWN YKʿYMWNt is a writing of Pahlavi nibist estēd, "it was written", with the Pahlavi sound indicated solely by the final [t][18].

Most probably in the Parthian and certainly by the Sassanian period, many, if not most scribes will have been ignorant of Aramaic. A Sassanian glossary of Aramaic words was created, the Frahang ī Pahlavīk, in order to aid scribes writing Pahlavi[19]. When the Pahlavi texts were first received by Western scholarship, the Parsee tradition of transmission entailed that the "ideograms" were pronounced phonetically in a kind of mixed jargon. With few exceptions, scholars now agree that they are being used logographically to write Pahlavi words[20]. The later "ideograms", when compared with

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[16] Durkin-Meisterernst 2003: 586f.

[17] MacKenzie 1971: xii.

[18] Bivar 1991: 50.

[19] The earliest manuscript of this was from around 1600 until the discovery of a related fragment among the Turfan texts, which employ a significantly different orthography with few or no "ideograms" (see Utas 1984: 65f.).

[20] W. Lentz argued in several papers in the 1970s and 80s that they were pronounced phonetically in a mixed language form, comparing hybrid language forms found in Persian Hebrew (Loteraʾi). While this does not overcome the overriding objection that one would expect to find Aramaic loan-words in modern Persian if this were the case, even if it is a "special language" for scribes, the basic methodological principle invoked by Lentz is good. To assume that these "ideograms" do not correspond to linguistic reality is an assumption which works in the opposite direction to normal philology, i.e. it does not accord primary evidential value to the symbols written in the primary sources. See Lenz 1984: 73

the shorter Parthian ones, appear to have developed away from any relationship to spoken Aramaic by means of a pseudo-linguistic and scholastic patterning, which involves ever more complex layers of pseudo-Aramaic determination being added around the central Aramaic kernel[21].

However, the point is made variously that such ideograms must have been pronounced phonetically at some level of discourse, as they are subject to exactly the same vicissitudes of the difficult Pahlavi script as regular Pahlavi words when it comes to representing sounds (alternation of *p*/*b*, *d*/*t*). This level of phonetic realisation is referred to as an "artificial pronunciation" by scribes who did not know Aramaic[22].

Clearly not logographic, however, are those Greek and Latin words that so frequently occur in early Irish and English mediaeval manuscripts. These are simply part of the currency of scholarship at the time, and do not represent any particular native words, but either express a concept that the scholar felt unable to convey in his or her own language, or invoke a particular associative register. They are not loan-words, but remain foreign.

Few, on the other hand, would assert that the Chinese characters used as *kanji* in Japanese writing were to be pronounced in Chinese. They are clearly used to write Japanese words and are thus logograms in the conventional sense of the word. They are also ideograms, as they represent the thing or concept referred to and can theoretically be understood without knowing the underlying language. Japanese presents a good comparandum for Akkadian and Hittite writing practices. It distinguishes between phonetic values derived from the Chinese phonetic readings of the ideograms, referred to as *on* readings, and those that are derived from the Japanese word corresponding to the Chinese ideogram. These latter are referred to as *kun* readings[23]. Hittite, however, relies mostly on the phonetic values available to the Akkadian syllabary, although there is one case in which the Hittite reading of a logogram has been used to derive a phonetic value acrographically. Thus the Sumerian sign GEŠTIN (Akk. *karānu*, Hitt./Luw. *wiyana-*) meaning "wine", is used with the phonetic value wi_5 from the late Middle Hittite period onwards[24].

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[21] Utas 1984: 60-64.

[22] Durkin-Meisterernst 2003: 586. This is surely close to the "special language" of a closed circle posited by Lenz (see fn. 20).

[23] Okutsu/Tanaka 1989: 12f.

[24] This is likely to be derived under influence of the similar construction in hieroglyphic Luwian, also attested from the late Middle Hittite period onwards. See Yoshida 2006: 152-154.

Furthermore, the logographic use of these Chinese ideograms is intimately bound up with the history and context of Japanese culture and writing[25]. The choice of one form of writing, whether kanji or phonetic (kana), in combination with the choice of register indicated by the pronouns and particles used, can have a profound effect on the social and cultural implications of a written Japanese sentence[26].

0.1.2.1 "Sumerograms" and "Akkadograms" in Hittite texts.

In Hittite texts, it is usual to distinguish further between logograms derived from Sumerian, called Sumerograms, and Akkadograms, which are essentially logograms derived from Akkadian. These may also be called heterograms, or allograms, although there is no substantive difference between these appellations and the word "logogram" with reference to whether one finds a Sumerian or an Akkadian logogram in a Hittite text. The conventional distinction between the two is marked by writing the Sumerian logograms in block capital letters, while the Akkadian ones are written in cursive capital letters, the Hittite words and sounds being written in minor case cursive characters.

One might object that a Sumerian logogram should be called a logogram because it is a single sign representing a word, and its own phonetic value may or may not have been known to the writer, whereas an Akkadogram deserves a separate denotation because it consists of a syllabic writing of a word in a separate language, the phonetic form of which most certainly was known. The Sumerian language died out around 2000 BC. All that is significant in the word logogram for our purposes is that a grapheme is being used to represent a word. The collection of syllabic signs making up an Akkadian word may thus be a merely graphic means of representing a Hittite one, and the older Hittite texts occasionally mark Akkadographic words with Hittite phonetic complements. In each case the question is whether these are in fact heterograms, i.e. specifically and consciously Sumerian and Akkadian writings in the Hittite text.

As we shall see during the course of this study, many Sumerian logograms consist themselves of structurally complex syntagms. Were these actually understood as such by the Hittites, or were they simply written down as graphic means of representing Hittite (or Akkadian) words? Occasional phonetic spellings of Sumerian words in

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[25] Okutsu/Tanaka 1989: 18.
[26] For this reason Japanese writing is frequently used to illustrate Barthesian semiotics. See Haarman 1986; Shelton 2006: 1; Jean 1992: 181-2.

Hittite texts indicate that the Sumerian phonetic form was indeed known to some Hittite scribes at least (See Part IV.1)[27]. Apparently conscious adaptations of Sumerian words that had long gone out of use to describe Late Bronze Age material artefacts may also indicate that the essential Sumerian meaning of the terms was known to the Hittites (see Part III s.v. ŠU.ŠÈ.LÁ).

Similarly, despite the occasional phonetic marking of Akkadian words with Hittite phonetic complements, it is clear that Akkadian words in Hittite texts were sometimes, if not always, pronounced in Akkadian[28]. In such cases it is no longer accurate to call them logograms, nor should they be called Akkadograms, but simply Akkadian words. With this in mind we need to ask what kind of entity Hittite cuneiform writing was. Is it a means of encoding the Hittite language in written form, or are we dealing with a written representation of a kind of mixed scholarly "dialect" used for dictation[29]?

In Mesopotamian studies it has become more usual in recent scholarly literature to refer to as logograms, or even as Akkadograms, those collections of signs that do not completely, but only partially, conform to the phonetic pronunciation of the particular dialect of Akkadian being written. A.R. George, in his 2003 edition of the Epic of Gilgameš, describes writings such as ^{d}*iš-tar* when used for the proper noun *ištaru*, pl. *ištarāti*, "goddess(es)", in Standard Babylonian texts, as "logographic" [30]. M.P. Streck, in his 1995 study of elements of Neo-Babylonian grammar, describes as "Akkadographic" those writings which reproduce the "correct" Akkadian declensional form of words by contrast to their Neo-Babylonian dialect form, which does not distinguish the quality of final short vowels[31]. These two approaches essentially describe different phenomena.

In the first first case it is a matter of a logographic usage imported from scribal education. Lexical lists from the OB period onwards frequently include Akkadian words in the Sumerian columns as if they were Sumerian. Thus the use of undeclined

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[27] This does not mean that these were loan-words in Hittite. It makes no sense to say that the writing LUGAL-*i* for Hittite *ḫassuwi*, "to the king", has been loaned into the language, even though one may have to admit the unpalatable possibility that some people said /lugali/ at the level of dictation (pace Zeilfelder 2005: 3).

[28] See Part II s.v. *BĒLU*.

[29] More generally on the function of writing in and of itself beyond the "mere" encoding of the spoken word see Glassner 2003: ch. 7 and following. See also the "special language" of Pahlavi scribes posited by Lentz, and de facto accepted by other scholars.

[30] George 2003: 786f..

[31] Streck 1995: 50f. and passim.

Akkadian words or names in a context where one might expect them to be declined will have been imported from these "retrographic" entries in lexical lists[32]. In the second case it is a matter of traditional writings being conserved, particularly in set phrases, after the language has developed beyond them.

These are of relevance for designation of the part-logographic writings of Hittite place-names and the ethnic adjectives derived from them. Thus, while it is difficult to call a country-name such as KUR ^{URU}AR-ZA-WA (for Hitt. *Arzawas utnē*) "Akkadographic", as is commonly done, because these are not Akkadian words, it is certainly necessary to refer to it as logographic, as it does not entirely represent the Hittite form of the word. A discussion of this is given in Part II under the entries LÚ ^{URU}GN and KUR ^{URU}GN. It is also of relevance for the discussion of such Hittite words as are occasionally written with Akkadian prepositions and the so-called "stem-form" or "zero-case morpheme" such as *IŠ-TU LA-AP-PA* for Hittite *lappaz* or *lappit*[33]. I contend that this is no morpheme at all, but merely a conventional replacement of the Hittite case-ending, *-az*, by the Akkadian preposition *IŠ-TU*. Once again, this demonstrates a peculiarly modern alertness to the linguistic function of discrete morphological elements.

Some examples of "Akkadographic" writings in Hittite texts preserve traditional Akkadian writings that would certainly no longer have conformed to the contemporary pronunciation of Akkadian. This is the case with the preservation of "mimation" on certain Akkadian words in formulaic phrases. Mimation is the writing of an "m" after the case-vowel on the Akkadian noun (m.sg. *-um*, *-am*, *-im*, f.sg. *-atum*, *-atam*, *-atim* etc.) as well as on the ventive after verbs (m.sg. *-am*, f.sg. *-ūnim* etc.). During the late OB and OA periods and certainly by the MB and MA periods, this mimation is dropped, leaving only the case-vowel remaining. The earlier Hittite texts frequently preserve mimation in Akkadograms, but the later ones have usually lost it. One exception is the formulaic writing of the Akkadian demonstrative pronoun *annû* with mimation retained in phrases relating to contractual agreements (*ṬUP-PÁ AN-NI-IA-AM*, "this tablet"). Clearly this was a traditional writing. It would not have corresponded to the spoken Akkadian of the day. It is, however, quite possible that it was spoken in

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[32] A striking example of this is the Akkadogram ^{GIŠ}*GANNUM* in Hittite texts, which almost always preserves mimation and is provided with Hittite phonetic complements, as if it were a Sumerogram. See discussion s.v. ^{GIŠ}GAN.KAL in Part III.
[33] KUB 30.15+ obv. 4; "casus absolutus" according to Kassian et al. 2002: 283.

archaising Akkadian in the Hittite language text, thus preserving a traditional formula from legal terminology.

Here we should also mention the concepts of the so-called "pseudo-sumerogram" and the "pseudo-logogram". While the first concept may make some sense, the second does not. A writing is either logographic or it is not, i.e. it represents a word by non-phonetic means or it represents it by phonetic means. The sense in applying the term pseudo-sumerogram to Hittite logograms is, however, limited. It can only apply to those logograms that have been consciously innovated in order to sound or look Sumerian. This is something that we can only tell in the rarest of cases, if at all.

Frequently, Sumerian signs in Hittite texts are provided with phonetic complements in Akkadian, and sometimes with both Akkadian and Hittite complementation according to the part of speech. Such is the case with DAM-*an* (acc. sg.), "wife", by contrast to DAM-*ZU* (nom./acc. sg.), DAM-*ŠU* (gen. sg.), "his wife", which is always written and correctly declined as if it were formed from the Akkadian word *aššatu*, "wife". Are they to be read as Hittite words or Akkadian? Or are they purely graphic conventions, conforming to no obvious underlying linguistic entity, and merely denoting a concept, as possibly for example [MY SON] (DUMU-*IA*), for which the representation in any particular language would not be something that can be usefully commented on[34]? In this last case, the question of what language is being represented does not arise, as it is not possible for us to penetrate beyond the level of graphic form to an underlying linguistic reality without guesswork. These are questions that need to be addressed, if not answered, on a case by case basis, not only logogram by logogram, but also text by text and tablet by tablet.

Again, we have to ask: given that Hittite, and Akkadian, logographic writing practices at least from the Ur III period onwards, derive from a clearly scholastic environment, at what level, if at all, did the logograms function as words in their own right rather than simply representing words in the underlying language, being taken as they are from the languages of scholarship? This was Sumerian in the case of Akkadian, but Sumerian and Akkadian in the case of Hittite. In order to review this question for the Hittite cuneiform material, it is necessary to set at least some markers concerning the nature of scribal education at Hattusa.

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[34] See Part II s.v. DUMU.

0.2 Questions of Schooling

Scribal education was entirely in Sumerian in the earlier part of the second millennium in Mesopotamia, and the vast lexical texts to be learned by the students while learning to write represented a fundamental element of the transmission of Mesopotamian cultural knowledge. At this period (Old Babylonian), most lexical lists were unilingual in Sumerian. By the First Millennnium BC the standard form of the lexical list in Mesopotamia contained a Sumerian column, (a phonetic column with the pronunciation of the Sumerian), (a commentary on the form of the sign using complex sign-names and descriptive formulae), and an Akkadian column, with the two bracketed entries being dispensable. The Hittite lexical lists show an important staging post on this journey.

In learning to write, the scribes were not simply learning an abstract set of signs, they were learning a vast repertory of ways of writing for artefacts of cultural heritage. The most compendious of such lists, Ur$_5$-ra = *ḫubullu* (Hh), can be understood as a compilation and adaptation of Early Dynastic and other "practical" didactic material to fit the requirements of a newly formed school environment stemming from the Edubba, or scribal school, of the Ur III period[35]. It was not necessarily directly related to everyday life and the objects in it, but to learning and scholasticism. In this context it is no surprise that a further criterion for the selection of a logogram in a non-Sumerian text may be its learned and recherché register. This is a tendency particularly observable towards the end of the Old Babylonian and during the Middle Babylonian period.

Similarly we might expect on an *a priori* basis that learning and scholasticism may have played a role in the selection of logograms in Hittite texts. However, apart from the basic editions of Hittite lexical lists in the series *Materials for the Sumerian Lexicon,* astonishingly little work has been done on Hittite scribal education[36]. This deficit is being addressed as part of the project *Transfer of Knowledge in Cuneiform Cultures*, a project of the university of Leiden[37]. For our purposes we need to establish in broad outlines certain features of the conditions of scribal education and the nature of the transmission of lexical material at Hattusa in order to be able to summarise what role, if any, those lexical tablets that have been found there were playing in education, and

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[35] Civil 1987b: 138ff.

[36] The relevant editions of MSL are detailed in Part I.2.

[37] In particular, T. Scheucher is preparing a re-edition of the lexical fragments from Hattusa and Ugarit, see www.let.leidenuniv.nl/tckk/tscheucher.htm.

what information they can give us about the transmission of cuneiform cultural knowledge into Anatolia[38]. A brief overview of the lexical tradition and other elements of scribal education at Hattusa, as well as a more detailed analysis of the tradition of transmission for the Hittite fragements of Ur$_5$-ra (= *ḫubullu*) is provided in Part I.2.

A comparison of the use of the term GÁB.ZU.ZU, meaning "apprentice (scribe)" as it is attested in tablet colophons at Hattusa to the way it is used on tablet colophons at Emar in Northern Syria suggests that the Hittite learner scribe was tested on quite different material to his Syrian or Mesopotamian counterpart. These are treaties and instruction texts rather than lexical lists and collections of proverbs. Perhaps compatible with this, the idea is to be found occasionally in secondary literature that Hittite scribal education was carried on in the home rather than in a scribal school, and that the scribal art and office was passed on from generation to generation[39]. While this may explain on one level the apparently informal and extra-curricular nature of those texts manifestly written by a GÁB.ZU.ZU, it does not fit the very scholastic and almost philological nature of the lexical tradition from Hattusa that emerges from the review presented here.

It emerges that the Hittites had a highly developed scholastic culture of their own, which is manifest in such aspects as the creation of otherwise unique logograms as technical symbols in comments on list-entries. It has been possible to demonstrate that two of these signs, which are not attested anywhere else in the cuneiform world, occur exactly at the point in a lexical list where the form of a sign in the Sumerian column changes by the addition of one extra wedge, at the same time as its Sumerian phonetic realisation changes along with its meaning[40].

KBo 1.45

Sumerian		Akkadian	Hittite.	
(7) KU (túg)		= *lu-bu-uš-du*	= *wa-aš-šu-u-wa-ar*	"clothing"
(8) KU (túg)		= *ṣú-u-pa-tu₄*	= TÚG-*aš*	"garment"
(9) [*š*]*a du-gul-la-ag-ga* LAGABxLÁL		= *zu-u*	= *za-ak-kar*	"excrement"[41]
(10) [T]ÚG (*šè*)	LAGABxŠI	= *zi-in-ḫu*	= *šal-pí-iš*	"excrement"[42]

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[38] A major work on the reception of Mesopotamian learning at Hattusa has been prepared by J. Klinger, but it remains unpublished and I have not had access to it. I wish to thank Prof. Klinger for taking the time to discuss related issues with me in Berlin. See also Klengel 1998 addressing the role of ideology in the reception of Mesopotamian cultural material; Klinger 2005.

[39] Beckman 1995b: 539; Mabie 2004: 359, pointing out that there was at least one "Babylonian-style *eduba*" in Hattusa; Imparati 1995: 579.

[40] Thus "Sumerian": túg [KU], túg [KU], šè [TÚG]. TÚG has four horizontal wedges, while KU has only three.

[41] Translation of l. 9: "inside tukul (there is) LAGABxLÁL". Tukul is the Sumerian name of the sign KU.

The interpretation offered here suggests that LAGABxLÁL is a technical term to describe precisely the addition of a horizontal wedge to the sign in the Sumerian column. LAGABxŠI, on the other hand, describes the phonetic change from túg to šè. This conforms to the more general pattern observable in Hittite cuneiform of reserving one sign-form for one phonetic value. That the phonetic value is in this case that of a Sumerian word, šè (written TÚG) = "excrement" as opposed to túg (written KU) meaning "garment", reveals a high level of awareness about Sumerian sign-forms and their phonetic values at Hattusa among some scribes at least[43].

However, it is also clear that the Hittite lexical remains, which provide, along with the lexical remains from Emar, Ugarit and Amarna, the only tangible representation of anything approaching Middle Babylonian traditions from the period, are in many respects closer to the lexical traditions of the first millennium and thus provide an important index to the progress of the Kassite-period re-organisation of the scholastic corpora in Babylonia. They are not to be regarded as peculiar aberrations of a peripheral and barbaric scribal environment, but as integral parts of a widely spread and diffuse tradition, strands of which can be identified as having passed into Anatolia through Syria, while others appear to have been through Assyrian hands.

Furthermore, it becomes apparent on comparison of Hittite "school texts" with those found in Mesopotamia, that many of those lexical lists transmitted to us from Hattusa are essentially different kinds of texts to the regular types of lists used by apprentice scribes in Babylonia, and even Syria, to learn writing in a school context. The typical lentil-shaped tablets used to write extracts from lists in OB Nippur are completely absent, and the small, rough-shaped extract tablets with list and literature fragments written at right angles to each other on obverse and reverse, which are so characteristic of school education in Kassite period Nippur, are poorly represented. Instead, the vast majority of the preserved fragments are from large multi-column tablets which would hardly have been very useful for teaching beginners. Moreover, the material treated in the Hittite "school texts" tends to come from the more difficult and advanced spectrum of the lexical lists, with the simpler lists being almost completely absent. This is a

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[42] Collation by D. Schwemer reveals that the first sign in the line has four horizontals as opposed to five in the copy. TÚG (four horizontals) is the Boğazköy writing of ŠÈ.

[43] This is even more remarkable given that the distinction between KU and TÚG had disappeared in Middle Babylonian cuneiform by this time. For discussion of this neglected piece of lexical commentary see Part I.2, CTH 299 Sa vocabulary.

completely different type of material, and it is suggested here that these tablets, while mostly emanating from a school tradition, owe their peculiarity by contrast to the lexical material from Mesopotamia to the context of their archaeological discovery[44].

Much work has been done in recent years on the archaeological find-spots of Hittite cuneiform tablets from Boğazköy[45]. This is difficult work given that the find-spots of the early and extremely abundant tablet finds were not documented. Principles governing the storage of tablets across the whole of the Hittite capital are rapidly being elucidated. In very general terms, we see a picture emerging of a city divided into the citadel on Büyükkale, where mainly "good" copies of tablets seem to have been kept in an archival context, and a working area of scribal production and archivisation in the area of the Haus am Hang and Temple I in the lower city[46]. This is by no means to suggest that tablets were not written on Büyükkale, as they must have been, or indeed elsewhere in the city. However, this general division of labour sits very well with observations concerning the distribution of tablets containing lexical material. The majority were found in the lower-city and have a late palaeography, with a small number of other tablets with older palaeography being found on Büyükkale (see Part I.2).

Indeed, the archaeological context of a building to the South of Temple I excavated in the 1960s suggests a possible explanation for the total lack of typical school exercise tablets from the excavations at Boğazköy. It is quite possible, due to the circumstance of a chance tablet find there possibly detailing the staff of the building (KBo 19.28, see Part I.2), that this was the or at least a scribal school. The building was obviously cleared prior to evacuation according to the excavators. If this was the scribal school and it was evacuated before the city's final calamity, then we should not expect to find many tablets there, in particular not exercise tablets. This provides one plausible explanation of the absence of exercise tablets. Other completely plausible explanations are of course that they have simply not been found yet, were evacuated from somewhere else, or were written on a perishable material such as wood[47].

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[44] This follows a suggestion of N. Veldhuis, by personal communication.
[45] van den Hout 2006: 77-106; id. 2007: 401-409.
[46] For prayers see van den Hout 2007: 408.
[47] A.R. George calls my attention to the presence of 33 "scribes on wood" in KBo 19.28, and wonders if these may be the learner scribes. Wooden-writing boards were indeed recovered from the Uluburun shipwreck (Herbordt 2005: 37).

By default it also helps to illuminate the nature of the tablets found containing lexical lists. These were, however fleetingly, essentially library copies, although quite possibly themselves copies produced in the school environment. Some of those kept on Büyükkale may have been somewhat older, but this does not mean that those from the Temple magazines or the Haus am Hang were not also library copies, some of which may well even have been Kassite imports from Babylonia or possibly imports from Syria.

The picture thus emerging is one of various grades of scribal activity and accomplishment, a fact we see reflected in the varying levels of cuneiform knowledge displayed by the different scribes. Beyond this we also need to appreciate the overall context of the archives at Hattusa such as they have survived. These temple and palace collections contain exclusively texts that are designed in some way or another to safeguard the person of the king, whether that be by preserving his correspondence, collecting and collating ritual texts or recording the results of augury and omens. In this context it was very important that the scribes knew what they were doing and were educated accordingly. By contrast it appears that the so-called "scribes on wood", if they weren't learners, may have been responsible for economic and administrative documents, and that these may perhaps have been written in hieroglyphs, although much of this is speculation.

As a corollary we mention the differentiation between what appear to be different grades of scribes on hieroglyphic seals from Hattusa, as observed by S. Herbordt and J.D. Hawkins[48]. SCRIBA is the most frequent professional designation on the tablets of the Nişantepe corpus of hieroglyphic seal impressions. The hieroglyphic sign for scribe is occasionally accompanied by two, three or four strikes beneath, or by a sign somewhat similar to a boomerang above it. It is a sensible working hypothesis that these additional qualifications indicate grades or types of scribes, but it has thus far proved impossible to identify the various types of scribes mentioned in the cuneiform documents (GÁB.ZU.ZU, DUB.SAR TUR, DUB.SAR [ŠA GIŠ]), with any individual on a seal characterised by one of these special hieroglyphic designations[49].

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[48] Herbordt 2005: 98-100.

[49] Herbordt 2005: 100 points out that the scribes with extra strikes against their office are sometimes attested on multiply sealed bullae in the company of very high-ranking princes or officials.

A summary presentation of the lexical material from Hattusa is given in Part I.2 of this work, including a preliminary edition of the Hittite fragments of ur₅-ra (= *ḫubullu*), the largest and most comprehensive of the lexical lists from the earlier end of the Mesopotamian school curriculum.

Against this background we need to ask how relevant the lexical material from Hattusa is for the study of Hittite logograms in other kinds of texts. It is important to obtain a characterisation of the difference between Sumerian/Akkadian/Hittite equivalences in lexical lists as opposed to equivalences gained from Hittite words being represented by Sumerian or Akkadian ones in texts[50]. While information contained in lexical lists may be useful for determining the meanings or usages of logograms in Hittite texts, we should be aware that lexical lists contain knowledge of a specially rarified and non-pragmatic type. Individual items of such knowledge in lexical lists need to be explained as functions of the phenomenon "lexical list" before they can be profitably used to explain logographic phenomena in connected text[51].

0.2.1 The Roads to Hattusa: the Question of Influences

The development of cuneiform writing in Anatolia was: "keine innerhethitische Angelegenheit, sondern abhängig von der Wandlung der Zeichenformen im akkadischen Bereich"[52]. This often quoted phrase indicates a perspective that any work dealing with Hittite cuneiform writing should incorporate. The Hittite cuneiform writing system came to Anatolia from Mesopotamia and contacts continued throughout Hittite history. These contacts brought about changes in Hittite writing practice, which still require much elucidation[53]. It is impossible to understand developments in the writing system without considering the wider context of cuneiform writing from surrounding

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[50] Awareness of this distinction and reluctance to accept a Sumerian-Akkadian-Hittite lexical equivalence as a translation is rightly demonstrated by Klinger 1992: 194; See Part III s.v. ᴸᵁ́GAD.TAR.

[51] A striking example of the problems involved in not making such a distinction is provided by the arguments leading to the "working hypothesis" that Hurrian *taki-* is represented by the Sumerogram BU at van den Hout 1995: 136. Akkadian *namāru*, "be bright" is equated in Proto-Aa with Sumerian ZALAG, and with BU in Sb, and Proto-Ea (CAD N/1, 210). ZALAG in turn is associated in a manuscript of Hh from Ugarit with Hurrian *te-gi-se* (MSL 5.62, 34). From this it is inferred that BU can stand for Hurrian *taki-*. It is perfectly legitimate to use this as evidence for a working hypothesis, but one must not forget: a) that these are entirely different lists produced for different didactic functions; b) that the functions of Hurrian (and Hittite) equivalents in the trilingual lists is more often one of commentary than it is of translation; c) that the Akkadian equivalents to the Sumerian words in Mesopotamian lists are themselves not always translations. It is dubious method to use the Akkadian words as the angle of comparison, but sometimes it is the only method the evidence will allow.

[52] Otten in StBoT 20 (1972): XI. Quoted by Wilhelm 1984: 644; Rüster/Neu 1989: 16

[53] Laroche 1978: 741, 747; Kühne 1988: 231f. Klinger 1998: 368.

cultures, as well as the historical context of international relations which may have prompted such change.

Besides housing texts in a variety of languages in its archives at Hattusa, the Hittite cultural area at its different stages, from the time before Hattusa at various locations in central Anatolia to the Old Kingdom and beyond to the Empire period, was surrounded by various different cuneiform and writing cultures. It is through these that transmission to Hattusa will have been carried. Of particular importance for cultural influence are:

i) Hattic:

The pre-Hittite Hattic culture of Anatolia is usually assumed to have been important for cultural influence during the Old Kingdom. In line with the above-mentioned tendency to record foreign-language portions of Hittite texts as accurately as possible, Hattic texts are usually written phonetically and include few logograms. There are also numerous loan-words from Hattic into Hittite and the question of a possible influence of these in the construction of logographically written ethnic adjectives is discussed under the section LÚ ^{URU}GN, "the man from GN-town" in Part II. Furthermore logograms are occasionally found in a Hattic context, if not in the Hattic portions of texts themselves, that are otherwise not attested and difficult to motivate from a Hittite, Sumerian or Akkadian perspective. It is possible that some of these arose through (mis)interpretations of Hattic constructions, although this is to explain *obscurum per obscurius* in view of our poor understanding of Hattic language material.

ii) Northern Syria.

The various cultural complexes of Northern Syria, with their admixture of Hurrian and West Semitic elements are undoubtedly of importance in the transmission of cuneiform culture into Anatolia, as one would expect. Here, however, it is perhaps useful to distinguish between different routes passing through Syria to Anatolia. There is the Western part of Northern Syria via Aleppo and Alalaḫ, the latter of which was "destroyed" but not obliterated by Hattusili I in his third campaign in the late 17th century[54]. Otherwise we have those passing through the North-East Syrian cultural area

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[54] Dates are given here according to the conventional "Middle Chronology". The writer is aware of the problems associated with this choice of dating scheme and observes the tendency in recent literature to favour the "short chronology" or the "ultra short chronology" according to which the date of the fall of Babylon would be either 60 or 100 years respectively later than the Middle Chronlology's conventional 1595 BC. The central debate hinges on the dating of sightings of Venus recorded on a tablet from the reign of Ammiṣaduqa of Babylon. The Middle Chronology is chosen due to the fact that the writer is not

of the Upper Ḫabur, with which direct contact is attested from the LOB period during the reign of Hattusili I.

Despite the common, but probably untrue, assumption that the Hittites adopted the writing system from Northern Syria during the conquests of Hattusili I, it has recently been argued that Syrian cultural influence, apart from writing, is to be restricted to the period after the Old Kingdom[55]. An overview of the *status quaestionis* with regard to early contact with Syria with regard to writing is given in Part I.1.

Historical Framework for North-Eastern Syria:

Contact between Hattusili I and Tunip-Teššub of Tikunani. The so-called "Labarna's Letter" from illegal excavations at the as yet unidentified site of Tigunānum requests help from the king of Tigunānum in a campaign against Ḫaḫḫum. Ḫaḫḫum is most probably to be identified with Samsat Höyük on the Euphrates[56]. The letter was most probably written by a Tigunānum scribe and exhibits isolated features of Middle Assyrian dialect, although it is written in Babylonian. At least one further document from the palace of Tunip-Teššub has recently come to light and awaits publication along with a number of other tablets in a similar ductus, which also show occasional features of Middle Assyrian as well as what appear to be Hurrian glosses. Already published is a large prism from Tigunānum with names of 376 *ḫapiru*, most of which are Hurrian. The location of Tigunānum is subject to investigation, but it is likely to be somewhere in the Northern reaches of the Upper Ḫabur[57]. Further to this we also have OB cuneiform remains from the North-East Syrian sites of Tell Leilan (Šeḫna) and Chagar Bazar. The later periods of North-East Syrian cuneiform correspond to the parameters of Mittanian and Middle Assyrian influence.

North-Western Syria:

The archives of Mari and Alalaḫ level VII provide evidence for writing traditions from the Old Babylonian period on the Middle Euphrates across to the Syrian coast. An almost definite synchronism with the Hittites is the destruction of the latter by Hattusili I. Alalaḫ VII also provides a substitute for the archives of the provincial capital of the

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convinced that the shorter chronologies have won the argument completely. In particular the use of celestial occurrences supposed to have happened in conjunction with a great man's birth or death is held to be extremely suspect. The Middle Chronology is the more widely used, and this alone suffices for its selection for provisional use as a point of reference in a work such as this. For the most recent discussion see Hunger/Pruzsinsky 2004: 43-94.

[55] Miller 2004: 463ff.
[56] Miller 2001: 414.
[57] Miller 2001: 421f.

area at Aleppo, Old Babylonian Yamḫad, where it has not been possible to excavate beyond the Iron Age remains[58]. Later comparanda are provided by Alalaḫ level IV, roughly contemporary with the Hittite king Suppiluliuma I[59]; Emar on the Middle Euphrates, capital of ancient Aštata, and under Hittite rule from the mid-14th century where extensive cuneiform remains have been found from the 13th century BC[60]; Ugarit in central Northern Syria was under Hittite control from the mid-14th century and writing there is thus far only attested after the Hittite conquest[61]. Despite this, the ductus of tablets from Ugarit conforms rather to Syrian standards than Hittite. Both Emar and Ugarit preserve letters from the as yet unexcavated Hittite chancellery at Karkamiš, the provincial capital, which also show a mainly Syrian ductus but display numerous elements reminiscent of Hittite orthography.

iii) Hurrians and Mittani:

During the Old Kingdom encounters with Hurrians are usually hostile. Hurrian cultural influence is assumed to begin with the reign of Tudhaliya I (late 15th century), and may well have been mediated by the kingdom of Kezzuwatna. Numerous later Hittite kings took Hurrian wives and and had alternate names that were Hurrian. Although Mittani formed the political expression of Hurrian statehood, evidence for Hurrian population is attested across the whole of Northern Mesopotamia and down into Syria as far as Qatna. Furthermore, merchants with Hurrian names are attested in Kültepe level Ib (18th century) in central Anatolia, using a script that has been compared to the Boğazköy ductus[62].

The Hurrian kingdom of Mittani formed a buffer between the Hittites and Northern Mesopotamia from the 15th century until its defeat by Suppiluliuma I in the second half of the 14th century and its eventual destruction by the Assyrian king Adad-Nirārī I in the mid-13th century. Mittani itself is, however, very poorly documented. Numerous Hurrian documents of a mainly cultic nature are preserved at Hattusa written in the Boğazköy ductus, along with several tablets of a scholarly or diplomatic nature, which are clearly imports. These share palaeographic similarities with tablets of letters found at Tell el-Amarna in Egypt written to the Pharoah by the Mittanian king Tušratta. To

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[58] Specific palaeographic comparison between Alalaḫ VII and Boğazköy is attempted in Part I.1.3.

[59] The Alalaḫ texts are published by D. J. Wiseman in Wiseman 1953 and 1954. Copies of Level VII tablets made in the 1960s by M. Dietrich and O. Loretz are published in Dietrich/Loretz 2004, 2005 and Zeeb 2001.

[60] Texts published in Arnaud 1985-1987; Westenholz 2000.

[61] van Soldt 1991: 519ff.

[62] See detailed discussion in Part I.1

describe the ductus of this small group of tablets, G. Wilhelm has coined the phrase "Assyro-Mittanian"[63].

Towards the end of the reign of Suppiluliuma I, the Hittites were involved in a power struggle with Mittani which triggered the dissolution of the Hurrian state after its king, Tušratta was murdered. His son, Šattiwaza, sought refuge with Suppiluliuma who attempted to re-instate him as king of Mittani.

On the basis of the palaeography of a practice tablet containing a fragment of medical omens, G. Wilhelm has demonstrated in all likelihood that at least one scribe from a Mittanian scribal school was in residence in Hattusa during the later Empire period[64].

The kingdom of Kezzuwatna in South-East Anatolia, with Hurrian and Luwian population elements, also formed an important conduit for cultural material on its way to Hattusa. During the earlier period Kezzuwatna was independent and Hittite kings established treaties with Kezzuwatnian kings written in Akkadian. After the annexation of Kezzuwatna by Tudḫaliya I a large body of rituals "authored" by Kezzuwatnians is found at Hattusa. During the reigns of Hattusili III and Tudhaliya IV, the Hittite queen Puduḫēpa, herself Kezzuwatnian, ordered the collection and documentation of Kezzuwatnian ritual texts. The Kezzuwatnian ritual material from Hattusa has been the subject of several detailed studies in recent years[65]. J.L. Miller envisages a period of influence from both Hattusa and Syria on Kezzuwatna during the earlier, independent stage of the relationship, followed by a sudden influx of material to Hattusa as "Hittite scribes apparently gained access to the archives of Kizzuwatna"[66]. The evaluation of a Kezzuwatnian contribution to cuneiform writing at Hattusa is a very difficult undertaking in view of the fact that there are no excavated cuneiform remains from this area, all "Kezzuwatnian" texts being written by Hittite scribes.

iv) Assyria:

The presence of Assyrian merchants in Anatolia at various trading colonies centred around kārum Kaneš (Kültepe) in the 19th and 18th centuries BC is well documented by the over 20,000 cuneiform tablets excavated from that site alone thus far and several

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[63] Wilhelm 1991: 88. D. Schwemer points out to me that a fragment of the Middle Assyrian Laws found at Aššur is also written in this "Assyro-Mittanian" ductus. Either this is an older fragment dating from the period of Mittanian domination of Assyria, or the "Assyro-Mittanian" ductus is in fact simply a variant of Assyrian writing.

[64] Wilhelm 1994: 5. A doctor with a Hurrian name at Hattusa is also attested in a catalogue-tablet. Wilhelm 1994: 1 with fn. 5.

[65] Miller 2004; Christiansen 2006; Strauß 2006.

[66] Miller 2004: 256.

smaller finds around central Anatolia. The Old Assyrian ductus and orthography used by these Assyrian merchants had no visible effect on the writing of the Hittites at Hattusa, although the use of a slightly different ductus-type by a Hurrian merchant at Kültepe raises numerous questions about what other types of cuneiform writing were in use in Anatolia during the period[67].

Assyria emerged from Mittanian domination after Suppiluliuma's victory over Tušratta, king of Mittani, in the mid 14th century and eventually became a direct competitor for imperial influence in Northern Syria after the subjugation and then annexation of Mittani/Hanigalbat by Adad-Nirārī I in the early 13th century[68].

A sighting of Assyrian troops near Karkamiš in the second year of the reign of Mursili II (the time of Aššur-uballiṭ of Assyria) prompted the king to send his general Nuwanzaḫ to the city, and it is possible that Assyrians were besieging Karkamiš in his 9th regnal year, after the death of Suppiluliuma's son Piyassili, viceroy at Karkamiš[69]. This indicates a considerable advance of Assyrian military influence to the West. However, the fact that Mursili can join his troops at Harran on the Baliḫ river in the same year, shows that this was not a durable Assyrian presence.

During the reign of Adad-Nirārī I, however, Assyria campaigned twice against Mittani, first reducing it to vassal status and then annexing it competely. Adad-Nirārī's royal inscriptions claim that his conquests extended as far as Karkamiš on the Euphrates. There is no evidence that he ever took Karkamiš, and the dynasty installed there by Suppiluliuma I survived there until after the fall of the Hittite Empire. At least from the reign of Shalmaneser I, an Assyrian administration is active in Waššukanni, as attested by letters from Dūr-Katlimmu[70].

A lively correspondence between the Assyrian and Hittite courts has been preserved, which ranges from a cordial to an insecure and arrogant tone. Unfortunately, it is hardly ever clear who is the sender and who the addressee of these letters[71]. From these we know the names of numerous Assyrian diplomats in the Hittite capital and even of one Assyrian who owned property in Hattusa[72].

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[67] For discussion see Part I.1
[68] In general see Harrak 1987.
[69] Harrak 1987: 48.
[70] For the historical background in the reigns of Shalmaneser I and Tukulti-Ninurta I see Cancik-Kirschbaum 1996: 9-45.
[71] Mora/Giorgieri 2004 passim.
[72] Beckman 1983: 108 fig. 4.

It is most probably Tudhaliya IV who was roundly defeated by the Assyrian king Tukultī-Ninurta I at the battle of Niḫriya[73]. At the latest during the reign of Tudhaliya IV we begin to see traces of Assyrian cultural influence at Hattusa. A cylinder seal impression of Tudhaliya calling himself *šar kiššati*, the "king of the universe", very likely represents a co-opting of Assyrian titulary for the purpose of defending territorial claims against an insistent neighbour[74].

However, on an as yet unpublished impressions of a cuboid seal of Tudhaliya IV from the Nişantepe archive excavated in the early 1990s at Boğazkale, the king marks his filiation in peculiarly Assyrian fashion, by calling himself:

A *ḫa-at-tu-ši-li*

"son of Hattusili", using the logogram A for Akkadian *māru*, "son"[75]. This indicates that Assyrian writing practices were becoming accepted at a level far beyond that of explicit propaganda.

The question of an Assyrian palaeographic influence on the cuneiform signary in use at Hattusa is slightly more complicated, however, given that supposedly Assyrian sign-forms, if that is what they are, appear somewhat earlier than previously thought, as revealed by the palaeographic study performed in the course of this research.

v) Babylonia:

From the end of the dynasty of Hammurabi at the hands of the Hittite king Mursili I (1595 BC) through to the poorly documented but culturally extremely important Kassite kingdom, Babylonia was a continuous and vital source of influence on the whole cuneiform community in the production and re-organisation of written cultural material. Frequent diplomatic exchanges, at least from the Amarna period onwards, leave us with numerous Babylonians directly attested at Hattusa, including a Babylonian princess, the daughter of Burnaburiaš II, and wife of Suppiluliuma I. G. Beckman has suggested that Babylonians emigrated to Hattusa perhaps as early as the 15th century and set up families of scribes[76]. If these bear any resemblance to the scholarly genealogies leading

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[73] Singer 1985: 118 et passim.

[74] Herbordt lecture in Würzburg, 24.3.2006: "Die hethitische Glyptik im Lichte der politischen und kulturellen Beziehungen des Hethiterreiches zu Syrien und Mesopotamian"; ead. 2005: 45; Tukultī-Ninurta also owned a Hittite style signet-ring, cf. Herbordt loc. cit.

[75] Sealing no. 131 in Herbordt/Bawanypeck: forthcoming. I am very grateful to J.D. Hawkins for sharing this information with me.

[76] Beckman 1983a: 105.

back to the Kassite period that we know from first millennium Mesopotamia it is possible that this is no accident[77].

On the other hand, it may be the case that Hittite scribes adopted Mesopotamian names in order to impress their contemporaries. This is probably the case for the scribes with Mesopotamian names from Maşat Höyük, and almost certainly true of the apprentice scribe *Ilu-ublanni* who writes under the supervision of [I]*Ziti* on an extravagantly written and doubtless late 13th century colophon which shows stylistic similarities to contemporary scribal productions from Emar on the Middle Euphrates[78].

There is little evidence to suggest that scribes with Babylonian names were known any earlier than the late Middle Hittite period. On the basis of the perspective won from the evidence for the adoption of cuneiform writing at Hattusa presented in Part I.1 as well as the evidence of the logograms studied in Parts II and III of this thesis, the view is not accepted here that the introduction of writing at Hattusa was the work of a small group of Babylonian scribes[79]. However, it is clear that Babylonian scribes were active in Hattusa from time to time and that there was at the very least a fashionable inclination towards Babylonian scribal culture among scholars.

Babylonian doctors were also clearly among visitors at Hattusa[80].

vi) Egypt:

Contact with Egypt is attested sporadically from the reign of Thutmosis III, and it is occasionally suggested that the Egyptians learned cuneiform writing from the Hittites[81]. The ongoing conflict and contact with Egypt from the reign of Suppiluliuma I definitely had cultural implications, as the assumption of an Egyptian name by a Hittite official attested at Ugarit eloquently demonstrates[82].

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[77] For the first millennium practice of tracing scribal ancestry back to Kassite forebears, see Lambert 1957: 1-14; George 2003: 28-33.

[78] For *Ilu-ublanni* see Part I.2; for Maşat Höyük see Alp 1991: 2f.; id. 1998: 46-61.

[79] Alp 1998: 59.

[80] KBo 1.10+ rev. 34-48; Wilhelm 1994: 1.

[81] Beckman 1983a: 112ff. presents some good arguments for this, including palaeographic ones. See also Wilhelm 1984, and now George 2007: 53. The present writer is, however, unable to accept this version of the relationship due to the growing number of indications pointing to a long, entrenched and most probably continuous tradition of writing in Syria from which the Hittites themselves appear to have benefited.

[82] Kitchen 2006: 32 sees him as an Egyptian, Amenmose, in Hittite service. He is, however, a bed-chamber attendant to Tili-Šarruma of Karkamiš. The present writer finds it unlikely that an Egyptian would be employed so close to the royal family. His colleague has a similarly odd name: Ḫattoḫu, meaning "the Hittite" but in Hurrian! *Ugaritica* III, 40-42, 142-145. See discussion s.v. LÚ É.ŠÀ (Part III).

Apart from the various envoys sent as part of peace delegations to Hattusa, and from Hattusa to Egypt, doctors from Egypt are also documented at Hattusa[83].

vii) Luwians and Hieroglyphic:

The people of the Western and Southern areas of Anatolia, outside the Halys basin, and including parts of Kezzuwatna, were speakers of the Luwian language(s), an Anatolian language closely related to Hittite. During the course of Hittite history an encroachment of Luwian speakers into Central Anatolia is observed. It is clear, however, that carriers of Luwian language were at also Kültepe during the Old Assyrian Period. The decisive development as far as Luwian is concerned was the mass-deportation of people from Western Anatolia by Mursili II during his Arzawa campaign. It is now becoming clearer that this had a profound effect on the Hittite spoken at Hattusa and may even have eventually resulted in the extinction of the Hittite language[84].

Associated with Luwian is the use of Hieroglyphic script, the major inscriptions of which date to the Iron Age and are exclusively in Luwian. The Hieroglyphic script was also used to write Luwian at least in the later Empire Period (Fıraktin from Hattusili III; Yalburt from Tudhaliya IV)[85]. However, it appears to have been used to write Hittite names as well as Luwian ones on sealings in the Middle and possibly the Old Hittite periods, although the evidence to this effect is extremely difficult to interpret. The origins of the script, whether specifically Luwian or not, are thus shrouded in darkness. A stratum of Luwian cultural influence can certainly be identified within Hittite cult, dating back at least to the 15th century[86].

With the exception of the Hattic, the presence of individuals at the Hittite court from all of these cultural areas can be documented at various stages of its history. These range from diplomatic representatives or messengers, whether named or not, to visiting scholars, doctors and other skilled professionals. All of these were associated with the art of writing. Indeed, as far as palaeography is concerned, it is a credible hypothesis that certain changes to the Hittite sign-inventory were introduced at times due to the copying at Hattusa of diplomatic documents from abroad, such as treaties.

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[83] Wilhelm 1994: 1.
[84] Rieken 2006: 282.
[85] A hieroglyphic inscription on a silver bowl in Ankara museum has been dated to Tudhaliya I, mid to late 15th century, but this is very uncertain (Hawkins 2005: 193-205).
[86] Starke 1985 passim; Miller 2004: 447ff.

One case where it is fairly apparent that this is happening is KBo 1.8, the Akkadian-language treaty between Hattusili III and Bentešina of Amurru. As observed by J. Klinger, this tablet shows an "essentially" Boğazköy ductus with a number of "Syrian" elements[87]. Taken in combination with this, the spelling of the personal name *Muwatalli* with the Hittite nominative ending, [I]*mu-wa-ta-al-li-iš*, is a strong indication that the scribe was a Hittite, and that this is therefore not an imported tablet. The "Syrian" elements will therefore have been copied in from a Syrian original. Another interesting feature here is the spelling of the name *Ari-Teššob* as [I]SUM-[D]IŠKUR, which reproduces the Hurrian meaning of the name: "Teššob gave". This name is otherwise written [I]DU-[D]IŠKUR/10 at Boğazköy, using a Hittite logographic rendering of *ari-* by association with the Hittite root *ar-* "to come" (Sumerian du, ğen etc.)[88]. A plausible explanation of this is that the "correct" Hurrian logographic writing has been copied here, uniquely, by the Hittite scribe from an Akkadian version most likely from Amurru, where a written culture with significant Hurrian elements is documented at Qatna from the time of Suppiluliuma I.

This example demonstrates the two aspects of analysis which will be applied to the occurrences of logograms in their context on clay tablets in the present work as a basic principle of methodology: on the one hand the palaeography of the particular tablet; on the other hand textual criticism (see further below).

A further process by which changes could be introduced to the writing system at Hattusa were doubtless also sojourns spent abroad by Hittite officials who were also scribes. This is only potentially verifiable in very few cases.

0.3 Previous Ideas about the Logogram in Hittite Cuneiform

General statements concerning logographic writings in Hittite texts are extremely rare in scholarly literature. The conventional wisdom on the function of the logogram in the Hittite writing system is summed up by E. Laroche: "les scribes hittites, ou leurs éducateurs, ne se sont pas contentés de copier le sumérien, ils ont forgé á l'occasion des pseudo-sumérogrammes, *à seule fin d'abréger la graphie de mots fréquents et*

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[87] Klinger 2003: 246.

[88] J.L. Miller (personal communication) prefers to read the Hittite logogram as [I]GUB-[D]IŠKUR on the grounds that DU is not attested as a Sumerographic writing for *ar-* "to come", whereas GUB is attested as a Sumerographic writing for Hitt. *arai-* "to rise, stand up". This does not fit quite as well phonetically as *ari* "he comes", and one has to assume that the scribes only took the *ar-* from the stem *arai-* as phonetically significant. This is not impossible, compare for example the likely rebus writing of Hittite *muwa-* by Sumerian A.A, "water", due to the Akkadian equivalent *mû*.

relativement longs" (my italics)[89]. While abbreviation is demonstrably the purpose in the choice of a number of logographic writings, this is by no means always the case.

The only summary treatment of Sumerian and Akkadian logograms in Hittite to date is still that of J. Friedrich in chapter IV, "Zum Verständnis der akkadischen und sumerischen Wortformen", of his *Hethitisches Elementarbuch I*[90]. In this chapter, Friedrich is concerned with demonstrating the rudiments of Sumerian and Akkadian grammar for a better understanding of Hittite texts.

However, the task of describing a grammatical system such as that transmitted by a written text must seek to define the elements of the target-system on their own terms, before deciding what role they play, rather than importing a definition from another grammatical system. It may sometimes be helpful to know what a Sumerian or Akkadian word means or how it is used in Mesopotamia, but this can only be used as one element in the deduction of meaning or function and should not be used in the description. The "original" Mesopotamian meanings of Sumerian and Akkadian words is of interest by contrast to their Hittite usage precisely because they may offer information about the routes of transmission through which cuneiform culture came to Anatolia. This historical interest should not be confused with the process of synchronic description.

This basic methodological priority is nevertheless followed by Friedrich in his short presentation, although it is not explicitly stated and the very premise of presenting a summary of Sumerian and Akkadian grammar in order to understand Hittite texts militates against it.

The following Akkadian elements are noted by Friedrich to be peculiar to Hittite, although their grouping is my own:
i) changes due to underlying Hittite constructions:
the placement of the Akkadian genitive after *ŠA* before rather than after its head-noun, thus conforming to Hittite rather than Akkadian word order (§341b); the use of the substantive genitive, such as *ŠA MAMĪTI*, "the one of the oath/curse; treaty-partner" is attributed to Hittite genitival syntax (§342), but is in fact a normal feature of Akkadian

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[89] Laroche 1978: 74.
[90] Friedrich 1960: 170-182.

syntax; indiscriminate use of masculine and feminine gender (§348; §353d); plural for S3 pronouns, i.e. ŠU^MEŠ-*ŠU-NU* "his (lit. their) hands (§357b); dissolution of the distinction between *INA* and *ANA* and other Akkadian prepositions expressing a syntactic dative in Hittite (§358); prepositions written as postpositions (§360); logograms in the oblique case written without Akkadian prepositions, on account of the Hittite case-ending being "thought" into them (§361).

ii) the "Akkadianising" inflection of proper names without case inflection in a stem-form, be it consonantal or vocalic (§345);

iii) the use of *-TIM* and *-TI* as "Pluraldeterminativ", meaning that he sees these as equivalents to MEŠ and ḪI.A, the Sumerian plural determinatives, thus *BĒLU^TIM* alongside *BĒLU*^MEŠ;

iv) The misinterpretation of Akkadian genitive constructions. An Akkadian "construct state" with genitive construction such as as LÚ *ṬĒMI*, which Friedrich interprets as Akk. *awīl ṭēmi*, "man of the message", is written in Hittite texts as a single word, thus using a determinative rather than logographic function of LÚ: ^LÚ*ṬĒMU*, "messenger", the Hittite word being *ḫalugatalla-* (§349)[91].

It is notable that all of these "peculiarities" regard Akkadian words or grammar rather than Sumerian. However, it was also Friedrich who began to indicate that certain Sumerograms were only attested in Hattusa in his index of Sumerograms in his "*Kurzgefasstes Hethitisches Wörterbuch*". This phenomenon has rarely been revisited in the secondary literature and provides the background for the collection of Sumerograms only attested at Boğazköy provided in Appendix II of this work[92].

Chr. Rüster and E. Neu' s *Hethitisches Zeichenlexikon* appeared in 1989, and represents the most significant collection of logograms from Hittite-language texts and their sign-palaeography to date. The work contains sign-forms that are usually, but not always, ordered according to palaeographic dating (on which, see below). These sign-forms are

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[91] On this see Otten 1969: 18. Otten suggests that the underlying Akkadian is *ša ṭēmi*, "the one of the message", with the LÚ being read logographically and standing for the relative pronoun. By this account writings such as LÚ *ṬĒMU*, with the "wrong" Akkadian case-vowel, are to be explained as mistakes. However, this study shows that Akkadian words in Hittite texts, while frequently confusing nominative and accusative, only rarely use the genitive form improperly. It is thus more likely that Friedrich's original explanation is correct, and we should read ^LÚ*ṬĒMU*. The noun *ṬĒMU* is to be taken to represent the word "message" (Hitt. *ḫaluga-*), while the professional determinative, ^LÚ, indicates that the word belongs to the class of professional designations, which in Hittite are very often expressed by the suffix(es) -(*t*)*alla-*: thus *ḫalugatalla-* = ^LÚ*ṬEMU*. The Akkadian case-vowel is thus irrelevant. This logogram only occurs in Hittite language texts, see CAD Ṭ 96, HWb² Ḫ 96.

[92] Singer 2006: 254 fn. 51.

followed by lexical entries detailing the logograms that can be composed out of the individual signs. The decision was taken not to include sign-forms from Akkadian texts generally[93]. Very few attestations are listed.

A further general work on Hittite logograms is the *Deutsch-Sumerographisches Wörterverzeichnis* by Christel Rüster and E. Neu. This attempts to present those concepts represented by logograms in Hittite texts according to their correspondences in German. The aim is to facilitate the process of associating Hittite words with logographic writings, and as such the book is very useful. In a review article on this book, D. Schwemer points out some shared characteristics of certain Hittite logograms, namely the permutations of Sumerian KA according to its semantic category. KA can be read polyvalently in Sumerian, as zú (= "tooth"), ka (= "mouth"), kir$_4$ (= "nose"). The Hittite signary separates these signs out by inserting semantic indicators. KAxU is the mouth, with the mouth represented by the sign for a "hole" (Sumerian bùr); KAxUD is the tooth, with the white of the tooth indicated by Sumerian babbar (= UD), "tooth"; KAxGAG is the "nose" with the nose indicated by the "peg" which is GAG (Akk. *sikkatu*)[94].

Although this method of differentiating these logograms conforms to the more general Hittite antipathy to polyvalence in the signary noted above, the view is here taken that these cannot all have been inventions of Hittite scribes. KAxU ("mouth") is now attested in a LOB tablet in a North-Syrian ductus, which could conceivably have been influenced by Hittite writing, but is unlikely to have been due to the otherwise completely different character of its ductus and orthography[95]. Furthermore, the semantic value of the inscribed sign acting as an indicator in this case, Sumerian bùr, "hole", is not attested at Hattusa[96].

This does not mean that the other signs, using GAG and BABBAR, may not have been created at Hattusa, but as they are attested nowhere else we cannot speculate beyond noting that they conform to the tendency in the Hittite cuneiform signary to express discrete units of sound or meaning with discrete signs.

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[93] Rüster/Neu 1989: 20

[94] Schwemer 1999: 188-90.

[95] This tablet belongs to the Schoyen collection and will shortly be published by A.R. George. It stems from illegal excavations and thus has no provenance.

[96] The alleged attestation of KAxU in the archaic signary from Uruk at Jaritz 1967: 33 (no. 46) should be regarded with extreme caution and is not reproduced in Green/Nissen 1987.

Rare general statements on the function of logograms in Hittite cuneiform aside, it is in the editions of individual texts that the subject of the logogram is treated most frequently, starting with the pioneering works of the first Hittitologists. These editors were keen to work out what these texts meant, and this provides the background for most of the discussions of common logographic phrases. It is a symptom of the intractable nature of many of these problems that the first attempts to answer them have also remained the last.

Early editors were concerned with the rules by which logographic writings combine with each other. A. Götze observed that the combinations LÚ ^{URU}GN "the man of GN", and KUR ^{URU}GN, "the land of GN" occur, but never *LÚ KUR ^{URU}GN, and formulated the following rule: "Tritt ein Ländernamen (dem nach allgemeinem Brauch das Wort KÚR - *sic!* - vorausgesetzt ist) mit einem vorausgehenden Nomen in sehr enge Verbindung, so bleibt KÚR weg". He compared the "Assyrian" custom of omitting the word *bītu*, "house" when talking of members of an Aramaic "clan": *bīt Adini* but *mārē Adini*. He then used this to come to the conclusion that the expression LÚ ^{URU}ḪATTI, "a Hittite" refers to a country *Ḫatti* rather than a city *Ḫatti*, because the combination that specified that *Ḫatti* was a country, using the word KUR, was excluded by the rules of logographic syntax[97]. This has far-reaching implications. Hittitologists are still split today into those who believe in the opposition Hattusa (town) vs. Hatti (country) and those who say that Hattusa was the name both for the city and the country, with ^{URU}ḪATTI being an "Akkadographic" writing of Hattusa.

We can observe the tendency among early editors to attempt interpretations of logograms in Hittite texts according to their Sumerian meaning. Thus Friedrich interprets ^{LÚ}ŠU.GÁL (KBo 5.3 iv 19) as "Machthaber", "the one who has the power (= hand?) in him"[98]. As the context is broken here, this is certainly a valid course of action to have taken. However, in view of the fact that this word does not exist in Sumerian, as well as that we cannot count on the Hittite scribe having known enough Sumerian to have created it himself, the solution is unlikely[99]. In such cases we need to look at the

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[97] Götze's argument is not as clear as one might like (Götze 1928: 50-53; further id. 1925: 83). For example, he then cites numerous cases where one does have a LÚ KUR ^{URU}GN where he thinks the GN is adjectivally inflected. In each case an adjectival interpretation requires an animate inflection, as opposed to the neuter that the word KUR, *utnē*, should require. See discussion under LÚ ^{URU}GN, KUR ^{URU}GN and KUR ^{URU}ḪATTI in Part II.

[98] Friedrich 1930: 132.

[99] Much more likely it is a writing, possibly learned, of Akkadian *sukkallu*, "vizier", but one cannot know.

other idiosyncrasies exhibited by the scribe on the same tablet and ask whether he tends to use learned writings or not. While this may not solve the issue, it is an important factor to consider.

The question of a learned use of logograms was alive to the earliest editors of Hittite texts. J. Friedrich, in his *Staatsverträge des Hatti-Reiches* Vol. II, notes that the "Ideogramm" [I]NIR.GÁL for the personal name and adjective *muwatalli* arises from an etymological play on the Akkadian *muttallu* (Friedrich *muṭellu*)[100]. This corresponds to NIR.GÁL in a lexical list, albeit a late one[101]. Similarly the writing A.A for Hitt./Luw. *muwa-*, "power (vel sim.), lot", has recently been explained as an etymological play on Akkadian *mû*, "water"[102]. While these apparently stood for the same sounds, it was apparently impossible for Hittite scribes to use A.A for *muwatalli-*, indicating that the representation of *muwatalli-* by NIR.GÁL was fixed by convention. Furthermore, it indicates that these were not merely graphic elements operating on a rhyme principle but were also understood as semantic elements in their own right.

During the 1970s a lively debate concerning the dating of Hittite cuneiform tablets was conducted, in which logographic writings were deployed occasionally as a criterion by which to determine date of inscription. A consideration of the *status quaestionis* regarding palaeography in the process of dating tablets is given below.

It is often believed that the use of logograms increased in frequency over time. Thus the OH ms. A of the Laws often has phonetic writings where the later mss. have logographic ones[103]. Akkadographic writings are also generally supposed to be older than Sumerographic ones[104]. It is common in Hittitology to use phonetic, logographic and Akkadographic writings of particular words as indicators of the age of a text or tablet, although most editors are careful to differentiate between the relevance of the logographic writing of one word and that of another[105].

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[100] Friedrich 1930: 84, with reference to Weidner 1923: 127. van den Hout 1995: 69. See Part I s.v. A.A.

[101] CAD M/2 306.

[102] See discussion in Part I, s.v. A.A.

[103] Cf. Hoffner 1997a: 239 ff.

[104] Starke 1985a: 106.

[105] e.g. Christiansen 2006: 75, 228. For a summary of the debate in the 1970s, see Heinhold-Krahmer et al. 1979: 157, 162. Miller 2004: 227f. observes a general tendency to write syllabically as opposed to logographically in older mss. where there is variation between the MS and NS versions of the Mastigga texts.

In one of the first text-editions to be concerned about separating different manuscripts as regards their time of inscription, H. Otten and V. Souček remark in their edition of an Old Hittite ritual for the royal couple that the text was written with as few "Wortzeichen (Sumerogramme)" as possible, those restricting themselves mostly to names of professions and these with detailed phonetic complementation[106]. Furthermore the use of logographic (called ideographic!) writings is mentioned as a relevant criterion in deciding which copy is truer to its original. This later becomes a factor to be considered regularly in the evaluation of the relative age of a manuscript in the editions of the series StBoT[107].

Objections to a general application of a principle that phonetic writings are older while logographic writings are younger were raised by A. Kammenhuber[108]. However, the conclusion reached by her, that "fast jeder grössere Text zeigt, sobald das Ideogramm, das seinerseits einen Terminus post quem ergibt (!), einmal eingeführt ist, heth. und ideographische Schreibungen im Wechsel", while leading to a certain aporia, does suggest that it should be possible to determine the latest date of introduction for individual logograms at Hattusa.

The distinction has to be made between the dating of texts and the dating of tablets of texts. In the last case palaeography alone is relevant. This distinction is still not adequately appreciated in some of the earlier StBoT numbers[109].

F. Starke, in his edition of the cuneiform Luwian tablets, assumes that certain logographic writings, for example ^{LÚ}BE-EL SISKUR.SISKUR, when found in palaeographically young tablets, are indications that the tablet was copied from an older model, in this case one from the 15th century BC[110]. On the other hand he uses the absence of certain typically late logographic writings for certain words, ḪUL, GAM, UGU, as evidence that a tablet may not have been written in a late period. Such an argument only works negatively, the underlying assumption being that these particular later writings had not reached the Hittite scribal schools by this period. However, examples are found in the course of this study which indicate that certain logograms

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[106] Otten/Souček 1969: 54f.

[107] Cf. Neu 1970: 53f. with reference to the apparent exclusion of professional titles from this rule.

[108] Kammenhuber 1979: 206

[109] Riemschneider 1970: 54, KUR-ni-i "nur althethitisch belegt" but on tablets showing a New Script ductus.

[110] Starke 1985: 143. Miller 2004: 61 fn. 30, 227.

generally considered to be later additions to the Hattusa cuneiform repertory may well have been available in earlier periods, but only used in certain circumstances, such as under space constrictions (see Part II s.v. EN *MADGALTI*).

Logograms used in dating tablets by such negative criteria are:

New Script: EGIR-*an*[111], EGIR-*ŠÚ*[112] GUL[113] ḪUL[114] GAM UGU SUD[115] GIM-*an*[116]BAL[117] KIN[118] DIB[119] GAR[120] ME[121] ZAG[122]

UL[123]

E. Neu presents a slightly different perspective when he notes the rarity of logographic writings of verbs as opposed to nouns in older Hittite manuscripts by comparison to younger ones, by the example of the tradition of the OH Anitta text[124].

The perspective that it is not generally logographic writings that are younger phenomena, but logographic writings of certain words, or even certain parts of speech, is illustrated by the present study and has formed a basic guideline of careful philological work in the last half-century[125].

The occurrence of Sumerograms without any phonetic complementation is also remarked upon as a facet of later writing habits[126]. Here one should, however, distinguish between logograms that rarely ever appear with a phonetic complement,

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[111] Christiansen 2006: 75, 159. I have taken this recent work as a point of reference for the modern discussion, especially in view of its painstaking and thorough presentation.

[112] Christiansen 2006: 159.

[113] Christiansen 2006: 75.

[114] Christiansen 2006: 75 fn. 304.

[115] Christiansen 2006: 75 fn. 302; Strauß 2006: 311 in connection with IIIb ms.

[116] Christiansen 2006: 159.

[117] Christiansen 2006: 159, 216; Strauß 2006: 311.

[118] Christiansen 2006: 159.

[119] Christiansen 2006: 216

[120] Christiansen 2006: 217.

[121] Christiansen 2006: 217.

[122] Christiansen 2006: 217.

[123] Christiansen 2006: 75.

[124] Neu 1974: 50f. The recognition that the "OH" tablet of the Zalpa-text contains a number of verb forms written Akkadographically is all the more understandable in view of the recent shift to viewing that tablet as a Middle Hittite production (see below). Christiansen 2006: 75, 216.

[125] "logographische Schreibung bestimmter Wörter" Oettinger 1976: 95; "Ideogramme, denen Datierungsrelevanz zukommt" Christiansen 2006: 75.

[126] Christiansen 2006: 159, 293. Miller 2004: 229 does not observe significant diachronic or other patterns in the distribution between the earlier and later Mastigga manuscripts of complemented and uncomplemented forms; in fact it is the MH ms. I.A which has more uncomplemented forms compared to the later duplicates, but Miller is prudent not to draw conclusions about chronological distribution, noting that KU$_6$ appears in both complemented and uncomplemented form within four lines in that ms.

such as those of professional names, and those that appear earlier with phonetic complement and later appear to lose it.

Numerous articles deal with the interpretation of individual logograms and mention of these is reserved for the relevant sections of Parts II and III. Particular mention should be made, however, of two essays by H.G. Güterbock, which are devoted to the discussion of a number of "difficult" and easily confused logograms[127]. While these discussions are extremely detailed and hardly present a general thesis about Hittite logograms, they offer a common methodological approach. Güterbock's essays are the only attempts to look at logograms across texts as logograms *per se*, rather than as elements of a particular text that need to be elucidated. While a good editorial method necessarily involves that one establish the use of a particular lexeme or grapheme "in Hittite texts", the focus on one particular text or text-genre necessarily obscures the larger picture.

In each case the form and meaning of the logogram are analysed by Güterbock as elements of Hittite and not Mesopotamian writing. Sign-shapes commonly assumed to be the same according to the reading of Mesopotamian cuneiform are demonstrated to belong to different signs in Hittite cuneiform, while certain Mesopotamian sign-values do not exist at all. This is the case with the Mesopotamian sign LUL ("to lie"), which does not exist in Hittite as Güterbock demonstrates, all putative occurrences being examples either of the sign ḪUŠ, "angry", or KA$_5$(.A), "fox".

This basic methodological approach, distinguishing between local systems of cuneiform writing while still assuming a historical development that has resulted in this distribution, must form the backbone of any investigation.

Thus the majority of text-editions and grammatical works dealing with logograms treat them with a view to using them as a means of establishing the date of a tablet's inscription. An overview of this enterprise is not available.

Older works are more concerned with explaining Hittite logographic uses by contrast or simply by reference to Mesopotamian ones. A collection of contrasting uses was only partially attempted by Friedrich, with a concentration on the use of Akkadian in Hittite texts. They have, however, never been used as an indicator of the lines of transmission taken by Mesopotamian scholarship into the Hittite world. For this purpose it is first of

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[127] Güterbock 1973; 1983.

all necessary to delineate certain aspects of the relationship between Hittite scholarship and Hittite writing (Part I.2).

0.4 Purpose of Work

The purpose of the present work is to continue the process of documenting the uses and forms of Hittite logograms and comparing them with those of neighbouring cuneiform cultures, in order to make a contribution to the history of the Hittite cuneiform script. Complex signs and their uses are often misunderstood and re-worked by scribes speaking different languages, or having grown up in different scribal, cultural and economic traditions. Such adaptations can serve as a clue as to the scribal contacts that brought developments in the script into the Hittite world[128]. They can also give us an idea of the way in which the Hittites understood the signs they were using, how they learnt them and how scribal education functioned. The task is thus to begin delineating aspects of Mesopotamian and other kinds of cultural transmission in Hittite scribal practice.

After assessing the evidence for a Hittite school tradition (Part I.2), the present work will seek to do this by applying a unified methodology to two different corpora of Hittite logograms, in an attempt to provide a basis for making statements both about the internal aspect of Hittite logograms, i.e. their behaviour in the cuneiform script in Anatolia, but also about the geographical and historical aspect, i.e. the lines of transmission resulting in their presence in Anatolia.

i) An analytical catalogue of logograms from the "Historical Texts" (Laroche CTH 1-216) has been created. This corpus provides a large number of texts composed at different periods of Hittite history, each with a terminus post quem for the dating of the text. It is also important that these texts are composed in what we might call a neutral stylistic register without the specialised lexicon or writing style that is found among the omen texts, for example[129]. An exhaustive catalogue consisting of all logograms occurring in a broad selection from these texts is given in Appendix One.

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[128] Compare "Paläographie kann.....einen Beitrag zur genaueren Kenntnis der Traditionsströme und Schulbeziehungen in der Keilschriftsökumene liefern." Wilhelm 1984: 643.

[129] The concept of a "neutral stylistic register" is of course problematic. However, it is clear that the historical texts, as organised by E. Laroche in CTH and including letters, annals and treaties, have in common with each other more in terms of lexicon than with the other categories of text such as rituals, omens, scholarly literature. One might group mythological texts and the narrative sections of prayers with the historical texts at a later date, but the historical texts are here taken as a starting point.

This provides the research with a corpus from which to begin to establish the grouping of logographic writings according to ductus type as a complement to the large amount of work already done on this in the process of editing texts. For each of the manuscripts thus excerpted in catalogue form, a palaeographic and text-critical evaluation has been performed. Problematic here is that the historical texts have very few manuscript representatives that date from the Old Hittite period. Where possible the sample has therefore been augmented during the discussion of individual logograms to include texts of other genres, where the relevant logograms are attested. The results of the investigation thus reach beyond the confines of the corpus sampled. The investigation of the corpus thus presents no more than a window of access to what would otherwise have been an extremely intractable problem.

However, in order to offer an authentic presentation of the material as produced by the methods of research used to obtain it, discussion of selected logograms collected from the historical texts are presented in their own section: Part II.

The questions to be tested by means of this corpus are:

a) in what language are we to conceive of Akkadian and Sumerian words in Hittite texts?
b) is there a relationship between ductus-type and the use of logograms in orthography?

ii) The second corpus that has been studied is that of Anomalous Logograms in Hittite Cuneiform: those Logograms which do not appear in Mesopotamia, or are used significantly differently in Anatolia, have been collected, and their attestations catalogued. This catalogue is presented in Appendix Two. This is not a hermetically sealed corpus. The logographic usages that occur in the logograms from the historical texts are also frequently different to those which are found in Mesopotamia.

The basic tool used in the collection of anomalous logograms was the list of logograms given in the *Hethitisches Zeichenlexikon* (HZL). All logographic writings listed there, apart from abbreviations of Hittite or Hurrian words, were compared with R. Borger's *Mesopotamisches Zeichenlexikon* in the case of Sumerian words, and with the dictionaries of Akkadian (CAD, AHw.) in the case of Akkadian words. Should a Sumerian word not be found in MZL, the following were checked: A. Deimel's *Šumerisches Lexikon*, and the *Pennsylvania Sumerian Dictionary* in both its paper

(PSD) and electronic forms (ePSD). Of 1,982 logograms listed in HZL, 145 were found to be anomalous from the point of view of Mesopotamian cuneiform on this basis. These then formed the basis of the corpus presented in Appendix II.

The questions which this corpus was designed to address are different:

a) Is it possible to establish lines of transmission for Mesopotamian scholarship into Hattusa? (Of course, this question can also be asked of the corpus of historical texts).
b) What are the differences between Hittite and Mesopotamian cuneiform? Can we talk of a Hittite contribution in the adaptation of the writing system?

In the case of the corpus of anomalous logograms, all attestations have not been recorded where it has not been possible on preliminary investigation to advance comprehension of the logogram in a way that would have substantive explanatory value[130].
In each case logograms have been selected for discussion in Parts II and III on the basis of the contribution made by the evidence collected to an understanding of the above aspects of logographic writings in Hittite cuneiform formulated in the initial questions addressed to the corpora[131]. Typical criteria for selection for inclusion in the discussion sections were:

- the logogram's discussion contains evidence for a phonetic pronunciation in Sumerian or Akkadian
- evidence for learned or playful writings
- evidence for aspects which may illuminate the nature of transmission to Hattusa
- peculiarities in construction with phonetic complements
- phrase-bound traditional writings

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[130] This is the case for ME = Hitt. *dā-*, "take", *dāi-* "put", which is attested nowhere else in this function in the cuneiform world. All attestations of ME were inspected on the basis of the card-catalogue of the Forschungsstelle Hethitologie der Akademie der Wissenschaften, Mainz on two occasions, and this did indicate a marked bias towards texts of the "omen" genre, but it was not considered that a more detailed investigation with full documentation of all occurrences and palaeographical evaluation of each manuscript would lead to conclusive results or even pointers in the direction of a suitable interpretation.
[131] Many logograms are catalogued in each Appendix, which have not been selected for discussion. While it was in some cases not possible to advance the discussion substantively enough to warrant inclusion in the discussion sections, sufficient research was carried out to warrant documentation in the catalogue. The entry ^{GIŠ}DAG(-*ti*), for example, provides an exhaustive catalogue of the writings of this Sumerogram with an evaluation in each case of the status of the phonetic complement,whether as Hittite case marker or Akkadographic complement. This in itself represents a significant amount of information, but does not achieve any more than to add to a perspective on the interpretation of Hittite logograms in general rather than warranting a discussion of this logogram in particular. The appendices are presented in full so as to give a clear view of the research behind this work, and so that other people, who do not have the money and time to travel to Mainz to use the card-catalogue, may also use them.

- metonymic uses of logograms
- semantically similar or identical concepts that may be distributed mutually exclusively according to ductus
- problems in the interpretation of determinative as against logographic writings
- clear evidence for a relationship between logograms and lexical texts
- logograms that are not attested at all in Mesopotamia
- logograms that are otherwise only attested in the third millennium in Mesopotamia

These categories are discussed in the concluding summary sections of Part IV.

0.5 Tools of Study

The method used in this work is philological. While it is certainly the case that the subject-matter is apt for semiotic investigation, it is not apparent that the material transmitted by the sources, with their partial and fragmentary information on social and cultural context, provides a suitable background for anything more than a very limited semiotic approach. Semiotic approaches have been fruitfully applied to aspects of the modern Japanese writing system, for example, where we are in possession of vast amounts of information concerning the modern social and cultural context as well as considerable information on the history of the script and the Japanese perception of that history. This over-arching common context is not given with ancient societies such as the sources reveal them to us.

However, it is clear that a full description of the semiotic complex in which this writing system existed must remain the ultimate goal of inquiry. Of course, we want to know what everything means eventually. For the moment, however, we must limit ourselves to establishing little more than windows onto cultural complexes which largely escape our grasp. This is why philological method is so important, and two areas of philological method will be given priority in this work: palaeography and textual criticism.

0.5.1 Hittite Palaeography

Palaeography has an enormous importance in the study of Hittite texts. The fact that the Hittite archives preserve material that had obviously been kept and used from very early in their time at Hattusa until the very end of the Empire means that it is almost

completely impossible to use the archaeological find-spots of tablets, where these were at all recorded in the case of the earlier excavations, as a criterion for dating tablets[132]. The discovery of a tablet, the so-called "Zukrasi-text", from a supposedly securely Old Hittite layer on Büykkale in 1952 provided the impetus for an ever tighter definition of the dates of Hittite tablets according to their writing[133]. Thus a division of Hittite tablets into three central graphic periods was reached: Old Script, Middle Script and New Script. Old Script is said to correspond roughly to the time of the Old Kingdom down to Telipinu, Middle Script to the time from the 6 kings after Telipinu, through the Early Empire as far as and including a number of tablets written at the time of Suppiluliuma I, and New Script covers the period starting with the end of Suppiluliuma I as far as the end of the Hittite Empire.

With the publication of StBoT 20 and 21, by Chr. Rüster and E. Neu, a basic framework was provided by listing selected sign-forms from 22 texts, starting with the so-called Zukrasi tablet and proceeding through to texts that were composed in the late New Kingdom. A relatively complete sign-list was eventually published in 1989 with "Das Hethitische Zeichenlexikon" (HZL)[134].

In an attempt to systematise what had previously been a series of relatively casual palaeographic labels in the KBo volumes of H. Otten, and following the lead of E. Neu in this, F. Starke further divided each of these graphic periods into sub-divisions, each with their own chronological slot in Hittite history, and replaced the descriptive labels Old, Middle and New with numerical ones I, II, III[135]. The most recent substantial modification to this system came from J.Klinger[136].

An enumeration of the distinctive features belonging to these sub-divisions, as they have been described by palaeographers, is as follows[137]:

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[132] e.g. Klinger 2005: 106.

[133] Otten 1953: 60 with photo of 29/k = KBo 7.14. Photographs have since been published on the Internet.

[134] Rüster/Neu 1989. HZL does not always list the signs chronologically and does not generally include signs from Akkadian language texts.

[135] Starke 1985b: 21-27.

[136] Klinger 1995: 32-39.

[137] Given that many of the published results of Hittite palaeographical investigations have been tangential to other projects, it is perhaps unsurprising, although extremely regrettable, that the precise textual basis for most of the observations is lacking. Starke 1985: 21-27 hardly indicates which texts he has studied to arrive at the conclusions he presents and then applies to date manuscripts of the corpus of cuneiform Luwian. 12 texts, 9 historical and 3 prayers, are mentioned as examples for all Middle and New Script. I restrict myself here to presenting only explicit utterances of previous scholars on the subject, although this leaves numerous gaps in the presentation.

Old Script

Ia "schwer wirkende Handschrift", "enge Zeichensetzung", "geringe Wortabstände", "Zeichenligaturen"[138], "eine leicht nach rechts hin schräge Neigung der Köpfe senkrechter Keile"[139].

Ib "Handschrift ... wirkt weniger schwer", "das gesamte Schriftbild ... erscheint weniger gedrängt", "Wortabstände machen sich stärker bemerkbar"[140],

Characteristic signs according to HZL[141]: GA (159/6-8), TA (160A), ŠA (158A/2-4); E (187A/2, 5-6), URU (229/2-5), LI (343/A), ḪAR (333/A), AḪ (332/A), NA, UD (316A), KI (313/1-2), ŠAR (353A), AK (81A), IG (67A), AL (183/2)

Middle Script:

IIa "wirkt insgesamt wesentlich graziler", hardly any ligatures[142].

Characteristic sign: TA? (160/ 7-8, B)[143].

IIb UK and AZ occasionally with subscript UD and ZA (93B, 92B). AR with unbroken horizontal[144].

Main characteristic: DA and IT with extended lower horizontal (214B/2-3, 215B/2, 4)[145].

IIc Raising of inscribed verticals level with top horizontals ŠA (158/1), E (187/3-4); level with other vertical URU (229A/1); slight extraction of central horizontal(s) in AḪ (332/4), ḪAR (333/4); ŠAR with two verticals (353B).[146] AL with a flat bottom (183/5 etc.)

Klinger: IG (67B) also rarely "mh".

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[138] Neu 1980: XIV.

[139] Starke 1977: 10 apud Neu loc. cit.

[140] Neu 1980: XVI. Starke 1985b: 23, "...eben diese Merkmale nicht mehr so ausgeprägt", appears to concur.

[141] The selection follows that of Otten/Souček 1969:43, with omission of ME.EŠ and addition of AḪ, ŠAR and AL. The form of NA given there is not in HZL. These signs are not all exclusively characteristic of the Old Hittite period, but are appropriate to illustrate the changes in later periods. According to Starke's argument, in as far as it is made explicit, the only sign that could be said to be solely characteristic of Ia-b is TA with the central verticals raised level with the right vertical, or at least well above the top horizontal. Whether this actually fits the evidence is not at all clear.

[142] Starke loc. cit., but see Miller 2004: 46 with fn. 73, where ligatures *A-NA*, *kat+ta* are found in IIb mss.

[143] Starke loc. cit. Of fragments of 46 OS tablets thus far counted by myself 9 show TA with its internal verticals level with the top horizontal, although hardly ever exclusively. The change, if ever there was one, should thus be dated earlier than MS.

[144] Miller 2004: 40f.

[145] Starke 1985b: 24; Popko 2007: 577-579.

[146] Starke loc. cit.

New Script:

IIIa Starke: Uprights all pulled up virtually level with eachother:

GAD (173/6), KÙ (69/5-6)[147], ZU (209/2ff.), ŠA (158/6ff.), E (187B, 9-10), RU (43/B), EL (307A), NINDA (369/1). DU: 128A becomes 128/2-3? New Ù (265/10ff.) introduced.

Klinger: AG (81B) introduced.

IIIb Starke: AG (81B), IG (67B), LI (343B), URU (229B) SAG (192B), GI (30B), KI (313/19ff.) ŠAR (353/4-5, 353/6ff)

Klinger: LI (343B) URU (229B), SAR (353/6ff.) introduced. Late AG, IG frequent; later on, introduction of DA and ID with unbroken horizontal (214C, 215C)[148].

IIIc Klinger: ḪA with one Winkelhaken (367B), DI and KI with two uprights (312/8ff, 313/19ff.), UN without inscribed vertical (197/8).

There are problems with this exclusively chronological approach to the description of the script. Typologically such a rigid, linear development is quite peculiar. Either the scribal school at Hattusa was extremely small, or it was extremely disciplined and traditional, only rarely letting foreign influences in. This last hypothesis is supported by the fact that, just as has been recognised for the mass-standardisation of their pottery across the Empire, Hittite scribes obviously used the standard Boğazköy ductus outside Hattusa, and it can be used to date tablets whether they be found in Ortaköy, Alalaḫ, Kušaklı, Maşat or Kayalı Pınar. While surrounding cuneiform cultures were using all manner of signs contemporaneously, the Hittites would, according to this model, only have let in a new sign or stylistic element every few decades[149].

The continuum Ia - IIa is beginning to look difficult to separate out, given that there are no changes in sign-forms which can be used as diagnostics, apart from Starke's

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[147] The "late" KÙ now appears in KBo 38.12, a tablet of the KI.LAM festival dated Old Hittite by D. Groddek (id. 2004), and as "ah.?" by S. Košak in his *Konkordanz*.

[148] Klinger 1995: 37f. appears to see DA and ID with unbroken horizontals as part of a later wave of innovations during the IIIb period, if his reference to their sporadic absence in KBo 4.10+ is to be taken to indicate a date late in Hattusili's reign, as opposed to the usual writing with a broken horizontal in other Hattusili texts.

[149] Here it must be admitted that the state of palaeographic study with regard to cuneiform cultures surrounding Anatolia is currently deplorable. It is hoped that the advance of the computer-based Birmingham Cuneiform Palaeography Project will offer some relief in this area, but it is early days yet.

"slipping" of the verticals in TA (and GA)[150]. One is left with subjective impressions based on the depth of the imprint of the stylus in the clay and and the crowding of the signs, what should strictly be termed the ductus[151]. In particular the hypothesis that Neu and Starke's Ia-b distinction be a chronological one has on occasion been denied completely[152]. Furthermore, it is often very difficult to see exactly what Neu meant when he applied these categories[153].

Beyond OS it is also difficult to see the differences between itself and the earlier stages of MS, without using subjective terminology such as "Eleganz", and several texts once thought to have been securely OS have since been re-classified as MS[154]. J.L. Miller suggests that it is at present, in the absence of datable texts from the earlier Old Hittite period, impossible to distinguish chronologically between texts "from the beginning of the OH period to the immediate predecessors of Tudhaliya I"[155], presumably meaning through to the beginning of the postulated IIb writing period.

Theoretically, although this is never explicitly stated by anyone to my knowledge, it should be possible, if the above model for the development from OS to MS is to work, to draw up a sliding scale of adherence to the bundle of distinctive features for OS Ia gathered by Neu and Starke. The less of them a tablet possesses, the later it was written,

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[150] Given the Hittite scribe's observable habit of using older forms beside younger ones, whether it be that they crept in from the older original being copied or were employed as deliberate "archaisms", this particular change can be used to distinguish one set of texts from another chronologically only once, i.e. at this stage of the history of Hittite writing, if at all. Although this particular characteristic is regrettably frequently misrepresented in the editions, after and indeed during the OH period the same tablet frequently uses TA, GA with verticals above, on and below the line. See above.

[151] For the differentiation between "ductus" and sign-forms see Popko 2007: 576.

[152] Berman 1981: 653-654 suggests that the orthographic conventions regarding the distinction between inherited *e* and *i* are different in Ia and b. Ia tablets do not distinguish between the two, while Ib tablets do. Assuming /i/ and /e/ became confused during the course of documented Hittite, having been initially separate phonemes, the distribution should have been the other way round, so the distinction between the two "ductus"-types will not be one of chronology, but some other. Miller 2004: 463 fn. 773 sees Berman's argument demolishing the distinction between Ia and Ib in the first place, but this is not how I read him. The argument has less force if it is the case, as common linguistic opinion argues, that *i* and *e* were distinguished at all periods of the Hittite language; cf. Eichner 1980: 141ff., Melchert 1984: 78ff., Melchert 1994: 99. If it is in fact borne out by further investigation of the Old Hittite corpus, Berman's connection of a possibly consistent orthographic feature with one potential Old Hittite ductus as opposed to the other will be of great interest, as it suggests mutually exclusive strands of Old Hittite scribal education and/or practice, whether this difference be interpreted chronologically or typologically.

[153] The photographs provided in StBoT 25 Tafel I-II, do allow recoginition of the fact that the stylus imprint was heavier and thus wider in KBo 25.112 obv. than in KBo 25.31 obv. There is also more space between the lines and non-finally occurring words are occasionally more easily recognisable due to spacing in KBo 25.31. This is by no means the case, however, in all the Ib tablets identified by Neu, and is very difficult to determine as a criterion of differentiation.

[154] Perhaps controversially KBo 22.2 "mh" at Košak *Konkordanz*. Klinger 1995: 210 describes the "Text" as "althethitisch" but this does not indicate his opinion of the tablet. Oettinger 2007: 563 still describes it as "altheth. Niederschrift".

[155] Miller loc. cit.

would be the rule[156]. The problem here is that even the most cursory approach to the classification of the tablets on the basis of the above-mentioned features as observable in photographs shows that none of them show all these features at once, while not a few exhibit distinctly contrary tendencies[157]. Furthermore, even were we able to agree on a model of development something like that proposed by Neu, it would remain unverifiable without independently datable texts from the Old Kingdom.

The Zukrasi text (KBo 7.14+) is a case in point, as it is commonly thought to have provided a fixed point from which to define OS[158]. The heads of the uprights are rightward leaning, but there is some spacing between some of the words, and a good deal in the enumeration of Syrian nobles and their ranks, yet at the same time the stylus imprints appear heavy[159], and there are numerous ligatures. The regular forms of DA and ID, although not as exaggerated as in H. Otten's hand-copy, are clearly the "stepped" forms (214B/2, 215B) which are supposed to be characteristic of ductus IIb. We should also note the form of TA with inscribed verticals level with the top horizontal[160] (but ŠA with the small inscribed vertical), as well as the "middle" URU alongside the old one. If we were to use Starke's "process of negative elimination" to establish the age of this tablet on "absolute" grounds, we would clearly label it MS, and possibly not even early MS[161]. The same is true of KBo 3.22 (Anitta), which has the infamous stepped DA and ID, mixed high and low central verticals in TA, (but very tiny inscribed vertical in ŠA)[162].

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[156] This would require corroboration from independent dating criteria, which are not at present available. It would also require that concepts such as "enge Zeichensetzung" be made more concrete and explicit by measurement. Using such a method, and the very features on which it relies, implicitly assumes that early Hittite writing was more clumsy than the "elegant" later style. This may be true, but it could also be a facet of scribal idiosyncrasy

[157] The tablet with most crowded script I have seen in photograph is KBo 16.71+ (Photos N04499, N04413, 4414, 4415), but even this shows TA with its central verticals below the top horizontal. KBo 25.61 always has TA with high central verticals but is written in a neat and regular script (N00466). KBo 20.27 always has TA with very high verticals but has good spacing (Neu II, Konkordanz "ah.?"). It may be most efficient to dispense with the criterion of TA, GA and their internal verticals completely.

[158] Otten 1953: 60ff. Popko 2007: 578.

[159] From photos collated in Mainz and Photoarchiv photos on the Internet.

[160] An interesting aspect of the hand-writing of TA in this tablet is that the verticals were written before the horizontals, which thus partially obliterate them. This is not the usual method of writing on tablets of any period.

[161] Konkordanz now dates the fragment as ah.?/mh.?

[162] One might label KBo 3.22 as Ib, Neu's type II, or indeed (MS) IIa-b, due to the spacing and lighter impressions of the stylus. It also has slanting tops on verticals. See also KBo 20.26 (Neu II, Konk. ah.), which has a stepped DA. Several further factors also make the older Anitta tablet unique. It is shaped like a letter, an upright rectangle, and has writing going straight over the bottom edge directly round to the reverse.

The problem here is perhaps the frequent reliance on the stepped forms of DA and ID to define Middle Script, not the fact that they appear already occasionally in OS tablets[163].

Tablet A of the Laws has quite a similar set of distinctive features, including a slightly stepped DA[164]. The heads of its uprights are sometimes slanted, but not particularly, and the writing, though tightly spaced, allows fairly clear spaces between words, as well as starting right on the column-divider. TA is written with its central verticals above, below and level with the top horizontal. ŠA occurs without an inscribed vertical as well as with a very small one.

Central importance should be accorded to the İnandık Land Donation, after G. Wilhelm's re-dating of it on prosopographical grounds to the reign of Telipinu or his predecessor, Huzziya[165]. It does not share many of the characteristics of the Old Script that we know from the tightly crammed tiny writing of some Old Script tablets that fall under the terms of Neu's "type I" (Starke Ia). This is doubtless a matter of genre and tablet type. The pillow shaped tablet of the sealed administrative document tends itself to quite different writing, if one is pressing the stylus hard, to that of a broad 4 or even 6-column tablet. However, the tops of the verticals are generally slanted. It has ŠA with a tiny inscribed vertical and one case of TA without any verticals at all[166]. It also contains a sign-form not booked in HZL: ID in l. 8, 9, 14. The form of Ù, particularly in obv. 9 with its three horizontals, is also very peculiar for Old Script tablets, which generally use HZL 265A.

A re-assessment of the development from OS to MS on the basis of collation of the originals is desperately needed. In particular questions of writing technology also need to be explicitly addressed in this context, as it seems more than likely that some of the differences between OS and MS are the result of the use of a different kind of stylus[167].

Problems are also encountered with the chronological fine-tuning of New Script (III a-c), especially towards the end of the period. J. Klinger identifies script type IIIb mainly by the presence of the late LI and sees it beginning with Muwatalli/Hattusili[168], and then

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[163] Over-reliance on this used in isolation as a criterion for dating is in evidence in the recent article by M. Popko (id. 2007), on which see below.

[164] See Hoffner 1997a: 232, Table 17.

[165] Wilhelm 2005: 276; Popko 2007: 572.

[166] Photo at Balkan 1973: 82 Abb. 2 *ta-ba-ar-na*.

[167] Kammenhuber 1988: 98.

[168] Also Kammenhuber in HWb² I 546 s.v. *atta-* "father".

developing further still within Hattusili's reign with the introduction of DA and IT with an unbroken central horizontal.

IIIc is then supposed to develop within the reign of Tudhaliya IV, with particular emphasis being given to the presence of ḪA with one Winkelhaken as a sign-form that was only introduced half-way through his reign.

A slightly different means of differentiating between the later stages of NS Hittite writing was used by Th. van den Hout in his 1989 dissertation[169]. The part of the dissertation devoted to palaeography remained unpublished, however, although it is frequently referred to by Dutch Hittitologists. The writer only gained access to this document at the very end of writing this dissertation and was thus unable to include van den Hout's results in his own investigation, although these are particularly important for having been obtained on the basis of direct collation of tablets in the majority of cases. The signs that he decides to be indicative of a time of inscription in the second half of the 13th century are QA[170], EN, BI, UN and ḪA, where the important criterion is added that these signs should be used in as cumulative a manner as possible when establishing a date of writing[171]. On the other hand, the use of UN in its younger form can be used "fast 'automatisch'" to date a manuscript to the reign of Tudhaliya IV or Suppiluliuma II[172].

The review of the palaeography of the historical texts carried out during the completion of this dissertation, the results of which I hope to publish elsewhere, allows the following re-alignment in the dating of some of these very late signs.

The Tawagalawa letter (KUB 14.3, Hattusili III) contains a number of IIIc signs, including ḪA with one Winkelhaken and the late UN, which are sometimes but not always marked on A. Götze's copy, as shown by collation of the original. Given that it is also very unlikely not to have been an original document and cannot have been composed late in the reign of Tudhaliya for prosopographical reasons, we must entertain the possibility that signs of script type IIIc were introduced at least by Hattusili's reign. Further texts from the reign of Hattusili support this[173].

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[169] Van den Hout 1989: 326-343.

[170] Neu 1996: 5 notes "late" QA in a MS text.

[171] See also Mora/Giorgieri 2004: 34-37, also with doubts concerning the later dating of IIIc.

[172] Van den Hout 1989: 342.

[173] This is most clearly the case in two oracular reports, KUB 22.25 from before the capture of Nerik and KUB 5.1 from after it. See also KUB 26.58 (Ura-Tarḫunda text); KUB 14.45 (?); KUB 21.19+, KUB 19.9; KUB 21.8.

The Manapa-Tarhunda letter (KUB 19.5+), which is generally ascribed to the reign of Muwatalli II, also displays regular ḪA with one Winkelhaken and the late KU with two verticals, although this latter is restricted to two occurrences of a personal name, Kupanta-[D]LAMMA. Consequently, given that there are texts of Tudhaliya's reign which employ script type IIIb[174], we have to entertain the possibility that the use of different sign-forms was not only a matter of chronology, but also one of differing scribal education and style. Once we admit this for the late period the possibility is raised for the other periods as well[175].

It should be mentioned that this perspective gives some ground back to the often vehemently argued view-point of A. Kammenhuber, who was generally opposed to the use of ductus and often of sign-forms in the process of dating tablets[176]. While Kammenhuber's essential view that these were "just" matters of hand-writing (i.e. graphology) is certainly too far in the wrong direction and has rightly been discarded by most Hittitologists, the process of fine-dating on the basis of sign-forms alone has also led to anomalies which are in need of review. We are most certainly dealing with contemporary scribes who have been exposed to different traditions and educational experiences. These are reflected in their work.

A further problem is encountered when we find that certain of the diagnostic features occur in texts which would otherwise be classified quite differently if those features were not present. This ranges from the occasional ḪA with one Winkelhaken or KI with two uprights to whole groups of them[177]. This raises interesting questions about how these signs arrived in Hattusa in the first place. Very often it will have been the practice of copying foreign treaties or other documents which will have triggered a change in fashion, but these changes appear to have been effected very slowly, which militates

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[174] In particular ms. B of CTH 105, KUB 8.82+ (StBoT 16, 80). Yet this has one example of ḪA with one Winkelhaken at rev. 16. KBo 4.14 (VAT 13049), dated by Th. Van den Hout (1995: 128f.) to Tudhaliya and labelled by him IIIb. The form of KI in iv 68 suggests rather IIIc, but this is not a criterion for van den Hout). KUB 6.47, labelled IIIa/b by van den Hout; KUB 13.34 (van den Hout IIIb/c). KUB 16.32+ (van den Hout IIIb); KUB 19.23 (Van den Hout IIIb); KUB 19.55 (VAT 7477 - van den Hout IIIb/c); KUB 23.1 (van den Hout IIIb/c); KUB 26.18 (van den Hout IIIb/c, no IIIc elements as far as I can see on photo N03452); KUB 31.32 (van den Hout IIIb, Konk. sjh); KUB 31.68 (van den Hout IIIb, however cf. IIIc KI in l. 19, NO 3588); KUB 44.24 (van den Hout IIIb).

[175] As a corollary, one tablet fragment showing IIIbii signs, ie. DA and ID with an unbroken central horizontal, has been found in a datable archaeological context: KBo 18.143, 494/w, "Bk. D, Büyük Kale p-q/10-11 Nordareal, UNTER heth. Lehmfüllung, aus schwarzer Schutterde über gestörter IVb-Mauer", Košak 2005: 22 fn. 660. Thus somewhat earlier than the very end of the Empire period?

[176] See for example Kammenhuber 1988.

[177] KUB 21.1 iii 19 ḪA (J.Klinger: Muwatalli, but cf. also URU and *kiš-an*); KBo 3.46 all ḪA (Konkordanz jh.).

against the idea of a revolution in writing brought about for example by the introduction of foreign scribes.

With regard to the introduction of signs associated with the category IIIc, it is commonly assumed that this was due to Assyrian influence. We should beware of taking this too literally, however. Although these are signs which are characteristic of the Middle Assyrian sign-repertory, it should be noted that such sign-forms are found all over the North and West of the Ancient Near East at the same period. A glance at the Middle Babylonian tablets from Dur-Kurigalzu[178] or from Alalaḫ Level IV makes this immediately clear. The "Assyrian influence" does not, therefore have to have been transmitted by Assyrians at least in this case.

For the purposes of the present study, the broad palaeographic categories "Old", "Middle" and "Late" will be kept, while further determination of the palaeographic character of a manuscript will depend on which diagnostic signs occur within it in what combinations with each other on a case by case basis. While the categories established in the process of working out the scheme of fine-dating are not always necessarily to be interpreted solely chronologically, they serve well as the basis for an embryonic typology of script-types. For this purpose, the differentiation between the sign-forms in use within the ductus type IIIb, hinted at by J. Klinger, has been geared more explicitly to the identification of the types of signs present in a tablet rather than to chronological dating:

IIIb (NSb) = LI   IIIbi (NSbi) = URU   IIIbii (NSbii) = DA and IT[179].

Thus it is hoped to begin making a contribution to a typology of scribal habits and ultimately scribal profiles by identifying clusters of co-occurring features, be they palaeographic or orthographic. The initial basis for this is provided by the historical texts[180].

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[178] Gurney 1949; id. 1953.

[179] For the sake of convenience the notation OS, MS, NS will be used here instead of I, II, III. This is followed by the sub-types as specified above. thus NSa, NSb, NSbi, NSbii, NSc.

[180] A project on Hittite palaeography from the OS/MS continuum through to a typology of the palaeography of the historical texts based on collation of the originals in Ankara has been proposed by the writer but has thus far failed to find financial support.

0.5.2 Scribal Habits and Textual Criticism

Any work attempting to look at scribal practice as a reflex of scribal education must consider what methods can be used in the first place to characterise scribal activity once the options and methods for conducting palaeography have been considered. For a complete evaluation of the place of logograms in Hittite scribal activity a synchronic analysis of scribal traits is acutely needed.

Some indication of the place of the logogram in the writing of individual scribes may be given by the parallel texts of CTH 381, "*Muwatalli's Prayer to the Assembly of the Gods through the Storm-God of Lightning*"[181]. The importance of this text for the study of Hittite writing habits emerges from its apparent redactional history.

Ph. Houwink ten Cate convincingly suggested that KUB 6.45 (Text A) is a copy of KUB 6.46 (Text B) because: i) B has more errors than A ; ii) the kind of errors in B suggest it was written hastily under dictation; iii) both manuscripts share common errors which suggest a dependence of the one on the other; iv) A has made mistakes of his own in copying[182]. I. Singer has additionally suggested that A was most probably copied while the clay of B was still moist. This is indicated by the shared addition of an omitted sign above the line, which could be adequately explained if A had started to copy while it was still possible to write on B[183].

Singer was able to demonstrate quite convincingly that the tablets of CTH 381 showed evidence of various stages of "proof-reading" from a hastily written, probably dictated version (Tablet B) through a neat version and then corrections to both versions possibly carried out by a supervisor.

Having reached this conclusion about the relationship between the two texts, it is interesting to note with Singer[184] that A contains many logograms where B has phonetic writings. If B is a hastily written, dictated version and A the neat copy, then it is hardly the case that A is using the logograms as a form of shorthand. Rather we should be thinking of learned and recherché usage in contrast to purely practical notation. On the other hand, it is precisely in the administrative texts from Boğazköy that logographic

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[181] Edition: Singer 1996.
[182] Houwink Ten Cate 1968: 204-8
[183] Singer op.cit. p. 135-142.
[184] Cf. Singer 1996: 130.

writings are used most densely, and these were certainly written for practical purposes, although that does not exclude that they could not have been written in a learned manner.

If Singer's characterisation of the redactional history of CTH 381 is correct, it is immediately no longer possible to use the presence or absence of logographic writings versus syllabic ones as a general indication of the time of a tablet's inscription. It is necessary to begin developing criteria to appreciate their use as facets of a particular scribe's practice, be it education or context of writing, in as far as it is possible to gauge these from the tablet. Numerous tablets from Boğazköy are written by the same scribes according to information in their colophons. Analysing different tablets written by the same scribe would be a good way of establishing the nature of scribal habits.

The only attempt to compare two manuscripts of one and the same scribe to my knowledge was that of J. Klinger in the case of the palaeography of two tablets by the scribe Tatigganna[185]. A further case study is briefly presented here.

Pikku, son of Tatta, appears in the colophons of (A) KUB 29.1 (a foundation ritual, written before Anuwanza, found in Bk. A), (B) KUB 7.53 + KUB 12.58 (a magical ritual), (C) KUB 10.18 (a festival text - AN.TAḪ.SUM^{SAR}, written before Anuwanza), and (D) KBo 36.48+ KUB 29.11 (a lunar omen text, written before Anuwanza, found in Bk. q-r/16-17).
All of these tablets fall into the categories NSb/c[186].
KUB 29.1 was the subject of a study by G. Kellerman in her unpublished 1980 dissertation on Hittite Foundation Rituals, where she convincingly showed that the text, our manuscript of which she identified as a copy of the 13th century, must be divided into two parts: i 1 - iii 12 represents a copy of an Old Hittite composition based on Hattic mythological material while iii 13 - iv 29 describes the ritual and is a later composition. Thus we should expect apparently older elements to be preserved in the copy of the first part, while the final 68 lines should be closer to the script, orthography and language of the time of the copy. This supposition is borne out by Kellerman's

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[185] Klinger 1995: 38f., with the observation that the texts written by Tatigganna belong to "unterschiedlichen Datierungsgruppen", KBo 3.3 being NSa, KUB 10.21 being NSb.

[186] van den Hout 1995: Index B p. 309: KUB 29.1 = IIIb; p.303 KUB 10.18 = IIIb; p. 309 KBo 36.48+ = IIIa! must be an error, as the tablet shows IIIc KI, KU and DA and ID with unbroken central horizontals and Van den Hout elsewhere (loc. cit. 241f.) allows for a dating of Anuwanza's activity to the reigns of Hattusili (possibly) and Tudhaliya.

demonstration with regard to orthography and language[187]. Palaeographic analysis[188], which was not conducted by her, shows no differences between the sign-forms in the first part of the tablet and the second. In both parts there is a mixture of old and new, the latest sign-form being two examples of KI with a front vertical in i 12, iv 10, and apart from that one likely case of DA with an unbroken central horizontal in iii 7. The hand-writing of A is not nearly as careful as that of the others and many signs are mal-formed.

Pikku tends to write RU in its older form with a lower central horizontal (HZL 43A) in B and C, while in D it has two lower central verticals. In A this is not so noticeable.

DA and ID appear in B and C in forms both with and without the broken central horizontal. There is a slight tendency in both to extend the top horizontal. D only appears to have the unbroken horizontal, although this is difficult to tell from the photograph, but also extends the top horizontal occasionally. A uses primarily the form with the broken horizontal and extends both the bottom and the top horizontal.

All manuscripts show a tendency to write MA with an extended top horizontal, although there are exceptions in B.

All manuscripts write LA with two extended front horizontals, not always keeping it separate from AD, which is then rather adapted to LA than vice-versa.

All manuscripts also appear to prefer the older form of AG, IG (except A which has more cases of late IG) and LI. In the last case, A, B and C all show old LI with markedly short initial pair of horizontals compared to the following pair, while there are no examples in D. A writes the old and the new LI signs side by side in ii 17, 18: *li-li-iš-ki-it-ten*.

A and B use exclusively the old SAR, whereas C uses the late one. D does not attest it. Taken in isolation B and C would conventionally be said to be NSb manuscripts, while A would be said to be borderline NSb/c and D would be NSc. This is interesting if we remember that texts of the oracular genre were among the earliest yet identified regularly using NSc signs. Other sign-shapes which are not usually taken as being palaeographically significant, such as MA, KU etc., do appear to be used somewhat uniformly across the manuscripts.

Orthographically there are very few comparanda between A, B and C, that could be said to be at all idiosyncratic. D belongs to such a specialised genre that a comparison is not fruitful in this regard. One can highlight the fact that plene-vowels are generally written

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[187] Kellerman 1980: 76-84.

[188] Photos of all tablets are now published on the internet.

in certain words, such as *a-pa-a-aš*, *ka-a-aš*, *a-pé-e-ez*, *a-pé-e-da-aš* in all three manuscripts, although the practice is sometimes not uniform with the same word within the same manuscript. One idiosyncrasy is certainly the slight tendency to write logograms in the dative without either Akkadographic *A-NA* or a Hittite phonetic complement in B and C. See ŠU*^{TI}*-*KA* (C); É[.MUŠ]EN*^?*.NA (or É[.MUŠ]EN*^?*-*na*?) B vi 10 *^{NA4}*ZI.KIN (B i 13). This is slightly reminiscent of the dense syntax of oracle texts[189]. The difference in complementation between LÚ-*aš* (A) and LÚ-*eš* for the nom. sg. of *pesna-*, *piseni-* "man" can presumably be explained by the fact that both cases of LÚ-*aš* are to be found in the part of A that was based on an Old Hittite original. Akkadian grammatical complements are always used correctly in A, whereas in C there are occasional abuses of Akkadian case ending: LÚ*^{LIM}* (nom. sg.); TUR*^{TIM}* (id.).

Thus we can isolate at least two axes of influence for this Pikku. The fact that he was clearly involved with writing oracle texts shows some influence on the rest of his work. The second axis of influence proceeds from the textual tradition in which he is working. In palaeography we are prohibited from using the presence of an older sign-form in the dating of a tablet. It is even quite unsure to infer from the presence of older sign-forms beside younger ones that the tablet is a copy on an older one, although this is frequently done. In orthography, on the other hand, it is not possible to condemn a form as young just because it only occurs in palaeographically late texts. The textual tradition from which it has been copied, if there is one, must also be taken into account.

Just how complicated this may be is well illustrated by a tablet of the annals of Mursili II, KBo 4.4. The writing stops at the end of column II with the word *ḫarran*, "destroyed", followed by repeated PAP signs, which are used to indicate that the tablet from which the scribe is copying is here illegible. On the other hand, KBo 4.4 rev. iv 12 contains a clear case of a dictation error *Ú-UL* for *katta*. The scribe heard *natta* and wrote it as *Ú-UL*[190]. Presumably the dication error would have crept into the text during a previous writing on another tablet and simply been copied along with the rest of the text during the inscription of KBo 4.4. The alternative is to assume that the text was dictated for part of the tablet, and copied for another, which is of course not impossible.

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[189] eg. ŠUB*^{TI}* NÍG.ÚR.LÍMMU ÚŠ-*an ki-i-ša* KUB 8.27 left edge ii 4 "a plague will break out in the corpse(s) of the livestock" (Hoffner 1967: 55 fn. 99). See also DINGIR*^{MEŠ}* LÚ*^{MEŠ}* at Christiansen 2006: 219.

[190] I thank H.C. Melchert for bringing this to my attention. The PAP-signs, could of course, also have been read out to indicate damage by the dictating scribe, as D. Schwemer points out to me.

The following examination will attempt to apply both aspects of methodology to the tablets in which logograms under discussion occur: on the one hand palaeography, which allows a grouping of tablets in larger categories, including chronological ones, according to their hand-writing; on the other hand textual criticism, which allows the evaluation of a scribe's habits from comparison with his particular idiosyncrasies on the whole of the particular tablet under discussion.

PART ONE

WRITING AT HATTUSA
SCRIBAL EDUCATION AND ENVIRONMENT

I.1 The Origin of Hittite Cuneiform Writing

The Old Hittite cuneiform writing system shows its closest affinities with late Old Babylonian cursives of North-Western Mesopotamia and Northern Syria and is often considered to have been adopted by Hattusili I during his campaign in Northern Syria. The syllabary itself, along with the manner of shaping and writing on the tablets is often referred as the Syro-Hittite style, to distinguish it from Old Assyrian writing and tablets, for example. Aleppo is thought by some to have been the precise location of the contact[191]. However the debate is not yet closed as to whether this or similar forms of writing may have been available in Anatolia to predecessors of Hattusili.

By contrast, non-Hittitologists appear to be agreed on the idea that the Hittite cuneiform script was borrowed early in the second millennium BC from a writing system still using Old Akkadian orthography. This idea was developed by T. Gamkrelidze in 1960 and 1968 on the basis of observed similarities between the Old Akkadian and Hittite use of the cuneiform syllabograms for the sibilants in each language[192]. Much has changed in the last four decades in the way we perceive Semitic sibilants and their representation in the Old Akkadian syllabary. Proponents of the "affricate hypothesis" invoke the Hittite use of the Z series of syllabograms to represent the affricate /^{t}s/ in Hittite as proof that the Akkadian /s/ phoneme was still affricated in Old Akkadian, and indeed in certain positions in Old Babylonian.

The observation that the Z-representation of Akkadian /s/ in OB is still observed in most positions means that it is not necessary for the Hittite usage to have been adapted from an Old Akkadian orthographic system, and the transfer of the script does not run the risk of being propelled further back in time than might be plausible[193]. However, it is interesting that the Hittites appear to have borrowed at least from a cuneiform culture that had not undergone the same writing reform as is observable in the later tablets from Mari, where /s/ and more importantly -ss- < -ts/š- (e.g. *bīssu < bīt-šu*), are represented at first by the Z-series and later by the S-series. This does not mean that the script has to have been adopted in the first quarter of the 18th century BC, at most it means that those people from whom the script was adopted had not yet changed their writing habits[194].

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[191] Zeeb 2001: 68.

[192] Gamkrelidze 1960; id. 1968: 91-92; Bomhard 1988: 124.

[193] cf. e.g. Streck 2006.

[194] Once established the Hittite opposition Š = /s/ vs. Z = /^{t}s/ could not be disrupted. The phonetic deaffrication of the sibilants which provided the background for the orthographic change at Mari and in

A brief review of the historical background is in order.

I.1.2. The Historical Background

Of primary importance here are the recent developments in the chronology of *Kārum Kaneš* Ib, which have brought the end of that level of inhabitation at Kültepe down to within a few generations of Hattusili I. The excavations at the site of Kültepe have yielded many thousands of tablets, the vast majority of which remain unpublished, and so relatively secure conclusions must be postponed until full publication has been achieved. However, on the basis of the Eponym list found at Kültepe in several copies in 1991 and 1992, in combination with the data of the Mari Eponym Chronicle, K.R. Veenhof has been able to date the end of *Kārum Kaneš* level II to around 1836 B.C. using the conventional Middle Chronology[195].

The time between the destruction of Kaneš Level II and the beginning of Kaneš Ib, the level from which the name of Anitta is attested on documents and inscribed artefacts from Kültepe, K.Veenhof estimates to have been around 35 years. This brings us to around 1800 B.C., some time after the accession of Samši-Adad I, but before his victory over Yaḫdun-Līm and subsequent control over Upper Mesopotamia[196]. Given that the sum total of eponyms in evidence for Level Ib on the Kültepe Eponym List, supplemented by information from incomplete lists from Boğazköy, Ališar, Tell Leilan and the Mari Eponym Chronicle, comes to 65, it is more than likely that the end of Kaneš Level Ib is to be sought some time after 1740 B.C.[197].

This leaves us with a manageable gap into which to fit the successors of Anitta and predecessors of Hattusili I, thus arriving at a historical framework from which to consider the likelihood of writing having been available to the Hittites before Hattusa.

LOB did not occur among the Hittites. The Amarna-letters of Tušratta also use -zz- in the OB manner: VS 11.9, 7: *al-ta-ta-az-zi = altatassi*.

[195] Veenhof 2003: 57. Similar conclusions had been reached by Forlanini 1995: 126f.

[196] Veenhof 2003: 67. This period is shorter than that sometimes otherwise postulated, but presumably too long to tally with K. Hecker's theory, argued on a priori and prosopographical grounds, of an almost immediate resumption of business activity at the Kārum Kaneš after the destruction of Level II. Cf. Hecker 1998: 297 - 307.

[197] Veenhof indicates that this tallies with the sparse historical information on the late eponyms, e.g. Nimar-Kube, who is associated with the last ruler of Šeḫna (Tell Leilan), Yakun-Ašar. His reign ended when Šeḫna was attacked by Šamšu-iluna in c. 1728 B.C. Veenhof 2003: 67.

The Anitta text informs us that Pitḫana, the father of Anitta, "[the ki]ng of Kussara ca[me] down from Kussara, the City, with [fu]ll power [and to]ok Nesa at night by force."[198] The king of Nesa was taken, but Pitḫana did no evil to the inhabitants, in fact he made them "mothers and fathers"[199]. "After his father"[200], Anitta put down various rebellions, obviously using Nesa/Kaneš as his base. Even so, Anitta is called the "King of Kussara" in the introduction to the text.

The figure linking the chronology of Kaneš Ib with that of Upper Mesopotamia and northern Syria is Anum-Ḫirbi, who is attested as king of Mama in a letter to Waršama of Kaneš[201], and under the names Aniš-ḫarwi, Aniš-ḫurpi[202] at Mari in letters from the years Zimri-Lim 4-9, being called the king of Zalwar/Zaruar[203] in the earlier texts and king of Ḫaššu[204] in the later. His name also appears on two inscribed spear-heads supposedly found near Maraş as well as in the annals of Shalmaneser III (858 B.C.), who reports finding a statue, obviously inscribed, of a $^{\text{I}}$AN-ḫír-be at Mt Adalur, somewhere in or near the Amanus range[205].

Anum-Ḫerwa also appears in a fragmentary Hittite text (CTH 2) mentioning fighting around Zalpa[206]. Attempts have been made to synchronise the reign of Anum-Hirbi with that of Anitta, by means of the tale in the later text of the "shepherd's boy", who was born of a slave-woman of Anitta and has been interpreted to be the founder of the Hittite dynasty[207].

However, the extension of the chronology of Kültepe Ib into the last third of the 18th century B.C. and the publication of documents connecting Anitta with a successor king called *zu-zu* in Kaniš have prompted scholars to place him further towards the end of

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[198]KBo 3.22, 5-6: ...$^{\text{URU}}$*KU-UŠ-ŠA-RA* URU-*az kat-ta* [*pa-*]*an-ga-ri-it ú*[- *it*] (6) [*nu* $^{\text{UR}}$]$^{\text{U}}$*Ne-ša-an iš-pa-an-di na-ak-ki-it da*[-*a-aš*]. Neu 1974: 11.
[199]KBo 3.22, 7-9
[200] Meaning after his father had died, Kryszat (pers. comm.).
[201]Cf. Balkan: 1957.
[202]For a collection of the spellings of his name see Guichard *NABU* 1993, 54. The recognition of a shared identity for the differently spelled names in Mari and Kaniš dates back to Balkan 1957: 34.
[203]Forlanini 1985: 55 and Miller 2001: 77 agree in identifying this Zalwar (presumably the Zalpa/Zalbar of the bilingual annals of Hattusili I) with Tilmen Höyük along the river Karasu.
[204]Forlanini argues for an identification of Ḫaššu and Mama at Forlanini 1985: 55 and again at Forlanini 1995:125. Miller 2001a: 81ff. disagrees.
[205]For discussions of the possible location see Hawkins 1995d: 95; Miller 2001a: 84ff.
[206]KBo 12.3 and KUB 36.99.
[207]KBo 12.3 ii 2-23. Helck 1983: 271-281.

the Ib period[208]. That Zuzzu and Anitta should have reigned consecutively is shown by the appearance of the same two persons in documents from each of their reigns[209]. That Zuzzu cannot have preceded Anitta, is clear from the fact that Anitta succeeded his father[210]. The arguments for placing Zuzzu towards the end of Level Ib otherwise stem mainly from the late iconography of his seals and the growing number of Hurrian names associated with him[211]. Both Donbaz and Forlanini point out that Anitta in OIP 27, 49 is a *rubā'um* GAL, using the typical Kanešite title for a king, while Zuzzu at Kt 89/k 369 is called a LUGAL GAL, which is an unusual title in Old Assyrian[212]. Forlanini sees here the creeping influence of Babylonian titulary.

It is in the reign of Zuzzu that we begin to hear of several personages called Tudhaliya. In particular there is a Tudhaliya GAL *ša-qí-e*[213]. On the assumption that such a high post (Hitt. GAL ^{LÚ}SÌLA.ŠU.DU$_8$) would be likely to be occupied by a member of the royal family, Forlanini has suggested a connection with Hittite traditions concerning their earliest kings[214]. The Hittite offering list KUB 11.7 i 11 mentions a PU-Šarruma, son of Tudhaliya, [fath]er of Papaḫdilmaḫ [...] father of La[barna][215]. With Papaḫdilmaḫ we are in the realms of Hittite historical account. Hattusili, in his Testament, speaks of his grand-father, who had nominated a certain Labarna as his son in the city of Sanaḫuitta, while the LÚ^{MEŠ} GAL.GAL "ignored" (*ḫurtaliyer*) his decision and set this Papaḫdilmaḫ on the throne[216]. Clearly this attempt at insurgence failed, for the next line has Hattusili asking "the houses of the Great Men, where are they? Have they not gone to ruin?"[217].

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[208]KBo 12.3 should thus be read as a *Sammeltafel* with two unconnected stories on it. Miller 2001: 97f. Forlanini 1995: 128.

[209]Kt 89/k 371 (Donbaz 1993: 139-40); Kt j/k 625 (Donbaz 1989: 84-5).

[210]Argued by Forlanini 1995: 129.

[211]Forlanini loc. cit. In particular the two-headed eagle within a *guilloche* border on Kt k/k 1, when compared with similar eagles found on bullae from the "Palace of Warshama", are mentioned in fn. 26, as well as the fact that the name Zuzzu is attested at Nuzi and probably Hurrian. He also has a minister with a Hurrian name: Šaušga-Ibra. The name Anitta is also attested at Nuzi (Cf. Otten 1966: 344 fn. 25)

[212]Forlanini 1995: 129.

[213]Kt j/k 625, 2-3. Donbaz 1989: 84-5.

[214]Forlanini 1995: 130. Cf. Beal 2003: 32.

[215]Forlanini loc. cit. Cf. Beal 2003: 16f. with literature. Beal entertains both the idea that the lacuna should be restored to read [and], thus making Papaḫdilmaḫ and Labarna brothers, both sons of Tudhaliya, and also that the text should run straight on, making Papaḫdilmaḫ the father of Labarna.

[216]KUB 1.16 iii 43-46. The verb used for the nomination of Labarna as son and presumably heir, *iskunaḫḫis*, is a hapax. I follow the interpretation of HAB 156f. Cf. Beal loc. cit.

[217]KUB 1.16 iii 45: *ŠA LÚ GAL.GAL É-ZU-NU ku-wa-pí Ú-UL-at ḫar-ki-ir*.

Hattusili I never names his father, but calls himself "the son of the brother of Tawananna" in his Annals[218]. That a certain Labarna was king before Hattusili, and not just a confusion of the Telipinu Edict between the title of Hattusili and his name, as H. Otten had suggested, has now been proved by the Cruciform Seal[219]. This four-winged seal, which has been reconstructed from numerous impressions found at Boğazköy, has on its reverse central panel hieroglyphs representing Great King Suppiluliuma and Great Queen Henti, on its reverse top wing Great King Labarna and Great Queen [Tawana]nna, on its reverse right wing Great King Hattusili and Great Queen Kaddusi, on its reverse bottom wing Great King Mursili and Great Queen Kali and on its left wing Great King Ḫuzziya and Great Queen [....]-*zi*.

The editors of the seal argue that this Labarna is in fact the first king mentioned in the Telipinu Edict, and that Ḫuzziya is to be associated with a Ḫuzziya, whose name fragmentarily appears at the very beginning of the offering list KUB 36 .21, supplemented by the prescription, utterly singular in the context of these lists, that "the musician [speak] the name of Ḫuz[ziya]."[220] We thus have another name to play with for the period before Labarna and Hattusili. The plausible conclusion drawn from this by Beal, is that Ḫuzziya is a person who must also have been active at the court of Zuzzu in Kaneš, whose name has simply not yet been attested on the published documents from Kültepe[221].

However we imagine the familial relations, and more importantly the generations, between these names, it is now becoming easier to reconstruct a continuity stretching from Kaneš to Hattusa. Beal has suggested that the Zalpa text (CTH 3) may deal with this transitional period[222]. Exactly when the Hittites moved to Hattusa is a moot point. Anitta calls himself the king of Kussar, as mentioned above, and Hattusili I calls himself "the man of Kussar" in the Hittite version of his bilingual annals[223]. Perhaps the Hittites kept their connections to Kussar, while moving to occupy residences in thriving merchant towns that they could take by force[224]. Whether there was an interim period

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[218]*ŠA* ^f*ta-wa-an-na-an-na* DUMU.ŠEŠ-*ŠU* KBo 10.2, 3. Cf. De Martino 2003: 30 with literature.

[219]Dinçol et al. 1993: 87 - 106.

[220]Dinçol et al. 1993: 106. For the singularity of this prescription see Beal 2003: 31f.

[221]Beal loc. cit.

[222]Beal 2003: 21ff.

[223] KBo 10.2, 2. Omitted from the Akkadian version because it was no longer relevant at the time of composition? Melchert 1978: 7 argues that the whole titulary phrase was a late insertion.

[224] For the possibility that Hattusa was open for business once again very shortly after the destruction by Anitta see Beal 2003: 25 with reference to Neve in Bittel et al. Boğazköy VI: 89, although Neve does not

back in Kussar, or whether the Hittites proceeded straight to Hattusa after the destruction of Kaneš Ib, remains open[225].

I.1.2.The Oldest Hittite Cuneiform Writing

That Anitta used Old Assyrian cuneiform at Kaneš for the purpose of business records kept in Akkadian is beyond doubt. Of his own proclamation he tells us that "he [...] these words with/from a tablet in his gate"[226]. E. Neu asks whether it is conceivable that he wrote the archetype of the text not only in Hittite, but also in an earlier form of the ductus later known from the first phases of writing as attested at Boğazköy[227]. He postulates a campaign by Anitta's father in Northern Syria on the basis of a geographical name from Ugarit: ḪUR.SAG^ḪI.A KASKAL^MEŠ *ša* ^I*pí-it-ḫa-na* (RS 17.62 rev. 7 CTH 64)[228]. This campaign could have provided the point of contact for the adoption of the script.

Yet there are traces of writing traditions in the Old Hittite manuscript of the Anitta text itself, which are extraneous to what is normally found at Boğazköy. KBo 3.22 rev. 62 writes *Ú LU*[-, where the later duplicate (KUB 26.71 obv. 9) has the more usual *Ù LU-Ú*[229]. *ú lu-ú* is a regular writing of Akkadian *ū lū* in Old Assyrian[230], and is also found sporadiacally in Old Babylonian texts from Tell ar-Rimah and rarely in texts from Alalaḫ VII[231]. The writing of NE with two horizontals in KBo 3.22, is indeed found in

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actually say this explicitly. Crucial from the archaeological perspective is that the inhabitants of Boğazköy Level IVc, which is where Old Hittite cultural artefacts start to appear, seem to have used the same defence wall on Büyükkale as those of IVd, the Kārum level. Neve comments: "Der Fluch des Anitta schreckte die Bewohner offenbar nicht davon ab, die verwüstete Stätte des alten Hattusa weiter zu besiedeln." (Neve 1966: 21).

[225] The received wisdom has it that Hattusili I moved to Hattusa, rebuilt it and named himself after the new capital. This does not have to be the case. Beal (loc. cit.) argues on the basis of the Zalpa text, that Hattusa may have been the capital during the reign of the "father of the king". However, we then need to explain why the earliest historical narrative documents from Hattusa deal with events from the reign of Hattusili, excluding those concerning Anitta and Anum-Ḫerwa, stories which are clearly located elsewhere.

[226] KBo 3.22, 33 with duplicates. Neu 1974: 25f.

[227] Neu 1974: 134f. For the view of V. Haas that the "Anitta"-text was translated from Akkadian see here Part II s.v. AZ.

[228] Neu 1974: 135. See Nougayrol 1956: 66. For connection with a later Pitḫana contemporary with Muwatalli I and Tudhaliya I see Klinger 1995: 241 fn. 19.

[229] Neu 1974: 32.

[230] e.g.: Letter of Anum-Ḫirbi l. 33.

[231] *ú* for *ù* is also attested at KBo 10.1 obv. 37, *pānam u bābam* (CTH 4). I am reasonably convinced by the tentative suggestion of D. Schwemer (personal communication) that several aspects of the script of this predominantly regular "very late" (NSc) ductus tablet betray the relics of a "monumental" perhaps even "Syrian" writing tradition. This may be one aspect of this. See Imparati/Saporetti 1966: 84; CAD B pp. 25-26 s.v. *bābu* A5b.

other texts from Boğazköy[232], but especially in those which show "Syrian" traits, such as KBo 1.11 (the siege of Uršum text).

Furthermore, one or two texts have now been discovered at Kültepe level Ib which show a marginally Syrian ductus and share a few similarities in sign-forms with those of the earliest Hittite sign-inventory. So far, only one of these has been published, kt k/k4[233]. It is a letter from Eḫli-Addu to one Unapše, both Hurrian names, and mentions the city of Ḫaššu[234]. It concerns a loan of silver that has not been reimbursed for 25 years. The place of writing is unknown, but it is clear that Eḫli-Addu had contacts in Ḫaššu. The language is Old Babylonian, with "Syrian" elements known from Mari. The shape of the tablet, square, with slightly pointed corners is reminiscent of those from Syrian centres, and the manner of continuing lines on the other side, rather than the Old Assyrian habit of dropping signs a line down if they do not fit, is also known there as well as in Hattusa.

That Hurrians are found here using a script which shows, albeit very limited[235], affinities with (Syro-)Hittite script, in a palaeographically "Syrian"/"Old Assyrian" context, should give us pause for thought. We might remember the apparently Hurrian names of early representatives of the Hittite tradition from Kaneš through to Hattusa: Anitta, Zuzzu, PU-Šarruma, as well as the presence of Hurrian titles for officials in Kaneš: *alaḫḫinnnum, šinahilum*[236]. A Hurrian involvement in the acquisition of Hittite writing is possible, although it would be rash to do more than point in the general direction on the basis of the meagre sources at our disposal.

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[232] As noted by Neu 1974: 134.

[233] Hecker 1992: 53-63 and again Hecker 1995: 291-303. In the latter publication Hecker refers to "weitere 'aA Syrien-Texte'" discovered in the Ankara museum and being prepared for publication by C. Michel.

[234] Hecker 1995: 303 reports that K.R. Veenhof has identified another letter to Unapše in Ankara museum. Prof. Veenhof writes (pers. comm. 19.09.06) that there is no connection between this as yet unpublished tablet, kt 91/k 539, and kt k/k4 apart from the name of the addressee. It is written in perfectly normal OAss script. It is not clear as yet what level this letter was found in. Of interest here is the following injunction (l. 29-31): *ṭuppam ana* DUB.SAR [30]*ša šu-bi₄-ri-a-ta-am* [31]*išamme ù dimma lištassi* "give the tablet to a scribe who understands Subarean (i.e. Hurrian), so that he may read it". Cf. Veenhof 2003: 17.

[235] Forlanini 1999: 21 goes too far when he says of this text: ".. ce qui semble une innovation de Hattusili, l' utilisation du système cunéiforme paléo-babylonien, est désormais attesté á Kaniš" . While this is broadly true, the implication that he wishes us to draw from the existence of such texts, does not have to be that the Hittites were using such a script while in Kaneš.

[236] Schwemer 2006b: 222; Wilhelm 1992: 243, fn. 21; Dercksen 2007: 37f.

It is not possible, however, to posit a continuity from the type of writing in Kt k/k4 to that in Hittite tablets from the Old Kingdom, due to the appearance on the tablet of sign-forms not known in Hattusa until the end of the writing tradition (LA, Ù). Nor is it the case that all sign-forms cited by Hecker as being Syro-Hittite, such as the "simplified" AḪ as against the Old Assyrian AḪ (= ḪAR), are completely unknown from Kültepe tablets[237]. These are rare, however, and Hecker is doubtless right in assigning Kt/k k4 an "absolute Sonderstellung" among the Kültepe-tablets (loc. cit fn. 14). At the very least this tablet establishes the presence of signs from a similar repertory to that from which the Hittite script would presumably have been adapted.

I.1.3. The Syria Hypothesis and Alalaḫ VII

Comparative studies are rarely attempted because they are so fraught with difficulty. Beyond the basic issue of the state of preservation of the sources and their extremely fragmentary transmission, there is the fundamental methodological problem of how to select which points of comparison are of interest without sacrificing the human scientist's claim to objectivity. This intrinsic handicap is compounded by the fact that a palaeography of one text corpus should properly be fully completed before comparison with that of another text corpus may be attempted. This does not mean, however, that such comparative efforts should not be attempted, nor that useful information cannot be gained from that attempt. The following is intended as a first orientation towards a comparative palaeography of Anatolia and northern Syria, and should provide a palaeographic back-drop against which to judge the extent of Syrian scribal cultural influence and transmission in the earliest phases of Hittite writing.

The importance of Alalaḫ VII as a palaeographic comparandum to the Old Hittite Script emerges from its presumable contemporaneity with the the supposed transfer of the script to Anatolia, if that is in fact how it happened. Alalaḫ VII is almost universally agreed to have been destroyed by Hattusili I in his second year, although it is clear that the local dynasty was not interrupted and continued into Alalaḫ VI as is textually attested.

A palaeography of the texts of Alalaḫ VII is still far from even being imaginable. The internal chronology of the texts from Alalaḫ Level VII has not yet been established with anything approaching unanimity and the state of publication of the texts is far from satisfactory for palaeographic purposes.

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[237] BM 115131 (CCT 5, 34c) obv. 3, *I-lá-li-aḫ-šu* has "simplified" AḪ contra copy, for example. (A more usual OA AḪ is ibid. rev. 6.)

For the purposes of a preliminary comparison we can note the following discrepancies between the Alalaḫ repertory and that of OS Hittite cuneiform.

Sign-forms occurring at Alalaḫ, but not in the Old Hittite Corpus:

AG with two uprights: AlT 6, 37 (UF 36, 20.01), 20.01A, AlT 61, 14; UF 36 20.02; 20.03; 20.04, 1

AḪ with broken horizontal: AlT 246, 35; 20.03, 7, 10; 20.04

DA "stepped" with unbroken central: AlT 79, 3.

DU = UŠ UF 36 20.02, 37

E (HZL 187B) UF 36, 20.01

E with 4 horizontals: AlT 76, 7; AlT 12, 11

É = GIŠ UF 36, 21.01, 7

É with one vertical: UF 36 20.01A, 12

É = GÁ UF 36, 21.01, 6; 20.05, 29

É = GÁNA UF 36, 20.01, 1, 11[238]

ḪAR with vertical: 20.03, 7

ID stepped, unbroken: 20.03, 12[239]; 20.04, 2

ID with 4 unbroken horizontals: 20.05, 24

IG (HZL 67B) AlT 12, 2, 11; AlT 13, 5

KI with front vertical: AlT 456 passim (UF 36 10.02), 20.01A

KU with front vertical: AlT 76, 5

NI with one vertical: AlT 7, 12 (UF 36, 20.01), 20.01A; UF 36 20.02; 20.03; 20.05

NI with two verticals: UF 36, 20.01A, 12; 20.03, 7[240]; 20.05

RU 43/B UF 36, 20.05, 28

KÙ with double broken verticals: UF 36 20.02

LA with one initial horizontal: AlT 61, 9 14; AlT 79, 5; UF 36, 21.01; 20.01A UF 36 20.02; 20.04; 20.05

LI 343/23 UF 36, 20.01

LÚ = EŠ over AŠ UF 36 20.04, 3, 7

LUGAL with 4 horizontals UF 36 20.03 rev. 14;

LUGAL HZL 115/9 AlT 13, 2; AlT 14;

RU HZL 43B UF 36 20.01A,

RU HZL 43/14

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[238] = GIŠ my collation.
[239] Contra UF 36
[240] Contra UF 36.

ŠA = TA UF 36 20.02, 5

ŠA with three horizontals: UF 36, 20.01, 20.03, AlT 13 rev. 1

ŠA with 4 horizontals: AlT 76, 3; AlT 61, 11

ŠAR UF 36, 20.01, 20.01A

TA without vertical: AlT 12, 11

TAR (upright with broken diagonal) 20.05

Ú with two verticals 20.03, 3[241], 6, 12

Ù 265/26 UF 36, 20.01; UF 36 20.02

Ù = IGI + TÚG UF 36 20.01A, 20.04, 5; 20.05, 19

= IGI + KU UF 36 21.01A,

UG with subscript UD: UF 36 20.01, 29[242]

Even the most cursory of glances at the Alalaḫ material shows that the inventory of basic sign-forms attested in the Late Old Babylonian period there includes not only almost all sign-forms known to the Old Hittite period, but also most of those known down through to the very latest NSc period of Hittite cuneiform. In many cases these appear in the same tablet, and cannot be used as an indication of scribal hand. In addition to these, the tablets of Alalaḫ VII also display a number of sign-forms that are never attested among the Hittites. NI is attested in variants without a vertical, with one vertical and with two verticals, whereas at Hattusa the variant without the vertical is almost exclusive in Old and Middle Script texts, while the variant with two verticals is primarily attested later in texts of foreign provenance, whether as copies of tablets written elsewhere or on tablets directly imported from abroad, and the variant with one vertical is not attested at all[243]. Certain tablets at Alalaḫ also make no as yet discernible distinction between ŠA and TA, writing both of them with either one, two or no central verticals, although this can rarely also be observed in OH tablets[244].

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[241] Contra UF 36.

[242] Contra UF 36 and AlT 7.

[243] Exception: KUB 10.18 i 33 (? NSb).

[244] e.g. KBo 6.2, İnandık Land Donation. For TA with no internal verticals from oracle texts cf. Soysal 2000: 109, wondering whether this is a trait of oracular stenography (in KBo 18,151, KBo 20.10, both "typical old ductus"). It could not be called a peculiarly Syrian trait of OB cursive, however, cf. Mittermayer 2006: 49 nr. 149.

A number of very common signs at Alalaḫ VII are never used at Hattusa. The various highly abbreviated forms of É, at times resembling GIŠ or G̃Á never occur at Hattusa[245].

The writing of AḪ and IM is of great interest for the determination of lines of transmission for early Hittite writing. The Hittite logogram [LÚ]GUDU₁₂ is written AḪ+ME in Mesopotamia, but IM+ME already in OS texts[246]. This pre-supposes that this sign at least was borrowed from a cuneiform tradition which did not always distinguish between AḪ and IM by writing the two verticals of the sign IM and thus allowed for confusion of the two[247]. This is certainly the case in most Old Babylonian cursive scripts, frequently at Mari, and less so at Alalah VII[248].

Furthermore A. Götze's tentative observation[249] that the Hittite logogram for "magic", UḪ₇ (= U+KAK) could be derived from a frozen graphic variant of the sign AḪ (to be read uḫ, referring to "spittle"- úḫ- as a primary medium of magical effect), leads us further into Syria. At Alalaḫ VII and also later at Ugarit and Emar, the phonetic sign AḪ is sometimes written in a form more resembling GU, with one or two Winkelhaken pulled forward over the central horizontal:

 AlT 247, 4 (Zeeb Text 21).

Ultimately this form, too, derives from OB cursive as it is known even from Nippur[250]. However similar these variant forms may be, however, they are not the same as U+KAK, and one might like to search for a motivation for Götze's "nachträgliche Differenzierung" between Hittite AḪ and UḪ₇, although it would have to remain

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[245] The electronic dictionary entry of EPSD for e [HOUSE] is misleading in suggesting there was ever a separate Sumerian word g̃á "house". g̃á as a separate word for a structure housing anything is used of a "shed" in various compounds, particularly g̃á.udu, "sheep-shed", the locus classicus for a distinction between g̃á and é in this regard in the third millennium being Ukg. 4-5 II 4-6 (Steible/Behrens 1982: 289); for OB see g̃á.udu é.ubur.ra, "in shacks, in shepherds' huts" at "Sheep and Grain" 90, Alster/Vanstiphout 1987: 20, 34f.; For further discussion of g̃á.udu = "sheep-shed" see Alster 1972: 94f., with an unpublished OB lexical equation with Akk. *rubṣum*, "litter" (still not quoted at CAD R 395!). All other cases of g̃á "house", as collected at "EPSD Distribution Profile e [house]" are either suspect, obscure, or from texts which do not distinguish g̃á and é. Išme-Dagan K 26 [g̃]á.kúr.ra is damaged, but é in ibid. 28 is also like G̃Á! See photo at Römer 1988 (Bi. Or. 45): 27.

[246] Schwemer 2003: 11f.

[247] Schwemer loc. cit.

[248] IM without any verticals is not registered as a variant form at Mittermayer 2006: 297 (p.119), although this does not mean that it was not used in non-literary Akkadian texts.

[249] Apparently after a suggestion of P. Deimel, Götze 1930: 15 with fn. 1.

[250] The form booked at Mittermayer 2006: 280 (p.111) for Lugalbanda I 87 B is quite close to UḪ₇, although one would have to accept a misinterpretation of the central horizontal as a vertical on the part of a scribe, which is quite possible in cursive script.

entirely speculative. Given that Hittite cuneiform never confuses the sign AḪ, phonetically *aḫ iḫ uḫ*, with the logogram UḪ$_7$, this would presumably have to be a differentiation which had either taken place already in the tradition from which the cuneiform script was borrowed, or had become completely stabilised in Hittite cuneiform before the beginning of the archives at Hattusa.

The prevalent form of URU at both Alalaḫ VII and IV is HZL 229/10 (vel sim.), which is rarely attested in OH (Anitta) but also in some tablets of the later group of "Syrian Treaties":

 AlT 76, 3

Interesting are those sign-forms that are not attested at Alalaḫ VII but could be called characteristic of the Boğazköy ductus at various of its stages. In particular one thinks of Ù in Old and Middle Script (HZL 265A), at Alalah VII only attested as the divine name ^dIŠTAR, as well as the characteristic Ù of New Script (HZL 265/10-17). Such forms indicate that a Syrian location for the transfer of the script is not the the immediately necessary inference on the basis of the available evidence.

Orthographic considerations also suggest that wherever Hittite writing was in fact adopted, the writing culture did not share some of the typical North Syrian orthographic tendencies. Hittite writing is defined from the beginning by the restriction of the use of the sign PI to the phonetic value /wa/. In order to write the syllables /we/, /wi/, for which PI was used at Mari and Alalaḫ VII, Hittite scribes used other methods. From the beginning tablets write -*ú-i*- (vel sim.) for Hittite words, while foreign (Hattic, later Hurrian) words with these sounds are written with -*we$_e$*-, -*wi$_i$*- . From the Middle Script on we have use of -*wi$_5$*- (= GEŠTIN) to represent this sound, which must be a Hittite innovation based on the initial syllable of the word for "wine", *wiyana*-[251].
There are two possible explanations for this situation. Either the Hittites did not borrow their script from one which used PI for /wi/, /we/, or the sound of the labial glide before the front vowels in Hittite was so completely different before the back vowels that the

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[251] The gathering evidence for the use of the hieroglyphic symbol L. 160 (VITIS) in the phonetic function *wi(ya)* is clear for the Empire period (Hawkins apud Herbordt 2005: 436), but also for the Middle Hittite period on seals from Kaman-Kalehöyük. See Yoshida 2006: 152-154 for clear alternations in writing between CERVUS$_3$-*ti*-VITIS (Abb. 2, Abb. 3) and CERVUS-*ti-wa/i* (Abb. 4). One can only speculate whether the cuneiform writing is dependant on the hieroglyphic one, but such acrophonic developments of phonetic values are characteristic of hieroglyphic script.

same sign could not be used for both /we/, /wi/ and for /wa/. There is no evidence that /w/ was treated any differently in either pre-vocalic position, so the first explanation lends itself as the more economical[252].

Many of the Alalaḫ VII tablets display the heavy impression and cramped spacing of the Old Hittite ductus, along with a tendency to write the tops of verticals at a sharp slant to the right. While this is perhaps a distinctive feature of Old Script at Hattusa in comparison to Middle and much New Script, it cannot be said to be sui generis or uncommon among writers on clay tablets of the OB period. Indeed, some of the stylistic distinctions between the ductus of Alalaḫ VII and IV can be said to be paralleled by developments in Hittite writing. For example in texts of Alalaḫ IV one observes a far more ordered and regular upright script, with horizontals and verticals at right angles. A similar difference has been said to hold good of the change from Old to Middle Script at Hattusa.
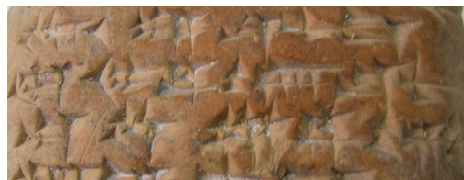
AlT 126 obv. 7-10 Al. VII   BM 131497, Al. IV

Anitta   Madduwatta

Chronological reasons obviously exclude the texts of Alalaḫ IV being the precursor of such developments, but they perhaps offer us a very small and incomplete window view of more general developments that were taking place in the wider North-Western peripheral cuneiform community.

A similar observation could be said to hold of the development in sign-forms that characterise the LNS at Hattusa, which can be paralleled by those at Alalaḫ IV some 100 years previously. At Alalaḫ the situation is far more complex, as they are mostly

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[252] D. Schwemer suggests the restriction of PI to -wa- may have been part of a more general tendency to restrict the polyvalence of signs in Hittite cuneiform by comparison to Old Babylonian, thus creating more discrete equivalences between sign and phonetic value.

cases of sign-forms that appeared already but less frequently in Alalaḫ VII. Once again, the paucity of our sources allows us no more than to surmise that this must be part of a more general development in Northern Mesopotamian and peripheral cuneiform extending up through Syria and into Anatolia, which can probably be characterised as the spread of Assyrian influence in cuneiform writing during this period (see above).

The general comparison of OH script with that in vogue in Northern Syria immediately prior to the establishment of the Hittite Old Kingdom is consistent with the surmise made below with regard to the typology of Hittite palaeography. The scribal school of Hattusa was either extremely small, or very disciplined and conservative. The borrowing of the script exhibiting the typical Boğazköy ductus is likely to have resulted from the writing practice of just one or a very small group of scribes. The Hittites did not stand in the centre of developments in writing among cuneiform cultures of the period.

I.1.4. Labarna's Letter and Tigunānum; the Uršum Text

The most important text for establishing the sign-forms in use during the earliest stages of Hittite writing is commonly held to be the so-called Labarna's letter, published by M. Salvini[253]. This letter was acquired on the antiquities market by a private buyer with a number of other documents supposedly from the archive of Tigunānum. The find-spot, and indeed the precise location of Tigunānum itself, are unknown[254]. The other documents so far published are a very well-preserved prism, consisting of a list of 438 mainly Hurrian names of *Ḫabiru*, an Akkadian *Izbu* omen text and a Hurrian text.

Beyond this, a group of tablets of omen-texts of unknown origin from the Schøyen collection in Norway has recently come to light[255]. Whether they all come from the same illegal excavation is unsure for the moment. The texts exhibit an OB script with N.W. peripheral influence. One of them (MS 1807) has the colophon ŠU ^{D}UTU-*mu-úš-te-še-er i-na* É.GAL *š*[*a*] *tu-ni-ip-te-eš-šu-ub* ^{iti}*a-ia-ri* UD.26.KAM as well as a *līmu* name. This at least we can safely compare with the other apparent Tigunānum documents. The other tablets from the Schøyen collection belonging to this group are scattered with Middle Assyrian dialect forms as well as one or perhaps two Hurrian

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[253]Salvini:1994: 61-80; Salvini 1996: 107-116

[254]For discussion of the possible location of Tikunanum in the upper reaches of the Tigris, to the North-East of Tell Mozan and North-West of Tell Leilan, see Miller: 2001b: 410 ff.

[255] My thanks to A.R. George for introducing me to these texts and for giving me permission to mention them here.

words. The only reasons for grouping them together are palaeographic and thematic similarities[256].

The desire to exploit the Labarna's letter to the full for its palaeographic information is manifest in Salvini's edition, although the enterprise is not without its difficulties. On the one hand he is keen to use the letter as evidence to be used for the "absolute" dating of sign-forms in the Hittite tradition[257], on the other he points out that the ductus of the letters from Boğazköy was often different from that used in the chancellery at Hattusa[258].

The differences between the forms on the *Ḫabiru* prism and the Labarna's letter are listed at Salvini 1996: 115f. J. Klinger has pointed out, however, that the Labarna's letter shares many more features in common with the two other texts apparently from Tigunānum than it does with the prism, and that all the Tigunānum texts have more in common with each other than with the sign-inventory being used by Hittite scribes in Hattusa at the time[259]. As some important signs are omitted from his table of comparison, which includes the "Siege of Uršu" text (CTH 7, KBo 1.11), the Tigunānum prism and the Hurrian text from Tigunānum , it will be useful to add some details to the comparison here, including comparison with those texts adduced by Salvini, (kt k/k 4, İnandık, Bo. 1262[260]) and the new text from the palace of Tunip-Teššub.

The sign NI is written both with and without the two inscribed vertical wedges in the letter and is used by Salvini to prove the existence of the variant with the verticals in the Old Hittite period at Hattusa[261]. Neither of the texts kt k/k 4, İnandık or Bo 1262 have the form with the verticals, while it is consistently used in the *Ḫabiru*, at *Izbu* 10, and in MS 1807. The form without vertical wedges never occurs in the

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[256] See George, forthcoming.

[257] The form of LI is described as 'absolut alt', Salvini 1994: 79.

[258] Loc. cit. 80. See also Klinger 2003: 240, "Auch dieser Brief wurde in einem Schrifttyp abgefaßt, der ganz offensichtlich nicht in direkte Verbindung mit dem zu bringen ist, was wir heute als typisch althethitischen Duktus ... kennen".

[259] Klinger 1998: 371 and sign-lists on p. 375. It appears from his statements on p. 372 that by "das von hethitischen Schreibern genau zu dieser Zeit verwendete Zeicheninventar" he means the sign-forms used for Old Hittite Ductus I. Thus he assumes that Old Hittite Ductus I was in use during the reign of Hattusili I.

[260] Salvini 1994: 77f. Klinger 2003: 240 fn. 15 comments that both the Hurrian oracle text and the İnandık document are "eindeutig ... mittelhethitische Niederschriften". After G. Wilhelm's re-assessment of the prosopography of the older Land-Donation Tablets this should be revised (see below).

[261] Apparently contra HZL 76 and cf. Rüster/Neu 1989: 20. It is worth pointing out that the sign without the two verticals is restricted to the word *qa-ni*(-*i*) ="horns" in ll. 27, 33. *qa-an-ni* is attested in this meaning (of a gazelle) at KUB 37.55+KBo 36.32 rev. vi 24 and of the moon at KUB 37, 162 ii 5 (Oracle). Cf. AHw 897.

other published Tigunānum texts. At Hattusa the form with the vertical wedges appears to be regular in later Akkadian texts written in the "Assyro-Mittanian" ductus[262], and also occurs in the rarely attested "monumental script", but is otherwise very infrequent. It does occur consistently in KBo 1.11, except in the passages that are written partially in the Hittite language in Hittite words and in a Hittite name, where in each case the form without the verticals is used[263]. This may not be an accident.

The form of AḪ in the Labarna's letter is distinguished from those of İnandık and Bo 1262 by the fact that it has a broken horizontal in the centre[264]. This feature it shares with AḪ in kt k/k 4. Such a form is not registered for Hittite writing at HZL 72[265]. The prism consistently uses the form with broken horizontal as does the one occurrence in the Hurrian text from Tigunānum, while MS 1807 fluctuates. Although Salvini lists this sign-form as one of the differences between the Labarna's letter and the prism, the sign-forms in the two texts clearly have more in common with each other than with the texts adduced from Boğazköy. The form with the broken horizontal is used consistently in KBo 1.11, however.

The writing of ŠA in the Labarna's letter, with three or four horizontals, is quite different to that in the İnandık document and Bo 1262, but is matched well by the writings in the Prism, the *Izbu* text, the Hurrian text from Tigunānum and MS 1807[266]. It also occurs in KBo 1.11.

There is a great deal of fluctuation in the forms of Ú in the Labarna's letter. The form with only two verticals, a comparable version of which is known from later texts at Boğazköy[267], occurs among these, but is not matched in any of the other texts compared[268]. It does occur, however, at *Izbu* 2 and *Ḫabiru* II 29, VI 22.

The forms of E used in the Labarna's letter[269], in particular the form with four horizontals, is not matched by İnandık, Bo 1262, or KBo 1.11, and is not registered under HZL 187 for Hittite[270]. Nor in fact is it matched by the forms in the Prism. Closer is the typically "Old Assyrian" form found in kt k/k 4 as

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[262]Compare ḪUR.SAG *ni-ib-la-ni* in Hittite script KBo 1.1 obv. 47, without the verticals, and the writing of the duplicate in "Assyro-Mittanian" ductus at KBo 1.2 obv. 27, with the verticals. Similarly observe *a-na pa-ni-ia* at KBo 1.1 obv. 29 vs. KB1.2 obv. 10. The apparent writing of NI with verticals at KBo 1.1 obv. 9 (Hittite script) is very unclear in Figulla's copy. There are no wedges and the lines seem undecided. Collation is necessary. For the label "Assyro-Mittanian ductus" see Wilhelm 1991: 88; Schwemer 1998: 9ff. NI with the verticals at 518/z rev. 7 (MDOG 103).

[263]KBo 1.11 obv.' 3, *Me-na-ni-ia*, rev.' 15, *la-aḫ-ni-it*, *kur-zi-wa-ni-eš*.

[264]I do not see why Salvini sees such similarity between the forms of AḪ in Labarna's letter and Bo 1262. Salvini 1994: 78. The form with the two horizontal wedges is regular in texts from Alalaḫ VII.

[265]It should be stressed, however, that HZL only rarely includes forms from Akkadian language texts from Boğazköy. Rüster/Neu 1989: 20. This is a case in point (see below). It does occur, along with IM with a broken horizontal in KUB 21.9 (CTH 90B -NH/NS).

[266]Salvini 1996: 94 (Prism), 118-9 l. 13 (*Izbu*), 124-5 (Hurrian text from Tigunānum).

[267] KUB 14.3, KBo 19.76+.

[268]Salvini 1994: 76.

[269]Salvini 1994: 71.

[270]A similar form, with three horizontals, occurs in the "monumental" script fragment KUB 3.91 obv. 5. These texts are rather problematic. See below.

adduced by Salvini, but closer still is the form found in the Hurrian text from Tigunānum, while it is written with 3-4 horizontals in MS 1807[271].

The use of the sign SU for /su/ or /zu/ is not attested for Hittite, which regularly uses ŠU for this purpose[272]. Akkadian at Boğazköy does not use phonetic SU "essentially"[273], preferring to write -sú- or -šu- . It may be used for /zu/ at Labarna's letter 27[274]. The problems inherent in this reading are obviated by J.M. Durand's proposal to read kà-ni-i kuš "ceintures de cuir"[275].
The sign-form, with two internal verticals, is not matched at HZL 213, but is matched in the Ḫabiru prism at VII 31. I cannot find a precise match for this writing of SU among the signs listed under Fossey 340-526. The closest I could find apart from the Ḫabiru prism is an aberrant form found in Amarna letters from Gubla (Rib-Addi)[276]. Similarly the form of ZU at Labarna's letter 30, with two internal verticals, is matched by the regular forms in the prism (especially i 2), and is also to be found at KBo 1.11 obv.[!] 20 and rev.[!] 24, but is not to be found under HZL 209.

Special interest is rightly due to the form of LI at Labarna's Letter obv. 25, which Salvini can compare only with the "Syrian" form of kt k/k 4[277]. It is also paralelled at Ḫabiru I 47, and looks much like the LI used in MS 1807.

Apart from sign-forms attested in the compared texts, the logogram ŠE.BA[278] occurs in the Labarna's letter l. 18, which does not appear to be otherwise attested at Hattusa, but is very frequent in northern Syria[279]. It is not clear to me, however, what Boğazköy Akkadian would have written for Akkadian ipru, which does not seem to be attested there. This is not surprising, since the institution of the ipru was only

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[271]Salvini 1996: 124-5, ll. 4, 8. It is also, of course, well-attested at Alalaḫ VII.

[272]The Labarna's letter uses ša for phonetic /sa/ in ša-ra-ti in ll. 32, 36. This is fairly common in peripheral Akkadian.

[273]Cf. Durham 1976: 358. The one example of -su- cited by Durham (p. 454) at KBo 1.10 obv. 35 in fact reads a-ma-zu, unless the copy is faulty. Perhaps Boğ. Akk. does not use SU phonetically at all, not just not "essentially" as Durham puts it. su-lum-ma-a is found at KUB 48.73 obv. 2 (dupl. KBo 1.7 obv. 15 has sú-lum-ma-a) but this is clearly an import from a foreign, in this case Egyptian, writing system. However, see i-na-ak-ki-su SBo I Text 2 rev. 7. Cf. Klinger 2003 243ff.

[274]Salvini 1994: 75. At Salvini 1996: 113 fn. 2 it is proposed to read i-su as an irregular writing for enzu, "goat". The i-vowel is ascribed to "Sandhi" after qa-ni. The wrong case-vowel also needs to be explained in a text where case-vowels are otherwise written correctly.

[275] Durand 2006: 223.

[276]Schröder VS XII 75. A form of ZU with two internal verticals is regular in Old Assyrian texts, eg. kt n/k 32 ll. 25, 26 (= ṣú), l. 40 (= zu) cf. Donbaz 1989: 91. SU with two internal verticals is fairly frequent in texts from Alalaḫ levels VII and IV.

[277]Salvini 1994: 79.

[278] Durand 2006: 220f. reads še-pá-šu ki-ma UR.GI₇ a-ku-ul-šu "mors lui les pieds comme un chien", objecting that one would not use ŠE.BA of a king. This is figurative language. One could conversely object that Tunip-Teššob might not want to be compared to a dog. akālu "eat" is not attested meaning "bite", which would of course be našāku.

[279]Zeeb 2001: 17, 134, 206, 219, 241. ŠE.BA = ipru in Alalaḫ VII cf. AlT 238 (Zeeb Text 24), Zeeb 2001: 134 fn. 51 "indirekte Gleichung". Otherwise cf. AHw. ipru.

at home in the extended "palace economy"[280]. The "grain ration", which could consist of items quite other than grain, was a regular payment to all kinds of people, and sometimes animals, in some way associated with the palace, from Ur III until its supersession in the Old Babylonian period in Mesopotamia. It was continued in peripheral areas such as Syria.

The form of U$_8$ in the complex logogram USDUḪA in l. 12 is very different to that registered under HZL 45.

The Middle Assyrian forms found in the other possibly Tigunānum tablets from the Schøyen collection add credence to Salvini's emendation *lu-ú <a>-i-la-at* at Labarna's letter obv. 9 meaning "be a man" and the interpretation of the unemended form in l. 13.

Klinger's brief review leads him to the negative conclusion "daß die Schreiber dieser Texte (i.e Labarna's Letter and KBo 1.11) nicht der hethitischen 'Schreiberschule' angehört haben können"[281]. It is not significant for him where they were actually written, whether by foreign "specialists" at the Hittite court or by locals employed on campaign, the writing employed in these documents had no influence on the development of writing at Hattusa[282].

I would also suggest the possibility be entertained, in view of the similarities between the script of the letter and that of the other published and unpublished "Tigunānum" documents, that we have before us an archive copy of a Hittite letter from Hattusili I, translated in Tigunānum. The typically "Hittite" forms of NI in the word *qa-ni* would then be explained as having been kept under the influence of an original written by Hittite scribes[283]. The use of the logogram ŠE.BA in the phrase ŠE.BA-*šu ki-ma* UR.GI$_7$ *a-ku-ul-šu* at Labarna l. 10, could even be a Syrian scribe's understanding of a Hittite idiom, although I am unable to offer any convincing candidates. As it is not clear why an archive copy should have been made of a letter, it is also possible that the text was

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[280]Similarly, other words for regular food payments of some kind from the palace or temple are not attested in Boğazköy: *kurummatu*, *ukullû*, both of which are attested at Alalaḫ and Ugarit. The Ugarit attestation RS 20.212, 18f. *a-na* ^{D}UTU^{ŠI} *ku-ru-um-ma-ta* (19) *e-te-er-šu* "they (the people of Ura) have asked for food supplies from My Sun" in a letter from a Hittite to the king of Ugarit, written in a ductus possibly comparable with the Emar letters from the Karkamiš chancellery, attests to knowledge of the word *kurummatu* in Hittite diplomatic circles, but does not refer to anything remotely comparable to the institution of the ŠE.BA. D. Schwemer brings this to my attention.

[281]Klinger 1998: 372. This has to be seen in the context of his general thesis, elaborated over two papers (Klinger 1998 and 2003), that the scripts used for Boğazköy Akkadian were essentially of the same type as those used for Hittite texts, with the exception of those written by foreign "specialists" and imports from abroad. To uphold this hypothesis in view of the script used in the texts in question, he needs to dissociate them from that tradition. The complex issue of the palaeography of Akkadian texts at Boğazköy will not be dealt with in detail here, although I will touch on the question repeatedly.

[282]Klinger loc. cit.

[283]That NI without the verticals was known in Northern Syria, e.g. Alalaḫ VII, is beyond dispute.

written by a Tigunānuman scribe, possibly part of a delegation sent to meet the Hittite king on campaign[284].

KBo 1.11 also looks as if it must be from a foreign tradition, although it is most probably a translation of a lost Hittite original[285]. The most recent editor demonstrates numerous "Hittitisms", such as an apparent imitation of the phraseological verb construction, to which may be added the fact that at rev. 14 - 15 the scribe seems to have lapsed into Hittite[286]. There are many instances of omitted signs, extra signs, an erasure and "poorly formed signs"[287]. The question is whether this was due to a Hittite scribe or a translation by a foreigner.

D. Schwemer wonders whether KBo 1.11 may not have been the work of a Hittite student scribe, who was not only trying his hand at Akkadian, but also at an "Akkadian" ductus[288]. He sees this as possible evidence of a 'bigraphic' scribal training at Hattusa[289], and supports this idea with the fact that the text displays a number of signs known to Old Hittite script, as well as some that do not appear again in this form until the latest phases of Hittite writing (KI, ŠA, LA, E, AZ, IB, KU), although they are well known from earlier northern Syrian scribal traditions[290]. This is precisely the evidence used by Klinger to demonstrate how these texts are alien to the Hittite tradition.

Dialect features such as Mari-type *-ia-* > *-ê-*, features of orthography such as the use of PI for *-we-*, and the possible use of gud.máḫ (=AL) for a "female ox" (s.v. amar.maḫ), make it extremely unlikely that the author was Hittite. The peculiar Hittite sentence on the reverse is by this account a place where the translator was at a loss for words. It is

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[284] This hypothesis ignores the very real correspondences between the Labarna letter and KBo 1.11 in unusual sign-forms (e.g. ZU, NE).

[285] This tablet was deemed to be Old Hittite "Duktus I" by E. Neu (1983: X fn. 7), and has been held to the oldest piece of writing discovered at Boğazköy (cf. Kempinski 1983: 33 fn. 20).

[286] Beckman 1995: 32, and my fn. xx.

[287] Beckman 1995: 23.

[288] Schwemer 2004: 79.

[289] Schwemer 2004: 78f. J. Klinger is opposed to this idea on general grounds, arguing that an earlier acquaintance with other types of script would not explain why it is only in C13 B.C., as he postulates, in agreement with C. Kühne, that a whole series of very late sign variants appear, that had been known only from archives outside of Hatti for 100 years or more. Cf. Klinger 1998: 368, with reference to Kühne 1988: 231f.

[290] Paraphrase from Schwemer 2004: 79. Contrary to the assertion of Neu 1983: X fn.7 (also Beckman 1995: 27 fn. 14), KBo 1.11 does contain at least two examples of the latest URU sign HZL 229B (obv.! 5, 9], collated on original; Neu had collated photos, Beckman follows him). The other URU signs are the typical "Syrian" ones (HZL 229/10) which appear in the later Hittite "Syrian" treaties, but also in Alalaḫ VII. 229B is not known from the earlier "Syrian" tradition at present.

also noticable that the only cases where the typically Hittite NI is used are in these Hittite words or in a Hittite name[291].

Just because the theory of a bigraphic scribal education does not necessarily work in this case, this does not mean that scribes were not able to write in different ductus types as we assign them[292]. This is clear for the two tablets manifestly written by the scribe Tatiganna, as realised by Klinger (see introduction c.ii). Furthermore, KUB 3.91, a late fragment of an Akkadian-language Palace-Chronicle type of text has the Akkadian written in an OB "monumental" script while Hittite comments are written underneath in regular Boğazköy ductus. This kind of text is exceptional, however, and should rather be classed along with the "palaeographic" versions of sign-lists found at Ugarit.

I.1.5. Land-Donations

The Akkadian language Land-Donations are a group of texts, whose earliest examples certainly reach back into the Old Hittite period. How far back is a different question. The earliest among them contain a seal of an anonymous Tabarna, mostly written around the three symbols of good fortune, the rosette, the ankh and the triangle. It is only with Alluwamna that the seals come to be associated with named kings. The İnandık Land-donation appears from its ductus and sign-forms to be the oldest of all, and had been dated to the reign of Hattusili I by its editor K. Balkan on the basis of the names Zidi, Pappa and Askaliya appearing in it, who are also attested in the Palace Chronicles (CTH 8-9), albeit with different titles[293]. This dating has now been cast into serious doubt by G. Wilhelm, using a combination of stylistic and prosopographic criteria[294]. I shall restate his argument in reverse, as this seems the most effective way to present it in a few paragraphs.

The first Land-Donations with a seal naming a king are those of Alluwamna as previously mentioned[295]. His seal has a single rosette in the centre, with the legend

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[291] Contrary to copy (and Beckman 1995: 24) AŠ is written in obv. 16 ^{URU}ḫa-aš-šu and not NI.

[292] The texts are also "von begrenzter Aussagekraft für die hethitische Schreibkultur insgesamt" Schwemer 2004: 79.

[293] Balkan 1973: 72f. Zidi (KBo 3.34 ii 1 = 36 i 11), Pappa (KBo 3.34 i 5, 7 = KUB 26.104 i 3, 5) and Askaliya (KBo 3.34 ii 8, 15-19 = 36 rev. 16, 21-24; KUB 36.105: 4, 10 = VBoT 33: 12). These names are quite common. The reliability of the Palace chronicles as a historical document should not be over-estimated, however, given that its anecdotal, proverbial character places its content outside of historical time. Cf. Dardano 1997: 4 "...un'epoca anteriore, quasi mitica: il tempo di un generico 'padre del re'".

[294] Wilhelm 2006. I thank Prof. Wilhelm for letting me see the article before publication.

[295] KBo 3.136: [^{NA4}KIŠIB LUGAL.G]AL *TA-BA-AR-NA AL-LU-W[A-AM-NA]*, and the unpublished document 304/e. Cf. also Beran 146a.

written anti-clockwise around it (Beran 146a). Wilhelm sees a more or less linear development from seal-types with the three symbols of good fortune to the rosette that becomes the regular seal decoration from Alluwamna through to Muwatalli II. Alluwamna's Land Donation KBo 32.136 lists in the position where a scribe's name would usually appear a ¹*IŠ-PU-UN-N[U-U-MA* DUB.SAR]. This Išpunnuma also appears as scribe on the unpublished tablet Bo. 90/732, a Land Donation with an anonymous Tabarna seal. In this case the seal has a rosette in the middle, with the triangle and the ankh pushed out into the cuneiform ring[296]. Wilhelm sees this as a transitional form between the older seal types (Beran 143-144b) and the later norm. The text concerns the disposal of the estate of a man called ᵐ*ḪA-AP-PU-WA-AŠ-ŠU* GAL DUMU^MEŠ.É.GAL.

This man seems to have had a very long career, and is attested in numerous documents[297]. Other persons appearing with him as fellow witnesses or in other functions also appear with each other on separate documents, thus indicating that this is a group of people that lived roughly at the same time. The seals of the documents on which Ḫappuwassu appears, always as GAL DUMU^MEŠ É.GAL, reach right through the stylistic development as sketched by Wilhelm, including three with seal-type Beran 143, the earliest in the scheme. It has the three symbols of good fortune in the centre and no separating line between the symbols and the text. This is probably also the seal type of the İnandık land donation, which is broken in its centre[298].

On two such documents[299], Ḫappuwassu, the GAL DUMU^MEŠ É.GAL, appears together with Sandamei, the UGULA I *LI* ^LÚ^IŠ^M[EŠ]/^LÚ.MEŠ^IŠ. This character also appears on the İnandık Land donation[300]. Thus we reach the oldest text in the series. The fact that one man could span the time from a document written by a scribe of the time of Alluwamna, and also have been contemporary with a figure from the İnandık Land Donation, leads

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[296] This must be the Land Donation photographed at Neve 1992: 60 fig. 163, bottom row, second from left.

[297] KUB 48.102 (Wilhelm 23); SBo I 15 (only [....]-*ŠU* and title (Wilhelm 20); unpublished 301/z (Wilhelm 19); MDOG 103: 63 fig. 3 (Wilhelm 18); SBo I 11 (Wilhelm 17); unpublished Bo 91/1791 (Wilhelm 14); SBo I 12 (Wilhelm 13); unpublished Bo 90/750 (Wilhelm 12); KBo 8.27 + MDOG 103: 63 fig. 3 (Wilhelm 6); SBo I 3 (only [....-*Š*]*U* and title (Wilhelm 5); MDOG 103: 61 fig. 2. (Wilhelm 4)

[298] Balkan 1973: 63.

[299] Wilhelm 4 and 5.

[300] İnandık rev. 26. The initial *ŠA* of his name is copied as *TA* at Balkan 1973: 26. The photo does not show any vertical wedges, however. This is also the case for the writing of *TA* in *TA-BA-AR-NA* in l. 1. If this is not just a mirage of the light in which the photograph was taken, both *ŠA* and *TA* could thus be represented by the same sign, a phenomenon all too familiar from Old Babylonian cursive writing, but not so frequent at Boğazköy.

Wilhelm to the conclusion that the majority of the anonymous Tabarna seals are to be dated to the reign of Telipinu, the İnandık document being dated perhaps a little before, from the reign of Ḫuzziya or maybe even Ammuna.

Given that the İnandık document is, palaeographically speaking, the oldest datable text we have in Hittite, we are left with a considerable gap between a supposed adoption of the script in the reign of Hattusili I or even earlier and the start of the available datable records[301].

This does not mean that we have to assume with M. Popko (id. 2007) that there was no Hittite writing before Telipinu. Popko's theory is rooted in the observation that the "Zukrasi-text" and a couple of the earlier Land Donations exhibit the "stepped" DA and IT otherwise usually taken as indicative of MSb. This he uses as evidence that the tablets exhibiting such features date to the very end of the OH period. At the same time he appears to assume that the OS tablet of the Zukrasi-text must be the oldest Hittite tablet, and hypothesises that the Hattusan writing tradition was devoted to writing Akkadian in the period before Telipinu, as with most contemporary peripheral cuneiform cultures. The stepped DA and IT in the Land Donations are explained as reflexes of "Akkadian" writing habits, with reference to the presence of these forms at Alalaḫ VII. This is supported by the fact that a number of Old Kingdom texts are written in a bilingual Hittite-Akkadian format.

This ignores the relatively large number of E. Neu's OS type I tablets of rituals written in Hittite, or at least implicitly assumes that they are later or not relevant. While it remains itself a hypothesis that Neu's sketch of a development from OS Type I through to MS is anything approaching the actual state of affairs, one cannot ignore the possibility that this was the case. Furthermore, the dating of the OS tablet of the Zukrasi-text to the end of the Old Kingdom is achieved on the basis of the hypothesis that the stepped forms of DA and IT are peculiarly characteristic of Middle Script, which, while it may be true, requires that there be an OS beforehand that is earlier.

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[301]Otten thought that Tablet A of the Laws was older than the earliest anonymous Tabarna seals in 1971. This was, however, as he notes, prior to the publication of the İnandık Land Donation. Klinger 2003: 240 fn. 15 declares this and the other Land Donations to be "eindeutig ... mittelhethitische Niederschriften". The reasons for this in the case of Inandık could conceivably be the spacing on the obverse, but this is explained by the nature of the text, involving names and titles, and the amount of space available. Otherwise the tablet appears to satisfy the criteria for an OS classification, with the reservation that many of these critieria are also observable in Middle Hittite texts.

Neu's OS Type I tablets, which are all Hittite language, are good candidates for representatives of this older type, although nothing can be proved until independently datable texts are available for the Old Kingdom.

Furthermore, those texts which do attest an Akkadian tradition from the Old Kingdom, appear to be more or less clearly examples of translations into Akkadian from Hittite models[302]. Methodologically, however, Popko is correct in pointing this out, as there is no evidence that the Hittite models for these Akkadian translations would have been fixed in writing at the time.

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[302] Annals of Hattusili I, see Melchert 1978: 1-22; the author of the bilingual Testament of Hattusili I was also clearly not an Akkadian speaker, but this does not mean that the Hittite text definitely provided the model for translation into Akkadian.

I.2 Hittite Scribal Education and Scribal Institutions

I.2.1 Scribal Environment

Astonishingly little has been written about Hittite scribal education, mainly because the sources are so scant[303]. While fragments of most of the lexical lists known to the scribal curriculum of Babylonia have been found in Boğazköy, very little is known of methods of instruction, or whether these lists even played a role[304]. The OB Edubba texts of Babylonia give us some insight into the methods of education for scribes in Mesopotamia[305]. However, the Edubba as an institution as referred to in these texts was almost certainly defunct by the Old Babylonian period[306]. By this time tuition at such scribal centres as Nippur and Ur was apparently carried on in private houses, just as it had been in the 3rd millennium before the advent of the Ur III state and its monopolisation of a wide variety of social activities. It is the Edubba of the Ur III period that the Edubba literature is referring to[307].

There is however a reference to an É.DUB.BA.A in a Hittite letter from Maşat Höyük[308], where it is cited as the location of a conversation, thus a concrete place. Given that the conversation cited involves a plea for the support of the father of the person thus addressed in the É.DUB.BA.A it could be that we are dealing with young men in an institution of education. What is more, É.DUB.BA.A is a very specific spelling, ultimately obscure, but thought by some to enable an immediate graphic distinction between the É.DUB.BA, "scribal school", and the É.KIŠIB(.BA), "storehouse"[309]. This distinction is achieved in Hittite texts by the use of the determinative NA₄ in the latter case[310].

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[303] The project "Transfer of Knowledge in Cuneiform Cultures" will address this deficit, in the form of a dissertation by Thomas Scheucher dealing with the Lexical Lists, and a contribution from Jeanette Fincke dealing with the higher levels of the scribal curriculum from Boğazköy. The following should in no way be thought to anticipate this work. Otherwise, see Klinger 2005.

[304] J. Klinger points out a possibly sequentialised, i.e. curricular, writing of lexical list followed by god-list on KBo 1.32. See Klinger 2005: 111.

[305] Sjöberg 1974: 159-177.

[306] George 2005: 127-136.

[307] George 2005: 132ff.

[308] ABoT 65 rev. 8: *nu ḫa-an-da-a-an A-NA* ᴵ*A-TI-U-UN-NA I-NA* É.DUB.BA.A (9) *ki-iš-ša-an me-ma-aḫ-ḫu-un A-BU-KA-wa-mu-uš-ša-an* (10) EGIR-*an-pát ki-it-ta-ri* EGIR-*an ar-ḫa-wa-ra-aš-mu* (11) *Ú-UL nam-ma ne-e-a-ri* "and I spoke thus directly to Atiunna in the Edubba: Your father is right behind me, he will not turn away from me, will he?"; differently Rost 1956: 347; Hagenbuchner 1989: 176 (Nr. 123); Atiunna himself is not attested as a scribe, neither is the author of this letter, Tarḫuntissa. For their relations see Houwink ten Cate 1998: 175f..

[309] Landsberger with reservations apud Sjöberg, loc. cit. 159, with further literature.

[310] See also the expressions for "stylus" GI É.DUB.BA(.A) and GI É *ṬUP-PÍ* (HZL 30) = Mesoptamian gi.dub.ba at MZL 141, p. 281.

If this is a reference to an institution of scribal education, it is likely that the institution was borrowed with the script. It does not mean, however, that a Hittite É.DUB.BA.A of the early 14th century B.C. looked anything remotely like the Edubba at Nippur in the 21st century B.C.[311]. Edubba texts are preserved at Boğazköy, which form duplicates to late OB school texts known from Mesopotamia, but it is as yet unclear whether these were imported pieces or copied in Hattusa[312].

Hieroglyphic seal impressions make it very likely that there were different ranks of scribe, as the sign SCRIBA is often written with 2, 3 or 4 strokes beneath it, which may indicate status[313]. It has not been possible to equate these with the cuneiform terms for scribal educational rank: DUB.SAR TUR and GÁB.ZU.ZU.

As made clear by the colophons, a Hittite scribe often wrote under the watchful eye of a supervisor. Where genealogies of scribes are given, we can sometimes see that the supervisor was also the scribe's father, although this did not have to be the case[314]. The work of the supervisors is sometimes to be seen in colophons and interlinear and intercolumnial additions where it is clear that they have been added sometime after the clay of the tablet has started to dry. This can only be established by collation of the original[315].

Sometimes the scribe is further qualified by the term GÁB.ZU.ZU, commonly translated as "apprentice"[316]. All but two occurrences of the term appear in colophons,

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[311] It is worth remembering that this has not yet been found.

[312] M. Civil (id. 1987a) points, with all reserve due to a judgement made on the basis of a hand-copy, to a "Babylonian" form of TU in KUB 57.126. The other Edubba text is a four-sided prism, KUB 4.39 (Civil 2000: 109-116) . J. Klinger (id. 2005: 111) notes that prisms were never used for genuinely Hittite texts.

[313] For a breakdown of these among the Nişantepe seals see Herbordt 2005: 98-100. There is also the sign SCRIBA with a hook-shaped sign beneath it, which J.D. Hawkins has tentatively identified with the later hieroglyphic sign for "thousand" thus "scribe of the thousand". The connection with *LĪM ṢĒRI* which he postulates is not so likely, due to the high probability that *LĪM* in this case is the W. Semitic word for "clan".

[314] [Talmi]-Teššob writes under the supervision of his father, [I]UR.MAḪ-LÚ, the GAL DUB.SAR[MEŠ] at KBo 15.37 rev. 14. This is not the place to branch into scribal prosopography, although a serious work on the subject is sorely needed.

[315] This is the case for the colophon of KBo 4.12, Mittanamuwa decree. For interlinear additons see the common addition of a missing sign to the two tablets of CTH 381 (introduction, Singer) and the possible interpretation of UN-*aš* at KUB 14.3 obv. ii 74 (Heinhold-Krahmer, forthcoming).

[316] For elucidation of the meaning of this term (-zu.zu = *talmīdu*) see Cohen 2004: 84f. and fnn. 10ff. I note the following: gáb.zu.zu.dè is attested in a letter of Warad-Sîn of Larsa in connection with the craft of pottery. All its other attestations are connected with scribal art, with all of these being from the periphery. Civil 1967: 10 explains Sumerian agent or instrumental nouns in gab- as a delocution from the cohortative verbal form with prefix ga- and infixed direct inanimate object -b-: thus ga.b.sar "let's inscribe it" becoming [lú]gab.sar (Akk. *kabsarru* CAD K 24) "stonemason", ga.b.íl "let's carry it" becoming gab.íl (Akk. *kabbillu* CAD K 20) "beams on the side of a chariot", ga.b.zu.zu "let's learn" becoming [lú]gab.zu.zu "learner". The Larsa verb is then a denominal formed from this this. gáb.zu.zu at Hattusa was not entirely restricted to scribal art. One could also be sent to someone for an apprenticeship

followed by a personal name, presumably that of the teacher. The teacher does not have to be identical with the supervisor.

We have:

[Talmi]-Teššob, son of Walwaziti (^{I}UR.MAḪ-LÚ) the GAL DUB.SAR^{MEŠ}, grandson of Mittannamuwa and GÁB.ZU.ZU of ^{I}MAḪ.DINGIR^{MEŠ}-*na*, writing under the supervision of Walwaziti in KBo 15.37 (CTH 628.II.1, Ḫisuwa fest., NSb/c with older features)[317];

Aliḫini son of $^{I.D}$ŠUR-LÚ (*Ningaziti*?), grandson of $^{I.GIŠ}$KIRI$_6$-*NU* and GÁB.ZU.ZU of Zuwa the EN GIŠ.KIN.TI in KUB 13.9 + KUB 40.62 (CTH 258.1 Instructions of Tudhaliya IV, NSb/c).

Ashapa[la?], son of [Ḫant]itassu, grandson of Kuruntiyapiya ($^{I.D}$KAL-SUM), GÁB.ZU.ZU of ^{I}LÚ (Ziti), writing under ^{I}LÚ's supervision in KUB 33.120 + KUB 48.97 + KUB 35.45 -VAT 7429 (CTH 344.A, Kumarbi,)

^{I}*NU*-^{GIŠ}KIRI$_6$ the son of ^{I}SAG, the GAL.DUB.SAR^{MEŠ}, and the [GÁB.]ZU.ZU of Ḫulanapi (KUB 44.61 left edge, CTH 461.A, medical text)

Palla, a GÁB.ZU.ZU whose "master's" name is broken away at VBoT 12 rev. iv 7 (CTH 560.I) an Akkadian language omen fragment in a very peculiar ductus[318].

^{I}DINGIR-*ub-la-an-*[*ni*] who is the [G]ÁB.ZU.ZU of someone (name broken) and wrote the tablet under the supervision of ^{I}LÚ[...] (?), according to KUB 4.38, a fragmentary colophon of an unidentified text written in a very exaggerated "monumental" script[319].

[x-x]-*A* the scribe of the treaty of Talmi-Teššub with Suppiluliuma II, who is GÁB.ZU.ZU of Meramuwa the EN GIŠ.KIN.TI (KBo 12.41+, NSc).[320]

[P]*ihami* the scribe of the NSc festival tablet KBo 45.69, and ^{LÚ}GÁB.ZU.ZU of ^{I}Ḫalwaziti, may also be designated as a [DUB.SA]R TUR! at ibid. rev. vi 4.

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[317] (*A-NA* GÁB.ZU.ZU-*UT-TIM*) to learn augury. A collective of GÁB.ZU.ZU also appears, possibly "students".

[317] One MAGNUS-TONITRUS (= Talmi-Teššob) is attested on seals with the titles SCRIBA, SCRIBA-*la* and SCRIBA3.

[318] Palla is also mentioned in the colophons of CTH 783 (KUB 30.26, KBo 9.116), CTH 482 (KUB 32.133), as the father of the scribe Angulli, who wrote under the supervision of Anuwanza. Cf. Van den Hout 1995: 218; Herbordt 2005: 82. Photo Erm. 15609 ŠA with no central vertical in l. 5, KI and ŠU with extra horizontals.

[319] This script is of this otherwise uncommented fragment is similar to that of the colophon to Emar 567+, written by a student of Kidin-Gula, the foreign scribe at Emar treated by Cohen 2004: 81 - 100. The script alone does not have to be an indication of foreigness (witness the clearly Hattusan KUB 3.91), but the name of this scribe, which is not otherwise attested is also Mesopotamian. The supervisor's name may be Hittite. Perhaps this was an assumed name of a pretentious young scribe. The occurrence of Mesopotamian scribal names at Maşat can be interpreted similarly.

[320] A fragmentary attestation of GÁB.Z[U.ZU] occurs in the colophon at KBo 42.2 iv 2, and presumably provides the basis for H. Otten's dating of this ms. of the "Song of the Sea" to the thirteenth century (KBo 42 p. IV).

The gáb.zu.zu is also attested at Ugarit and at Emar[321], and in both these cases the colophons where apprentice scribes are mentioned are those of lexical lists[322] or a wisdom text, i.e. texts more closely associated with what we commonly understand under scribal education. The Hittite apprentice dealt with very different material, covering almost all genres. However, there is no evidence that the term was used before the 13th century, as all the texts are demonstrably late, or that the term is not used to refer to fully trained scribes, perhaps indicating a kind of genealogy of knowledge rather than that the scribe was still a student. Similarly we are often interested today in who a particular scholar was taught by. It is thus of limited use for establishing the contents of a Hittite scribal curriculum.

Twice the GÁB.ZU.ZU is apprentice of the EN GIŠ.KIN.TI.
A frequent misinterpretation of this professional denomination is "Handwerker", which is presumably a confusion of the Akkadian counterpart to Sum. GIŠ.KIN.TI, Akk. *kiškattû*, "craftsman", with *bēl qāti*, also an Akkadian expression for "craftsman"[323]. If anything, a direct translation from the Sumerian gives "lord (of) the craftsman/ lord of the work-camp". F. Pecchioli-Daddi translates "maestro scriba" at *Mestieri* 625 on the basis of the two colophons above, and these are the only two attestations she records for this official. VBoT 12 was found in the House on the Slope, thus just to the East of the entrance to the Great Temple. KUB 13.9+ does not have a known find-spot, but it is interesting that the fragments of two of the three other tablets relating to this text, the Instructions of Tudhaliya IV, were found in the region of the Great Temple, either in the House on the Slope (1/u, cf. Košak, Konk.) or in the sectors to the North-North-West of the temple itself (K/20, J/20, cf. KBo 27, p. XV). The latter may well be a "Streufund"

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[321] For the attestations at Ugarit see Huehnergard 1989: 13, fn. 19; At Emar see Cohen 2004: 84 fn. 11.

[322] lú = ša (Emar 602 AD) and izi = išātu, see Cohen loc. cit.

[323] Sommer HAB 126; CAD K 453-454; *Mestieri*: 201. Tischler 2001: 229 has GIŠ.KIN.TI 'Handwerk, Werkzeug' EN GIŠ.KIN.TI 'Handwerker'; É (GIŠ.)KIN.TI 'Arbeitshaus, Werkstatt'. Akk. *kiškattû*: CAD K 453 gives the primary meaning of Akk. *kiškattû* as "furnace, kiln, oven" its secondary meaning as "craftsman, smith, armorer" and a tertiary meaning of "engineer", for which the form appears to be *kitkittû*. AHw 491 has *kiška/ittû* as "Handwerker, Waffenschmied". The passages cited in CAD from an OB Gilgameš tablet could just as well be interpreted as craftsman/men, although this is not the reading of the latest editor ("forge" at George 2003: 201). In fact, the second occurrence in the text does not show mimation, and could well be a plural. There is also no reason to assume that the simile *kīma kiškittê ṣādu* from the Standard Babylonian texts cited by CAD must require a reading "to glow like a forge". Hypallage is well enough attested in literary works: *kīma kiškittê iṣudda* = (their weapons/the lands) "glowed like (the work of) a smith" cf. AAA 19 pl. 85: 14 and KAH 2.84:22. Furthermore the place-name written *ki-iš-ka-tu*[KI], *ki-iš-ga-ti*[KI], GIŠ.KIN.TI[KI] in M3 texts is no evidence for the meaning "forge". It could just as well be "worker(-town)" (See very similarly Loding 1974: 145f.).

from the Temple Magazines.   The third related fragment of a tablet of this text, KUB 13.7, is also without a recorded find-spot.

One may be reminded here of the É GIŠ.KIN.TI, commonly translated as "Arbeitshaus", referred to on a tablet found in the building complex directly South of the Great Temple's entrance[324]. The remaining lines of the tablet, which has a clearly NSc ductus, list numbers of personnel: KBo 19.28

obv. 1 ŠU.NIGIN 2 *ME* 5 DUMU$^{HI.A}$ É GIŠ.KIN.TI

    2 ŠÀ 18 $^{LÚ.MEŠ}$ *šak-ku-né-eš*

    3 29 MUNUS^{MEŠ} *kat-ra-aš*

    4 19 $^{LÚ.MEŠ}$DUB.SAR ŠÀ 10 Ì.GÁL 9-*ma UL* SUM-*ir*

    5 33 $^{LÚ.MEŠ}$DUB.SAR GIŠ

    6 35 $^{LÚ.MEŠ}$ḪAL

    7 10? $^{LÚ⌈.MEŠ⌉}$⌈NAR⌉ *ḪUR-RI*

    8 [   ]x

Col. rev.:   x x

CHD Š/196: "Total 205 members of the House of the Craftsmen, including 18 priests, 29 *katra*-women[325], 19 scribes, of whom 10 are present, but 9 they did not give, 33 wood-tablet-scribes, 35 exorcists/diviners, 10 singers of Hurrian [...]".

Thus 144 of the 205 personnel are made up of officials associated with cultic functions or writing[326]. We might indeed expect an É GIŠ.KIN.TI to be the residence of an EN GIŠ.KIN.TI and for a good deal of scribal activity to have been located here. H.G. Güterbock went as far as to suggest that the South Area near Temple I, if the find-spot

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[324] KBo 19.28 was found in secondary layering in the earth-fill of room XIV/12 of the complex, but despite its apparently later find-spot it has been used by excavators from Bittel to Seeher to determine the function of the whole building complex (Neve apud Bittel et al. 1969: 30 Seeher 2005: 24f.). Fragments of three further tablets were found in-situ in this building, in rooms III/1, VII/3 and VIII/2 (Neve does not give the inventory numbers of these). The whole area yielded very few in-situ finds otherwise, leading Seeher to speculate that it, along with much of the city, had been cleared before being left (Seeher 2001: 626). As for its function, Neve speculated that it must have had cultic associations, either as an appendage to the Great Temple or as a later cult institution of its own.

[325] H.Otten translates this as "Sängerinnen" KBo 19 p. V fn. 6. Profession named after a ritual possibly of Hurrian origin related to worship of Ištar in Northern Babylonia according to Miller 2002: 430.

[326] Hoffner 1997a: 192 refers to weavers "employed in the cult, like all artisans mentioned as working in the É GIŠ.KIN.TI (Akkadian *bīt kiškatti*) of the Great Temple in the Lower City at Hattusa". I'm not sure where these "artisans" associated with the É GIŠ.KIN.TI are referred to.

of this tablet is anything to go by, may have been the scribal school[327]. The (É) GIŠ.KIN.TI of the Hitttites will necessarily have been a very different institution to that of Akkad or of the Ur III state, where Sumerian giš.kin.ti either refers to a skilled worker or to a "work-camp"[328]. The usage of the Sumerogram was changed by the Hittites via a process which we can no longer follow or only speculate about. We should remember, however, that the scribal art was generally subsumed under "craftsmanship" in the ancient world[329].

Two further texts mention an É GIŠ.KIN.TI. The inventory tablet KUB 52.96 concerns the distribution of blankets, probably after washing. Obv. 6f.: V ^{TÚG}GUZ.ZA LUGAL KUR *I-ŠU-WA* (7) *a-pa-a-at-ma ḫu-u-ma-an A-NA* É GIŠ.KIN.TI (8) *šar-ra-an-zi* A^{MEŠ}-*za ar-nu-an-zi* (9) É.GAL *ti-an-zi* "5 blankets of the king of Išuwa, but all that they distribute in the House of the Craftsmen, they carry away from the water, they put (in the) palace".

The *apāt⹀ma ḫūman*, "but all that", applies not only to the blankets of the king of Išuwa, but also to the other blankets and items mentioned in the previous 5 lines. The two destinations are the É GIŠ.KIN.TI and the palace. This is possibly to be understood in the context of the high standing of its inhabitants in Hittite social hierarchy[330].

KUB 38.12 obv. i 11ff., concerning the cult personnel of ^{D}LAMMA of Karaḫna, lists numerous persons labelled as $^{LÚ.MEŠ}$*ḫi-la-ma-at-ti-eš*, which are: ^{LÚ}GUDU$_{12}$ priest, ^{LÚ}ḪAL, ^{LÚ}NAR, ^{LÚ}GIŠ.BANŠUR, ^{LÚ}MUḪALDIM, LÚ ^{GIŠ}ŠUKUR, ^{LÚ}Ì.DU$_8$,

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[327] Güterbock 1975: 132. Note the presence of central courtyard with various rooms surrounding it, which may suit a scribal school; cf. also George 2005: 132. The very narrow entrance to the courtyard could possibly indicate that not everyone was supposed to come in. This was a closed institution.

[328] Whatever the semantic connotation of the writing GIŠ.KIN.TI when it was adopted by Hittite cuneiform, and this may be very difficult to determine, the translations GIŠ.KIN.TI = "work", É GIŠ.KIN.TI = "house of work", EN GIŠ.KIN.TI = "worker" have all the trappings of a Hittitological back-translation. The GIŠ.KIN.TI (*kiškattû*) in Mesopotamia is either the worker or the place of work understood as a collective of such workers (Loding 1974: 137ff., here fn. above). The Hittite EN GIŠ.KIN.TI should not be assumed to be the same as the *bēl qāti*. There appears to have been a specific é.giš.kin.ti at Nippur, which was given the name é-^{D}en-ki and may have been connected with Narām-Sîn's re-building of the Ekur (Westenholz 1987: 26f.). The possible size of such an institution can be gauged from the rations for personnel belongiing to a giš.kin.ti: "28,350 litres of barley, 1,820 litres of dried fish, 182 litres of salt, the work camp received" (OSP 2, 9, Westenholz ibid. 34). A tablet from the same collection (OSP 2, 10) is likely to list some of the participants in a giš.kin.ti of the time of the kings of Akkad. These included some 417 workmen/soldiers, carpenters, joiners goldsmiths and sculptors along with 35 foremen and 6 "royal scribes". (Westenholz loc. cit.).

[329] Houwink ten Cate 1998: 158. "Apparently the meaning was wider, at least in Hittite usage, to include professions demanding literacy" Güterbock 1975: 132. It is quite possible that a misinterpretation of Sumerian GIŠ.KIN.TI as based around the verbal root KIN (*aniya-*) lay behind the double application to hand-workers and cult-workers in Hittite. See KIN-*ur* for Hitt. *aniur*, "ritual" in the 13th century, HWb^2 I 95f.

[330] On the high status of scribes see Houwink ten Cate 1998: 170-178.

^{LÚ}GALA, ^{LÚ}*palwatalla-*, ^{LÚ}*arkammiyala-*, LÚ TIN.NA, ^{LÚ}NINDA.DÙ.DÙ,

^{LÚ}A.ÍL[!].LÁ, LÚ EDIN.NA (?) ^{LÚ}*ĒPIŠ* BA.BA.ZA.

As opposed to these the list continues with:

i 17f. ^{LÚ.MEŠ}DU.x.ḪA *ŠA* É GIŠ.KIN.TI-*ši-kán* (18) *an-da* DAB-*an-za* "the DU.x.ḪA-men of the GIŠ.KIN.TI are taken for him"[331].

Whatever the nature of these officials, they are defined as being from the É GIŠ.KIN.TI rather than as being *hilamattes*, which has itself been associated with *ḫilammar*, "portico, court". Güterbock notes that many of the officials mentioned as *ḫilamattes* here recur as members of the É GIŠ.KIN.TI in KBo 19.28. Here the two are contrasted. The É GIŠ.KIN.TI of a temple at Karahna need not have been the same as the É GIŠ.KIN.TI of the Great Temple of Hattusa.

Depsite the obscurity of the last passage, there is thus a decent body of evidence to suggest that the É GIŠ.KIN.TI had associations with writing and that the EN GIŠ.KIN.TI, who is twice named as having a scribal apprentice, may have had power over scribes, or perhaps have been a master scribe himself. In contrast to the archaeological environment of possible scribal centres at Ugarit and Nippur, however, large tablet deposits were not found in the immediate vicinity of the building in which KBo 19.28 was found, for instance in the rooms around the courtyard. The nearest large tablet finds in this area were the temple magazines and the Haus am Hang. If we are to take the find-spot of KBo 19.28 seriously and exploit the connection with scribal and cultic activity that it attests, then, although this may have been a possible location for scribal activity, it was clearly not where the tablets were stored. The difference to the archaeological situation as interpreted at Ugarit, where school-tablets were found in private houses, may be a reflex of a different social organisation of scribal activity in Hattusa, at least with regard to the vast majority of tablet finds thus far[332]. It is primarily organised via state and temple institutions, in as far as it is sensible to make a distinction between the two, possibly with co-ordination between centres of scribal production and tablet archivisation over quite large areas[333].

This different social organisation may possibly find a further reflex in the inheritance, preservation and adaptation of some of the terminology of institutions of scribal learning: besides the É.DUB.BA.A mentioned above, there is the re-interpretation of the

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[331] Taggar-Cohen 2006: 24, translating "smiths" after Puhvel. The logogram is ^{LÚ.MEŠ}DU.x.ḪA (BoFN 4020). Güterbock compares the logogram in i 9: ^{LÚ.MEŠ}DU.AN-*ma-kán*, where these also appear to be officials belonging to the class *ḫilamattes* (Güterbock 1975: 131 fn. 29)

[332] Van Soldt 1991: 229.

[333] See Van den Hout 2006; id. 2007: 401.; Košak 1995; Klinger 2005: 109.

Sumerian word gi.dub.ba "stylus" (lit. "reed of the tablet"), as GI É.DUB.BA or GI É
ṬUP-PÍ , "reed of the tablet house".

However, the area South of the Temple was clearly built late in the Empire period, as a
tablet was found under the floor of Magazine 72a bearing a colophon indicating that it
was written under Anuwanza, who we usually date to Hattusili III and Tudhaliya IV[334].
Thus the Südareal, or this part of it, was built late. This should warn against definitively
associating the Südareal with an É.DUB.BA.A known from a Middle Hittite text from
Maşat Höyük.

There must have been some concentration of scribal activity in this area, however: by
far the majority of those tablets of lexical lists with recorded find-spots at Boğazköy
were discovered in the Lower City, in and around T.I. and the HaH[335]. In one case,
palaeography and the preservation of two tablets out of a series (Kagal) may suggest
that a good copy was kept in Bk. A, while more frequent copies were made in the lower
city[336]. However, this can be taken as no more than a parallel and possibly coherent
phenomenon, as the nature of the lexical lists found thus far at Boğazköy is not at all
that which we would expect from learner scribes.

I.2.1. Lexical Lists at Hattusa[337]

The relationship between lexical lists and scribal practice is not straightforward. In
Mesopotamia as in Anatolia the number of items that only appear in lexical lists show
that these were very much writing exercises, and not wholly related to writing practice
in the world outside school, although the use of erudite and cryptic values of rare signs
was also surely a certain way of guaranteeing the exclusivity of the scribal craft[338].
Given that certain Hittite logograms only appear outside of Anatolia in lexical lists we

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[334] Otten 1971a: IXf. The possibility is granted here that the tablet may have found its way under the
floor as part of a refurbishment of a pre-existing building.

[335] See below. Of course, the unrecorded find-spots of the early archaeological campaigns vitiate and
render speculative any observations made on this basis. Further work is needed on the archives of the
lower city in the spirit of S.Kosak's analysis of the archive of Bk.A, Košak 1995: 173 - 179; on the
difficulties of locating find-spots particularly from T.I. and the HaH see Alaura 2001: 14ff..

[336] See Kagal, below; Klinger 2005: 109.

[337] The following section has benefited immensely from discussion with N. Veldhuis and J. Taylor.
Professor Veldhuis generously commented on an early draft of this section and gave me access to a
preliminary draft of a chapter from a book he is writing on lexical lists for the purposes of orientation. As
the draft of that chapter is too preliminary to be quoted directly, I will refer to ideas contained within it as
"Veldhuis (pers. comm.)", without distinguishing between ideas I took from the comments furnished by
him on my earlier draft of this section and those I drew from the preliminary draft of his own chapter.
Any errors remain my own.

[338] For discussion of the processes by which lists evolved from archaic Uruk through to the Nippurite
versions and especially the dynamic tension between changing practical and school requirements see
Civil 1987b: 138ff; Veldhuis 1997: 12-21 For the relationship between lexical lists and cultural heritage
see Veldhuis 2004: 81-106.

must consider the contribution these made to scribal education at Hattusa, albeit in restricted format.

The Hittites do not appear to have been interested in all the texts that Mesopotamian scribal apprentices had to learn by rote. In particular the Syllabic Alphabet A which formed the very first element of a Mesopotamian scribe's course in writing outside of OB Nippur, has only one possible fragment[339], while the elementary tu-ta-ti, which is found at Ugarit, is almost completely missing[340]. The presence of Ea-type material (CTH 306) is unusual given the usual appearance of Sa (syllabary) in Northern Mesopotamian scribal centres where Ea is not well attested.

On the other hand, the best represented material is that of the more complex lexical traditions, Erimḫuš and Diri. Also very poorly represented are proverbs, which N.Veldhuis has argued to form the bridge between the first stage of scribal education in Mesopotamia and the second, which involved the copying of literary texts. All of these elements are in evidence in Emar and Ugarit. In the latter case the tablets were mostly found in private houses, and certain archaeological structures have been thought particularly appropriate as centres for private scribal education.

It is not clear when Mesopotamian scholarly texts would have reached Hattusa, but in the case of the word-lists it is very unlikely that some of these were not known in some form during the OH period, given that they would have been basic for learning the art of writing[341]. The ductus of most of the tablets and fragments is mostly that of Boğazköy NS or NSc, as one would expect, but some tablets look as though they have at least been copied from older originals and may even be older than New script themselves[342]. However, just what OH lists should have looked like is very unclear, given that the traditions adhered to by some Hittite lists are in certain respects even closer to the canonical versions of the first millennium than their counterparts at Emar and Ugarit, and can thus be descended from nothing earlier than late MB ancestors. On the other hand, the fact that some already OH logograms are only attested in lexical lists in the

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[339] Farber 1999: 127 sees KUB 3.114 as part of Syllabic Vocabulary A.

[340] Erimhuš Boğ A 136-138 appears in desperation to use part of tu-ta-ti as a filler in the Akkadian column: KBo 26.20 obv. ii 39 DU.GAM = *mu ma mi* = *ma-a-an* (40) lú = *ḫu ḫa ḫi* = *ku-it* (41) e-še (?) = *lu la li* = GIM-*an*. This does not mean that Erimḫuš was an elementary exercise. See Klinger 2005: 112f..

[341] Klinger 2005:

[342] KUB 3.102+ (Kagal Bogh I, B, E, F, G), mixes both Old (E. LI, RU, EL, AG, Ù) and New (AG, AL) sign-forms. The writing is tightly spaced despite the gaps expected in a list, and appears to be heavily impressed from the photographs. The one occurrence of New AG is at KUB 30.8 *pí-la-ak-ki*, in a line before old AG is used in *ra-ak-šu*. This may be experimentation. The whole suggests an early New Script dating for the manuscript, given that the other O/MS forms are written consistently. Ù appears in a very old form. AL is written in the characteristic IIc form.

2nd millennium suggests that they may well have passed into Anatolia by means of some sort of lexical tradition[343].

The Lexical lists are covered by Laroche CTH 299 -309. A brief overview is presented here. The find-spots are summarised in table format:

List	Total	Unrecorded	HaH+T.I.	Bk.
Sa	14	9	5	0
Diri	17	15	1	1
Izi	9	7	2	0
Kagal	14	6	5	3
Proto-Lú	6	4	2	
Ea?	1			1?
Hh	8	3	5	
Unidentified	45	4	23	

It is difficult to identify practice tablets from photographs. However, those tablets which can reasonably be identified as practice-tablets due to their clearly having been re-used are the following according to the photographs currently published by the Mainzer Photoarchiv[344]:

Sa: Bo. 3571 (Photo N12971);

Izi: Bo. 7345 (Photo N0239);

Kagal: 771/z (Photo B14111).

Note on Palaeography: The palaeographic notes in brackets are oriented according to the priniciples outlined above in the section on Hittite Palaeography in the introduction. Similar cautions, however, are doubtless to be recognised for the palaeography of Hittite lexical texts as they are for Mesopotamian ones. For example, the use of archaic sign-forms is not necessarily a factor of absolute chronology. This is something which should be borne in mind in any palaeographic study[345]. In general, however, it has been possible to classify the texts palaeographically, or at least to make sensible statements concerning the distribution of sign-forms within them.

CTH 299 Sa vocabulary. Currently fragments of 14 tablets have been found at Boğazköy and identified as belonging to Sa vocabulary, often with Hittite as well as

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[343]See also discussion of ^{UZU}NÍG.GIG, ŠU.ŠÈ.LÁ.

[344] One must be cautious here not to confuse scratches on the surface of the tablet with traces of previous usage. This is in most cases impossible from photographs. In the following cases, one sees signs that have been half wiped over, for example.

[345]Veldhuis 1997: 22

Akkadian translations[346]. The larger fragments are definitely from multi-column tablets[347].

KBo 1.34: [gloss?]-[Sum.]-[Akk.]-Hitt. (NSc)[348]

KBo 1.43: [gloss]-Sum.-Akk.-[Hitt.?] (NS)[349];

KBo 1.45: [gloss?] -Sum.-Akk.-Hitt. (NSa)[350];

KBo 1.52: Gloss-Sum.-Akk.-Hitt. (NSc?);

KBo 1.53: [gloss]-[Sum.]-Akk.-Hitt. (NSc)[351];

KBo 13.3 Sum.-gloss-Akk.([Hitt.?]) (NSbii)[352];

KBo 13.9 Sum. only preserved (NS)[353];

KBo 26.34 gloss, sign-name?-Akk. Hitt. (NSc)[354];

KBo 26.35 [Sum.] Akk. (NS);

KBo 36.2 [gloss?]-[Sum.]-Akk. Hitt. (NSbii)[355];

KUB 3.95 [gloss?]-[Sum.]-Akk.-Hitt. (NSbii)[356];

KUB 3.105 Sum.-gloss-Akk.-Hitt. (NS)[357]

In 2nd millennium Mesopotamia Sa is scarcely known at Nippur, most tablets coming from Northern Babylonia, Emar, Amarna, Ugarit, Aššur and Boğazköy. These are mostly large multi-column tablets. Sa vocabulary, which is a version of the Sa sign-list supplied with translations, is only known from Aššur and Emar (Akkadian translations), Boğazköy (Akkadian and Hittite), and Ugarit (Akkadian, Hurrian, Ugaritic).

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[346] The reason for the inclusion under *Konkordanz* 299 of the Ugarit Sa vocab. RS 94-2939 is unclear to me.

[347] N. Veldhuis (pers. com.) points out that this may not have been ideal material for scribal beginners.

[348] MSL 3.61f. cf. Sa (syllabary) 130 - 136.

[349] MSL 3.85f. cf. Sa (syllabary) 391-393.

[350] VAT 7434a displays New E, AG and ZU but otherwise no NS forms. The typically MS TAR (obv. 3, 11, 19) is thus either copied from an older original, or this tablet is to be dated to the early stages of NS. Old is also the peculiar "directive" *da-me-e-da* obv. 15. On the other hand LÚ-*iš*, obv. 18 must stand for Luwian *zitis*, but this is not conclusively late.

[351] MSL 3.87. Note [*qé-*]*el-du* = *qīštu*, cf. *qí-il-da* VS 12.193 (EA 359) rev. 5, 18.

[352] Laroche (CTH 299.10) compares obv. 1-7 with MSL 3.84, 4-11, an Sa vocabulary fragment from Aššur. Note: Double ruling on left, ŠE glossed *ša-i*, with *i-ú* as Akk. word for grain (cf. Cavigneaux 1989), *uṭ-ṭa-a-t*[*um*] cf. Aššur [*uṭ-*]*ṭe-tu*! Possibly imported tablet, with Assyrian influence (cf. Otten/Von Soden 1968: 38 fn. 1)?.

[353] Laroche (CTH 299.11) compares Sa (syllabary) 161a-164 (MSL 3.25). Compare also the bilingual Sa from Emar 425-430 (Arnaud 1987: 20; id. 1985b: 430). In KBo 13.9 the UZ which begins the section is written to the right of the column divider in an untidy script- was it forgotten?

[354] StBoT 7, 39-41.

[355] Listed with Sa by Konkordanz, but in fact, as per KBo 36 IV, the only lexical parallels are Sb 269 (MSL 3.120) and Ea III 106 (MSL 14.307).

[356] MSL 3.79, cf. Sa (syllabary) 386. DU (l. 8) written with top horizontal contra copy. See Hoffner 1997b: 192.

[357] MSL 3.72 (Fragment R).

The function of Sa (syllabary) in Babylonia appears to have been as part of the elementary scribal education, fulfilling a role there which was played by Ea in Nippur[358]. Whether the large multi-column versions of Sa vocabulary in the periphery were a similarly elementary exercise is not clear.

Sa Boğ. largely follows the order of the Sa (syllabary), although KBo 26.34 may differ somewhat[359].

An illustration of the sometimes tenuous relationship between the signs copied in the Sumerian column and the Hittite translation comes at KBo 1.45 rev.[!] 7f.:

(7) KU = *lu-bu-uš-du* = *wa-aš-šu-u-wa-ar*

(8) KU = *ṣú-u-pa-tu₄* = TÚG-*aš*

Clearly the Hittite writing of *waspa-*, "garment", was so regularly done with TÚG that it could be written in the Hittite column, while the Sumerian column required that KU be copied, presumably following the frequent Middle Babylonian evaporation of the formal distinction between KU and TÚG[360].

The following text is very obscure, using two sign-forms that are nowhere else attested:

(9) [*š*]*a du-gul-la-ag-ga* LAGABxLÁL = *zu-u* = *za-ak-kar*

(10) [T]ÚG   LAGABx IGI   = *zi-in-ḫu* = *šal-pí-iš*

Line 9 appears to be a phrase of the type *ša* (= Sum. šà) SIGN-NAME ₁+ak+-*u* SIGN-NAME₂-a <ì.gub>, "the sign-name2 <stands> inside the sign-name 2". Y. Gong interprets the final vowels in these phrases as nominative and accusative respectively[361]. Clearly this is not what we have here: [*š*]*a dugullagga* (TUKUL+AK-*a*)[362]. In fact, as it stands, šà TUKUL-ak-a gives perfect Sumerian sense without the need to interpret the

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[358] For example the material treated on the obv. of KBo 1.45 has some rough parallels in Ea: Proto-Ea MSL 14.30f., 10-24; 33f., 58-70; OB Secondary branch of Proto-Ea: MSL 14.140f.; Ea I: MSL 14.186, 182-191. See also Emar Sa 113-127 (Arnaud 1987: 13; id. 1985a: 140; 1985b: 389)

[359] See StBoT 7, 1968: 39ff. Note that the MA version is also quite different at this point to the usual Sa order.

[360] Gordon 1958: 72ff. with fn. 9. Borger distinguishes between MZL 808 KU (DÚR, TUKUL, TUŠ), 809 (TÚG), 810 (ŠÈ). Some attempt to distinguish KU and ŠÈ appears to have been made in the Sa syllabary exercise tablet from Kiš (mss. LA), and in the OB Forerunner from Sippar TÚG and KU are written (mss. FC). KU is very rarely used for TÚG at Boğazköy (HZL 212/9), notably in KBo 1.11, which is probably foreign, at in KUB 45.43 obv. ii 20, rev. iv 15, 19, 21, 24, 27 (MSc) where it is also written with HZL 212/6-7 elswhere on the tablet.

[361] Gong 1995: 48.

[362] This example is not mentioned in Gong 1995: 53-55.

final vowel as an Akkadian case-ending: "inside TUKUL" (with genitive in -ak- and inanimate locative -a).

CAD Z 150 interprets LAGAB x LÁL as DÚRxME(?), and CAD Ṣ 200 has LAGAB x IGI as U+DÚR, following MSL 3 ad loc. CHD Š/1, 107 also reads U+KU. However, KU (= DÚR) in this text is not written with the front vertical (the late NSc form) and the text otherwise displays a consistently NSa ductus. It is thus very unlikely that it would have written KU in this form[363].

However, if this were the standard phrase for the modification of a sign-form in a list we would interpret: "inside TUKUL <it stands>". LAGABxLÁL would in this case be a logogram for ì.gub, but this is usually written *i-ku-ub* in Hittite and Emarite texts. It could also be another technical term the precise meaning of which is unclear, but which indicates a change in the form of the sign in the list[364]. This is the point where the sign-form changes by the addition of one extra horizontal, from KU to TÚG. The provisional translation should thus be: "inside tukul, (there is) LAGABxLÁL", with the concrete result that an extra horizontal is added.

TÚG or ŠÈ comes next, the former of which fits the traces at the beginning of the next line better than the [L]U proposed by MSL 3.60 ad loc[365]. ŠÈ is in fact written TÚG at Boğazköy, and one is tempted to think of the value $\check{s}e_{10}$ = KU with the meaning *zû*, "excrement"[366]. Quite possibly LAGABxIGI is to be understood as LAGABxŠI, indicating the phonetic reading of the sign TÚG when referring to "excrement": ŠÈ[367].

However we explain these obscure lines, it is clear that the scribe is able to recognise a difference between writings of the logograms for "garments" and "excrement" in the Sumerian column, yet writes the Sumerian for garment with KU, while casually writing

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[363] An early form of KU with a front vertical occurs in the Manapa-Tarhunda Letter, but see palaeography section above. D. Schwemer has kindly collated the tablet and confirms that these are examples of the Hittite LAGAB with LÁL and IGI inscribed respectively, as copied, with the proviso that LAGABxIGI appears to have some faint other traces within the sign, although these could possibly be remnants of a previously written sign.

[364] LÁL.LAGAB is given the value $nimen_x$ = $nigin_5$ at Proto-Ea/Aa 78 (MSL 14.189), and nanga at S^b II 146 (see MZL 751, p. 197). Futhermore, at Ea I 255, with the reading ni-mé-en, it is equated with Akk. *na-gu-ú*, coming at the end of a list of other sign combinations involving LÁL which are all equated with Akk. *ribbatu*, "arrears". In KUB 3.105 ii 10f. (Sa?) we read: (10) I LÁL.DÙ= na-an-ga = *na-[gu-ú]* (11) I LÁL.LAGAB = blank = *ri-pa-⌈a⌉[-tum]*, presumably also meaning "arrears". a.šà.nanga (written LÁL.LAGAB) is found at Hh XX-XXIV Nippur Forerunner 39 in ms. I but LÁL.SAR in ms. A (MSL 11.98). To extrapolate a technical scribal meaning for this, such as *rebû*, "is squared", leads to no comprehensible conclusion with the available evidence and involves tortuous reasoning.

[365] Collation by D. Schwemer confirms that there are four horizontals rather than the five copied.

[366] MZL 808, pp. 205, 425. Now is not the time to explore Borger's repudiation of the equation šè = *zû* in Mesopotamian cuneiform. It is not supported by this evidence. ŠÈ is written as TÚG in KBo 1.4 (Tette, passim), as well as in the logogram ŠU.ŠÈ.LÁ.

[367] One is reminded in both these cases of the obscure and presumably invented logogram denoting the song of the Kingship in Heaven myth: LAGABxMIN.È.A or GÁxÈ.A in 1194/u.

TÚG-*aš* in the Hittite column. Confusion of KU and TÚG is not unattested at Boğazköy, but very rare. At the very least, the above example shows a looseness of binding between scholarship and writing practice that we should bear in mind when approaching the use of Hittite logograms in text. Although the Hittites will have learned cuneiform, like anyone else at the time, from lexical lists, it was not necessarily from the ones found at Boğazköy.

CTH 300 DIRI. Fragments of 15 tablets are recorded in the Konkordanz, seven of which are from T.I., six without find-spot and one from Bk. A. Of these, KBo 26.17 (T.I.) is not included in the edition of MSL 15, and appears to belong to a list of body-parts[368].

The function of Diri was to teach scribes complex logograms, in particular with regard to their phonetic Sumerian pronunciation.

OB Diri had merely the complex logograms and their Akkadian correspondences, while 1st millennium Diri was organised, like 1st millennium Ea, in 3- 4 columns: phonetic reading of complex logogram, complex logogram, (spelling of individual signs), Akkadian translation.

The format of Diri-tablets found at Boğazköy is as follows:

KBo 7.12 (A): I Complex logogram with gloss - [II Akk.?]- III Hitt. (NS). (Photo B0580x)

KBo 26.13 (B): [I Complex logogram with gloss] - II Akk. - [III Hitt.] (NS?)

KBo 26.11 (C): Hittite only preserved (NSb).

KBo 1.48 (D) I Complex logogram with gloss - II Akk. - III Hitt.

KBo 8.10+ (E): I Complex logogram with gloss - II Akk. - III Hitt. (NS) - (Photo B1409,1410)[369].

KBo 26.10 (F): I complex logogram with gloss - II Akk. - III Hitt. (NSc) Photo B1310a[370].

KUB 3.98 (G): I complex logogram with gloss - II Akk. -[III Hitt.?] (NS, Photo N13028).

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[368] It is, however, not Ugu.mu.

[369] Uses the value *rù* (AŠ) in *uḫ-ḫu-rù* and very peculiar Ú in *ga-a-ú* KBo 26.9 i 11. The entries in col. I are arranged in the order: Logrogram, phonetic spelling, comment, e.g. (6) PA.IB, (7) *ša-ab*, (8) *na-aš-ta* ur.ta.ku.

[370] Colophon rev. vi 13:]DIRI NU.TIL

KBo 26.14 (H): I [Complex logogram] with gloss - II Akk. - [III Hitt.] (NSa/b? Photo B0627i).

KBo 26.12 (I): I Complex logogram with phonetic gloss - II Akk. - III Hitt. (NSc).

KUB 3.103 (J): [I logogram] - II Akk. - III Hitt. (NSc).

KBo 26.15 (K): [I Complex Logogram with gloss?] - II Akk. with comment on signs - III Hitt. (MS? Photo B 0906a X)[371].

KBo 26.16 (M): Only fragment of Akk. column preserved (NS)[372].

KUB 3.97 (N): I complex logogram with gloss - II Akk. - III Hitt. (NS?)[373].

KBo 26.19 (O): [I Logogram with?] - [?] - II Akk. - III Hitt. (NSc).

The sprinkling of older signs in these fragmentary texts, in particular the occasional use of TAR (HZL 7A) indicates that at the very least copies were being made from older originals, even if the fragmentary nature of the tablets precludes definite datings to the Middle Hittite period. In the case of KBo 26.15 (K) the logogram was perhaps included in the same column as the Akkadian and the scholastic comments, as it is otherwise very unusual that such comments come in the Akkadian column. If this is the case, KBo 26.15 might be compared with the the Middle Hittite fragment of Hh XVII from Ortaköy (see below), which displays a similar position of the Akkadian. In all other cases scholastic comments are inserted in the Sumerian column, usually with a double or single Glossenkeil if directly after the orthographic Sumerian, or simply below the Sumerian. There are no cases where the syllabic Sumerian or sign-commentary has its own column[374].

The mixed language of the scholastic comments, including elements of Sumerian and Akkadian in a Hittite sentence context, demonstrates that the Hattusa scribes were not slavishly copying Mesopotamian or even Syrian models in these lists, but were adapting techniques from Mesopotamian and Syrian scribal education to fit their own circumstances.

At least one consistent deviation regarding the phonetic realisation of the Sumerograms is found in the Boğazköy version as opposed to those of Mesopotamia. KBo 7.12 ii 1ff. (Sumerian column): LAGAB.LAGAB (2) la.al.l[a] (3) la.gáb (4) me.en.n[a.bi] = KBo 26.10 rev. iii 16f. L[AGA]B.L[AGA]B : la.l[a (17) [l]a.ga.ab[375]. By contrast the Ugarit,

[371] TAR is characteristically MS, also old AG, but ZU (229B) is usually thought to be later.
[372] Uses *šá*.
[373] New AG but old AḪ!
[374] Lieberman 1977: 151f.
[375] Thus after Photo B1310a, contra MSL 15.91 ⌈la⌉-al-la-⌈x⌉

Emar and late traditions all appear to gloss LAGAB.LAGAB as níĝin[376]. It is not clear whether this is due to developments at Hattusa itself, or to the influence of an unidentified strain of tradition[377].

CTH 301 Erimḫuš. Fragments of 16 tablets, all known find-spots being T.I. and the HaH, have been found at Boğazköy. It was edited by Güterbock and Civil in MSL 17. 97-128. An overview of the tablet formats is given there on pp. 98-100. As noted by the editors, all formats are found: mono-lingual Sumerian[378]; Sumerian - Akkadian; Sumerian-Akkadian-Hittite; Sumerian - Phonetic Sumerian - Akkadian- Hittite. By contrast to Diri at Boğazköy, all phonetic Sumerian glosses are contained in their own separate column. All manuscripts are palaeographically NSb or c, in as far as this is ascertainable[379].

Erimḫuš belongs to the class of so-called "group vocabularies", due to their being divided into sections whose organisation followed associative principles, divided by A. Cavigneaux into 4 categories: (A) Akkadian synonyms for a single Sumerian word; (B) Words of similar meaning; (C) Akkadian homonyms (D) Sumerian associations. Clearly in some of the sections the Akkadian is primary in dictating the order. M. Civil has suggested that Erimḫuš was created in order to facilitate translation from Akkadian into Sumerian. Some of the very peculiar Sumerian forms occurring in the Sumerian column are thus likely to be academic creations[380]. On the other hand, P. Michalowski has demonstrated the dependence of parts of the text on passages from Sumerian literature, as we will see in the discussion of A.A (Part 2)[381].

Erimḫuš was a MB creation. Contrary to other bilingual lists, it was not apparently meant to be read horizontally but vertically, linking words of similar meaning. Its associative structure makes it difficult to establish lines of tradition between the older versions and the standard 1st millennium version. Indeed, some parts of Erimhuš end up

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[376] Ugarit I (A) 276 ni-[. .] (MSL 15.73); Emar C 2: 30 ni-en-ni LAGAB.[LAGAB] (MSL 15.86); Diri I 335 ni-gi-in.

[377] No phonetic values for LAGAB.LAGAB that are even remotely similar are listed under MZL 804 p. 204. However, the phonetic reading from Boğazköy is consistent with the kind of phonetic renderings of complex Sumerograms known otherwise from Diri, see remarks s.v. DUGḪAB.ḪAB/GUR4.GUR4 in part III.

[378] The only definite example is KUB 3.108+ cf. MSL 15. 99, 100; 124), a six(?)-column monolingual tablet.

[379] KBo 1.36 (NSc) contains an "Assyrian" form of ŠA in l. 3.

[380] Apud Klinger 2005: 111.

[381] Michalowski 1998 apud Klinger 2005: 112

in other standard group vocabularies and vice-versa. While sections are ordered consistently over large geographical areas in the late version, they often differ significantly from the version found at Boğazköy, although consistency can be observed among parallel manuscripts there. It would be wrong to assign priority to the late version over the Boğazköy version, that it is in some sense more original, but certain obscurities in Boğazköy manuscripts are best explained as deviations from a version that was in some regards similar to the late one. The Boğazköy version is, however, the oldest we have. It does not include any material beyond that covered by tablets I and II of the late version, although it would be unwise to preclude on this basis the existence of further material at this period[382].

Misunderstandings are frequent in the Hittite translations and this can make it very hard for us to understand. The following passage is an example from tablet B, MSL 17.117, 6ff[383].

(6)	[bar]	pa-ar	*ṣí-du*	*pa-ra-a-kán pa-a-u-ar*
(7)	[bar.re]	pa-re	*bi-ir-du*	*ne-wa-la-an-ta-aš a-ša-*[*tar*][384]
(8)	[^{lú}kúr][385]	lu-gur	*na-ak-rum*	^{LÚ}KÚR-*aš*
(9)		šu-uš-ša-a	*ma-an-na-šu*	*ku-en-zu-um-na-aš*

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(10)	[šú?][386]	šu	*šur-ru-u*	῾*ud-da-ni-it an-da tar-nu-mar*
(11)	[UD.DU]	[ta]m-ma	*ub-bu-bu*	*pár-ku-nu-mar*
(12)	[gi.na]	[k]i-na	*ku-un-nu-ú*	*ḫa-an-da-a-u-wa-ar*
(13)	[en.ti]	[en-d]i	*a-la-ak-du*	KASKAL-*aš*
(14)	[en.ti.ti]	[en-di-d]i[!]	*al-ka-ka-du*	*pa-an-ku-uš* KASKAL-*aš*

In (6)-(7) the scribe has clearly misunderstood the Akk. phrase *ṣiddu u birtu* "mob, riffraff". The first element, which appears as *ṣindu* in the late version (Erimḫuš II 132ff.), has been interpreted as Akk. *ṣītu* "exit, departure" and translated accordingly as

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[382] Güterbock/Civil MSL 17.97. There are no Middle Assyrian representatives for the first two tablets of the late series, but there are for tablet III.

[383] KBo 1.35 (+) KBo 26.25 iv (NSc)

[384] KBo 26.26 (B₂) obv. ii 2 [*n*]*e-wa-al-la-an-da-aš a-ša-tar*.

[385] KBo 1.37, 3 (B₃) has ùr.ra in the Sumerian column.

[386] KBo 1.37, 3 has BAR

"going forth"[387]. The next line possibly reads *birtu* as "fort" and translates "seat of the powerless(?)"[388].

The following two lines are very problematic. KBo 1.35+ appears to have conflated what occurs as two separate series involving Sumerian bar in the late version: (132) bar = *ṣindu* (133) bar.bar.re = *birtu* (134) ur = *nakru*; as opposed to (136) [...] bar = *bêšu* "be far away" (137) bar.bar.re = *nukkušu*/var. *nukkuru* "set aside", "remove" (138) [*su-ús*]-*sa* = *su-um-šú*/-*šum* which is obscure and where the Sumerian has been restored after the Boğazköy version. The bilingual Sum.- Akk. version KBo 1.37 does not have this line, but it is impossible to tell if it had a text that was closer to the late version. The reading ùr.ra in the Sumerian column of the Boğazköy version of KBo 1.37 is very peculiar given the familiarity of the signs and lexemes at issue. If he was using a similar text to that attested in the late version, the scribe was presumably wrong-footed by the use of UR for *nakru* and "hyper-corrected" the entry by using a more obscure logogram with the same phonetic value. If this is the case, the assumed [^{lú}kúr] in the Sumerian column of KBo 1.35 must be an adaptation of the Sumerian column by a Hittite scribe to fit the sense required by the Akkadian column.

This would also appear to be the case for the next entry in KBo 1.35. The reading of KBo 1.37, 3ff. is doubtless more reliable: 3) BAR = *b*[*ur-ru*?] (4) UD.DU = *ub-b*[*u-bu*] (5) gi.na = *ku-u*[*n-nu-u*] corresponding to the late series: (129) bar = *burru* (130) bar.tam = *ubbubu* (131) gi.na = *kunnu*. In KBo 1.35 BUR appears to have been misread as ŠUR which in turn lead to the re-assignment of the phonetic value šu to the Sumerian and, presumably as Güterbock and Civil suggest, to the re-interpretation of BAR in KBo 1.35 as [šú]. The only problem with this chain of reasoning is that *burru* "to establish the legality of" is far better attested in Mesopotamia, and thus more familiar to us, than *šurrû*, which may be identical with Akk. *šurrû* "to begin"[389]. *šurrû* thus may have the status of *lectio difficilior*, although it is a dubious methodology indeed to make

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[387] CAD Ṣ 172; CHD L-N 460.

[388] Previous translations have attempted to make sense of the Hittite from the perspective of the "original" lexical list in which *birtu* meant "mob", eg. Laroche 1966: 164 "repaire des brigands"; Starke 1991: 452 fn. 1630 "Sitz der Taugenichtse". In the late version (132) bar.bar.re = *bi-ir-tú*, the reduplicated bar presumably reproduces that found in the lexical equation lú.nu.lú kúr.bar.bar = *ṣi-id-du-um ù bi-ir-tum* (OBGT 12.1f.). Both the Sumerian and the Akkadian phrase have been divided over two lines in Erimḫuš. This was lost on the Hittite translator. The tentative proposed translation assumes a derivation from *niwalla/i-* "powerless". For contrary discussion of this stem see CHD L-N 459 s.v. *niwalla/i-* "innocent" and the discussion of DUMU here. The sense given is good, if a fort is where the women and children, whether they be "powerless" or "innocent", stay when a city is under attack. CHD L-N 460 sees the Hittite as "a scribal misunderstanding of some kind".

[389] Neither are attested at Boğazköy according to the collections of CAD B 127-130 and Š/iii 358-360. It is difficult to associate any of the other homophonous lemmata with the Hittite translation given here.

assumptions about the familiarity at Hattusa of lexical items not otherwise attested there.

The reading b[ur-] at KBo 1.37, 3, although not assured by the traces but only suggested by comparison with the late version, is given further credibility by the context which leads from *burru* "to confirm legally" to *ubbubu* "to clear" with its frequent legal sense, ending with *kunnu* "to convict"[390].

The change of BUR to ŠUR, apparently entailing a change in the Sumerian column, is a far larger change to the text than could simply have been the result of a miscopy, and may well have been suggested by an ambiguity in the Hittite translation, *uddanit anda tarnumar* "to let in with a word", that is no longer transparent to us[391].

The above considerations suggest that the bilingual KBo 1.37 was written by a scribe who knew more Sumerian and Akkadian, or was more conversant with the traditions of lexical lists, than the scribe of the trilingual with phonetic Sumerian, KBo 1.35.

As well as providing many examples of the previously observed disparity between the Sumerian of the orthographic Sumerian column and that of Sumerograms in Hittite texts[392], on occasion Sumerograms are written in the Sumerian column with sign-forms that are otherwise restricted to Boğazköy or at least the periphery. This is the case in MSL 17.107, 121-123 (KAxGAG), and ibid. 108, 33-35 (KAxUD). Unfortunately the late version of Erimḫuš I is broken at this point, so it is not clear how this differs from the later version. Clearly KAxUD and KAxGAG were formed using semantic indicators to differentiate the various meanings of KA: KAxUD (= BABBAR, "white") means "tooth" and KAxGAG (GAG = "peg") means "nose"[393].The syllabic value ZU_9 is established for KAxUD by phonetic writings of the logogram $ALAM.ZU_9$ (q.v.), and corresponds to Mesopotamian KA = zú. It is also possible that KAxGAG had a value KIR_{14} corresponding to Mesopotamian kir_4 (see ^{KUŠ}KA.TAB.ANŠE). The KAxGAG series at Erimḫuš Boğ. A 121-123 is quite obscure. The KAxUD section however has at least one entry that has a Mesopoamian parallel suggesting that the phonetic reading zu_9 was meant and that this sign was selected to represent it[394].

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[390] CAD E 6f. *ebēbu* mng. 2c-d.

[391] Götze tentatively "durch eine Rechtserklärung auf endgültige Grundlage stellen?", Götze 1925: 70. Other specifically legal uses of *anda tarna-* are unknown.

[392] MSL 15.110, 7 su^{su-u} = *ši-ru* = UZU.Ì; ibid. 110, 17-22 érin = ÉRIN^{MEŠ}; ibid. 117, 8 ùr.ra = lu-gur = *na-ak-rum* = ^{LÚ}KÚR-*aš*; ibid. 118, 13 en.ti = KASKAL-*aš*

[393] See Schwemer 2003: 11f.

[394] MSL 17.108, 33: zu_9 = *ṣú-uḫ-ḫu* = *ḫa-aḫ-ḫar-ša-na-an-za* (Akk. "laughter", Hitt. "laughing" or "laughed at"), see zur.ra = *ṣu-ú-ḫu* (Erim. c i 11) CAD Ṣ 137; see also OB zú (NE.NE) = *ṣú-ḫu-um* at MSL 13.246 a 6, 10.

If it is correct that MSL 17.103, 36-38 *qá-na-a-u* (= Hitt. *ar-š[a-na-a]t-tal-la-aš*) and *re-e-ú* (= Hitt. *kar-tim-mi-ia-za*) are West Semitic words, as argued by von Soden, this has important repercussions for the question of transmission[395]. W. Semitic or peripheral Akkadian lexical material, as it is attested reasonably frequently at Emar, for example, usually comes in the form of an additional translation or gloss after the standard Akkadian counterpart to a Sumerian word is given, often marked with a Glossenkeil[396]. This is not the case with these words and would entail that W. Semitic words had displaced the Akkadian. I am unable to find any better explanation for them, however[397].

CTH 302 see next section.

CTH 303 Izi is a mainly acrographic list in the first millennium, compiled according to the shapes of leading signs, although semantic associative criteria also played a large role in the OB versions. These lists appear to have been quite popular in Hattusa but were often changed beyond recognition. OB mss. often allocate blocks of logograms featuring the same signs to completely different sets of acrographic lists to those in which they appear in the First Millennium. It is probably wiser merely to note the difference in compilatory practice in the OB period to later rather than to assume that the OB versions are in some sense more original.

Izi Boğ. A (Sum.-Akk.-Hitt.) has its leading signs in the following order:
Á, (12 - 84), GÚ (85-183), SI (184-201), NÍG (228-234), (i-bí-za 235 - KAR-*ar* 238)
ZAG (239 - 257), DA (257 - 272), ŠE.BE.DA (273-6), Akk. *ab-bu-du* (277), Hitt. GUL-*ar* (278), DAG (297 - 300), ^{GIŠ}DAG (301 -307)[398], KIB (308), MÁŠ (309 - 318)
Izi Boğ B (Sum.-Phon. Sum.- Akk.-Hitt.) : MUD ([1]-11), BU.LUḪ (12-?) rev.
dudduwanza (3) - *arpallimmis* (7), IDIM (8-9), TIL (10-13), BAD (14-17), ÚŠ (18-20...)
Izi Boğ. C (Sum.-Akk.-Hitt.) NAM (1-?)
Izi Boğ. D (Sum.-Akk.-Hitt.) BAL (ii 1-6), (GÍR 7-?)

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[395] Otten/von Soden 1968: 12 relate *qá-na-a-u* to Hebr. *qanna ʾ* "jealous" and *re-e-ú* to Hebr. *ḥ°rī* "wrath". AHw. 976; CAD R 303b.

[396] See Cohen 2002: 826, noting that these are not present in manuscripts of Sa.

[397] The possibility that *qa-na-a-u* is an Assyrian infinitive form is unlikely due to infinitive normally being represented by Hittite verbal nouns.

[398] GIŠ.DAG appears both in the Akkadian and the Hittite columns in these lines, while the Sumerian column reads: (301) dag, (302) aš.ti, (303) dúr, (304) dúr.gar, (305) šú.šú, (306) lál.UD (307) lál.UD.šú. This suggests the Akkadian and/or Hittite columns were responsible for dictating the leading sign.

Izi Boğ. E (Sum-Akk-[Hitt.]) GI (6-7)

StBoT 7 pl. 4? (Sum.- Akk.) A.MAR.URU$_5$ (3-6), ME (7-11)

GÚ occurs in Nigga in the OB period, re-appearing in Izi = *išātu* tablet F of the First Millennium[399]. SI is found at Proto-Izi I (526 - 531), immediately prior to Á, but in the First Millennium it is treated in Erimhuš. NÍG entries are alien to both OB and late Izi lists (it is tempting but unwise to connect them with the NÍG.SI.SÁ- entries of the Hittite column in l. 200ff. This pre-supposes that many of the intervening entries will also have been NÍG). The whole ŠE.BE.DA section only recurs at first millennium še.be.da = *e-gu-ú* at SIG$_7$.ALAN IX 134.

Occasionally it is clear that the order has been internally organised according to Hittite associative semantic criteria thus straying from the acrographic to an organisational type more similar to the "group vocabularies", thus with greater similarity to the OB type[400]. Both monolingual and bilingual (Sum. - Akk.) versions were known at Ugarit, the former of which shares a great deal in common with the "associative" Nippur version, but the latter of which tends to a more acrographic organisation. The Boğazköy material is similarly caught between the two styles of arrangement.

CTH 304 Kagal is a more strictly acrographic list than Izi, with remains of 14 tablets from Boğazköy, known find-spots being Bk. A (2 tablets) and T.I. (5 fragments). The two tablets from Bk. A are separate tablets from one series, showing that Kagal at Bogazköy consisted of at least two tablets[401].

Palaeographically, the 2nd Bk. tablet is dated by G. Wilhelm to before the 13th century on the basis of the sign-forms[402]. The same can be said of the first Bk. tablet, KUB 30.8+. Of those fragments which allow palaeographic comment from Temple I: KBo 26.47 is NS (solely on the basis of the form of E); KBo 26.40 is NSc (KI, KU); KBo 26.42 is NS (NÍG); KBo 26.45 is NSc (KI). Is the Bk. exemplar of the two tablet version a good copy?[403].

It is written on large multi-column tablets. In format the texts are mostly bilingual Sumerian and Akkadian, with syllabic Sumerian in a separate column, and sometimes,

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[399] MSL 13.195f. Nigga is only OB.

[400] Izi Boğ B MUD > BU.LUH via Hitt. *weritem*[*mas*] "fear".

[401] Wilhelm 1989: 77f.

[402] Given the form of E (obv. i 6, obv. i 9), a (late) Middle Hittite dating might be entertained. Konkordanz classes the tablet as "jh.".

[403] The classifiable unprovenanced fragments are: KBo 1.49 NSb; KBo 1.38 NSb (Konk. "sjh"); KBo 1.59 NSbii; KBo 1.40 MS including GA with 3 verticals.

unusually, with syllabic Sumerian and an Akkadian gloss in the same column[404]. There is one trilingual tablet with orthographic and phonetic Sumerian as well as a trace of a Hittite column. There may be one unilingual Sumerian tablet.

Similarly to Erimḫuš, Kagal also appears to write predominantly Hittite forms of the various values of KA in the Sumerian column. This applies at least to KAxU at KBo 1.38, 1ff. for which the value /ka/ (written qa-a-) is provided in the phonetic Sumerian column.

The two tablet version from Büyukkale also shows evidence of having been transmitted through a West Semitic milieu, showing the contraction of *-kiʾam* to *-kê* otherwise known from Mari[405].

CTH 305 LÚ[406]. So far 4 fragments of tablets containing Lú = *ša* have been identified from Boğazköy, known find-spots being T.I and the HaH:

A) KBo 26.36 (Fragment A) Sum.-Akk. 3   = Proto-Lu 470

                       6-11 = 477 - 482,

                       6-9   = lú III 18 - 23[407]

B) KUB 3.106 (= A col. ii)   5-7   = Proto-Lu 557-559;

                       10f.   = 559a-561

                       5   = lú iv 208,

                       10   = iv 209.

C) KUB 3.112+, Sum.-Akk.   3   = Proto-Lu 713

                       5-7   = 714-716

             rev.[408] 7-8 = Proto-Lu 641-642

                       7-9 = lú IV 211-215

In addition to those listed at Konkordanz, M. Civil has identified KBo 26.53[409] as part of lú = ša, corresponding to Proto-Lu 253 - 260 (MSL 12.42), lú IV 23-29 (MSL

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[404] This is the case on the two tablets from Bk. A KUB 30.5+, as well as KUB 30.8+ see Wilhelm 1989: 74ff. In each case the phonetic Sumerian is separated from the Akkadian by a single Glossenkeil.

[405] Wilhelm 1989: 76.

[406] I am very grateful to J. Taylor for giving me access to his transliterations of the Emar and Boğazköy Lú material.

[407] The other four lines lines have no correspondence.

[408] Taylor makes the reverse of (C) into a different fragment of the text: (D).

[409] Find-spot: Unterstadt J/20 aus Steinschütt über hethitischer Bauschicht (Haus 13).

12.128)[410]. Traces of an orthographic Sumerian column and a phonetic Sumerian column are preserved, which is not otherwise attested with Lú.

The fragment is of further interest in that it preserves an entry that is absent from OB Lu and lú = *ša*: (7) [am-x].qa.ra = (phon.) am-ma-ti-kar-r[a]. Civil suggests that [ama d]ingir!.ra would fit the context well but admits that it sits ill with the phonetic spelling and the remains of the sign in the Sumerian column. If this were the case, one could note the Hittite logogram AMA.DINGIR*LIM*, which appears to have been created after Hittite *siwanzanna-* (see s.v.). This would in that case be likely to be a Hittite addition to the lexical list. As the reading is so unclear, one should refrain from making this connection.

Lú is also attested at Ugarit (Sum., Sum.-Akk.), Nuzi (Sum.), Emar (Sum.-Akk.) and Ekalte (Sum.-Akk.) in the periphery. At Emar mss. A and A+, and AD preserve the beginning of lú = ša. The fragmentary Boğazköy remains do not overlap with any of the other peripheral versions. Those lines in the Boğazköy version which do not occur in Proto-Lu and Mesopotamian lú = ša are not unusual by comparison with "non-standard" lines in the Emar versions. Where Proto-Lu and lú = ša diverge, the Boğazköy texts side with Proto-Lu, with one exception (KUB 3.112+ rev. 9 = lú IV 215). This cannot be taken as significant given the paucity of text material.

lú.ázlag = *ašlāku* is an OB list almost exclusively from Nippur which complements the list of professions represented by OB Lu by providing less professional, perhaps more psychological, characterisations of human agents[411]. It almost always appears on bilingual tablets, and even those that are not bilingual appear to have merely omitted the Akkadian translation rather than being monolingual forerunners in their own right[412]. It is interesting that material from this tradition is found among the Hittites in the first place. The two tablet fragments from Boğazköy which contain comparable material (KBo 1.30, KBo 1.39) are written in a NSc script which makes heavy use of the "Assyrian" KU, KI and NI. It is tempting but unwise to posit an Assyrian model on this basis. The format of both tablets has separate columns for Sumerian - Phonetic Sumerian - Akkadian - Hittite. The overlap with the Nippurite versions is not

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[410] Civil 1987c.
[411] MSL 12.151.
[412] MSL 12.152

overwhelming, but certainly enough to establish that this is essentially the same material[413].

CTH 306. KUB 3.94 and KBo 26.50 are unclear in their affiliation. Laroche pointed out that KUB 3.94 had some similarity with the last sections of Ea = *nâqu*, and it was discussed by Landsberger in MSL 2 with reference to logograms occurring in Ea, but was not included in the edition. Nor does it appear in MSL 14. CHD Š/1, 44 asks whether it could be an "appendix to Sa vocab.?". Given that Ea is essentially an OB Nippur exercise in the second millennium, it is interesting that Ea-style material should recur here. Ea is also attested in MA Aššur[414]. Occasional logographic writings may point to further knowledge of Ea either at Hattusa or wherever the particular writing practices were imported from (s.v. GUR = *tamai-*, "other" in part III).

I.2.3. ḪAR.RA (ur₅.ra) = *ḫubullu* (CTH 302)

One of the most important texts in the tradition of elementary scribal education in Mesopotamia was ur₅.ra = *hubullu* (abbreviated Hh), an encyclopaedic list of word-signs denoting objects of the world, and perhaps of scholastic fancy too, arranged according to type (trees, chairs, etc). Given that logograms attested in Boğazköy texts are sometimes only otherwise attested in the 2nd millennium in forerunners to this enormous series, it is important that the texts receive some attention here. However, the series Hh is significantly less well represented at Hattusa than Diri, Sa and Erimḫuš. There were 24 tablets of it in the canonical series of the first millennium, but only 6 in OB Nippur. How many the Hittites had access to is not definitely clear. Van Soldt has shown that there were 15 in contemporary Ugarit, and it is likely that this was also the number available in Hattusa, or at least the number of tablets in the series from which the Boğazköy Hh fragments ultimately stem (see below).

There are fragments of 10 separate texts, including 1 prism, preserving portions of Hh listed in S. Košak's Konkordanz, of which 8 definitely belong to the series[415]. In addition the Ortaköy fragment Or. 95/3 should be counted as belonging to the

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[413] The Nippur recensions themselves show significant deviations between each other, see MSL 12.153.

[414] N.Veldhuis points this out (pers. com.); see also the Northern Babylonian Ea-style text with a different order of entries to the Nippur Ea at van Soldt 1995: 279ff.

[415] CTH 302.4 (KUB 3.102+) actually belongs to KÁ.GAL, CTH 304. For the palaeography see above. (Wilhelm 1989, 77 fn. 14.). KBo 26.2 (the prism) appears to be part of an unidentified god-list.

collection[416]. They are Sumerian only, excepting one Sumerian - phonetic Sumerian - Akkadian, and one Sumerian and Hittite. It is not immediately clear just why this more elementary exercise in particular should have more Sumerian only tablets in contrast to those with translation[417].

The oldest of these, and indeed the stratigraphically oldest Hittite lexical list found so far, is the Middle Hittite fragment from Ortaköy/Sapinuwa (Or.95/3), published by A.Süel and O.Soysal, which is probably to be dated to the first half of the fourteenth century [418]. Remains of four columns are preserved on the obverse, but I see no reason from the photograph (loc. cit. 350-351) not to assume that there were more columns on the original tablet, especially given its width of 3.9 cm (but see below). There are two "Sumerian" columns and two with Hittite/Luwian (?) correspondances[419]. Interestingly some words in the Sumerian column are marked by a Glossenkeil, usually if they are of Akkadian origin, but also in one case before a Sumerian word (gub.ba obv. 8). This appears to be a stage before the development at Hattusa of vocabularies containing Sumerian - (phonetic Sumerian) - Akkadian - Hittite columns.

No entry has the determinative SAR, all using Ú instead. This trait is opposed to the late version but is shared by the majority of Nippur forerunners, excluding Ci-iii. In Or. 95/3 col. iii 6-12 all 6 entries correspond to entries from late Hh 270-280 and Ugarit 155-165[420]. The further correspondences are put together in a table here (table 1). The OB Nippur version is very fragmentary.

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[416] Veldhuis, pers. com.; Süel/Soysal 2003 call the fragment a "practical vocabulary", but the correspondances noted by themselves warrant an inclusion in the series Hh XVII. The divergences from the Mesopotamian scheme of Hh are not enormous, and quite normal for what is seen from Hh elsewhere at Boğazköy (see below, in particular KUB 3.146 rev.). If this is Hh XVII, then it is likely that the obverse and reverse, supplied with question marks by the editors, should be re-assigned, given that the current obverse$^?$ contains elements in col. iii which precede those of col. i in Hh XVII. This is, however, incompatible with the flatness of the better preserved side, although the authors point out that the curvature of the other side is difficult to determine (eid. 2003: 351 fn. 4).

[417] H.W. van Soldt has commented on the monolingual lists from Ugarit that they display a more professional appearance, and inferred that the more advanced scribes would not need to write translations, as they would know the Sumerian by heart (Van Soldt 1991: 753 tentatively; id. 1995, although I have not seen the article; apud Veldhuis 1997: 68). The same is not true of the Hittite material, in as far as is observable from the published photographs, although there may be other reasons fo rthinking the unilingual versions "better" (see below).

[418] Süel/Soysal 2003: 349

[419] I am not convinced that there is any definitely Luwian language material in the "Hittite" column apart perhaps from *ga-ak-ku-ú-ša* which may be a Luwian neut. form. *tawati-* (obv.$^?$ 6, 9) sounds Luwian, but no more than that.

[420] Süel/Soysal 2003: 361 with lit.. The Ugarit version reverses the order of a.mu.šum^{SAR} and ḫa.za.an.nu.um^{SAR}, a local adaptation of Bo. and late Hh a.za.an.nu.um$^{(SAR)}$.

Table 1.

	Or.	Late Hh	Ugarit	Emar	OB Nippur	LOB
	iii 6-12	270-280	155-165	-	-	
ZI-BU-UM	13					
^ÚKUR	14-15	[287]	187-190b	C 14-16		62-65
ZI-BU-BI-TUM						
^ÚGAMUN	18-21	300-302	177-179	D 20	C"9-11	
ZI-BU	22	303				
^ÚSULLIM	i 1-9	292-299			C15, C'19-20	89-90
S]U[?]-ʾ-A-DU	11		192?			
TÚL.LA(GA.RAŠ)	14	317-318	195		C14?	68a
ZÀ.AḪ.LI	16-18	325-326	199-200	E 39-40	C"6-7	69a-b
BAR.BAR^{ḪI.A}	19-20	323-324	210	E 42-43	C20	73

The only clearly rogue element here is the ^ÚSULLIM section, which appears in a different position in each of the traditions in which it is attested and is not attested in the Ugarit text at all. There is thus nothing peculiar about its position in the Ortaköy text. The position of ^ÚSULLIM makes it difficult to estimate what came before it at the beginning of col. i. The evidence of the the other traditions suggests that it cannot have been much, unless the Ortaköy tradition suddenly became radically different in the intervening space. This indicates that the tablet cannot have been too much taller than the fragment, which makes it likely that it will have been an excerpt.

The Ortaköy tablet may thus attest to a fairly coherent unification of the tradition of Hh XVII by the end of the Middle Hittite period, including close cohesion with Ugarit, but even closer cohesion with the late version.

Hh III-VII deals with trees and wooden objects and has representative tablets from Boğazköy, Emar and Ugarit in addition to the OB Fore-runners and the standard version of the First Millennium[421]. There is also a Kassite version of the sections on furniture from Nippur. The standard OB Nippur version was reconstructed in a dissertation by N.

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[421] PBS 12/1 (CBS 4958) is a Kassite exercise tablet that has been cut in half to remove an Akkadian column, thus leaving only the Sumerian (Veldhuis 1997: 74). I am very grateful to N. Veldhuis to allowing me access to his collated transliteration of this tablet from Nov. 2006.

Veldhuis. It will be useful to present the available comparative evidence in the form of a table (Table 2)[422].

The Boğazköy exemplar is part of a prism which was published as fragments KBo 26.5 and 26.6. The text runs straight from the material treated in the First Millennium in Hh III to that of Hh IV at KBo 26.5 B ii 3-4 without marking a distinction. As far as can be judged from photographs, the prism consisted of 6 sides, each with three columns separated by vertical dividing lines. It is partially lined ("vorliniert"). A very rough calculation of between 40 and 50 entries per column, based on the sum of the entries of the two fragments of Side B col. ii added to a sum of lines from the gap between the two fragments (calculated from a mean of the intervening entries in the standard OB Nippur version and the First Millennium text), leaves a prism of between 720 and 900 lines. This probably corresponded to one tablet of the MB peripheral version as reconstructed by Van Soldt for Ugarit, in this case Tablet 1.

For the OB and Late Mesopotamian versions the composite text of MSL/DCCCLT has been taken. For the peripheral texts the following sources were used:

KBo 26.6 A iii 3-5 = Emar Msk. 731030;
ibid. 6-8 = Emar Msk. 74163b iii 4-7 = Ugarit Syria 12 (1931) pl. 46 obv. iii 33-35.
KBo 26.6 B i 1-14 = Emar Msk. 731030 (A); ibid. 12-14 = Msk. 74163b (B)
                3-8 = Ugarit Syria 10 (1929) obv. iii 6-12;
                9-14 = Ugarit Syria 12 (1931) pl. 47 iv 12-21.
KBo 26.5 Bii 3-8 = Ugarit Syria 12 (1931) pl. 47 obv. iv 38-43.
KBo 26.6 Bii 3-15 = Emar Msk 731030 (Hh IV) 8-21.
KBo 26.6 Biii 1-7 = Emar Msk. 731048 obv. i 4-11; = Emar Msk. 731030, 29-35
        ibid. 11-15 = Emar Msk. 731030, 37-40.
KBo 26.5 Ci 1-23 = Emar Msk 731030, 70-85.

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[422] This is only meant as a rough guide to the available evidence, presented in the spirit of transparent working to facilitate clarity. It can in no way be a substitute for a thorough edition and analysis of all the texts and their traditions of transmission.

Table 2.

KBo 26.6 A.iii	Hh III (late)[423]	OB Nippur[424]	Emar	Ugarit	Kassite
1 gi]š x[	]				
2 giš.gišimmar x x					
_____					
3 giš.gišimmar gig?.x	306f.?	77a?	146?		
4 giš.gišimmar ka₅.a	344 giš.g-.lul	73 - LÚ.IM	132		
5 giš.gišimmar libiš.bu[r].ra	294	74 -	147		
6 giš gišimmar! suku[d]			152 ⪦ geštin	iii 31 ⪦ geštin	
7 giš šà gišimmar	351	81	154	33	
8 giš šà.a gišimmar			155 giš.šà.da.g-.		

Bi					
1 x x					
2 [giš s]a-ma-núm (LUM)	447	120	195	6	
5 [giš s]a-am-ha-zum	454		194?	8	
4 [gi]š peš₇.kal	450	117	196	9?	
5]ṣu-di-in-nu-um	451		197		
6 [gi]š si-ia-tum		122	198		
7 [g]iš zar	457		199	11	
8 [g]iš zar si! (=GAD)		123		12 zar.si!	
9 [gi]š ZAR-uš-tum	456		200 giš zar.aš.tum	iv 14	
10 [gi]š šà níg.nígin.na					
11 [giš]MÙŠ.ŠÉŠ (SÍGxLAM)	467	121	202 giš.ŠÉŠ[	iv 12 giš SÍG.LAM	
12 [giš g]i.zú.lum.x	468	125	203	19	
13 [giš b]u.zú.lum.[m]a	470	126	204	20	
14 [giš]dal.bu.um	[472-475 broken]	127	205	21	

KBo 26.5 Bii					
x+1 gi]š ga.me.el.lá					
2 gi]š i ḪAL					
3 gi]š pa.ḪAL	512. giš pa.kud.da	141 giš pa.kud		iv 38	
	Hh IV				
4 gi]š [SU]G?.lum	1 giš SUG-lum	142		39?	
5 g]iš PA.LUM					
6 giš li.um	2 giš li-u₅-um	145		40	
7 giš maš.dàr?	3 giš maš.dàr	143		41	
8 giš dab.dab	6	144		43	
9 giš ki.lá.bi	12 giš ki.á.lá.bi	145b		break	
10 giš za.ni/dù?					
11 giš hé.bat		145a giš GAN-[?			
12 giš gi.tùn	35				
13 giš x x[x] du					
14[gi]š x					
15[g]iš [x x]x					
16[	]x				

[423] MSL 5.83-150.

[424] From DCCLT composite text. http://cuneiform.ucla.edu/dcclt/web/Q000039/Q000039.html. Veldhuis 1997: 213ff.

KBo 26.6					
Bii (Hh IV)					
1					
2					
3 giš ba.šu.BAR	37 giš.ba.šu	154 giš ba.še	10 giš ba.šu		
4 giš ba.šab	41	155	8 giš ba.šab' (LUH)		
5 giš húb	53 giš^hu-ub hub	156	11 giš ba' (GÁ).húb		
6 giš na.rú.a	54 giš ^na4 na.rú.a	157	12 giš na.rú.šè!?		
7 giš gìr.šu.du$_7$	55 giš ešgiri.šu.du$_7$	158 id.			
8 giš níg.na-UD		159	14 (-MUD)		
———					CBS 4958
9 giš gu.za	69	160	15		
10 giš gu.za sig$_5$.ga	70	161			1
11 giš gu.za gíd.da	71	162	16		2
11 giš gu.za kéš.da	72 giš gu.za kéš.da	163	17		3-sìr.ra
12 giš gu.za munus.e.ne.e	73 ⸗ munus.e.ne	163a	18		4
13 giš gu.za zag.bi.uš	74		20		5
14 giš gu.za i.zi KUR?					
15 giš gu.za aratta ki	77	182	21		6?
KBo 26.5 Biii					
x+1[giš gu.za níg.m]a.l[á]?	90		29 A ⸗ni.laḫ$_4$		15
2 [gi]š gu.za ki.g[a]l?	91 -ki.uš	187 - ki.úš	30 A ki.bal/ B]?		16 ki.uš
3 giš gu.za gidim	93	186a?	31 A, B		17
4 giš gu.za an[še]	95		35 A, B		19
5 giš gu.za l[ugal]?	88		36 B		20
6 giš gu.za š[aḫ]	96 - šaḫ.šum.ma	178	27 B		21
———————					
7 giš gu.za gi[š.k]in.ti	97	164	37 B		22 -kin.ti
8 giš gu.za na.x					
9 giš gu.za [ ]x					
10 giš gu.za h[ar].h[a]r??					
11 giš gu.za m[á]? x	100 giš gu.za má.lah$_4$?				24
12 giš gu.za kask[al]	79		34		8
13 gis gu.za gàr[.ba]	103	195	38 A	RS 1.062 rev. i 6	26
14 giš gu.za gàr.[ba] kù.g[i.gar.ra]	104		39 A	-	30
15 giš gu.za g[àr].b[a] k[ù].b[abbar]	105 giš gu.za gàr.ba kù.babbar.gar.ra	196	40 A	8	29

The traces of KBo 26.6 Biii are not included					
KBo 26.5 Ci					
0 D[INGIR?]					
x+1 [giš gìr].gub ^d [lamma]	144	212	70		Rev. 16 ⸗ níg.gìr.gub⸗
2 [giš gìr].gub zu$_9$.a[m.si] si ga[.x?]	145 giš gìr.gub z[ú.am.si] si.si.ga	213 giš gìr.gub zú am.si	71 giš gìr.gub.zú.sún.gar.ra		17 ⸗ am.si dù.dù*
3 giš gìr.gub z[u$_9$ am.si]/ x					

4 [gi]š n[á]	146	214	72		18
5 [giš] ná[	147 giš.ná aš.ná	215	73		19
6 [giš n]á n[a?	(148 giš ná ki.ná)	(216)	(74)		20
7 [giš n]á zi.g[á]?	150 giš ná zi.ga		75		21-.zìg.gú
8 [giš ná] gú zi.ga	149	217	76 giš ná nu.zi.ga		22 -.gú.zìg.gú
9 [giš n]á u[mbin]	154	lost	77		23
10 [giš ná u]mbin [gud]	155	lost	78		24
11[giš ná u]mbin sa[l]. la	156 giš ná sal.la	lost	79 giš.ná.umbin.sal.la		25 (id.)
12 n]á šà an tuku	157 giš ná.šà.tag	220 -tuku	81 -tag		28 -šà.zu
13 gi]š ná šà an tuku 14 si]g? ga.ríg.ak	158 giš ná.šà.tag .síg.ga.ríg.ak.a	221	82 giš ná.šà.tag.síg.g[a.r]íg		29 - šà.zu síg ga.ríg.ak/.a
15 sà an tuku 16 ta]g? [sí]g? ag?	159 giš ná.sà.tag.síg.uz3.ak. a				30 - šà.zu síg uz5 ak/ -a
17 [giš n]á úri.$^{k[i]}$.da	160 giš.ná úri^{ki}.gá.dam.ta	222 giš ná ur4.ma	83 giš ná uri.m[a]		31-32 -uri^{ki}
18 giš n]á è⸢.a ?					
19 giš]zag gu.la ná	165 giš sag.an.dul.ná	223 giš zag.an.dul3.ná			
20 n]á? x ná					
21]x DAG.ná	169 giš sag.ná	226			35
22] ri ná	170 giš ri.ná	227	85		36
23giš B]AD.ná	(171 giš gáb.ná)	225			37
24]zi ná	172 giš i.zi.ná	228			38 giš.ezen.nú
25 u]mbin ná	173 giš umbin.ná	[229]			39
26]x (LIŠ?)	174 giš dílim	231			
27]gal	175 giš dílim.gal	230			
28 t]ur	176 giš.dílim.tur				

In all there are 14 cases where the Boğazköy version has something different to all the other versions. In one case a stretch of at least 4 entries is completely unattested elsewhere (KBo 26.5 B ii 10-13). This is a comparable state of affairs to that found in the Emar versions, for example, indicating that quite other influences will have been at work in the forming of the peripheral lexical lists than purely the standard Mesopotamian models. giš šà níg nígin.na (KBo 26.6 Bi 10) may preserve a Sumerian writing of or comment on the "retrographic" Akkadian giš zar.uš.tum and Sumerian giš zar.si in the previous lines[425]. This is unlikely to be a Hittite development.

Five otherwise unattested (or unexplained) forms occur in the section Hh IV 1ff. (KBo 26.5 Bii 1-14[ff.]), which Veldhuis has argued to be concerned with implements of scribal education[426]. The variant entries are obscure. If we can indeed read giš [SU]G-lum, in Bii 4, and the traces do fit such a reading, then it will correspond to giš as₄-lum, a kind of yardstick or measuring rod, in the other versions (SUG = as₄). The otherwise unattested giš PA-lum could conceivably be an early instance of PA = ḫás, which is otherwise restricted to late medical texts (Akk.Syll. 153). giš ḫás-lum would perhaps be a dialect form of *aslum*. This is unlikely given the distribution of *ḫás*, which is appears to be positionally restricted to the final root syllable of verbs in the late texts in which it does occur. More likely the Boğazköy addition is an explanation of the fore-going giš [SU]G.lum using the more familiar GIŠPA = "staff", although there are no Akkadian words for this which end in *-lum* or *-núm*.

The giš za.ni is copied at l. 9, which is completely obscure. Photo N04331 shows some kind of mark over the bottom horizontal of the NI, but it is not definitely a trace of a vertical wedge. If it were, one could read gišša.dù, an otherwise unattested writing of the Akkadian counterpart to giš ti.bal at Hh 24: *ṣaddu,* "(wooden) signal, sign". This is unlikely given the tendency to write mimation in Akkadian words in Sumerian lists.

It is conceivable that giš ḫé-bat in some way replaced giš dḫa-ià (OB Nippur 146), the spouse of Nisaba, patroness of the Edubba[427], but an association of Ḫēbat, wife of the storm-god, with scribal education is otherwise unknown to me and the lack of the divine

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[425] *ṣarraštu(m)* "ein Strauch", AHw. 1086. Veldhuis 1997: 170 points out that zar was written SUM in the third millennium, but LAGABxSUM in OB. One wonders whether the Boğazköy giš níg nígin (= LAGAB).na did not arise sometime in the process of this change as a Sumerian gloss, possibly even scholastic, "the tree which has a surrounding", for example. Otherwise the combination NÍG.LAGAB.NA occurs in the logogram DUGIM.ŠU.(NÍG.)RIN.NA (Akk. *tinūru*) HZL 337, cf. Süel/Soysal 2003: 356.

[426] Veldhuis 1997: 86ff. The variant reading giš gìr.šu.du₇ (KBo 26.6Bii 7) provides confirmation of the phonetic reading of the Sumerian sign ešgiri (U + ENxKAR₂) in the other versions. Veldhuis 1997: 171.

[427] Veldhuis 1997: 87 on dḫa-ià.

determinative is unexplained. The broken giš GAN-[at OB Nippur 145b may be related, which would then make a connection with the Hurro-Syrian goddess more unlikely. There are, however, no Sumerian words with giš which fit the Hittite writing[428].

In only three cases does an entry occur in the Boğazköy and OB Nippur version but not in the Late version. In seven cases the Boğazköy version shares entries with the late version as against the Nippur version. In all of these it agrees with Emar(/Ugarit). In one case the correspondance Boğazköy - OB Nippur- Emar suggests a Western transmission: At Bi 6 Boğazköy giš si.ia.tum must be textually equivalent to OB Nippur ši.iq.du.um/dum and Emar giš ši.iq.dum/du.um, Akk. *šiqdu*(*m*), "Mandelbaum, Mandeln" (AHw 1247), which attested in OAkk. and NA (as ^{giš}*šuqde*) as well as at Ugarit (also ^{giš}*šuqdu*). [ia] is most probably written as a graphic error for the "old" Hittite IG and /ši/ is written [si], as sometimes the case in contemporary North Syrian scripts. For both contrast the writing at KUB 3.98.3 [giš LAM] = *ši-iq-du* (Diri).

The section KBo 26.6 B i 1-14 also has Ugarit parallels. While Hattusa, Emar, Ugarit and the late version agree in separating out into two entries Hh III 450-451 giš.peš.gal and its Akkadian equivalent giš ṣu.da.nu.um, the OB Nippur version merely has this as a variant reading in a ms. that frequently writes Akkadian instead of Sumerian terms (Ni IV-12 rII26[429]). On the other hand, only Hattusa and OB Nippur write PEŠ$_7$ (= TUR).

Occasionally the Boğazköy version appears to have gone its own way. The reading giš ki.g[a]l at KBo 26.5 B iii 2 fits the traces on the photos better than any of the variants (giš ki.uš/-úš) in all 3 Mesopotamian traditions, and is semantically compatible with the following giš gidim[430]. It is likely that the Emar version A's giš gu.za ki.bal is a phonetic mistake for this. The traces of the previous entry on photo B777 appear to be consistent with giš.gu.za.níg.ma.lá known from the other traditions. Note, however, that the LÁ sign is written in the manner frequently found at Boğazköy, resembling ME.

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[428] MZL 253 (p. 304) lists ^{síg}ḫé.med as a form of ^{síg}ḫé.me.da, a kind of red wool, Akk. *nabāsu*, *tabarru* (Hurrian loan-word), *tabribu*. See Postgate 1970: 158f. for forms without the SÍG.
[429] Veldhuis 1997: 256f.
[430] Especially photo B777 shows what appears to be a GAL.

The entry giš gišimmar ka₅.a at KBo 26.6 A iii 4 corresponds to Late giš gišimmar.lul and OB Nippur giš.gišimmar LÚ.IM. Both LÚ.IM and LUL are Mesopotamian logograms for *sarru*, "liar"[431]. Güterbock has argued that the signs registered by E. Forrer as LUL should be read in Hittite texts as ḪUŠ, "fear" or KA₅, "fox". LUL = "lie" does not appear to have been used in Hattusa. In this case, the LUL of a previous version has clearly been read KA₅, as indicated by the writing KA₅.A. This implies that the scribe, or someone before him in the tradition, did not know the meaning of what he was copying, and provides further evidence for Güterbock's revision of Forrer's LUL.

On the other hand giš gišimmar sukud, a few lines later, exhibits a different kind of anomaly. This, while being a logical entry in such a list, "high date-palm", has no correspondances elsewhere and Veldhuis suggests reading sukud as geštin[432]. This is the reading in a similar context at Emar: Msk. 74163b iii 4 (= Arnaud 152), and at Ugarit. However, it is very unlikely that a Hittite scribe would have written the very common sign GEŠTIN with the sign SUKUD, which is not otherwise attested at Boğazköy. SUKUD has to be the lectio difficilior, and it is quite possible that the Emar version has copied GEŠTIN from an original with SUKUD in order to adapt the sign to something more understandable. SUKUD also makes more sense even in the Emar and Ugarit contexts:

Emar:

iii 3 giš gišimmar an.na	"the date-palm of heaven"
iii 4 giš gišimmar sukud! (= GEŠTIN)	"the high date-palm"
iii 5 giš an.ki.ná	"the tree lying in heaven and earth"

Ugarit:

iii 28 giš gišimmar an.na	"the date-palm of heaven"
iii 29 giš gišimmar ná	"the lying date-palm"
iii 30 giš gišimmar gam.ma	"the low date-palm"
iii 31 giš gišimmar sukud! (= GEŠTIN)	"the high date-palm"
iii 32 giš an.ki.gil.lá	"the date-palm twisted in heaven and earth"

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[431] Veldhuis 1997: 169 with literature.
[432] Veldhuis transliteration.

The Emar and Hattusa versions clearly have more in common in this section (giš gišimmar) with each other, than they do with the OB Nippur and Late versions. Despite the Hattusan version making more sense here, it does not have to be the case that the Emar and Ugarit versions depended on it. Both may have been influenced from a third source. Furthermore, while the Emar version appears at times to be textually inferior to to the Boğazköy version, this does not mean that it was dependent on a transmission from Hattusa. The writing giš si.ia.tum most probably derives from Syrian writing habits. One might even consider whether this was an imported prism from a Northern Syrian writing centre with a similar ductus to that of Boğazköy. This is unlikely due to the absence of Syrian style sign-forms.

Evidence of lines of transmission from quite a different direction comes in the remaining Boğazköy fragments of Hh 20 (Table 3). The Nippur Forerunner of Hh 20 is very unified, while the later canonical version is very fragmentary[433].

KUB 37.146 obv.[!434]	Nippur Forerunner	AO6447	OECT 4.157	Emar	Ugarit	Late
0 š[à]		1 [a.šà]		1	1	
1 [a.šà d]u$_8$	1	2	i 1	2	2	1
2 [a.šà]x ŠE	2 a.šà ^{d}nisaba	3	3	3	3	2
3 [a.šà] é suḫur?	6 a.šà alim.ma	8	6 a.šà GÌR.MAḪ			3
4 [a.šà]x						
5 [a.šà igi.ni]m.ma	7 a.šà igi.nim.ma		ii 5	10	8	4
7 [a.šà igi.ni]m.ma an.ta$^!$	8 a.šà igi.nim.ma an.ta					5
8 [a.sà igi.ni]m.ma ki.ta	9 a.šà igi.nim.ma ki.ta					6
8 [a.šà ḫa].at$^!$ [.num]?	10 a.šà ḫa.at.nu.um	9	8	10 breaks off		
9 [ ]x d[a	11 a.šà da.ab.ta	10	9			

KUB 37.145[435]	Nippur Forerunner	AO 6447(OBb1)	BM78226(OBb2)	UET 7.9 (OBb6)	Ugarit
1 [a.šà] x					
2 a.šà ^{d}a.š[ur$_4$]					
3 a.šà an.ta					
4 a.šà ki.ta		ii 13 a.šà ki.túm			
5 a.šà ^{d}en.líl gar.ra	21	ii 34	ii 14	i 6]	23
6 a.šà ^{d}en.líl gar.ra[					
7 a.šà ^{d}en.líl igi.ba[r]	22 a.šà ^{d}en.líl igi.bar.ra	36	ii 15	i 7]	6.24
8] a.šà pa$_5$.e é.x[	(37 a.šà pa$_5$ usan$_4$)		(ii 16)		
9]x ⸢é⸣[					

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[433] MSL 12.94

[434] 164/h, MSL 12, 170. For Ugarit see Van Soldt 1993: 427-426.

[435] Konkordanz assumes that this is part of the same tablet.

KBo 37.146: 0: Photo N10266 shows traces not noted in MSL and possibly consistent with ŠÀ.

2: Traces of a sign begore ŠE which looks nothing like any part of NISABA (ŠE+NÁG)

3: The sign looks nothing like ALIM = GÌR x A.IGI. Possibly SUḪUR? 5: cf. Pettinato 1967: 10 "hohes Feld".

6:The sign is definitely TA, possibly over an erasure.

7 sign looks like AB over erasure. Traces before DA possibly NE, definitely not ŠÀ.

KUB 37.145: 2 reading to be preferred to ᵈuš[ar] with MZL p. 438 with lit. This writing of the divine name also appears in the Ras Shamra recension of Hh XXI place-names (Rec. B sect. 5, 1-2), also with no obvious correspondent in the rest of the tradition.

The Hattusa fragment agrees with the Nippur version and disagrees with the the other two OB forerunners which both proceed almost immediately from a.šà alim.ma (or GÌR.MAḪ) to a.šà ḫa.at.núm. The entries of lines KUB 37.146 obv.! 5-8, as well as being paralleled by the OB Nippur text, find close correspondence with the very fragmentary remains of the late version on the exercise tablet BM 33460[436]. The apparent continuity from OB Nippur to the 1st millennium suggests that there were Northern versions of the text of this lexical list which were closer to the Nippur version but which have not yet come to light. It must have been these which found their way to Hattusa. Indeed, the insertion of the divine name Aššur, which is not indicated elsewhere in the tradition, may indicate that the text of this tablet at least had passed through Assyrian hands[437].

The reverse of the same tablet clearly preserves part of a tradition quite different from what is known of Hh elsewhere. Isolated entries may well be known from different parts of the same list, but the majority of those that are readable are not and the order is incomparable.

KUB 37.146 rev!.	BM 72143[438]	Nippur Forerunner	YBC16318[439]	AO 6447	Ugarit
1 aᵣšàᵊ [					
2 a.šà bur[u₁₄]?	9]ff.	16	ii 37	ii 12	
3 a.šà níg x		101 a.šà PAD?	i 23	ii 22	6.7
4 a.šà níg.gá[l?			i 25 a.šà níg.gál.la?	ii 23	6.8[a.š]à[níg.gál.]la
5 a.šà nin			ii 34 a.šà nin.e.ne		
6 a.šà é.50	23	4	i 11		
7 a.šà lag.ri.ri.ga					
8 a.šà še! (KUR).ri.ri.ga					

[436] MSL 12, 4. The late version inserts (7) a.šà ḫu.bi.zi before (8) a.šà d[a].[ab.ta], which must be related to the sequence (11) a.šà ha.ba.zé (12) a.šà hu.um.bi.zé (13) a.šà ta-iš-tum (ta-a-iš-tum) in the Emar version (cf. a.šà ha.ba.za at RS 25.419 obv. i 9, but also a.šà hu.bu.zi at Nippur Forerunner 13, and not in OECT 4.57, the only other OB forerunner surviving at this point). As noted, however, OECT 4.57 does preserve a.šà igi.nim.ma elsewhere.

[437] There are, however, no typically Assyrian sign-forms.

[438] This bilingual tablet from Sippar is presented in the Addendum to MSL 12, p. 171, but it is not clear which period it belongs to. If it is bilingual then it is probably late.

[439] Cohen 2005: 55-61. The editor asserts that the tablet is not from Nippur, due to Nippur not being first in the list of city names of Hh XXI. It is likely to be Southern, however.

9 a.šà ^{giš}geštin.na	
10 a.šà ^{giš}kiri₆	i 1
11 a.šà Ú QA	
12 a.sà PÉŠ!.TUR!	
13 a.šà ní[g]	
14 a.šà lu[ḫ]	

Photo N10265.

2: the traces may fit this, rather than MSL NUMUN.LÁL, cf. OB Nippur 16 a.šà buru₁₄.maḫ ff., YBC 16318 ii 37, OBb2, 12, Ugarit 5.3ff.

4: the traces could also be ŠU. Pettinato 1967/2: 108 "Feld des Besitzes"

5: This line is omitted from MSL 12, as well as from the Epsd/DCCLT edition. Pettinato loc. cit 109 "Feld der Herrin".

Given that most of these entries occur in Ur III texts as names of fields, and that this is the reverse of a tablet with clear Hh material on the other side, it is almost certain that this is authentic lexical material. It is very difficult to see how this fits in, however, especially given the fragmentary nature of the late version, which is not preserved at all at this point. The majority of comparisons to other traditions are to be regarded with extreme caution. Only assuming a mistake of NÍG for PAD in rev. 3 and reading NÍG.GÁ[L] instead of NÍG.ŠU in rev. 4 can we glimpse any semblance of similarity in order to the other versions. If this is in fact part of the same tablet as KUB 37.145 then it may be that its idiosyncrasies are due to its having come from an Assyrian tradition, although there is nowhere else evidence for Assyrian versions of the major lexical lists having suffered such distortion in comparison to the Babylonian tradition.

I.2.4. Lexical lists: Summary

N. Veldhuis suggests that the lexical material from Boğazköy was different to that known from Mesopotamia and Northern Syria on the grounds that it concentrated on the more complex lexical material. This is in part explained by the archival context of the tablets found thus far, which are part of temple and palace libraries. It should be emphasised, however, that the material was definitely part of the school tradition, and the fact that the majority of find-spots are in the region of Temple I even suggests a different type of archival context to that at the Palace, one that is marked by being near an area of intense scribal activity, possibly even the city's scribal school. On the other hand, if the South Area beside the temple was an area of scribal production as proposed by Güterbock, it is no surprise that we have not found the actual school texts used in scribal paedagogy, as the building in question appears to have been cleared prior to evacuation.

Veldhuis' further suggestion that the use of the Boğazköy lexical lists was less geared to learning than it was to reference is borne out by the evidence reviewed here to a certain extent. There is some evidence, notably one tablet of Erimḫuš, that the trilingual versions with Hittite columns were in fact written by scribes less versed in the lexical material than the bilingual tablets with only Sumerian and Akkadian. This tallies with the observation of Van Soldt concerning the professionalism of the lexical material from Ugarit. However, the traditionally more elementary exercise Hh, although it is preserved with a Hittite translation from late MH Šapinuwa, was usually written monolingually in Sumerian. This may have been done by learners who had passed that particular part of the course, before moving on[440].

The "reference"-orientation of the Boğazköy material is illustrated by cases where a regular Boğazköy logogram in the Hittite column is used to explain a related Sumerogram in the Sumerian column. The Sumerian words of the Sumerian columns were not generally used in common writing, although this is observable in all lexical lists. Veldhuis has argued that the lexical lists of Mesopotamia were part and parcel of the transmission of Mesopotamian cultural knowledge, as much as they had practical didactic use in teaching scribes how to write. The Hittite evidence may indicate that this was still regarded as Mesopotamian cultural knowledge, much of which needed explaining.

There is some evidence that a format of two sub-columns was the earlier one, where two elements may be combined in one sub-column separated by a Glossenkeil (Sumerian ˒Akkadian; Phonetic Sumerian ˒Akkadian). If KBo 1.40 is in fact MS the presence of the a separate sub-column for phonetic Sumerian is attested from among the earlier lists, but the two sub-column arrangement is most probably the older type.

The above review suggests various directions of tradition. While certain features of the Emar or Ugarit texts may be shown to be dependent on parts of traditions represented more faithfully at Hattusa, it is also undeniable that there are elements of transmission in the Boğazköy lexical texts that point to a Syrian stage, be they lexical (West Semitic

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[440] J. Klinger interprets the lack of Hittite column on the majority of the Hh material as evidence that these were essentially foreign texts and not part of the curriculum as much as some of the other lists (Klinger 2005). The predominance of Sa-type vocabularies over Hh is explained by the fact the Sa-list taught students the use of signs, not about objects in the real world, which they would not have been familiar with anyway. It should be remembered, however, that many of the "objects" in Hh will not have existed by the OB period anyway, and thus would have been unfamiliar to any students. Furthermore, parts of Hh not otherwise attested at Boğazköy form the most likely source for a number of logograms in Hittite cuneiform which do not otherwise occur in the 2nd millennium cuneiform world.

elements), phonological (-*ê* for -*ia*) or orthographic (SI for *ši*). This is not surprising. Additionally one must also consider the influence from Assyria, which is indisputable in the case of one fragment of Hh 20. The often-noted cohesion between the Boğazköy and the later versions of lexical lists indicates that these peripheral traditions stood under the influence of the major Kassite period re-organisation of cuneiform literary material, for which there is so little evidence from Babylonia[441]. Those correspondences that Boğazköy shares with Southern Mesopotamia (lú.ázlag, Ea, parts of Hh) must be explained by the current gaps in our knowledge regarding the lexical traditions of Northern Babylonia and Assyria in the middle of the 2nd millennium.

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[441] In fact, one fragment of Sa (KBo 13.3), with a double ruling on the left, may even be an import from Kassite North Babylonia.

PART TWO

THE LOGOGRAMS OF THE HISTORICAL TEXTS.

A complete catalogue of the logograms occurring in a substantial selection of the historical texts (CTH 1-216), selected to give an proportional distribution of palaeographic environments, is included as Appendix I. The following is a commentary on certain of those logograms, both of Sumerian and Akkadian origin, intended to highlight a number of aspects of Hittite written culture and its interpretation. These range from difficulties of reading to origin and distribution of particular forms.

A.A

Although the equivalence with Hittite/Luwian *muwa-* "strength" (vel sim.) has long been clear, this logogram and the associated Hitt./Luw. *muwa-* were long interpreted as meaning "sperm", on the basis of Sumerian a(.a), "sperm, seed" (PSD A1/1, 21ff. a A 9), supported by two controversial entries in lexical lists from Boğazköy[442]. CHD L-N 315f. refutes this explanation and suggests a rebus writing based on the Akkadian *mû*, "water", the primary equivalent to Sumerian a(.a)[443]. A similar explanation is invoked in the same volume for the writings of *muwatalla-/i-* with the logograms NIR.GÁL and KA.ZAL (Sum. kir₄.zal "with a shiny nose"?), the latter albeit only possibly in a divine name[444]: both correspond to Akkadian *muttellum/muttallu*, "noble", in lexical lists, and may have been used for the writing because of the phonetic similarity, with no implication for the meaning of the adjective or proper name (CHD L-N, 316f.)[445].

While it is becoming clear that *muwa-* does not have the meaning "sperm"[446], the lexical equation at Erimḫuš Boğ (MSL 17: 115, 237-8) still requires comment. The text is given here in both manuscripts. A = KBo 13.1 rev. iv 33f., Photo B1273:

Sumerian	Akk.	Hitt.
[me]	*tu-tu*	A.A UR-*aš*
[téš]	⌜*pa*⌝-*aš-du*	UR M[UNUS?]-*aš*

Duplicate A₅ (= KBo 26.25 rev. iii 1f., Photo B0800b):

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[442] Laroche 1947-48: 40ff.; Carruba 1990: 244f., taking no account of CHD L-N 315f. For Cuneiform-Hieroglyphic equivalences on seals see Hawkins apud Herbordt 2005 s.v. *Pihamuwa* etc.
[443] For discussion of *muwa-* and its shades of meaning see CHD L-N 314f.
[444] ᴰKA.ZAL-*aš* KUB 33.120 ii 38 (Kumarbi).
[445] CT 51, 58-63, no. 168 i 10: nir.gál = *mu-ta-al-lu*.
[446] CHD loc. cit. 315f. "unlikely".

Sumerian	Syllabic Sum.	Akkadian	Hittite
[me]	me-i	⸢tu⸣-u-⸢tu⸣	⸢A.A UR⸣-aš
[téš]	ti-iš	pa⸢ʾ!⸣-aš-du	[iš]-ḫa-aš-⸢šar⸣-w[a-tar][447]

H. Otten and W. von Soden (eid. 1968: 27) relate UR in the Hittite column to its use in the Sumerian column (UR = téš), apparently for the female sexual organ as understood by the Hittites. This implies a levelling of the distinction between the logograms for male and female sexual organs parallel to the levelling in the reverse direction which is otherwise found in Hittite texts: ^{UZU}ÚR "penis" and ^{UZU}ÚR.MUNUS "pubic triangle". Apparently UR is to be understood as a phonetic reading for Sumerian úr, an occasional correspondent to Akk. *dūtu* in first millennium bilingual and lexical texts alongside Sum. me and ti[448].

However, UR for "sexual organs" of either sex is not attested in any Hittite texts, and must here be a mistake shared by each of the duplicates, a rare case where the writing of the Sumerian column has intruded on the writing of the Hittite column, if this interpretation is to be upheld[449]. It should be noted immediately that the sexual connotations of both Akk. *dūtu* "manliness", and Akk. *bāštu* "pride" are secondary meanings in Akkadian. Nothing to do with sexual organs is the Sumerian literary model for both these and the next two lines of Erimḫuš, exemplified in the OB composition "Hymn to Inanna (C)" 125: me téš ^{d}alad ^{d}lamma ki-šu-peš$_{11}$ zu ^{d}⸢inanna⸣ [za-a-kam], "[it is yours] to know virility, dignity, Alad and Lamma, the cult-places, Inanna". Compare the order in Erimḫuš Boǧ.: [me], [téš], [^{D}LAMMA], [^{D}ALAD?]. It is thus the Hittite, or at least the modern interpretation of the Hittite, which has introduced the sexual aspect in the first place.

While A.A UR-aš may well perhaps mean "water of the penis (sexual organ), sperm" the point made by CHD remains valid; there is no evidence that the Hittite word for this would have been *muwa*-, just because of the occurrence of A.A[450].

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[447] Güterbock's restoration is convincing from photo b900 in Mainz.

[448] The authors say UR in A.A.UR-aš is "vorerst unklar" in their note to iv 33 (loc. cit 26f.), but assume UR for úr, = *dūtu*, in their note on iv 34 (loc. cit. 27). As for the readings, UR-aš is clear on the copy at KBo 26.25 iii 1, and the traces appear to fit in the photographs, thus contra Götze 1970: 24.

[449] For the types of deviations encountered in Erimhuš Boǧ see introduction.

[450] A.A.UR occurs in broken context at FHL 49, 2. A.A is to be seen as the equivalent of A.A.UR-aš, according to Haas 1990: sp. 36. F. Starke (id. 1989: 668) also reads A.A.UR-aš simply as *muwas* and compares the name *Muwa-ziti*, "man of courage".

As it is, beyond personal names, the writing A.A for *muwa-* only occurs in three oracle texts: KUB 5.1; KUB 16.29; KUB 50.26, and only in the accusative singular, A.A-*an*, A.A-*na*.[451]

Although all occurrences of NIR.GÁL, ^{D}KA.ZAL and A.A are in NS texts, it seems strange that as yet no writing of *muwatalla-/i-* with A.A has appeared, although one might expect this if the writing was based on purely phonetic association. One can only conclude that *muwa-* in *muwatalla-/i-* may have been separated from *muwa-*, the base-noun, in Late Hittite scribal education, although they are not generally in modern etymology. This need only have been a separation on the phonetic level: mu = A.A; mutal = NIR.GÁL[452]. That Hittite scribes knew that *muttellu* was not equivalent to *muwatalli-* is shown by the late lexical equation from Erimḫuš Boǧ 124: KA.zal = *mu-ti-el-lu* = *wa-al-li-u-ra-aš* ("proud")[453].

A more significant problem is the fact that the Sumerogram for "water" is always written A.A$^{\text{ḪI.A}}$ with the plural determinative when written doubled, although this only occurs in the expression *seḫellias wātar*[454]. It is just possible that A.A meaning "water" is written without the plural determinative in the the obscure fragment KBo 42.6, 6ff.: x-*mu* A-*tar-mi-it* A-*i-it-ta-at* A-*ma-mu-kán EM-ṢA*[...] (7) [...] A.A-*ma-kán* A-*tar* ŠAḪ-*aš ar-ḫa la-a-ḫu-u-wa-it*, "my water, (it is mixed) with water, but my water is bitter [...] (7) [...] but as for the water$^{(?)}$, the pig poured the water away". There is clearly a pun intended here, but it is at present utterly unclear. A-*tar* in l. 6 may mean "sperm".

A.A = "muwa-" is never written with the plural determinative, which is odd if it is supposed to be a writing phonetically based on Akkadian *mû*. At the same time, A$^{\text{MEŠ}}$ and A$^{\text{ḪI.A}}$ are never used phonetically for *muwa-*. There was obviously a scribal convention keeping the rebus usage and the logogram apart. It is also unclear how the use of A as a syllabogram with the value -*mu*$_x$ at Emar is to be connected[455].

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[451] A.A-*an≠za* at KBo 1.30 obv. 2f. is now analysed as a nominative *a-a-an-za* meaning "equal(led)" by Goedgebuure 2002: 67.

[452] As illustrated at CHD muwa- 2. (L-N, 315), the word was also used for the name of a token in lot oracles, and the logographic writing A.A occurs here too. The use of MU(.KAM), "year" as the name of a token "with all the same associations" (CHD loc. cit.) may be taken to indicate another rebus writing, this time using a homophonic Sumerogram, which was presumably restricted to oracular contexts. On the other hand, having "all the same associations" is not necessarily "being the same thing", so it may be that we have to do with a slightly different interpretation of oracular language and practice.

[453] KBo 26.20 obv. ii 27, MSL 17.107.

[454] For A.A$^{\text{ḪI.A}}$ denoting "water" in Hittite texts see: A.A$^{\text{ḪI.A}}$-*ar* KUB 19.4 i 59, 19.63 ii 16; A.A$^{\text{ḪI.A}}$-*aš* KUB 19.4 i 59.

[455] von Soden 1987.

ABU **HWb**[2] **A 541-568 Hitt.** *atta-* **Sum. AD, A.A(.MU), "father"**

The uncomplemented or unbound form does not occur often, the only example collected so far being *A-BU*, of unclear case, in a possibly MS manuscript of the Telipinu edict[456]. Otherwise it is attested in lists of family members: *A-BU* DUMU[RU]-*ia* "father and son"[457], *A-BU* AMA "father (and) mother"[458], and in genitive phrases (*A-BU ŠA* AMAR[459])

The usual form for OB nom./acc.sg. "my father" (*abī*) is probably attested in OS at KBo 22.1, 16[460], but not otherwise at all.

A-BU-IA, known from Middle and Late Babylonian (nom. *abūia*, acc. *abāia*) appears in documents post-dating Suppululiuma I . This is also written for the genitive in prepositional phrases: *A-NA* ⇏, *A-NA PA-AN/PA-NI* ⇏, *IT-TI* ⇏, *MA-ḪAR* ⇏ as well as after the construct state nouns *ŠUM* and *RI-KIL-TI*. There is no significant distribution of gen. sg. *A-BU-IA* and *A-BI-IA* among the classes of New Script, although *A-BI-IA* when used correctly does appear to occur more frequently in NSc script tablets, although this can in no way be said to be exclusive, nor can it be said to be a correlation of correct vs. incorrect usage with ductus[461]. It is also recorded for the MS version of the Hukkana treaty from the reign of Suppiluliuma I. On the whole, however, incorrect usage of *A-BI-IA* is far less frequent than incorrect usage of *A-BU-IA*[462].

A-BA-IA KUB 14.8 obv. 25 (= *at-ta-aš-mi-in* KUB 14.11 obv. 22) is the only attestation of the correct MB declension I have found[463].

A similar picture emerges for the 2nd person enclitics. A full triptotic declension with theme-vowel in *-a-* for the acc. sg. is extremely rare. *A-BU-KA* serves as both nom. and

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[456] KUB 11.1 rev. iv 7. HWb[2] 545 a): "fast ausnahmslos mit enklit. Poss. pron. oder als Regens (status constructus) in Gen-Verbindungen".

[457] KUB 12.34 obv. i 2 and duplicates Miller 2004: 108.

[458] KUB 13.23 r. col. 3

[459] KBo 53.216 rev. iv 26.

[460] CHD L-N 149.

[461] KBo 5.6 (NSc) uses *A-BI-IA* correctly at obv. i 36 where NS duplicates use *A-BU-IA*, but incorrectly for the acc. sg. at obv. i 28, as well as using *A-NA A-BU-IA* at rev. iii 9, 50.

[462] Only once does *A-BI-IA* appear in the nom. sg. (KUB 19.29 obv. i 12) in a script that combines archaic and late features. It can be paralleled from an Amarna letter of Aziru of Amurru (see Arnaud 2004: 12) The writing *A-BÉ-E-IA* (KBo 6.29 obv. i 12) deserves comment. Although a gen. sg. *abēya* is not booked under CAD A/1 67-73, oblique plural forms in -e- are (loc. cit 72) from both Middle Assyrian and Late Babylonian texts.

[463] See GAG §65 i. HWb[2] records no cases at all and remarks that acc. sg. *A-BA-* is very rare (545 b). *A-BI* "my father", for OB *abī*, may occur as subject in OS KBo 22.1 16, 21 according to HWb[2] 544 c; also CHD P 277 s.v. per 1 a 3´).

acc. sg., although this has only yet been recorded once[464]. There is also at least one case of *A-BU-KA* for the genitive in *IŠ-TU A-WA-AT A-BU-KA* at KUB 21.1 obv. i 72.

The declension of *ABU* with the S3 enclitics, however, includes all three declensional variations. KBo 4.4 has both *A-BU-ŠU* and *A-BA-ŠU* for the acc. sg. at obv. ii 6, obv. ii 65 respectively[465]. *A-BA-ŠU* is used for the acc. sg. in KBo 3.3+ obv. ii 16 (scribe Tatiggana) and the duplicate KUB 19.41 obv. ii 20 (NSa and NSb respectively). *A-BU-ŠU* occurs rarely in the gen. sg.[466] *A-BI[-ŠU]* is never used outside the gen. sg.

Most scribes in these texts thus err less in their use of the genitive + enclitic pronoun in -i- than they do with the nominative and accusative markers in -*u*- and -*a*-. There is no suggestion however, that the synthesis of Akkadian nominative and accusative sg. markers in one ending -*u*, observable in first millennium Akkadian texts, could be related to this phenomenon at this period.

With the meaning "forefathers" the genitive plural forms with S1 enclitic pronoun thus far recorded, all from the "Apology" of Hattusili III, appear to be descended from the Middle Assyrian form: *AB-BA*[ḪI.A]*-IA* (*A-NA ⸗, A-NA PA-NI ⸗*)[467]. While phonetic *abbāya* may well have corresponded to the Assyrian form as heard by Hittite ears, it is possible that inserted ḪI.A indicates that Hittite scribes were uncertain of whether this was a Sumerogram, and thus unfamiliar with the dialect[468]. See also *A-NA AB-BA AB-BA*[ḪI.A] (KBo 3.6 rev. iv 14]) where one duplicate omits the preposition[469]. The accusative plural form *A-BI-ŠU-NU* (KUB 34.23 obv. i 7, CTH 40) indicates awareness of the quality of the theme-vowel for correct Babylonian. The peculiar double plene writing in *A-BI A-AB-BA-A-IA* (KUB 21.5 obv. i 2) can be paralleled in initial position at least by OB *a-na a-ab-bi-ni* (AHw. loc. cit.), but also appears to display an essentially Assyrian declension[470].

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[464] KUB 23.1 (NSc) also has *AŠ-ŠUM* EN-*UT-TA* obv. i 22, 24, as against the duplicate's [*AŠ-Š*]*UM* EN-*UT-T*[*IM*] (1436/u+ obv. 8), acc. sg. [LÚ]*ḪA-DA-(A)-NU* obv. i 9, ii 17, NIN-*ŠU* acc. sg. obv. ii 18.

[465] The tablet also has a possible dictation error *Ú-UL* for *katta*; see Introduction 0.c.ii.

[466] EME AMA *A-BU-ŠU* KBo 41.153, 16; *ŠA A-BU-ŠU-kán wa-aš-túl* KUB 14.11 rev. iii 30 (// KUB 14.8 rev. 13). See also *ŠA A-BU-NI* KUB 38.37 iii[?] 18; *ŠA A-BU A-BU-NI-wa-na-aš* ibid. 13.

[467] The relevant MA forms listed at CAD A/1, 72 are nom. pl. *ab-ba-ia*, *ab-ba-ú-ia*, acc. pl., gen. pl. *ab-be-ia*.

[468] See OB lú = azlag, C₄ 10 (MSL 12: 194): lú.ab.ba = *ši-i-bu*. Also ab.ba = *abu* in later lexical lists. See CAD A/I, 67a. HZL 97 records the Sumerogram, presumably referring to cases like this. Miller 2004: 315 calls attention to RS 17.132, 8: AB.BA[MEŠ]*-ú-ka* (CAD A/1, 72, letter of Hittite King).

[469] This may be a possible indication of Sumerographic interpretation by the scribe.

[470] Conversely, a MA letter from Boğazköy may decline the nom. pl. in good Old Babylonian manner [lú]*ab*[!]*-bu* for *abbū* as opposed to *abbā'ū* KBo 28.64 rev.[?] 4. See Von Soden 1988: 344f., although the most recent editors (Mora/Giorgieri 2004: 120) do not adopt this reading following Freydank 1991: 27.

Similarly there is one case of a nominative singular AB.BA-*IA* "forefather" at KUB 32.133 i 2, interpreted as a plural (standing for singular?) at HWb² 545 a). This is further indication that it was in fact a Sumerogram, as suggested by J.L. Miller (id. 2004: 315) for this attestation. The one case where there is no enclitic pronoun and no dependent genitive also supports this conclusion[471].

Another Sumerogram for "father" is A.A.MU, "my father", definitely preserved in what may be a fragment of the Annals of Suppiluliuma (HWb² 542), and possibly at KUB 21.1 rev. iv 13.

The usual Sumerian for "father" I have only found thus far in AD-*bi-šu* (gen. pl.) at KBo 1.8 obv. 6, the Akkadian language treaty with Bentešina of Amurru, in a script that displays a distinct Syrian influence while keeping a basically Boǧazköy ductus[472]. There may be some indication that the scribe was Hittite (see particularly the writing of the PN ᴵ*mu-wa-ta-al-li-iš* obv. 12).

A-BI A-BI (Hitt. *ḫuḫḫa-*) shows the so-called Sandhi-writing, *A-BA A-BI* in some instances, with no respect for case[473]. These forms occur in three Hittite manuscripts from each of the three categories of New Script: KBo 5.8 (NSa); KBo 6.28 (NSb); KUB 23.1 (NSc)[474]. *A-BU* is occasionally used for the construct case (≠ ᴵ*pí-ḫa-*ᴰ10, KUB 22.61 rev. iv 11), *A-BU* ᴰ10 (KUB 58.39 rev. iv 5, *A-BU A-BU-KA* KUB 31.136 rev. 7. Note in an Akkadian text the phrase LUGAL *a-bu a-ba a-bi-ia* (KBo 1.3 obv. 8), where the whole phrase appears in the genitive. The use of all vowel qualities separately may operate on a stylistic level. The tablet is unlikely to have been written in Ḫattusa.

AḪU "brother"

The plural of this Akkadogram is somewhat unusual in Hittite texts. CHD L-N, 429 mentions the sg. constr. form *A-ḪI* (LUGAL) at KUB 3.35 i 6, but omits the nom. pl. (*id*.) from the same text at KBo 3.34 rev. iii 15 (*ku-i-e-eš e-eš-kán-ta*). It is possibly understood by them as a *mār šiprī* type Akkadian form, with the plural declined on the second element. This is possible but would be rare.

The typical Babylonian form of the plural, *aḫḫū*, with doubling of the *ḫ*, never occurs as an Akkadogram in a Hittite language context. Instead, even in an OS fragment of the

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[471] AB.BA^{ḪI.A} KUB 1.1 rev. iv 54.

[472] Klinger 2003: 246.

[473] StBoT 16: 31. See MSL 2.112, 17: a.a.a = *a-ba-bi-im*

[474] See Kühne/Otten 1971: 29 fn. 22 for further texts, although KBo 16.8 iv 3 is a mistake. KBo 1.8 is Akkadian in Bo.-ductus with Syrian features (Klinger 2003: 246 "Mischduktus"), see introduction; KUB 23.102 (letter of Muwatalli II to Adad-Nirari I).

Laws, the infixed-t root-form is used, *atḫû*, which appears to mean "partners" in Babylonian texts (AHw. 86b, CAD A/2 492f.)[475]. The OS fragment of Laws §194, KUB 29.36+ rev. iv 6, has the regular Old Babylonian form *AT-ḪU-Ú*, while the late duplicate KBo 6.26 iii 46 declines it as an adjective: *AT-ḪU-U-TIM*[476]. Further attestations also write *AT-ḪU-TIM*[477].The form *atḫūtu(m)* in Babylonian and at Mari is always a singular abstract noun (CAD A/2, 493f.). There is no clear case where it is thus used in Hittite.

The CHD article *negna-* omits the occurrences of *AT-ḪU-U* (nom. pl.) and *AT-ḪU-TIM* (gen. pl.) occurring in two later mss. of Telipinu documents, where they are usually translated "relatives": KUB 11.1 rev. iv 9 (MS?) *at-ta-aš an-na-aš ak-kán-zi nu AT-ḪU-U* EZEN₄ [*i-ia-an-zi*] "[...] the father (and) the mother die, the relatives (?) [celebrate] the festival"; KBo 12.8 rev. iv 25 (LNS) [ᴵ*ḫu-uz(-zi-ia-an)*](26) *QA-TUM* VII *AT-ḪU-TIM* [*ku-en-(nir)*], "they killed Ḫuzziya along with 7 relatives (?)"[478]. The translation "brothers", according to usual Hittite Akkadographic usage, is perfectly appropriate in both contexts, however.

Akkadian texts from Boğazköy, especially the Egypto-Hittite correspondence, preserve quite different forms: acc. sg. *a-ḫa* at KUB 3.24 + 59 obv. 17 (Puduhepa to Ramses, Edel 1994: 138)[479];

S1 stative: *aḫ-ḫa-a-ku* KBo 1.29+ obv. 18 (Naptera to Puduḫepa; Edel 1994: 40, not Boğ. ductus).

a-ḫu-ti, *a-na* ⇄: "brotherhood" KUB 3.35 obv. 6 (Hattusili to Ramses; Edel 1994: 210[480])

ki-i aḫ-ḫu-ti: "like brothers" KUB 1.10 obv. 23 (Hattusili to Kadašman-Enlil)[481].

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[475] Paired with Sumerian tab and man in lexical lists, CAD A/2, 493. See German "Verbrüderte".

[476] The spelling also occurs in unpublished 932/v, 3.

[477] Güterbock 1946: 70. KUB 60.137, 9 (NSbii) is too obscure and unsafe to include here, but cf. Groddek 2006: 136, BoFN 5536; KBo 12.100 i 6 (NSc) *AT-ḪU-TIM an-da* ᵀᵁᴳ*še-ek-nu-uš ḫa-me-en-ga-aṇ-ta-at* must mean "the brothers have been joined with respect to the garment", possibly the opposite of ᵀᵁᴳ*seknu- sarā pippa-*, which H.C. Melchert interprets as "to turn up the garment, insult" (Melchert 1983: 141-145); *A-NA* II *AT-ḪU-TIM* KBo 22.55 obv. 6 (NS); KUB 31.59 iii 33 (NSbii); ᴸᵁ.ᴹᴱ�*AT-ḪU-TIM* ibid. rev.? 10, 13]; KUB 5.9 rev. 43 (NSbii) MUNUSᵀᵁᴹ*-wa AT-ḪU-TIM ú-e-en-ti-ir* "(her) brothers raped a woman"; II ᴸᵁ.ᴹᴱbe*AT-ḪU-TIM* KUB 33.87+ i 20; KUB 24.7 i 30.

[478] Hoffmann 1984: 193 "Gefährten; Verwandte (?)". This appears to be an attempt to find a term that is somewhere between the fraternal relative and the extra-familial "partner" of Akkadian. There is no reason why Ḫuzziya should not have been killed along with 7 brothers (this was how O. Gurney understood it, according to a restoration to the duplicate KBo 12.9 recorded in his card catalogue: [ŠEŠᴹᴱbe-ŠU]). There is also no reason why the brothers of the mother and father, i.e the maternal and paternal uncles of the children, should not have organised the funerary arrangements, even if only under circumstances hidden from us by the break.

[479] There is no reason from the ductus and sign-forms to think that this was not written by a Hittite scribe.

[480] Despite the fragmentary state of the tablet the ductus is consistent with Boğazköy.

[*a*]ḫ-ḫe-e₁-*šu* KUB 4.4 obv. 15 (trilingual Hymn to Adad with only Akkadian and Hittite preserved; Schwemer 2001: 195). The script is NSc. The Hittite equivalent is not preserved, but the tablet is most likely the work of a Hittite scribe. Scribes could obviously write correct Akkadian in Akkadian texts, but not in Akkadograms! This demonstrates just how much writing was a matter of graphic convention rather than of actual language.

ᴸᵁ̇AMA.A.TU

ᴸᵁ̇AMA.(A.)AT is a unique variant for ᴸᵁ̇AMA.(A.)TU, Akk. *dušmû*, HZL 57, "Hausgenosse". The interpretation goes back to J. Friedrich, also "Haussklave"[482]. This meaning appears to correspond to that known from lexical lists of the MB period onwards: *ilitti bīti*, a slave born in the house as opposed, for example, to a slave born in a temple or a slave who may have been born free[483]. It may have its root in the common Mesopotamian distinction between the slave from abroad (ÌR, GÉME: man/woman + KUR) and the homegrown slave. D. Charpin has demonstrated the force of the component AMA in Sumerian words relating to slavery. Ama.ar.gi₍₄₎, Akkadian *andurāru*, "liberation", means literally "return to mother". Ama.a.tu(d) would thus be "born in the mother", with no "mother" to return to[484].

This says nothing about the status of the people denoted by ᴸᵁ̇AMA.(A.)TU as opposed to ÌR/GÉME in Anatolia or about the Hittite understanding of the logogram. The alternative writing ᴸᵁ̇AMA.(A.).AT is not attested outside Anatolia and is difficult to motivate from the perspective of Sumerian. It may indicate a different understanding of the logogram among the Hittites. The context at KBo 5.4 obv. 24 gives us:

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[481] Many elements of NSc (KI, ḪA, KU, DI, NI, EN all regularly), but the presence of "foreign" ŠA, UM, the use of SA for *ša* (rev. 59) and the writing *aš-šúm* (rev. 26), *šúm-ma* make it likely that this was a foreign scribe. Syrian rather than Babylonian is tentatively suggested on the basis of SA for *ša*, although *šúm* is also a regular Middle Assyrian writing.

[482] Friedrich 1926: 79.

[483] AHw s.v. *ilittu*. The Sumerian AMA.(A.)TU is not prefaced by the determinative LÚ in Sumerian texts.

[484] Note the "Instructions of Suruppak" 155: ama.a.tu na.a.sa₁₀.sa₁₀ ú lipiš gig.ga.àm "you should not buy a house-born slave, he is a herb that will make your stomach turn ill" and 158: sag kur.ra kur.bi.ta um.ta.a.e₁₁ "you should make the personnel of the mountain come down from its mountain", playing on the meanings "mountain" and "foreign land" attributed to Sumerian kur. Cf. Alster 1974: 103; etcsl t.2.4.2.02; Wilcke 2003: 54f.; Charpin 1987: 36-44; Neu 1990: 332ff.

nam-ma-za zi-ik ᴵ*tar-ga-aš-ša-na-al-li-iš tu-el* Z[I-*K*]*A t*[*u*]*-el* É-*KA tu-el-la*
ᴸᵁAMA.A.AT-*kán ma-aḫ-ḫa-an uš-ki-ši*. "moreover, as for you, Targasnalli, just as you always look after yourself, your house, your domestic ...".

The writing with AT rather than TU may be explained as a misinterpretation of the Sumerogram as an Akkadogram, here in the construct state. This would of course favour seeing GÁN as -*KA*ₓ, which would be extremely unusual. One could possibly see it as a misreading of a Middle Assyrian TU from a lexical list, but this is quite desperate given the palaeography of TU, which is only rarely written in the MA period using the later NA form with straight horizontals[485].

AN.BAR

See HWb² III Ḫ 13, 206-215. The reading *ḫapalki-* is suggested by the parallel texts KUB 29.1 rev. iii 40 *na-an* (GUNNI) AN.BAR-*it ŠA-PA*[*L* (?) *i-e-*]*er* //HT 38 obv. ii 12 [*ḫ*]*a-pa*[*l*]-*k*[*i*]-*i*[*t*], //KUB 51.56, 2 *ḫa-pal-ki-it ka*[*t-ta-an*?], "and they made it (the hearth) with iron underneath(?)"[486]. It is probably a loan-word from Hattic on the basis of KBo 37.1 obv. 23 (Hattic) ḫa-pal-ki-ia-an te-te-ku-uz-za-an = (Hitt.) AN.BAR-*aš* GUNNI[487].

The reading **kiklu-* has also been suggested by H.C. Melchert on the basis of the equivalence in RS 25.421 obv. 22: *un-qí* AN.BAR = *ki-ik-lu-ba-aš-ša-ri-iš-*[*m*]*a-aš* "she is a ring of iron", analysed as *kiklu-* + *passari-* "ring", allegedly seen in *passari-* "circumcised", also adducing the Luwian participial form at KUB 12.1 rev. iv 26: *ki-ik-li-ba-i-me-en-zi* which appears to be associated with metal objects in an inventory text[488]. Given the fragmentary nature of the bilingual text, it may well be that the discussion concerning this reading is misplaced until further attestations are found.

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[485] Labat *Manuel* no. 59 gives only one example and that is in monumental script.

[486] Photo B1270 shows that the gap in KUB 29.1 rev. iii 40 is a little too big for the previously proposed restorations: *ša-an-*[*ḫi-i*]-*ir* (Schwartz 1947: 36-37), *ša-an*[-*ni-i*]-*ir* (Kellerman 1980: 63; see also Siegelová 1984: 85 fn. 36). The restoration suggested here fits the traces and spacing better, but not perfectly, and remains tentative. I can find no archaeological examples of a hearth with an iron bottom, although an "iron hearth" is mentioned in a Hattic-Hittite bilingual (see below).

[487] See also ibid. 15. Laroche 1957: 9-15; Klinger 1996: 643, 666; Schuster 2002: 221f.; Soysal 2004: 447f. with further literature.

[488] Melchert 1983: 139ff.; ibid. fn. 10 for Güterbock's confirmation of the BA in *kiklibaimenzi* on collation, now to be seen in photo N01917. Melchert assumes a scribal confusion of BA for MA and posits a verb *kiklimai-*, "plate with iron" on the basis that there are no stems in -*ba-* in Hittite. *Kaluluba-* "finger", however is surely just such a word, if judged by its consistent simplex writing. Tischler, HHWb 78, goes one step further and reads *kiklumassari-*. HED K 174: *kikluba-/kikliba-* = "iron". CHD P 204 *paššari-* "circumcised". Starke 1990: 421-424 has Luwian **kiklubassar-* n."Eisen", *kiklubassari-* "eisern", parallel in formation to *takkissar-* n. "Schmuckstück"; *naḫissar-* n. "?"; **kuttassar-* n. "ein (in bestimmter Weise) bearbeiteter Stein".

Although this would be unusual word-order, reproducing that of the Akkadian, the possibility cannot be discounted that the text had *kiklubassaris=ma=as* [AN.BAR], and that the word for "iron" is not contained in the first word at all. This word order is not uncommon with AN.BAR or with other logograms for metals[489].

A further peculiarity is exhibited in its apparent lack of Akkadographic or Hittite prepositional or phonetic complementation in the phrase AN.BAR GAR.RA at KUB 38.11 obv. 14; 32 obv. 1, where it appears to be following the tendency of KÙ.GI and KÙ.BABBAR to be construed either in the acc., as with Akk. *uḫḫuzu(m)* (CAD A/1, 179f.), or in the instrumental as with Hittite *ḫalissiya-* (see HWb² s.v. *ḫalissiya-* Bd. III Ḫ/11, 44-50: 0.0, IV 2b).

In another example AN.BAR also appears to be unmarked for case: KBo 21.22 (MS) rev. 41: ᴰIŠKUR-*aš wa-at-ta-ru i-an-zi nu-wa wa-at-ta-ru ma-a-aḫ-ḫa-an i-ia-an* (42) *ku-un-na-ni-ta-at ú-e-da-an ar-zi-li-ta-at ḫa-ni-iš-ša-a-an* (43) AN.BAR-*at iš-ki-ia-an*. "They make a spring of the storm-god. How (is) the spring made? It is built with stone (?)[490], it is plastered with *arzila-*, it is 'smeared' (with) iron".

Most recent translations render *iskiyan* as "covered", but the context is so obscure that it is wisest to keep as literal a translation as possible[491]. It is very unlikely that AN.BAR is not here instr. sg. Presumably the scribe felt that the phonetic marking of the enclitic pronoun -*at* was phonetic complement enough.

AN-NI-A/IA-AM. This OB form of the acc. sg of the demonstrative pronoun is attested in the Ulmi-Tešub treaty and the Bronze Tablet. In each case the Akkadian word qualified lacks mimation: *ṬUP-PA* ⸗. It is likely to have been preserved as part of

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[489] KBo 17.1+ i 18 *lalan* AN.BAR-*aš* (OS); KBo 17.2 i 4 *lales* AN.B[AR-*aš*] (OS); KUB 17.10 iv 16 *zakkis=(s)mes* AN.BAR-*aš*; KBo 30.20 iii 9: VII *issanappis* AN.BAR; KUB 59.30 obv. 14 [*galgalt*]*uri* AN.BAR; KUB 42.64, 12: V *kaluppas* A[N.BAR]; KUB 12.1 iii 12: *lupannes* AN.BAR; KUB 42.11 v 7: VII *palzahas* AN.BAR; KUB 17.21+ rev. 50: XX [*pur*?]*purus* AN.BAR; KUB 59.30 obv. 14: [*t*]*uri* AN.BAR; KBo 15.24+ ii 41: X *wallas* AN.BAR; ibid. 57: *wallus* AN.BAR; KUB 38.32 i 2: II *wattatra* AN.BAR.: This phenomenon is probably rooted in the standardised list formulary of inventories, which may imply an influence of Akkado-Sumerian on Hittite word order, although in the cases involving enclitic possessives placed according to Wackernagel's rule, it may be a reflex of the syntactic relation between possessed noun and dative enclitic pronoun in possessive function. This is most likely the case for KUB 29.1 ii 52f.: ALAM-*iš-ši* NAGGA-*aš* SAG.DU-*ZU* AN.BAR-*aš ša-a-ku-wa-aš-ši* Á^MUŠEN-*aš i-e-er* (54) KAxUD^ḪI.A-*ma-aš-ši* UR.MAḪ-*aš i-e-er* "his statue they made of tin, its head of iron, its eyes of an eagle, but its teeth of a lion". For Wackernagel clitics and possessive relationships see Garrett 1990.

[490] May be paralleled by NA₄-*ta ú-e-da-an* ibid. l. 37. Archi 1979: 47, NA₄-*ta* "in pietro"; *ku-un-na-ni-ta-at* "in rame" ("copper").

[491] Archi 1979: 47 "e rivestita di ferro". HWb² Bd. Ḫ 12, 144, s.v. *haneš(š)-*, "mit Eisen ist er bedecket" [I.Hoffmann]. But see HWb² Bd. I A, 366, s.v. *arzila/i-* "mit Eisen ist er gesalbt". Most probably this is a metaphorical usage, suggesting a quality that is imbued in the construction. See the "plastering" of "years" and of "terror" in KUB 29.1 and dupll.

the formulary of the Land-Donations, in which the form (*ṭup-pa-am*) *an-ni-a-am* is preserved from the Old/Early Middle Kingdom[492].

The contracted form *annû* is otherwise regular in Akkadian language texts[493] and Akkadian passages in Hittite texts[494]. Note that the Aleppo treaty (Akk.), which explicitly states that the tablet was written in Ḫattusa, also writes *ṭup-pa an-na-a* (KBo 1.6 rev. 17)[495]. Akkadographic practice in Hittite texts is thus again different to that of Akkadian texts.

In the lexical text KUB 3.99 + KBo 1.50 obv. ii 19 we also find Sum. NE.RI.RI = Akk. *an-nu*[-*u*] = Hitt. *ka-a-aš*.

Irregular placing of the demonstrative, reflecting Hittite usage, is found in the Hittite Duppi-Teššub treaty at KUB 5.9 rev. iv 19: *A-NA AN-NI-I RI-IK-SI*[496].

ANŠE.KUR.RA

For combinations with ÉRIN[MEŠ], see below. For discussion of the underlying word as a u-stem see Weitenberg §81-3. For the HLuw. word *á-sù-wa/i-* see Hawkins 2000: 35f.[497] Various attempts have been made to see a phonetic writing of the CLuw. word. Weitenberg and Starke see a CLuw.**aššu-*, while Melchert identifies it with the hapax *az-zu-wa-an-za=wa* at KBo 13.260 obv. ii 24. The latter occurs in an extremely unclear context and does not have to mean "horse" at all.

The Sumerogram does not frequently occur on its own. (See Beal 1992: 190-198 for discussion of Hittite cavalry). It is not always clear whether horses themselves are

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[492] IK 174-66 rev. 22; SBo I Text 2, rev. 8; ibid. Text 11 rev. 7; 38/l rev. 8; 518/z rev. 7 (Both MDOG 103); KUB 48.103 rev. 5.

[493] But see *an-ni-ú* at KBo 1.20 obv. 13 (MA; Mora/Giorgieri 2004: 76-84).

[494] From Hittite texts: KUB 33.52 rev. iii 10 (in Akk. col.).

[495] This should be relativised. KBo 1.6 shows a number of Syrian features and may have been written by a foreign scribe or at least copied from a foreign original. A number of copies of the text exist, which puts into question the veracity of our understanding of "this tablet", which is presumably being used in the sense of "text" or "document" in this case.

[496] The tablet is palaeographically NSa, with a number of MS features (AR, TAR). The writing SI here, may indicate Syrian influence, as is clearly the case with the script of the Akkadian version, which would have to be classified as NSc with Syrian influence (ŠA, LI in obv. 4). This latter tablet may even have been an import.

[497] For the debate whether to transliterate HH 448, which occurs regularly in HLuw. "horns" *surni*, "dog" *suwanni-* and "horse", as *sù* or as *zú* see Melchert 1987: 202; Hawkins 2000: 35f. Both approaches have currently unsurmounted problems. [DEUS]*á-la-sù-wa/i-sa*, if it is to be equated with Hitt. [D]*Allanzu* (ÇIFTLIK §10; KULULU 5 §1) cannot support a reading *sù*, and conversely the writing "CORNU+*RA/I*"(-)*su-ra/i-* translating Phoenician *šbʾ* "plenty" (KARATEPE 35, 191, Hu. only) and the presumably acrographic use of CORNU for *sú* do not support reading *zú*. For a rule **ḱ* > s/ _ u (Hawkins loc. cit.) see also possibly Hitt. [NA4]*aku-* "stone" = HLuw. [SCALPRUM]*asu-*.

meant, or horses and riders/chariots when ANŠE.KUR.RA alone are mentioned[498]. The latter would be something similar to the English collective "horse" in military usage[499]. F. Starke sees the use of the word "horse", Sumerographically ANŠE.KUR.RA^MEŠ, as essentially meaning "Gespann", as a "pars pro toto" for "Streitwagen", thus rejecting Beal's interpretation of the expressions ANŠE.KUR.RA^(MEŠ)-*it pennai-* and *A-NA* ANŠE.KUR.RA^(MEŠ) *tiya-* as possible expressions for "riding"[500]. The phrase for a team of horses yoked to a chariot is from the earliest period Ṣ[*IMDI* (ANŠE.KUR.RA^ḪI.A)], but it is certainly clear that the verb *tiya-* (in the causative *tittanu-*) is used of standing on or making people stand on chariots[501]. Thus we should understand the lines at HKM 65 obv. 9: *A-NA* ANŠE.KUR.RA^ḪI.A *ti-it-ta-nu-ut-te-en* (10) ÉRIN^MEŠ-*ia-aš-ma-aš sar-di-ia ti-ia-ad-du* "make (them) stand in horse (-chariot)s, and the troops will stand to aid them"[502]. While this may be the case, it does not mean with Starke (loc. cit.) that ÉRIN^MEŠ ANŠE.KUR.RA^MEŠ/ḪI.A can necessarily be used in the argument as this is a completely different syntagm. The cases of "horse" for "chariot-team" from the Madduwatta-Indictment and the Sunassura Treaty quoted by Starke for the dating of the introduction of this metonymy are thus irrelevant, as they are all examples of ÉRIN^MEŠ ANŠE.KUR.RA^ḪI.A.

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[498] Almost certainly horses and other troops in ANŠE.KUR.RA-*uš* at KBo 3.34 obv. ii 36. Not so clear are the Maşat letters, where S. Alp (HBM 421) generally interprets the Sumerographic plural ANŠE.KUR.RA^ḪI.A/MEŠ as "Wagenkämpfer", while the singular is supposed to be "Pferd". This division is not consistently followed in the translations, but only once does he translate "Pferde/Wagenkämpfer" (HKM 30 obv. 7, 9). While "horse" is in fact a possible translation in most cases of the plural, it appears necessary at least in HKM 39 u.Rd. 9, where, the talk is of amounts of barley for the horses, and is thus translated by Alp. I would extend this to cases where the ANŠE.KUR.RA^ḪI.A are mentioned alongside the ^GIŠGIGIR (HBM 27 rev. 13, contra Alp, with Beal 1992: 33f., 145). See also Beals's example of ANŠE.KUR.RA^MEŠ GN GUL-*aḫ-zi* "the horse(-troop) will attack GN" from an oracle-inquiry (KUB 22.25 + KUB 50.55 obv. 47-40).
[499] It is, however, safest to simply translate "horse(s)", unless specifically indicated otherwise. If the sender of a letter sends the recipient "horses", these will presumably have been accompanied by riders or herders of some kind. Frequently a distinction is made between the "horses" and the "troops", for which see below under ÉRIN^MEŠ ANŠE.KUR.RA^ḪI.A/MEŠ.
[500] Starke 1995: 120 fn. 244.
[501] KUB 14.3 obv. ii 60: DUMU-*an-na-aš-mu* ^LÚKAR-TAP-PU *A-NA* ^GIŠGIGIR (61) GAM-*an ti-iš-ki-iz-zi* "during my childhood he used to stand on my chariot as charioteer" vs. ibid. obv. i 9 *i-it-wa-ra-an-za-an-k[á]n A-NA* ^GIŠGIGIR GAM-*an ti-it-ta-nu-ut* "go and make him stand with you on the chariot", translating the phraseological construction with the English mild imperative "go and + VERB".
[502] Contra HBM 243: "dann setzt sie auf Pferde". The translation using "put" requires a derivation of *tittanu-* from Hitt. *dai-* "to put" (for which see Melchert 1994: 19). The clear parallelism between "standing" in a chariot and making someone else "stand" (above) further supports the morphological parallel with Luwian *ta-* "stand", *tanu-* "to make stand". See Morpurgo-Davies 1987. For "putting" someone on a horse we might expect the use of Hitt. *asesanu-*. Similarly I would interpret *A-NA* ANŠE.KUR.RA *ti-ia-az-zi* and *IŠ-TU* ANŠE.KUR.RA *kat-ta ti-ia-zi* at KUB 7.25 i 4-9 as cases of mounting and dismounting a chariot (contra Beal 1992: 191).

Beyond metonymic (pars pro toto) usage we should also recognise cases where "horse" stands for "man (associated with the horse)"[503] in the same way as LÚ*ḫartaggas* means "bear-(man)". The reason for the lack of professional determinative LÚ(.MEŠ) in the case of these "horse(-soldiers)" is obscure.

Most commonly, when referring to a plurality of "horse", the noun is syntactically construed in the (collective) sg., although there are exceptions (HKM 66 obv. 13f.). The precise distinction between the "matter of (the) horse" (*ŠA* ANŠE.KUR.RA *ku-it ut-tar* HKM 30 obv. 7), and the "any horse" (ANŠE.KUR.RA[MEŠ] *ku-iš-ki* ibid. 8) is not easy to pin down. There may have been none at all in Hittite, but the scribe perhaps imagined one in Sumerian. Interesting is the omission of a Sumerian plural determinative at KBo 3.34 obv. ii 27, where concrete reference is presumably to a plurality of horses:(27) *da-i-iš-ša-an* ANŠE.KUR.RA-*aš ku-i-da* [LÚ.MEŠ]IŠ (erasure) // (28) *a-am-mi-ia-an-tu-uš-mu-uš nu-uš* [I]*iš-pu-ta-aš-i-na-ar-aš ma-ni-ia-aḫ-ḫe-eš-ki-iz-zi*: "because/inasfaras he put (assigned?) their immature [LÚ.MEŠ]IŠ on (to?) horses, Isputas-Inara kept on (hist. pres.) instructing them"[504].

The distribution of the determinatives MEŠ and ḪI.A at Maşat and in the MH documents clearly favours the latter, while documents after Suppiluliuma I appear to favour MEŠ[505].

LÚ(.MEŠ)APIN.LAL *Mestieri* 13-15

The translation "ploughmen" is clearly to be preferred to the insipid "contadini" (*Mestieri*) or "Bauern" (Hoffmann 1984: 31, 109). At IBoT I 29 obv. 37 the LÚ.MEŠAPIN.LAL handle yokes ([GIŠ]ŠUDUN[ḪI.A]) in a ritual context. At KBo 3.1 ii 27-30 conspirators against Telipinu have their weapons taken from them, are given yokes and turned into "simple ploughmen". They are also mentioned alongside other examples of particular tradesmen, all of who are subsumed under the title EN *QA-TI*, at KBo 5.4 i

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[503] Götze 1925: 76.

[504] The translation is after Pecchioli-Daddi 1975: 120f. Beal 1992: 536 has "(They are always calling at night), because he places/placed their young chariot-fighters for?/on? horses. He teaches them (about the arrow, the sharpening wheel (?) and the holding of the weapon)". Dardano 1997: 53, 105 "sui carri", with reference to Starke 1995: 119f. fn. 244. Unfortunately the nature of the instruction detailed in the following text is unclear (For interpretation see Beal 1992: 529-556). If this refers to chariot training, it provides a counter example to *A-NA* ANŠE.KUR.RA[ḪI.A] *tittanutten* above by having *dai-* "put" with ANŠE.KUR.RA as "chariot". See Houwink ten Cate 1984: 60 (with comparison to Gk. *eph' híppōn baínein*), 77 fn. 29. The phonetic complement may have conditioned the omission of the plural determinative, but see also footnote 501 for a case without either phonetic complementation or Sumerographic determination where the meaning is probably chariot.

[505] The only OS attestation of the Sumerographic plural in the Laws is at KUB 29.16 iii 3 ANŠE.KUR.RA[ḪI.A], but the later versions also all write this here (Hoffner 1997: 70).

39: ^{LÚ}UŠ.BAR, ^{LÚ}NAGAR, ^{LÚ}AŠGAB (see also KUB 19.54 i 4-7). They are mentioned among the staff of the stone-house beside the ^{LÚ.MEŠ}SIPA.GUD and ^{LÚ.MEŠ}SIPA.UDU at KUB 13.8 obv. 2ff.:

nu A-NA É.NA$_4$-*ni ku-i-e-eš* URU^{ḪI.A} *pí-ia-an-te-eš* ^{LÚ.MEŠ}*BE-EL QA-TI ku-i-e-eš pí-an-te-eš* (3) ^{LÚ.MEŠ}APIN.LAL ^{LÚ.MEŠ}SIPA.GUD ^{LÚ.MEŠ}SIPA.UDU *ku-i-e-eš pí-ia-an-te-eš*

"and the villages which (have been) given, the workmen who (have been) given to the house of stone, the ploughmen, ox-herds and shepherds who (have been given)".
The writing of LAL as ME is common not only in this logogram but also in GUD.APIN.LAL.

^{A.ŠÀ}A.GÀR

The arguments for reading this as determinative + noun rather than as two coordinate concepts, are marshalled at Hoffner 1997: 190f.: in particular the writing of the possessive suffixed form as ^{A.ŠÀ}A.GAR-*ŠU* rather than *A.ŠÀ-*ŠU* A.GÀR-*ŠU* is highlighted (see also ^{A.ŠÀ}A.GÀR^{ḪI.A}). This follows the Sumerian usage, according to M. Civil apud Hoffner loc. cit., but it is not apparent from Pettinato 1967/I: 62ff.; PSD A/1, 170f. Hoffner translates "idle (?) land" and sees a semantic parallel between OS KBo 6.2 obv. ii 41 ^{A.ŠÀ}*ku-le-e-i* and the late parallel (but not duplicate) text KBo 6.4 rev. iv 25f. A.ŠÀ A.GÀR(*-an*), acc. sg.c., leading him to suspect that the latter may be the logographic writing of the former (or a synonym). The common gender in the NS text as opposed to the collective formation in the OS version was very tentatively explained by Hoffner by assuming a common gender a-stem **kula-* for Old Hittite, which could form a collective in *-ei*, but this is now better explained by E. Rieken as a neut. stem in -ē < *-*ei*, recharacterised by *-i* and similar to *utnē* "land"[506].
^{A.ŠÀ}A.GÀR is mentioned in lists of property to be ruined in the case of breach of oath between the ^{GIŠ}KIRI$_6$ and the GUD^{ḪI.A} UDU^{ḪI.A} (see CTH 106 s.v. SAG.DU-*KA*) Further probable examples of A.ŠÀ as a determinative are ^{A.ŠÀ}*kuera-* and ^{A.ŠÀ}*terippi-*, the latter of which also forms a verb which is similarly determined: ^{A.ŠÀ}*terippiya-*[507]. Both are attested from Late MS on.

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[506] Rieken 2004: 534.
[507] For further occurrences and discussion of ^{A.ŠÀ}*terippi-* see Tischler HEG III/10 T,D/3: 333f. The equation of ^{A.ŠÀ}*kuera-* with ^{A,ŠÀ}A.GÀR at Puhvel HED 4, K: 216 is not sound. Already Hrozny (Heth. KB 212-3; apud Puhvel loc. cit 217) had suggested that these uses were rather like determinatives than

As a logogram A.ŠÀ[superscript](ḪI.A) is frequently associated with Hitt. *kuera-*[508], although the determinative relationship above should discourage from this equation: a *kuera-* should be a type of A.ŠÀ, rather than the equivalent of A.ŠÀ itself. Nevertheless A.ŠÀ is attested both covering nouns with common gender and neuter. Hoffner (1997: 311 with fn. 3) sees a preponderance of common gender agreement in Old Script mss., although the OS ms. A consistently uses the common and OS ms. aa the neuter. The distribution among the NS tablets is even, but mutually exclusive, apart from in ms. b which has both neuter and common gender[509]. When phonetically complemented, A.ŠÀ appears to be either an a-stem (com.), an n-stem (or possibly a stem in -na-), or a u-stem (com.), although the latter only appears in one late ms., albeit twice[510]. There may thus be as many as three nouns behind A.ŠÀ.

BÀD.KARAŠ

For a full discussion see Beal 1992: 22 fn. 62. The uses range from military encampment (for spending the winter KBo 3.4 ii 46-48), a fort or walled encampment (KBo 14.16 i? 4-6) and the inhabitants or soldiers within such an encampment ("no-one could resist the BÀD.KARAŠ of my father" KBo 5.6 i 28-9). These appear not just to have been temporary installations, but some may have been permanently manned, or at least been more permanent structures (e.g. KUB 19.37 ii 24-26, the BÀD.KARAŠ of the king's father as a landmark). In fact BÀD.KARAŠ displays almost the same range of meaning as KARAŠ itself.

Recently a number of square, low-lying, flat mounds have been suggested to have been BÀD.KARAŠ installations[511]. This does not sit well with the use of *waḫnu-*, "to make go round, turn" as the verb denoting the act of constructing a BÀD.KARAŠ, but perhaps this point is pedantic. Certainly the textual evidence for the situation of the

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independent words. For a verbal noun determined by A.ŠÀ see [superscript]A.ŠÀ*ḫarsauwar* "field-tilling" apud Puhvel loc. cit.

[508] Tischler 2001: 81.

[509] It is unclear why the cadaster text KUB 8.75+ (CTH 239.1) should be felt to be "archaic" because of its common gender of A.ŠÀ, as per Hoffner loc. cit. fn. 3. Clearly Hoffner feels that the common gender is the older, but this is not transparent from the information he gives us. This obscurity is further compounded by his useful summaries of the mss. distribution of the common and neuter genders of the underlying word in fnn. 173 and 182. If anything, the distribution is even.

[510] KBo 6.4 iv 22, 23: A.ŠÀ[superscript]ḪI.A*-uš ḫu-u-ma-an-za*, but see ibid. 21: A.ŠÀ[superscript]ḪI.A*-an*.

[511] J. Tubb, lecture in the British Museum, 15.3.07, suggests two flat, square mounds near Tell Nebi-Mend (Qadeš) may have been military outposts advancing into Egyptian territory on a North-South axis from Tell et-Tin towards Tell Nebi-Mend. The most Northerly (Tell of Noah's Ark) is still visible, but the more Southerly, just behind Tell Nebi-Mend, has been ploughed into the ground and is only visible from an aerial photograph. Tubb suggests this more Southerly one may have been where the Hittite army waited to cut off Ramses II at the famous battle.

BÀD.KARAŠ at borders is quite suggestive in view of the location of these unusual structures in border areas.

The syntagm is consistently neuter, presumably taking its gender from KARAŠ. The word order may reflect the Hittite, with BÀD being a participial formation or possibly the genitive of an abstract noun[512]. It is always possible, however, that the BÀD was simply not represented in Hittite. Possibly there is a connection with name formations of the type Dūr-PN, known from the OAkk. period on (CAD D 196).

URU$^{(DIDLI.ḪI.A)}$ BÀD on the other hand, as a probable case of Sumerographic head-noun + genitive, "town(s) of a wall", has been suggested to represent Hitt. *saḫḫesnas ḫappira-*, "town of fortress/encircling wall?" (HWb^2 Bd. III Ḫ 14, 235f.). Problematic here is the fact that derivatives of *saḫesnai-*, "to fortify (?)" using the logogram BÀD always write phonetic complements. If Hitt. BÀD-*essar* "fortress" is in fact to be identified with the OS phonetic writing *ša-ḫé-eš-šar* (KUB 36.110 rev. 8, KBo 13.52 rev. iv 15), the same problem would have to be surmounted[513]. This word never occurs without phonetic complements.

KUB 14.15 rev. iv 35 ^{URU}GNN *wetenun na-aš* BÀD-*eš-na-nu-un* (CHD Š 1, 10 with dupll.) "I built and fortified the towns GNN", when compared to KBo 5.8 obv. ii 16 (with dupll.) URU$^{DIDLI.ḪI.A}$ BÀD *wedantes esir*, "the fortified towns were built", may suggest a parallel structure. If the one sentence is in fact a transformational variant of the other, BÀD in KBo 5.8 obv. ii 16 would be likely to be a participle, although one might in this case expect a connective joining the statement that the towns were fortified with the one that they were *wedantes*.

In KBo 2.5 rev. iii 29, *nu* ^{URU}*la-ak-ku-uš* URU-*aš* BÀD-*an-za e-eš-ta*, the phonetic complentation ensures that the word-order is Hittite, although this itself is ultimately dependent on the predicative position of the adjective: "Lakku the city was (a) fortified (one)". This explanation also comes up against the same problem as that found in HWb^2, in that if URU-*aš* BÀD-*an-za* is indeed parallel to URU BÀD, the lack of phonetic complementation in the latter still needs to be explained. The possibility remains that BÀD-*an-za* is derived from a different verb to BÀD-*esnai-*. This is suggested by the fact that the phonetic complementation of BÀD-*esnai-* always begins with the -*eš*-.

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[512] See however the first millennium place name: BÀD-*ka-ra-šú*; and from the lexical tradition: é.dur$_5$ ka.raš.raš^{ki} = ŠU = BÀD *ka-ra-šú* Hg B V iv 20 (CAD K 211 karašu 1b).

[513] CHD s.v. *šaḫeššar* hesitates to equate the two definitively.

BE "if"

BE-*an-aš* for *mān=aš* stands out not only because of its unusual logographic writing, but also because of its broken syllabification, standing as it does in the middle of a series of conditional *mān=aš*, written *ma-a-na-aš*, describing a number of juxtaposed alternatives[514]. One explanation for this somewhat abrupt switch in writing style could be that the scribe underestimated the space remaining to him at the end of the line. Collation of the tablet shows that there would just have been room for another *ma-a-na-aš* of the same size as the one previously in the line, and the scribe is not shy of writing on the edge. Possibly he wanted to include the next nominal element, but then realised there was not enough room. Otherwise, he may have been showing off his erudition. BE(-*ma*) is only attested as a writing for Akk. *šumma* on Neo-Assyrian and Standard Babylonian tablets of the first millennium (CAD Š/iii, 275, 278)[515]. The writing BE-*ma* has led scholars to transliterate *šum₄-ma*[516]. The Hittite example shows that in Ḫattusa at least this was considered to be a logogram and not a phonetic writing.

This attestation is found in the treaty of Tudhaliya IV with an unknown king after the battle of Niḫriya, where Hittite forces were roundly defeated by the Assyrians. The text contains a number of other "modernisms" which may be due to Assyrian influence. Given the inclination of BE(-*ma*) towards Assyrian contexts in the first millennium, it may be that BE-*an-aš* is due to influence from an as yet undiscovered Middle Assyrian writing tradition. This is, however, not a convincing argument.

Otherwise within Hittite, BE-*an-aš* is only attested in omen texts. Given the tendency of KBo 4.14 to use not only the NSc sign repertoire, but also a number of uncomplemented logograms, both of which phenomena certainly begin to appear in omen texts at least from the reign of Hattusili III, it may also be the case that the scribe was directly influenced by techniques developed within that tradition. This does not have to exclude Assyrian influence.

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[514] This writing is not included in the CHD article on *mān*. Recognised at HWb 267, HEG L-M 116.

[515] According to AHw 1272a, BAD can be a logogram for Akk. *šumma*, while BAD-*ma* is read *šum₄-ma*, although this value is not attested in other words. AHw. considers the former to be an abbreviation (loc. cit.: z[um] T[eil] Abk[ürzung]) ASy⁴ 42 dates *šum₄-ma* to the Neo-Assyrian period, including within this dating the forms found on Standard Babylonian dialect tablets from Nineveh and Aššur. For *šumma* in the sense of "whether ... or" with this writing see AHw1273a (C), again from late SB sources. I have not found the writing in any of the rccent publications of Middle Assyrian tablet collections: Radner 2004 Text 1, 17; 2, 24 et passim write *šúm-ma*.

[516] ASy⁴ 42, MZL 113, AHw. loc. cit.

Akk. *BĒLU*, Sum. EN

The writing *BE-LI-IA* is preserved in a late copy of the Anitta text (KUB 26.71, 6) but otherwise *BE-LÍ-IA*, the usual Babylonian writing, is written at all periods[517].

The mss. tradition of the Hittite Laws attests Akk. *bēlu* in the OS tablet A and usually in the NS tablet which preserves archaic features, ms. B. The "late NH copies", so Hoffner 1997: 254, almost always use EN[518]. Similarly with the Maşat letters, writings using *bēlu* far outnumber those using EN. In fact, EN at Maşat is almost entirely restricted to the phrase ᴸᵁᴴEN *madgalti*, which is never used in the same tablet as ᴸᵁ*bēl madgalti*. It is possible, however, that one and the same Maşat scribe used both EN and *bēlu*; the one case of a possible reading E[N-*IA*] occurs on a tablet written by the scribe Tarḫunmiya, who otherwise always writes *BE-LÍ-IA*, as well as writing ᴸᵁ*BE-EL MA-AD-<KAL>-TI*. If this is the correct reading, lack of space remaining on the line would have to be the explanation for not using *BE-LÍ-IA*[519].

bēlu(*m*) also presents one of the rare examples of an Akkadogram with a Hittite phonetic complement: ᴸᵁ*BE-LUM-aš* in either the nominative or genitive at KBo 17.30 rev. iii 11, and nom. sg. ᴸᵁ*BE-LÍ-ša* (either *isḫas=a* or *isḫas=mis=a*) at KBo 25.121 obv. i 10[520], both on OS tablets.

The Maşat letters also demonstrate that for some at least, the Akkadogram *BE-LU* was to be pronounced phonetically in Akkadian, and not with the Hittite *isha-*. The writing *BE-LU-uš-ša-an* (voc. sg.) can hardly be interpreted otherwise[521]. The two letters in which this form occurs (HKM 52 and HKM 80) are both from the hand of Hattusili, the very high-ranking scribe from Ḫattusa, who writes to the important official Ḫimuili at Tappikka from a more or less even social stand-point. The apparently pleonastic *BE-LU BE-LÍ-IA* used by Hattusili at HKM 52 rev. 25, 29 is also idiosyncratic, and

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[517] e.g. Laws §168 ms. aa+aa₄ iii 2+9 (OS) *BE-LÍ* A.ŠÀ "the owner of the field", nom. sg., with a construct state as if it were final weak; Hoffner 1997: 134. The writing with LI in Anitta may owe something to either Old Assyrian, in the special case of this text, or Syrian influences, witness for example the writings at Mari.

[518] There is otherwise only one possible example of an OS EN and that is very doubtful. See Neu 1983: 234 fn. 17. Yoshida 1987: 48 fn. 2 "kaum verwendet".

[519] This is clearly also the case in KUB 23.11 rev. iii 5 ᴸᵁᴹᴱŠ *iš-me-ri-ia-aš* ENᴹᴱŠ-*uš* compared to ibd. ii 35 [LÚᴹᴱŠ *i*]*š-me-ri-ia-aš BE-LU*ᴴᴵ·ᴬ-*uš*. This is a LNS copy of a Middle Hittite text. On *BE-LU*ᴴᴵ·ᴬ see below.

[520] Neu 1980: 149, 295. See also ᴸᵁ·ᴹᴱŠ*MU-RI-DI-ša* (nom. pl. +-*a*) KBo 25.31 rev. iii 10 (OS); KBo 20.27 rev.⁷ 7 (OS) - Neu 1983: 298; ᴸᵁ·ᴹᴱŠ*ME-ŠE-DI-an* (gen. pl.) KBo 17.11+ obv. i 2, 3 (OS) - Neu 1983: 297.

[521] CHD P 276 s.v. *per* 1 a 3' is more cautious on this issue.

demonstrates that one should at least exercise caution before translating *bēlu, bēli* without S1 possessive enclitic pronoun, as "(my) lord". The conclusion from this might be that Akk. *bēlu*, when used without possessive pronoun, is a simple statement of social rank, whereas *bēliya* is used as a term of deference and address[522]. Hattusili is presumably playing with the distinction.

Other cases are less transparent. The use of *BE-LÍ* in the dative or genitive (from the point of view of the Hittite syntax) without any Akkadographic preposition at HKM 36 rev. 40 may indicate that this was understood by the writer as if it were a Hittite word with a dat.-loc. ending, and thus probably spoken out loud. There is no other evidence for a loan from Akkadian into Hittite with this approximate phonetic shape. It is also exceptional among all the historical texts, and could easily be a mistake: *<A-NA>*.

It is possible that the voc. sg. *BE-LÍ* represents good OB *bēlī*, "my lord", preserved in the address form, but given the frequency of wrong usage involving *BE-LÍ*, even in OS, it is unwise to assume this to be the case. By the late MH period at the latest however, the MB form *bēlīya* in the vocative is just as frequent. This is also used for the nom. and gen. sg. OB *bēl-ni* ("our lord", nom. and acc. sg.) is never encountered, instead the oblique plural has been generalised through to the singular. With the S/P3 possessive enclitic, however, usage appears to be more regular by Akkadian standards: nom./acc. sg. *bēlšu*, gen. sg. *bēlīšu*

In general, the acc. sg. appears to have been a problem. It is either written *BE-LU*, with apparent diptotic declension, or rarely *BE-LÍ*, which at KBo 14.12 rev. iv 17 at least cannot have been an old Akkadian S1 enclitic pronoun. The only example of the correct *bēla(m)* is at KBo 5.3+ obv. i 14 (*BE-LAM*), the NS version of the Hukkana treaty[523].

The determination of the plural with ḪI.A rather than MEŠ (*BE-LU*[ḪI.A]) is notable in being predominantly attested in texts originating in the reign of Hattusili III, with a few exceptions: a fragment of the DŠ which also employs the late URU, supposed by F. Starke to have been introduced during the reign of Hattusili III, and a copy of the

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[522] See below *bēlu* GAL
[523] See also EN[LAM] at KBo 16.17+ rev. iii 27.

Annals of Mursili II which displays a number of features of LNS[524]. Determination with MEŠ is attested as early as the sample reaches: the Maşat letters (Tudhaliya III). No regular Akkadographic examples of the Akkadian oblique plural *bēlī* are found. MEŠ and ḪI.A thus serve as the only indications of plurality. This may be a reflex of the generalisation of the plural form to the singular oblique construct. Alternatively, the plural forms of the Maşat letters appear to be marked with an Akkadographic *TI*, *TIM*. It is unclear what the origin of this could have been unless analogy with the adjective declension, e.g. *bēlū rabûti*(*m*). In HKM 55 rev. 23 and HKM 63 obv. 17 the Akkadographic t-plurals both occur in datives, from the Hittite perspective, which are not marked by *A-NA*. It is unclear what significance this has.

J. Friedrich declared forms such as *BE-$^{LUTIM/TI}$* to constitute an extension of the function of Sumerographic plural markers MEŠ and ḪI.A to the Akkadian signs *TI* and *TIM*. Economy of explanation requires that we look for a different solution (see Part IVb).

The apparent Sumerographic writing $^{(LÚ.MEŠ)}$BE$^{(TI)}$ as an abbreviation for *bēlu* and *bēlti* is known only otherwise from Neo-Assyrian[525]. Some Hittite attestations are listed at Singer (1996: 51 fn. 176) while commenting on the title BAD (= BE) KUR $^{URU.GIŠ}$PA^{TI} (var. ^{URU}KÙ.BABBAR^{TI}) at KUB 6.45 obv. i 12 (dupl. KUB 6.46 obv. i 12) from the reign of Muwatalli II or after[526]. Given that EN-*IA* is the very next word in both mss., Singer wonders whether this is in fact a different title, not "lord" at all[527]. It could however, be an abbreviation for the Akkadian *bēl*, for which we have indicated some evidence that it was pronounced in Akkadian in Hittite texts.

See also KUB 26.17 ii 12 (MS)[528]: *ŠA* BE^{TUM} *a-aš-šu-u*, from a Middle Hittite context, which has been translated "the goods of his master"[529]. The feminine phonetic complement is obscure here.

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[524] The only NSc sign is the consistent ḪA with one Winkelhaken. For reservations concerning this as a dating criterion among tablets from the latter half of the NH-period, see introduction. Otherwise it also contains the late URU and unbroken DA and ID. Further *BE-LU*$^{ḪI.A}$: KUB 17.16 rev. iv 5 (NSc, ḪA, incantation); KBo 22.8, 1 NS; KUB 23.11 obv. ii 35 (MH/LNS), employing a form of LU particularly known from texts of Hattusili III.

[525] $^{(LÚ)}$BAD (HZL 13) = *bēlu* cf. MZL 113, p. 271.

[526] For discussion of the dating of the tablets of this prayer see Klinger 1996: 37 with further literature. Singer's citation of KBo 16.25 iii 1 is inaccurate, but add BE GAL KBo 16.25 rev. iii 8, 11, [17] (MH/MS). This leaves only KUB 45.47 iv 37 and HKM 81 as certain attestations. See HZL 13; Imparati 1979: 302 fn. 37.

[527] Also HZL 13, with R. Borger's suggestion that it here stands for *nagbu* in the sense of "source" which is unlikely. Where we have a Hittite equivalent for *nagbu* in a bilingual, it appears to correspond to Hitt. *panku-*: KUB 1.16 obv. 1.

[528] *išḫa-* is otherwise written syllabically in the text, which also writes *ma-a-aḫ-ḫa-an* (i 12).

[529] Prins 1997: 44.

The Maşat attestations are a little confusing. As suggested by Alp, they would appear to be a form of address directed at a woman otherwise addressed as "sister"[530]. Each of these may be an honorific title.

The use of ^{D}BAD for ba'al is attested in 3rd millennium Ebla as a theophoric element in names[531].

It is noticeable that the abstract formation (*ishiznatar)[532] is more often formed using the Sumerian EN than Akkadian bēlu. For cases where the phonetic complement is Hittite this is to be expected, but it is also the case when the phonetic complement is Akkadian, as well as occurring in Akkadian language texts (KBo 1.8 obv. 38). The Hittite complemented forms are restricted in historical texts to the earlier period covered by NS (Mursili/Muwatalli) as are the fully Akkadographic writings. EN-UT-(TI) as a combined Sumero- and Akkadographic writing starts to be used in historical texts originating with Hattusili III[533].

It is difficult to know how to interpret such blatant mistakes as AŠ-ŠUM EN-UT-TA at KUB 23.1 obv. i 22, whether they are an indication that the Akkadographic segment of EN-UT-TA had no function other than to indicate the abstract, or whether the Akkadian learned by individual scribes had ceased to distinguish between final vowels by this period.

BIBRÛ

BI-IB-RU, (Akk. bibrû) "rhyton", is used particularly of animal-shaped drinking/libation vessels.

KUB 27.13 i 13f. has 1 NINDA.SIG 1 a-aš-šu-zé-ri KAŠ in a list of kaluti offerings for Ḫebat. For their respective circles of gods the list (ibid. i 4, 12; 14ff. 24ff.; 27) 1 NINDA.SIG 1 ZA.ḪUM KAŠ. The parallel text KBo 14.142 i 2, 5, 22 has 1 NINDA.SIG 1 BI-IB-RU KAŠ. From this the equation Hitt. assuzeri-(n.) = Sum. ZA.ḪUM = Akk. BI-IB-RU has been derived[534]. The equation is rejected by HWb² on

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[530] See HKM 60 rev. 29; HBM 343.

[531] Schwemer 2001: 502 with fn. 4106.

[532] Puhvel 1984: 388.

[533] For non-historical texts, however, see Muwatalli's Prayer KUB 6.45 obv. i 19 (and dupl.).

[534] HWb² A 541. The apparent parallelism of the phrases DN a-aš-šu-zé-ri-it eku-, and IŠ-TU BI-IB-RI e-ku- is also used to support this equation. The word in question is written with a space a-aš-šu zé-e-ri at KUB 1.17 i 4f.

the basis of problems raised by Güterbock with this equation but also dealt with by him him in the same note[535]. The further equation:

 1 *hal-wa-ni-iš* KÙ.BABBAR *ME-E* (KUB 20.35 iii 22) = 1 ZA.ḪUM KÙ.BABBAR *IŠ-TU ME-E* (KBo 7.44 rev. 8f.) is similarly dismissed by HWb[2] as "Schreiberlapsus?"[536].

Finally the trilingual Sumerian-Akkadian-Hittite text from Ugarit, imported from Boğazköy, (Ug. 5. 169 obv. 19f.) offers us the equation Akk. *bi-ib-ru ḫu-uš-šu-u* = Hitt. *ha-li-wa-ni-iš-ma-aš* S[IG₅-*iš*?]. This is rejected by HWb[2] (loc. cit. 3b), on the grounds that the Hittite translator must have misunderstood the Sumerian, which is missing, but can be partially reconstructed from Mesopotamian parallels. If so, the misunderstanding must have begun in the Akkadian column, because, as implied by HWb[2], phonetic *bi-ib-ru-u* can only have the meaning "rhyton". The equivalence Akk. *bi-ib-ru-u* = Hitt. *ḫa-li-wa-ni-iš* stands.

Güterbock (loc. cit.) explains the rather unwieldy resulting equation *BIBRU = assuzeri = ZA.ḪUM = halwani- = bibrû* "as substitution of synonyms". A similar phenomenon may be found with other container names, especially when dealing with heterograms from foreign languages. See [DUG]ḪAB.ḪAB and discussion there (Part III).

BIBRU has not been found with an accusative sg. **BIBRA*, in fact *BIBRU* is the acc. sg. at KUB 21.17 rev. iii 11. See also the forms collected at Hazenbos 2003: 324f.

BIRTU

BIRTU "fort" (AHw. 129) is given as an Akkadographic equivalence to Hitt. *kutessar* (sic) , *saḫessar*, by Tischler 2001: 274, but not by CHD Š/1, 9, where both *saḫessar* and *kuttessar* (if it exists) are listed as proposed readings for Sumerographic BÀD-*eš-šar*. This begs the question whether *BIRTU* could be said to be the Akkadographic writing for BÀD-*essar*. Further, the relationship of ḪALṢU "district", "fort" to these terms should be considered.

Houwink ten Cate's distinction between the **kuttessar* as a stone encircling wall and the *saḫessar* as an encircling wall of earth, is rejected by CHD (loc. cit. 11) on the grounds that HLuw. *kutasari-* is not morphologically parallel to an inferred Hitt. **kuttessar* and that neither word is semantically plausible, either contextually in the

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[535] Güterbock 1964: 110, point 3 raises the objections that ḪÚL (bibra) is the (Mesopotamian) Sumerogram of Akk. *bibrû* in lexical lists and that ZA.ḪUM is actually a borrowing from Akkadian *sāḫum*. These he neatly deals with ibid. 111 point 4 by pointing out that these were Hittite scribes and not Mesopotamian ones.
[536] HWb[2] III Ḫ 12 (1994): 89 (3a)

case of HLuw. *kutasari-*, which appears to mean "orthostat" or block for inscriptions, or etymologically in the case of **kuttessar*, where Hitt. *kutt-* never refers to an outer wall. This leaves *saḫessar* as the proposed Hittite equivalent to BÀD-*eš-šar*. With CHD (loc. cit. 9), there is nothing in the contextual attestation of *sahessar* (OS), nor in its etymology[537], to suggest that the notion has anything to do with "encirclement", "enclosure", the former of which may well in any case be expressed by Hittite *hulalessar*, "embracing, entwining". There would thus be no inherent reason why Sumerographic BÀD = "wall" should find any direct correspondent in its possible Hittite equivalent. Any equation between *BIRTU* and BÀD-*essar*, given the absence of variant manuscript readings, has to be inferred from the contexts.

KBo 4.4 rev. iv 14 uses *ŠA BI-IR-TI* as a substantive genitive, "that which belongs to the fort" (HWb "Festungszubehör") referring to the spoils taken by the Hittite army from the town of Aripšā: (13) [*n*]*a-an* ^{URU}*ḫa-at-tu-ši ḫu-u-ma-an-ti-i ša-a-ru-ú-i ma-ni-ia-aḫ-ḫu-un* (14) [*nu*]-*za* ÉRIN^{MEŠ} ANŠE.KUR.RA$^{ḪI.A}$ *ŠA BI-IR-TI IŠ-TU* NAM.RA$^{ḪI.A}$ GUD UDU-*ia* (15) [*me*]-*ik-ki ú-e-mi-ia-at.* "and I assigned it (the town) to all Ḫattusa for plunder (14) and the infantry and horse(-troops) found for itself in large quantities the fort's (spoils) together with deportees, oxen and sheep". This appears to make a distinction between the town, which is open for plunder by all of Ḫattusa, and the fort, which the army has plundered.

Further attestations are collected at Dardano 2006: 250. While not all are clear that they mean "fort" (as opposed to [*ṣīdu u*] *birtu* meaning "riff-raff", see introduction) the omen text KUB 5.1 i 50 appears to make the distinction between the fort with its contents and the town:

(50) ^{URU}*tàš-maḫ-an* ^{URU}*ḫur-na-an-na* RA-*zi* UN^{MEŠ}-*za-aš-za ŠA BI-IR-TI* KAR-*zi*

"(If) he smashes Tasmaḫa and Hurna (and) finds for himself the people of the fort, let it be good"[538].

KBo 50.92a now provides several references to ÉRIN^{MEŠ} *BI-IR-TI* and an official, the GAL ÉRIN^{MEŠ} *BI-IR-TI*, in one case even being the GAL ÉRIN^{MEŠ} *BI-IR-TI* ^{URU}*K[AR-GA-MIŠ(-ŠA)]*[539]. (It is not clear whether these are to be associated with the 8 *ME* NAM.R[A] of l. 7.)

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[537] *saḫ-* meaning "to block up".

[538] See Ünal 1974: 41, 98 for a completely different translation which ignores the parallel with KBo 4.4 rev. iv 14. To be compared with the fragmentary *B*]*I-IR-TI* KAR-*an-zi* in München Frag. 1, 6 (Ünal 1996: 242).

[539] KBo 50.92a, 3, 4, 5; further KBo 50.92b, 4.

For discussion of *BIRTU* as (mis)understood in Erimḫuš, see the introduction here. There is thus no unequivocal evidence in the Boğazköy texts for the meaning "riff-raff" for Akk. *birtu*, which was extrapolated from Akkadian *ṣīdu u birtu*. A further lexical equation gives (Sum.) [ÉRI]N.KA.KÉŠ (Akk.) *BI-IR-DU* (Hitt.) *a-š[a-a]n-du-li-iš* ÉRIN^{MEŠ}*-za*, "the garrison-troop"[540]. Comparison with ÉRIN^{MEŠ} *BI-IR-TI* above may suggest that *BIRTU* is the Akkadogram for *asanduli-*. This does not contradict the translation "garrison" used for *asanduli-*.

ḪALṢU at KUB 14.3 i 37 f., despite a fragmentary and unclear context, does appear to refer to the a whole town and not just a fortified part of one: (37) ^{URU}*at-ri-ia-an* 1^{EN} *ḪAL-ṢU A-NA* ^{URU}[. . . . . .] (38) [ḫ]*a-an-da-aš da-li-ia-nu-un* "I left Atriya as a single fort with respect to/opposite the town [x]".

Akk. *ḫalṣu*, "fort", "fortification, district", is borrowed into Hurrian as *halzi*, and from this is formed the Hurrian word *ḫalzuḫli*, denoting an overseer of a *ḫalzi*. This is in turn borrowed back into Akkadian as *ḫalṣ/zuḫlu*[541]. Hurrian *hal-zé-e-ni*, *ḫal-zi* are translated by Hittite *te-li-pu-ri-ia* in the MS Hurro-Hittite bilingual KBo 32.14 obv. i 33-35. Hurrian *hal-zu-u-uḫ-la* (essive case) on the other hand is translated by Hitt. *a-ú-ri-aš iš-ḫa-a-an* in the same lines, which is itself taken to correspond to Akkadographic ^{LÚ}*BE-EL MAD-GAL-TI*. From this we may learn that Hitt. *telipuri-* may correspond to Hurrian *ḫalzi* and possibly that an *aurias isha-* may exert authority over a district called a *telipuri-* in the same way that a Hurrian *halzuḫli* might over a *ḫalzi*. It is not immediately clear from this, however tempting it may be, that Akkadian *halṣu* is equivalent to the meaning of the loan-word in Hurrian or that an Akkadographic *ḪALṢU* in Hittite texts can also have the same meaning.

However, the use of *ḪALṢU* in HT 2 and its duplicate KBo 2.31, the list of female singers from different towns and districts around Ḫattusa, does indicate that it designates a larger area to which any number of URU can belong[542]. This appears to parallel the position of the *telipuri-* between the KUR and the URU in a list of possible types of enemy in a MS military instruction text, KUB 21.47+23.82 rev. 22: *ma-a-na-at* KUR-*e ku-it-ki* (21) *ma-a-na-at te-li-pu-ri-i ku-it-ki ma-a-na-aš* URU-*aš k[u]-i-ša-aš*... "whether it be some country, or some district or some town...".

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[540] KBo 26.20 rev. iii 18 (also Erimḫuš).
[541] Neu 1996: 132ff.
[542] See Rutherford 2004; also KUB 26.43 obv. 44: "^{URU}*Zuinnassa* in the *ḪALṢI* of ^{URU}*Sananta*";

It is possible that this passage can be used to restore a broken part of the treaty with Kupanta-^DLAMMA, if the remaining text of KUB 4.3 rev. iv 5f. is to be understood similarly, in this case listing entities that may become inimical to Kupanta-^DLAMMA: *nu tu-uk ma-a-an* (6) [^LÚ.MEŠKÚR-*KA ku-(i)-e-eš/ku-iš-ki na-aš-šu* KUR-*e ku-i*]*t-ki na-aš-ma* ḪAL-ṢÚ *ku-it-ki* (7) [*na-aš-ma* URU-*aš ku-iš-ki ú-wa-an-zi nu ki-i*]*š-ša-an me-ma-an-zi*[543], "if [any enemies come] to you, [be it so]me [land], or some district, [or some town and] they speak [th]us". This would provide us with a good parallel usage for *telipuri-* = ḪALṢU, but too much weight should not be put on it due to the level of restoration.

The possibility cannot be excluded that there were two Hittite words corresponding to the Akkadogram ḪALṢU, one meaning "district" with the sense of Hitt. *telipuri-* and Hurrian *halzi*, and one meaning "fortress" in the original OB sense of the word[544]. While it may appear likely that the meaning "district" in Akkadian developed from the meaning "fortress", as the main fortress of an area might have been responsible for protecting the surroundings, this is not so immediately apparent in Hittite[545].

The hypothesis that there were two separate words is supported by the gender of ḪALṢU in the Apology of Hattusili III: (*am-m*)]*u-uk-ma-wa-kán* [(I^EN ḪAL-ṢÍ *ku-*)]-*in* (70) [(*da-li-ia-at nu-wa-za* Š)]*A* I^EN ḪAL-ṢÍ LUGAL-*u*[(*š*)], translated by H. Otten "ich aber bin König der einen enzigen Feste, die du <mir> belassen hast"[546]. Note the ending preserved in the variant ms. F (KBo 19.67+): ḪAL-ṢÍ-*i*[*n*][547].

The decision as to which word is being used is not always easy. KBo 22.121 and dupl. KUB 41.17 deal with a scape-goat ritual against plague in the army. The location of the plague is either in a town (probably [URU]-*ri* KBo 22.121, 2) or in a ḪAL-ṢÍ (ibid. *na-*

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[543] The reconstruction fits the space on photo b1280, but only just. It is meant only as a possible indication of the sense.

[544] Noticeably, the attestations of Akk. *ḫalṣu* meaning "district" appear to cluster in Mari and Middle Assyrian texts (CAD Ḫ 52; AHw. 314). The phrase *a-lum* GN *ù ha-al-ṣum* "city and district" attested at Mari referring to Terqa (in the letters of Kibri-Dagan, ARM 3) and Mari (in the letters of Baḫdi-Līm, ARM 6) is paralleled by the attestation in Akkadian from Boğazköy at KBo 1.3, 45 of *ina* GN *ù ḫal-ṣí*. A similar phrase also appears in an OB letter from Mesopotamia: TCL 18 (ii).78, 5: *a-lum ḫal-ṣum ù mu-ut-ta-li-ka-*[*tum*] (6) *ša be-li-ia ša-al-ma* "the city, district and servants of my lord are well". The development of the meaning "district" is not thus likely to be a peripheral innovation, although it is difficult to know what exactly the word referred to in this example. Further Mari attestations: *ḫa-la-aṣ qa-aṭ-ṭú-na-an*^ki FM VIII 26, 5-6. *a-lum qa-aṭ-ṭú-na-an*^ki *ù ḫa-alṣú-um* ibid. 14.

[545] An obvious candidate for the Hittite word in this meaning is *auri-*, i.e. the installation ruled by the ^LÚBĒL MADGALTI. The Akkadogram for this is however *MADGALTU* (Von Schuler Dienstanweisungen 41).

[546] Text and translation from Otten 1981: 22-23.

[547] This is very unusual for an Akkadogram, but cannot be ignored.

aš-ma-kán ḪAL-ṢÍ[548]). A ram is "decorated" (*tapananzi*) and bound at the border (of something). Then an incantation is spoken, in which the deity who has caused the plague is asked to go to an enemy country. Then KUB 41.17 ii 11: *nu ta-pa*ʲ(BAR)-*na-an-da-an* UDU *a-pé-e-da-ni A-NA* ḪAL-ṢÍ *me-na-aḫ-ḫa-an-da* (12) *pé-en-ni-ia-an-zi na-an-kán A-NA* ZAG ḪAL-ṢÍ GIŠ-*ru-i* (13) *an-da d[a-li]-ia-an-zi* "and they drive the decorated goat before that ḪALṢI and leave it at a tree on the border of the ḪAL-ṢÍ." While it is certainly legitimate to imagine a "fort" being the location of the ritual given that this is a ritual for the purification of the army[549], the obvious nature of the ritual action involves driving a noxious god out of one's own area and into someone else's. The translation should thus probably be "district" here too[550].

The famous passage concerning the pursuit of Urhi-Teššub to Samuḫa has Hattusili's arrival accompanied by a collapse of the BÀD-*eš-šar ŠA IZ-ZI*, which can hardly be anything other than a wooden palisade. KBo 6.29 obv. ii 31: *nu-uš-ši kat-ta-an* EGIR-*pa ku-e-da-ni me-e-ḫu-ni* (32) *ar-ḫu-un* BÀD-*eš-šar-ma ŠA IZ-ZI* XL *gi-pé-eš-šar* (33) *kat-ta ú-it* "I had just arrived after him (i.e. in his pursuit), and the wooden wall came down over 40 *gipessar*"[551].

This relatively clear example, referring to a wall and not a whole settlement or area thereof, demonstrates that BÀD-*eš-šar* is not directly comparable to either *BIRTU* or *ḪALṢU*.

DÀRA

DÀRA (HZL 71) = *turāḫu* "ibex", DÀRA.MAŠ, = *ayālu*, "stag". Beyond Güterbock's treatment of this logogram (id. 1973: 82f.) here is some further comment on the sign-forms. The very complex later forms were prone to be mis-written. KUB 36.98c 6 writes UBBIN.MAŠ, or something similar, for DÀRA.MAŠ in KUB 26.71, 9 (see Neu 1974: 14, 32). The OS version of Laws §65 (KUB 19.1+ iii 44) also has a complex form, which is drawn at HZL 71/8[552]. Interestingly, the simplest form is that attested in

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[548] For omission of *I-NA* compare ibid. 12: ZAG ḪAL-ṢÍ // KUB 41.17 ii 12 *A-NA* ZAG ḪAL-ṢÍ.
[549] Bawanypeck 2005: 7.
[550] There are, however, no unambiguous clear cases where ḪALṢU means "fort".
[551] The sign read as ḪI by Götze (id. 1925: 50, 110) must be a numeral "40", as expected before the unit of measurement, *gipessar*. Photo N12491 shows that there is no distance between it and the following word, contra copy, and it is also considerably larger than an average ḪI in this very tight, small script.
[552] Photo at Hoffner 1997: Plate 3a.

the OS version of Anitta, KBo 3.22, 62: GAM+ŠU+BI[553]. A comparable but not identical short form of the sign is written at at Ugarit, RS 17.340 rev. 5 (Suppiluliuma I), in the name [ḪUR.SAG] *i-ga-ri*-DÀR. Closest of all, however, are those drawn by O.R. Gurney from Middle Babylonian administrative documents from Dūr-Kurigalzu which consist of TAR+ŠU+BI[554]. The administrative nature of the documents make it likely that this is a cursive form. The OB cursive sign-forms mostly from Nippur catalogued at Mittermayer 2006: 144 (365) are also directly comparable, although mostly retaining the diagonals representing the nose, which are here represented as a BI. However, the OB forms also tend to abbreviate the "head" part of the sign (here GAM+ŠU) into one or two Winkelhaken[555]. The "Anitta" form of DÀR is thus most likely issue of a Late Old Babylonian writing tradition. The more complex forms show similarities to DÀR as it is written in first millennium Babylonian texts. The typical Assyrian forms, by contrast, do not occur at Boğazköy at all.

DINGIR Akk. *ilu*; Hitt. *siu*-[556].

The Hittite readings of this logogram and their etymological relations have been treated so often that a further investigation, despite many points which remain unclear, must remain outside the scope of this work. The orthographic conditions of the use of the logogram in its variously complemented forms have been treated so rarely on the other hand that it has proved hardly possible to do more than formulate a few questions on the basis of the forms collected from the historical texts and those in van Gessel 1998: 970-1032[557].

The frequent writing of the Hittite personal name element *-ili-* with DINGIR*LIM* leaves little doubt as to the fact that this is a rebus writing on the basis of the of the oblique stem of the Akkadian reading: *ili* (without mimation). How this oblique stem in the logographic form DINGIR*LIM* then came to hypostatised in forms shown to be nominative by Hittite phonetic complements, DINGIR*LIM-iš*, is obscure. To begin with,

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[553] HZL draws 71A as GAM+ŠU+DIŠ+BI. This presumably stems from this instance and presumably goes back to Forrer's drawing in fn. 7 to BoTU 30, to which Güterbock draws attention (loc. cit. 83). On collation I did not see a DIŠ.

[554] Gurney 1953: 25, 27; e.g. text 20, 3, 6.

[555] Mittermayer 2005: 61-69 for the development of this sign from Uruk through to the OB period.

[556] For a summary of the declension of the logogram see Laroche 1946-47: 15-18, but the form "DINGIR*LIM-jaš*", which pre-supposes an i-stem genitive, listed ibid. 16 for KUB 19.37 iii 33, 34, does not in fact exist. Van Gessel 2001: 93f. does not include it. Laroche 1968: 61 fn. 12 has DINGIR-*in* at KUB 33.85, 6

[557] I have also consulted the card catalogue at the Akademie der Wissenschaften in Mainz.

it is still unclear what lies behind DINGIR*LIM*-iš. *siuni-, *siwanni- and Luw. *massani-* have all been proposed[558].

We can note that such a bilinguistic phonetic complementation does not occur in cases where the Akkadian nominative or accusative are indicated, DINGIR*LUM* and DINGIR*LAM*, whether these correspond to the nominative or accusative in the context of the Hittite syntax or not. DINGIR*LIM* otherwise, without Hittite phonetic complement, is generally used correctly for the Akkadian genitive case, as well as being used where oblique cases are marked by Hittite phonetic complementation (DINGIR*LIM*-na-aš, DINGIR*LIM*-aš, gen. sg., DINGIR*LIM*-ni, dat. sg.). We can also note that DINGIR*LIM*-iš as the nominative only appears in datable texts composed during or after the reign of Mursili II, although a NS version of the Annals of Tudhaliya I also uses it in the traditional phrase DINGIR*LIM*-iš ki-ša-at (KUB 23.27 obv. 2)[559]. DINGIR*LIM*-in is written twice in a MS (IIc) tablet KUB 36.32+ iii 5, 11, dated by A. Archi to the period between Tudhaliya I/II and Suppiluliuma I on the basis of photo collation[560]. A case of DINGIR*LIM*-ni occurs in KUB 1.16, a text-composition from the end of Hattusili I's reign preserved in a NS copy[561], and in later texts[562]. Genitive DINGIR*LIM*-aš is also post-Mursili II, while DINGIR*LIM*-na-aš is attested from OS[563].

Two cases of "incorrect" usage of the Akkadian phonetic complement *LIM* for the nominative as a logogram in Hittite texts are attested, both from documents originating

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[558] Tischler (HEG S/2: 1079) writes *siunis kis-* as the reading of DINGIR*LIM*-iš kis-, "to become a god", without explanation. Kronasser had proposed *siwanni-, and Tischler (loc. cit. 1084) allows the possibility that it may be Luw. *massani-*.

[559] DINGIR*LIM*-iš is attested in the Death Rituals (KUB 30.16 i 2), which doubtless originated in an older period, but are only transmitted in late copies. DINGIR*LIM*-iš apart from DINGIR*LIM*-iš ki-ša-at: KUB 8.35 i 5 (*kaneszi*);

[560] Archi 2002: 1-10. Irritating here are the several examples of DA and ID with unbroken central horizontal in the hand-copy, but these are doubtless due to the worn surface of the tablet (BoFN 2124-6, 12950). Further DINGIR*LIM*-in KUB 33.106 iii 32, 39 (Ullikummi, NSbii); KBo 9.133 i 8 (NS); KBo 31.79, 7 (MS?);

[561] The "Testament of Hattusili" (CTH 6) is in NSa ductus, thus traditionally nearer the beginning of the NS era than the end. An interesting corollary to the palaeography of this tablet is the appearance of acc.pl. for nom.pl. at least once in the text, in the light of E. Rieken's argument that a) this is a Luwianism from the HLuw. dialect, b) the kind of linguistic interference necessary to bring about such morpho-syntactic changes as the levelling of the distinction between nom. and acc. pl. in a target language can only occur in the context of massive and prolonged exposure to another language, c) such exposure would have been provided by the massive deportations from Western Anatolia in the reign of Mursili II (see Rieken 2006). Of course, one cannot exclude that scribes of particular tablets were themselves from Western Anatolia.

[562] Otherwise 121 entries in Mainz card catalogue (25.06.07). See KUB 42.91 ii 15. For a summary of the declension of the logogram see Laroche 1946-47: 15-18, but the form "DINGIR*LIM*-jaš", which pre-supposes an i-stem genitive, listed ibid. 16 for KUB 19.37 iii 33, 34, does not in fact exist, see van Gessel 2001: 93f.

[563] KBo 20.18+ obv.? i 10 (⪦ TÚG-an), Neu 1980: 139 Nr. 65 (OS/I).

in the reign of Hattusili III, where an (anaphoric) enclitic pronoun is involved: ^{D}*IŠTAR* DINGIR^{LIM}-*aš-mu* (KUB 1.1 rev. 74), "Ištar, she (is) my goddess"[564], DINGIR^{LIM}-*an-mu* (KBo 6.29 obv. i 20), "the deity (allotted) her to me (in a dream)". On the basis of these two attestations alone it would be unwise to derive a rule.

DINGIR^{LIM} is also attested as nom. sg. in an Akkadian text at KBo 1.7 obv. i 10, but this may be due to the influence of foreign writing traditions[565].

Further examples of DINGIR^{LIM} Nom.-Acc.: Bo. 6002, 15 ("nur nach Umschrift"); KUB 22.70 obv. 27 and passim (oracle); Bo. 2948 rev.$^?$ iii 8 (*ki-it-ta-ri-pát*)?; KBo 53.10 obv. ii 13 (MSb); KBo 23.41 rev. 14, 16, 18, 19 (of a statue, Išḫara cult, NSbii), rev. 9 (of the goddess); KUB 5.3 ii 6 (NSb, oracle); KUB 36.55 (MSc, see above); KBo 53.12 (NS); KBo 9.137 ii 20 (MS, libation for the throne of Ḫēbat); KUB 6.4 ii 15; Bo. 3689 r. col. 3 (AN.TAḪ.ŠUM, NS); 516/z (NS, scapegoat rite); KUB 6.45+ iii 57 (prayer); KUB 6.46 iv 27 (// [DINGIR^{LU}]^M dupl.); KBo 53.12, 3; KUB 7.41 ii 43 (acc. dupl. DINGIR^{LUM}); ABoT 14 rev. iv 5 (acc.); KBo 4.6 rev. 14; KUB 9.31 ii 51 (dupl. DINGIR^{LUM}) 56.

It is also attested in the vocative: KUB 22.70 obv. 37; KBo 2.2 i 23 (oracle); KUB 15.24 i 10.

DINGIR^{LUM} is attested 830 times in the nom. and acc[566].

An apparently older form of Hittite phonetic complementation for the nom. sg. is DINGIR-*uš* preserved at KBo 25.112 obv. ii 12 (OS/I); KUB 31.130 obv. 2f. (OH/MS); KUB 33.11 iii 18 (OH/NS)[567]. It is still used in later texts.

It is possible, but ultimately unverifiable, that the writing DINGIR^{LIM}-*iš* was imported wholesale as a purely graphic imitation of the writing of the nominative singular of personal names in -*ili*-, i.e. by confusion of the nom. sg. of the logographic writing of

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[564] Contra Tischler 2006: 1076 who takes -*aš* as the nom. sg. of a thematised oblique stem. This would require: *^{D}*IŠTAR-mu* DINGIR^{LIM}-*aš*. The sentence makes good sense as it is with a topic (casus pendens) asyndetically and anaphorically resumed by the enclitic pronoun. As this is his only example for a thematised oblique stem *siuna*- it is best to delete the whole construct.

[565] For the palaeography and redactional history of this tablet see Klinger 2003: 246. DINGIR^{LIM} (nom.) is recorded in the hand-copy of KUB 41.17 ii 8, a Hittite ritual, but the photo BoFN 5683 shows an attempted erasure of DINGIR^{MEŠ} or DINGIR^{LIM} with no further correction.

[566] Count of Mainz card catalogue, 24.08.07.

[567] Tischler loc. cit., but the otherwise unique *DINGIR^{LIM}-*uš* (KUB 24.2 obv. 3) does not exist: read DINGIR-*uš*, with dupl. DINGIR^{LIM}-*iš* (KUB 24.1 obv. 3). See Kassian-Yakubovich 2007: 428. van Gessel also lists DINGIR^{LUM}-*uš* but I was unable to find this in the card catalogue at Mainz.

the word for god with the nom. sg. of part of a homophonous word which was written using the logogram of the word for god. One was perhaps used to writing the series of signs in names for the sound *-ili-*. An extension to cases where the logogram was used referentially and not phonetically, i.e. an association in the reverse direction to that of the original rebus writing for *-ili-*, is not without its logic. This might explain the peculiar hypostasis of DINGIR*ᴸᴵᴹ* in the nom. sg.

At the same time, however, we may ask whether the available evidence is best served by supposing an i-stem Hittite word for god in the first place, if DINGIR*ᴸᴵᴹ-iš* is understood as purely graphic. There is little other evidence for an i-stem **siwa(n)ni-*, and DINGIR*ᴸᴵᴹ-iš*/ DINGIR*ᴸᴵᴹ-in* are unlikely to have represented Luwian *massani-* as they occur in texts which are otherwise unaffected by Luwisms and do not have a Luwian context. The Luwian explanation also suffers under the same inability to explain how DINGIR*ᴸᴵᴹ* came to be used for the nom.-acc. sg. The very large draw-back in assuming a graphic import from the writing of personal names is that what is usually transliterated as a Hittite phonetic complement, *-iš*, would in this case lose its status as as a phonetic complement in this combination outside names of the *-ili-* type. One would have to transliterate it as a form of heterogram: DINGIR*ᴸᴵᴹ-IŠ*, where the vowel of the sign IŠ, or that of IN on the one tablet in which it occurs, has lost its relevance for determining the quality of the vowel in the underlying word[568]. This is quite unparalleled in Hittite cuneiform, but not without example in Hieroglyphic Luwian writing, at least at the present stage of our knowledge.

The possibility should also be kept open that, at least at the level of "scribe-talk", i.e. the language of dictation, one said/read nom. sg. *ilis*, acc. sg. *ilin*, oblique *ili* in a mixed declension somewhat similar to that encountered in personal and place-names. This would obviate the need for reading a silent /i/ in DINGIR*ᴸᴵᴹ-iš*, but is a somewhat unattractive prospect. We might possibly be able to compare some facets of the use of *BĒLU* noted above.

DINGIR-*iš na-ak-ki-iš* in fragmentary context at KUB 31.64 obv. i 16 (OH/LNS) speaks for an i-stem Hittite noun, although not definitively[569]. Its very uniqueness

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[568] One would not like to insist on this transliteration.

[569] All examples of DINGIR + *nakki-* quoted at CHD L-N 364f., s.v. *nakki-* A 1a, place the adjective before the noun, in the usual adjectival position. However, the fragmentary passage at hand could have been predicative: "the god (is) awesome". Photo N05621 shows that the second vertical of IŠ is

makes it suspect, given that all other cases but one of the supposed i-stem write DINGIR^{LIM}-$iš$[570]. The only other relatively sure case of DINGIR-$iš$ comes in a letter, most probably to the Hittite king, mentioning the son of Manninni, KUB 33.94, 6: *A-BI-KA* DINGIR-[*i*]*š ki-ša-at*[571]. This may well be a simple error for DINGIR$^{<LIM>}$-$iš$, or indeed for DINGIR-$uš^{!}$ It is not methodologically sound to posit stem-forms on the basis of aberrations.

DINGIR-$uš$ in the colophon IBoT II 130 rev. 2 (NSbii) in the phrase (1) *ma-a-an* LUGAL-$uš$ <eras.> (2) DINGIR-$uš ki-ša-ri$, as well as at KUB 39.9 obv. 2[572], attests its use in a phrase where DINGIR^{LIM}-$iš$ is otherwise always written, but that does not mean that one word (*sius*) cannot theoretically have been replaced by another (*siwan(*n*)*i*-/*massani*-) in all cases, or even that the former was not used mistakenly for the latter in this one case[573].

DINGIR is the only word apart from URU, and rarely ḪUR.SAG, which is sometimes determined by DIDLI in the plural, although itself very rarely. In three cases, all from the OH/MS Zalpa-text, it is written with a Hittite phonetic complement, and DIDLI is never combined with with MEŠ. In another case, a NS copy of the Anitta-text, it is written with an Akkadian S1 enclitic pronoun (DINGIR^{DIDLI}-*IA*), where it alternates with URU-*IA* in a duplicate.

DI, *DI-NU* = *ḫanessar* (HWb^2 Bd. III Ḫ (12), 148-155)

DI appears to be an extrapolation from Sum. di.kud, "judge a court-case", which is itself only attested as a logogram in Hittite in the late Laws tablet KBo 6.5 iv 20: DI.KUD LUGAL (= *D*[*I-IN* LUGAL^{RI}] KBo 6.3 ii 56 NS). I am unaware of DI being used alone in Sumerian contexts with this meaning, but it is found in OB lexical lists in the Sumerian column equated with Akk. *di-nu*, as well as being used as a logogram in Akk. texts, and in phrases such as di.til.la, "finished court-case".

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considerably fainter, especially compared with the two verticals in IŠ in *na-ak-ki-iš*. This could be an erasure, correcting to UŠ. Collation of the original may help to decide.

[570] Laroche 1968: 61 fn. 12 has DINGIR-*in* at KUB 33.85, 6, but this could be ^{D}*in*[-, see Siegelová 1971: 56 with fn. 62. DINGIR-*iš* read by Sommer in the Milawata letter (KUB 19.55 bottom edge 3) is very unlikely. For Güterbock's collation see Hoffner 1982: 136 fn. 25 with emendation to ÌR-*iš*. The IŠ sign is fairly clear, but the sign before has been damaged.

[571] Hagenbuchner 1989: 420f. The fragment contains no criteria for a palaeographic analysis due to its very worn surface (BoFN 1145).

[572] Kassian et al. 2002: 304, 690.

[573] See also fn. 87? for similar variant reading.

Among the historical texts the Akkadographic *DI-NU* predominates in, but is not restricted to, tablets belonging to texts composed in the time of Suppiluliuma I and Mursili II[574]. Sumerographic DI[HI.A] without phonetic complement is restricted to texts from the reigns of Suppululiuma I and Mursili II, but also occurs at Maşat (Tudḫ. III)[575]. The phonetically complemented DI-*eš-šar* and related forms appear particularly frequently in texts from the time of Hattusili III[576]. A form with reduced phonetic complementation, DI-*za*, then appears in KBo 4.14 rev. iv 59 (NSc, Tudhaliya IV), a text with a number of abbreviated logographic usages.

This general scheme of distribution does not tally with the palaeography of the individual manuscripts, however. *DI-NAM* occurs in KBo 3.4 ii 14 the large AM fragment with occasional NSc characteristics.

DI-NU, but not DI[HI.A], is attested in OS: *DI-IN-ŠU* KBo 22.1, 30[577].

EN *DI-NI*: "lord of the judgement". HWb[2] Bd. III: Ḫ 12 (1994) 155 claims that the meaning "opponent in a court-case" ("Prozeßgegner") for this phrase is practically restricted ("nur oder fast nur") to texts from the time of Hattusili III[578]. Hittite *hannesnas ishas* is written phonetically in the OS version of the Laws[579], and is also used as a title of the sun-deities as well as of the Hurrian divinity Irpitiga[580]. In all these cases the translation "Herr des Gerichtes/Rechtes" is advocated by HWb[2], on the basis that "Prozeßgegner" would not be suitable as a title for a god[581].

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[574] *DI-NA-A-A-T[IM]* KUB 36.83 i 13 (Tud. IV); *DI-NAM*[HI.A] KUB 13.20 i 32 (NSc).

[575] except in the case LÚ DI-*ŠÚ* from a Hattusili III text, for which see below. See also the attestations from Ugarit: DI-*šu-nu* RS 17.133 obv. 13; DI[MEŠ]-*ti* RS 17.368 obv. 5.

[576] See however *BE-LU*[HI.A] *DI-NI-IA* Apology iv 45; EN *DI-NI-ŠU* ibiv. iv 84, KBo 6.28 rev. 41.

[577] The remaining OH instances quoted by HWb[2] III Ḫ (12), 149 are either restorations or later additions to the text of the Laws. Otherwise see below from EN *DI-NI*.

[578] Occurrences from Hattusili III texts collected ibid. 152. Exceptions per HWb[2]: KUB 13.7 i 14 *BE-EL DI-NI-ŠU* (NSc?). KUB 29.9 i 16 (omen, NSc? Konk. jh.) EN *DI-NI-kán* = EN *DI-NI-KA-kán* (NSa?) KUB 29.10 i 12. EN *DI-NI-ŠU* KUB 57.21, 9 (NSc! Konk. jh.)

[579] *ha-an-ne-eš-na-aš iš-ḫa-a-aš* KBo 6.2 ii 14 with difficult NS variant [LÚ*ḫa-an-n*]*e*??-*tal-wa-aš* at KBo 6.3 ii 32 (VAT 12889), see Hoffner 1997: 45 with fn. 127 (on the basis of photo collation) and the extensive discussion at HWb[2] Bd. III Ḫ 12 (1994), which Hoffner (loc. cit. and commentary) does not incorporate. The translation "litigant" is accepted by him without discussion. On collation of the original it was impossible to make any further contribution. The remaining traces resemble neither NE nor AT.

[580] See van Gessel 1998: 195. The three attestations are: KUB 39.99+ obv. 12f. *ḫa-an-ne-eš-na-*[*aš*] (13)[*iš-ḫa-*(*a*)*-aš*] (Konk. mh., but ḪA with one Winkelhaken l. 12; there is no room to restore [EN-*aš*] at the end of the line with Archi 1990:123; a full phonetic writing at the beginning of the next line [of +KBo 14.100] requires 5-6 signs, which matches the 5 signs required at the beginning of the previous line, and obviates the need for Archi's unwanted [*nu*? ...]); KUB 39.101 obv. ii 20 [D]I-*eš-na-aš* EN-*an* (Konk. sjh., but DA is only late sign); KBo 21.13 rev. iv 6 *ḫa-an-né-eš-na-aš iš-ḫa-a-an* (Konk. jh., MS/NS).

[581] HWb[2] (loc. cit.) also sees no sense in the understanding of *hannesnas ishas* in the Laws as a participant in the legal proceedings. As translated by Hoffner the paragraph deals with the eventuality that a litigant kill a supporter of his opponent in a legal case, when he has been approached, presumably with violent intent, by that supporter. This makes perfect sense.

On the contrary, however, the gods are called upon in Hittite texts as legal opponents to enemies. The sun-god(dess) may be marked out by being given the title "righteous lord of the judgement", or "lord of a righteous judgement", thus specifying that he (she) is not just any "legal opponent", but the one who has right on their side:

KUB 31.127 obv. i 1f.: *ḫa-an-da-an-za ḫa-an-né-eš-na-aš* (2) *iš-ḫa-aš* (NS-NSa[582])

ibid. i 24f. + ABoT 44 + KUB 36.79: *ḫa-an-né-eš-na-aš iš-ha-a-aš zi-ik nu ḫa-an-né-eš-na-aš pé-e-di* / *da-ri-ia-aš-ḫa-aš-ti-iš* NU.GÁL "you are the lord of judgement (prosecutor) and in the place of judgement (the court) you have no exhaustion"[583]

KUB 24.3 obv. 34f.: *ḫa-an-ta-an-da-ša-a*[*z*] / (35) *ḫ*[*a-a*]*n-né-eš-na-aš* EN-*aš zi-ik-pát* "you alone are the lord of the just judgement" (of the sun-goddess of Arinna).

The following example, however, would be difficult to interpret other than by the deity (the sun-god of heaven) being a judge rather than a prosecutor.

KUB 17.18 obv. i 24 *ḫu-ma-an-da-aš ḫa-an-né-eš-na*[-*aš iš-ḫ*]*a-aš* "the lord of every judgement" (sun-god of heaven). There is thus insufficient evidence to prove the one interpretation over the other in doubtful cases. It is not sufficient that we simply appeal to notions of what is "suitable" for a god or "likely" in a court case without fully grounding our reasoning. Neither in HWb[2], nor in Hoffner 1997, does this take place. In such a situation it is precisely the clear cases, i.e. those that stem from the reign of Hattusili III, which become important, and it is methodologically unsound to dismiss them as an aberration restricted to his reign as done by HWb[2].

D. Yoshida notes the similarity between the Hittite expressions *esḫanas isḫas*, *ḫannesnas isḫas*, *uddanas=sas isḫas* and wonders whether all three could be calques from Akkadian *bēl dāmi* "lord of blood, murderer" , *bēl dīni* "lord of the court-case, accuser", and *bēl awātim* "lord of the word, accuser", stemming from a certain backwardness in Hittite legal terminology[584]. He rejects this on the basis that the semantic equation is not exact in all cases[585]. If we exclude the case of *esḫanas isḫas*, the other two, which can both have the meaning "accuser" in Akkadian, could quite possibly be calques from Akkadian phraseology.

The LÚ DI-*ŠÚ* at KUB 21.17 rev. iii 26, however, is possibly the opponent in court of the goddess Ištar of Samuḫa, although the phrase could equally well mean "susceptible to (her) judgement".

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[582] All cases of ḪA with one Winkelhaken in KUB are in fact visibly older ḪA on photos N11532 etc.

[583] Singer 2002: 36 translates "there is no tiring of you". I take the phrase as meaning that the sun-god is a tireless prosecutor.

[584] Yoshida 1987: 48-50.

[585] *bēl dāmi* = "Mörder": *e-eš-ha-na-aš-pát iš-ḫa-a-aš* (KBo 3.1 rev. iv 27/19) "etwa 'Familienoberhaupt', zuständig für die Entscheidung der Bestrafung eines Mordes", Yoshida loc. cit..

DU$_6$ in URU.DU$_6$, "Ruinenhügel"

Izi Bogh A 146 (KBo 1.42) reads according to H.G. Güterbock's restoration: gú.bal = (Akk.) *te-lu* = (Hitt.) URU-*aš* ⌈DU$_6$⌉$^?$-[x]. Güterbock makes clear in his note that the restoration DU$_6$ is suggested on the basis of Akk. *te-lu*. Little help can be gleaned from the surrounding items in this part of the "group vocabulary" Izi, as it is fairly clear that the surrounding entries at least have been selected on the basis of similarity of signs in appearance, not meaning: 144-5 gú.TAR, 147 gú.gìr. The Sumerian collocation gú.bal "to turn over the neck" is very rare[586]. Given an indirect association with camel or ox humps in a Mesopotamian lexical list it is possible that this was a word denoting something with a bump-like shape[587]. If the restoration URU-*aš* DU$_6$ is in fact correct, URU should not be read as a determinative in the logogram URU.DU$_6$, "mound of a town", although the word-order does not follow the Sumerian.

An alternative restoration, which fits the traces in the hand-copy much better, is proposed at CHD P, using the word *pupulli-* (n.) "ruin-heap" vel sim. This is used of the ruin of a house in Laws §173[588], and is most probably also used as a loan-word in the Akkadian of Boğazköy[589]. In this case, too, we should read URU as a logogram here, as it is clearly specifying what kind of "ruin-heap" this is, i.e. that of a city rather than that of a house.

DUGUD Akk. *kabtu* Hitt. *nakki-, dassu-* "heavy"

The discussion in CHD L-N 367f. s.v. *nakki-* recognises *dassu-* as the primary Hittite word for "heavy"[590], logographically written DUGUD-*u-*, while "important" and "difficult" are regarded as the primary meanings of Hittite *nakki-*[591]. This sides rather

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[586] For gú.bala in lexical lists including from Ebla see Sjöberg 2003: 270.

[587] ^{uzu}gú.bal.giš.dù.a is attested as an equivalent of *as-qu-um-bit-tum*, "hump" (of a camel or an ox) at Hh 15.69. It may correspond to Akk. *elītu*, "raised" in a late OB Nigga tablet (ASJ 20 p. 202 ii 5f.), see Sjöberg loc. cit.

[588] KBo 6.26 ii 12; Tischler 2001: 653

[589] KBo 1.1 rev. 61f. *pu-[pu]-wa-l[i$^?$]*, formerly read as Akk. *bu-bu-wa-hi*, "salt-pile", see AHw. 879; Tischler 2001: 654.

[590] The lexical entry gu[n.dugud] = [*bi-il-t*]*ù kab-bi-tu$_4$* = *da-aš-šu* GUN-*an* "a heavy load" (KUB 1.42 iii 26, MSL 13.138, 166) is particularly convincing. Further lexical equations collected at Del Monte 1980: 110. CHD also does well to point out areas of semantic convergence between *dassu-* and *nakki-*. Del Monte 1980: 119 "la vicinanza obbiettiva delle aree semantiche". See also the discussion of *malisku-* "light, unimportant" at CHD L-N 130f.

[591] Del Monte 1980: 118, while accepting the equation ^{LÚ}DUGUD = ^{LÚ}*kabtu*, does not accept that *nakki-* is definitely the Hittite reading.

with the analysis of G. Del Monte than that of J. Friedrich[592]. This means explaining the clear case where DUGUD is the equivalent of *nakkiyatar*, or any other cases where the meaning of *nakki-* might best be expressed as physically "heavy", as secondary developments.

It is furthermore hypothesised there that *nakki-* might be the phonetic reading of ^{LÚ}DUGUD, there being one phonetic writing which may denote people of a similar status or rank to the ^{LÚ.MEŠ}DUGUD: *na-ak-ki-i-e-eš pe-di ta-ru-up-pa-a*[*n-ta-ri*] KUB 34.19 i 8 (omen, pre-NH, NS[593]): "the important people will gather in the place". This is at variance with the primary meaning of *nakki-* as inferred by CHD, as the ^{LÚ.MEŠ}DUGUD are already present in OS texts. If *nakki-* is not basically "heavy", it is rather odd that it be, from the earlier period already, the phonetic reading of a logogram which certainly does mean "heavy", Akk. *kabtu*.

It is, however, unusual that the professional determinative LÚ.MEŠ is not present in KUB 34.19 i 8. This speaks against the specific ^{LÚ.MEŠ}DUGUD being referred to here. They may simply be "important people". The analysis of CHD and Del Monte regarding the primary meaning of *nakki-* would thus be saved, but by cutting out the ^{LÚ.MEŠ}DUGUD[594].

The office was fully discussed by E. von Schuler[595], who saw it denoting a primarily military office with various civilian and courtly duties appended. This would entail that the ^{LÚ.MEŠ}DUGUD were a specific professional group. The question is whether these were "the heavies" and whether these could then be the ^{LÚ.MEŠ}*nakkayes*.

The restoration of KUB 3.105 i 3 in MSL 3.69 to read Sum. [ninda?] = Akk. [*ak-lu*?] = Hitt. *na-ak-ki-i-iš* is inspired, positing a misunderstanding of Akk. *aklu* "bread" for Akk. (*w*)*aklu* "overseer", but far too uncertain to be used in this context.

It is only possible to provide a coherent account that keeps both an identification of ^{LÚ}DUGUD with *nakki-* and an analysis of *nakki-* which does not proceed from the primary meaning "heavy" if we assume that the logogram was imported with further semantic implications than merely "heavy".

Akkadian has a usage of *kabtu* designating an influential person at the royal court. This is often written IDIM, but also DUGUD. The equation ^{LÚ}dugud = *ka-ab-tum* is known

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[592] Del Monte 1980: 108-118; CHD does not see a central meaning of *nakki-* as being "powerful", however, unlike Del Monte ibid. 114ff.
[593] CHD loc. cit. 365 A 1 b.
[594] As indeed Del Monte does, loc. cit. 118.
[595] Von Schuler 1957: 209 ff.

from OB Lu[596] and there was certainly a Boğazköy recension of OB Lu, although this particular entry is not preserved[597]. Akkadian texts from Boğazköy certainly knew a group of people known as the *kabtūti*. Furthermore OB *kabtu* could be used to refer honorifically to the gods, rather similarly to Hitt. *nakki-*. It is thus quite possible that *nakki-* could be the reading of ^{LÚ}DUGUD. Following the semantic spectrum of DUGUD, however, this could also be used for physically heavy, in Hitt. marked with a phonetic complement: *-u-*. There is thus no reason to assume with Del Monte that writings of DUGUD for *nakki-* are secondary and late developments, they remain well within one side of the semantic spectrum of DUGUD = *kabtu*.

DUMU "son", "child"[598]

The sign-forms: The order in HZL appears to correspond to that which I have observed in the historical texts. Particularly the forms of DUMU with an internal vertical appear to be NS forms. The final form, commented on by HZL s.v., from the colophon to KUB 43.77 (rev. 3) should not be anything other than DUMU, due to its position in the colophon, but looks very unlike any attested from of DUMU, even those compared by HZL[599].

DUMU is never found without phonetic complementation or possessive clitics unless it is occurring in a genitival phrase: "son of ⸗".

The regular OS Hittite phonetic complementation was DUMU-*aš*, DUMU-*an*, with an -l- being indicated only in the d.-l. sg.: DUMU-*li*. Complementation of the nom. voc. and acc. sg. as DUMU-*la-* is particularly apparent in text-compositions from the time of Mursili II, although the manuscripts may of course be later. The one exception here is the Testament of Hattusili I (KUB 1.16), although this is surely a NS copy belonging to the NSa category[600].

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[596] OB Lu recension B v 24, MSL 12.178

[597] KBo 1.30 + 39, MSL 12.214.

[598] The last comprehensive treatment of DUMU, DUMU.NITA, "son, child" is that of J.Pringle's unpublished dissertation (Pringle 1993: 23-33)

[599] J.D. Hawkins (pers. comm.) suggests doubt in the reading, not only due to the peculiarity of the sign, but also because the scribe is here said to be DUMU ^I*A-NU-WA-AN-ZA* ^{LÚ}SAG, i.e. the "son" of a eunuch. ^(LÚ)TUR is attested in Mesopotamia with the meaning "student", however.

[600] Given that DUMU-*la-* occurs in mss. of Mursili II texts with different ductus types (KBo 16.1: NSa; KBo 3.4: NSb/c), one cannot argue that DUMU-*la-* in KUB 1.16 is possibly due to its being a copy from around the time of Mursili II on the basis of its ductus-type. See also DUMU-*la-tar* KUB 15.34 ii 18 (MS ⸗ evocation ritual); DUMU-*la-aš*(-*ša*) KBo 12.112 rev. 12; DUMU-*la-an*(-*na*) ibid. rev. 15 (NSc tablet of a text dated by Beckman "no later than the early fourteenth century". Beckman 1983: 66-71; Pringle 1993: 25)

The phonetic writing of the Hittite S1 enclitic pronoun is only attested in two NS tablets, both from OH text-compositions.

The few times that DUMU is complemented Akkadographically, consistency is not usual within the individual tablets. KBo 3.1 ii 36, 37 (NSbi/ii) writes DUMU*RU* (dupl. DUMU*MEŠ!*.NITA KBo 12.4 ii 5 ≵ NSbii) for the nom., but Hitt. DUMU-*an* for the acc. sg.[601]. KBo 5.6 rev. iv 15 (NSa) marks the Akk. (masc.) genitive doubly: *ŠA* DUMU*RI* (*kattan*), which is odd in as far as we would normally expect *A-NA* x *kattan* in Akkadographic writing. Is this an attempt to represent an archaising Hittite genitive + postposition construction? Finally, *A-NA* DUMU*RI* *katta* is indeed what we find at KBo 14.12 rev. iv 22 (NSbii). Once again there is no particular division among the ductus types of NS.

The authentic OB S1 enclitic complementation of [DUMU]-*ri* (Akk. *mārī*, "my son") in KUB 1.16 obv. i 14, the Akkadian column, as opposed to the usual DUMU-*IA* in the Hittite, raises once again the question of what the scribes were intending by logographic writings in the first place. Clearly the scribe is aware of the correct Akk. form, and yet this is not how he has learnt to write it in a Hittite context, which suggests that this was indeed a kind of shorthand for the Hittite word. DUMU-*IA* in the nom./acc. sg. is not paralleled as a writing in CAD M/1, 308-316. It is thus either a phonetic rendering of an NA form such as *mārayya*, a purely graphic notation for SON + S1, or a case of generalisation from the regular oblique stem *mārīya*.

The second possibility is potentially favoured in cases where the Akk. S1 possessive enclitic pronoun appears to be used pleonastically, i.e. would most likely not be written in Hittite due to the S1 being expressed by a dative enclitic pronoun further on in the clitic chain. This is a common phenomenon in the use of Akkadographic enclitic pronouns[602]. The locus classicus here has to be KBo 5.6 rev. iii 11: DUMU-*IA-ma-wa-*

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[601] The syntactic function is emphatic: *ḫantezziyas=pat* DUMU.LUGAL DUMU*RU* *kikkistaru* "let always only the foremost prince become **the** son". Further discussion of this below.

[602] A.J. Garrett, in his study of Hittite pronominal clitics, refrains from giving Hittite values to Akkadographic possessive pronouns on the reasonable basis that Hittite rather than non-Hittite material should be used to determine the Hittite rules of possessor marking (Garrett 1990: 164; CHD L-N 222). Garrett proposes that pronominal possession was marked by the enclitic possessive pronouns in OH, and that this was gradually replaced in MH by marking possession through the enclitic pronoun in Wackernagel's position. He only goes as far as to hint that this trend may have continued in NH. At no point is it possible to determine, however, as far as I can judge on the basis of these rules, whether the possessive pronoun was still being spoken in pleonastic cases where the possessive pronoun is written Akkadographically and the Wackernagel clitic also appears in possessive function. However, the few NH examples collected by Garrett (loc. cit. 222f) and (apparently) Melchert (1977: 36-38) appear to indicate that phonetic writings of the possessive pronoun in NH do not co-occur with Wackernagel clitics in possessive function. It is therefore possible that this is evidence for Akkadographic possessive enclitics not being pronounced in Hittite when involved in a pleonastic possessive construction. Quite possibly an Akkadographic -*ZU* does not correspond to an enclitic possessive pronoun, but refers to a dative

mu NU.GÁL *tu-uk-ma-wa* DUMU[MEŠ]-*KA me-eg-ga-uš me-mi-iš-kán-zi*. "I do not have a son, but they say you have many sons". On the other hand it is quite feasible that a vocative form such as DUMU-*IA-ma-mu-kán* will have contained the S1 poss. enclitic pronoun: SON⫽mi⫽ma⫽mu⫽kan.

One should note in this context the frequent Akkadian expression of filiation, DUMU-*šu ša* PN, which may have had an influence on the retention of the Akkadian enclitic possessive pronoun in cases like these during the NH period[603].

On the other hand, the fact that DUMU-*ia* is attested in Akkadian from Boğazköy should indicate that this is an attempt to actually represent something in Akkadian[604].

The plural DUMU[HI.A] is only attested once on one tablet (var. DUMU[MEŠ]), in the Apology of Hattusili III; cf. similarly *BE-LU*[HI.A].

The occasional use of DUMU[MEŠ] with a singular attributive noun indicates that it may have been amenable to a collective use: DUMU[MEŠ] *šu-ul-la-an* as opposed to DUMU[MEŠ] *šu-ul-lu-uš/šu-ul-le-e-eš* in KBo 16.27+ (MS), although this could equally well be a facet of the word *sulla/i-*[605]. The case of [*ḫantezzi*]*yas* DUMU[MEŠ] ... [*g*]*anessir* from the MS Zalpa-tablet KBo 22.2 is most probably simply a mistake, anticipating the *appezziyas* of the next clause[606].

The fact that DUMU(*-la-*) is attested in the birth ritual texts, denoting the baby, may indicate that the word behind it could mean "child" or "son"[607]. One cannot exclude the possibility that other motivations may have lain behind the choice of the word "son" in such a context, should the meaning actually be that exclusive. In the case of DUMU[HI.A/MEŠ] from KUB 1.1 obv. 9 (and dupl.), the list of the children of Mursili II from the Apology of Hattusili III the translation is clearly "children" and not sons, although the female, Massanauzzi, is distinguished as a "daughter". KUB 1.1 obv. i 9f.:

Wackernagel clitic with possessive function in the following case: KUB 29.1 obv. ii 52: ALAM-*iš- ši* NAGGA-*aš* SAG.DU-*ZU* AN.BAR-*aš* (53) *i-e-er*, "them made for him a statue of tin, for it a head of iron". The Akkadographic enclitic pronoun is thus added for reasons of Akkadian, not of Hittite.

[603] CAD M/1, 310f.

[604] Note Akk. Boğ. DUMU-*ia* (nom. sg.?) KBo 1.8 obv. 18; DUMU-*ia* DUMU.DUMU-*ia* KBo 1.8 obv. 40 (acc. sg.). On a Hittite scribe for this tablet, however, see introduction.

[605] Tischler HEG S/2: 1142. Given that DUMU[MEŠ] alternates with LÚ[MEŠ] in this phrase, it is probably unwise to transliterate either as a determinative, given that the distinction between "sons" and "men" to be given as hostages is important.

[606] Otten 1973: 35 felt this was evidence enough to admit a nom. pl. c. ending ⫽*as* for the **-tyo-* formations in OH.

[607] KBo 12.112 rev. 11ff. Beckman 1983: 68f. (Text E).

A-BU-IA-an-na-aš-za ^I*mur-ši-li-iš* IV DUMU^{ḪI.A} ^I*ḫal-pa-šu-lu-pí-i*[*n*] (10) ^INIR.GÁL-*in*
^I*ḫa-at-tu-ši-li-in* ^{f.}DINGIR^{MEŠ}-IR-*in-na* DUMU[(.MUNUS-*an*)] (11) *ḫa-aš-ta*

"My father begat us four children, Halpasulupi, Muwatalli, Hattusili and Massanauzzi
the daughter."

This indicates that DUMU^{ḪI.A} was the inclusive term, "children", but that the female
still needed to be marked separately. It is thus very likely that "child" and "son" were
the same word.

See also the introduction to the MS tablet of the Zalpa-text, KBo 22.2 obv. 1, where the
30 DUMU^{MEŠ} borne by the queen of Kaneš are clearly identical with the
DUMU.NITA^{MEŠ} from ibid. 7, and distinguished from the 30 MUNUS.DUMU of line
6[608]. The phrase DUMU^{MEŠ} DUMU.MUNUS^{MEŠ} "the sons (and) the daughters" of KBo
40.1 r.K. 5 also indicates the meaning "son", if only limited semantically from
"children" through the juxtaposition of the female.

The a-stem DUMU.NITA, "male son", has the phonetic complement DUMU.NITA-*li*
KUB 24.8 + 36.60 obv. i 19, 20 (NSbii// Bo 8728, 3: DUMU-*iš-š*[*i*])[609].

Of 67 occurrences of the plural of this logogram, currently recorded in the card
catalogue at Mainz, 66 are determined by MEŠ, while only KUB 42.82 r.K. 8 (NSbii?)
is determined by ḪI.A[610].

If DUMU can mean both "son" and "child", it may well be that the underlying Hittite
word had a similar semantic extension. What then was the force of DUMU.NITA,
literally "male child/son"? Some equivalence has to be assumed as suggested by text
variants such as DUMU.NITA-*an-ni* KBo 5.13 obv. i 13 = DUMU-*an-ni* KBo 4.7 obv. i
61; also DUMU^{RU} KBo 3.1 obv. ii 36 = DUMU^{MEŠ!}.NITA KBo 12.4 obv. ii 5, with
DUMU.NITA reprising DUMU^{RU} in KBo 3.1 obv. ii 38.

In this light, the passage of the Zalpa-text above would have to be interpreted as a
purely graphic distinction. While "children" and "sons" were not distinguished in Hittite
they were in Sumerian, or at least could be. The MH ritual KUB 15.34 ii 18 defines
DUMU-*latar* as DUMU.NITA^{MEŠ} DUMU.MUNUS^{MEŠ} *ḫassus hanzassus*[611]. Again,
even here we cannot claim for sure that DUMU.NITA has to be a different Hittite word:
male words are often sex-indifferent, a phenomenon observed in languages that
distinguish masculine and feminine grammatical gender as well as in those that don't.

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[608] "... DUMU alone could mean both 'child' and 'male child', but where it was necessary to distinguish
sex, the logograms NITA or MÍ could be attached" Pringle 1993: 24 ad loc..
[609] Siegelová 1971: 4f.; Hoffmann 1992: 291.
[610] List of persons, also has ŠEŠ^{ḪI.A} at ibid. 11.
[611] Cited Pringle 1993: 27.

Neither Sumerian nor Hittite distinguish gender grammatically, Akkadian, however, does. The maleness of the child could be indicated Akkadographically by a phonetic complement: DUMU$^{RU/RI}$. Quite possibly the use of DUMU.NITA was an attempt to render an Akkadian distinction in Sumerian. One cannot exclude the possibility, however, that DUMU.NITA hid a wholly different word[612].

Pringle argues decidedly against reading DUMU.UŠ(NITA) as IBILA, convinced that in all cases DUMU.NITA can be read, and that contexts suggesting "heir", Akk. *aplu*, are merely "consequential to the basic meaning 'male child, son'"[613]. We should remember, however, that at least in the case of the royal "heir", a different Hittite word was on hand: ^{LÚ}*tuḫ(u)kanti-*. This was rendered Akkadographically as *TARTENNU*. There is, however, one case, although it is fragmentary and obscure, where a decent contextual argument can be made for interpreting DUMU.UŠ, or IBILA, as referring to one such individual Sumerographically: KUB14.3 obv. ii 30, the so-called Tawagalawa-Letter.

An established theme of the narrative is that the Hittite King has sent the ^{LÚ}*tuḫkanti/TARTENNU* to meet the elusive Piyamaradu and give him his hand, but that the latter has refused him and further insulted him in front of the nations[614]. In column ii 30, Atpa, the son-in-law of Piyamaradu, is addressing the king and says: $^{[D]}$UTU^{ŠI}-*wa* ŠU-*an A-NA* DUMU.NITA *pa-a-i* [x x x] (31) [*a-p*]*é-e-da-ni pé-eš-*⌈*du*⌉ "My majesty, give (your) hand to the male child, [and] let him give [it] to that man (i.e. Piyamaradu)". It is very likely that Atpa is here referring to the ^{LÚ}*tuḫkanti*, and that DUMU.NITA is here to be understood specifically as "heir", in the sense of Sumerian IBILA, although it is not necessary that the logogram have been read as such[615].

DUMU.MUNUS a-stem c. Akk. *mārtu*

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[612] Pringle loc. cit.

[613] Pringle 1993: 28. Very convincingly at KBo 5.7 rev. 34-6 where 3 DUMU.NITA^{MEŠ} are listed as belonging to an estate. These cannot be "heirs".

[614] ibid. col. i 12.

[615] One should also consider the connection of the Akk. *redû*, "follow", with paternal succession (NA *bīt rēdûti*, the home of the heir apparent). It is just conceivable that the loan-word from Hurrian *terdennu* was folk-etymologised in Akkadian as a *tapras-* from of *redû* (see Wilhelm 1970). Parallel to this the DUMU.ÚS (IBILA) might be the "following child", i.e. "the heir", although Ockham's rasor should discourage from multiplying such hypotheses. On the other hand, IBILA (Akk. *aplu*) is not securely attested in Hittite texts.

The phonetic complement DUMU.MUNUS-*la-an* at KBo 20.101 rev. 3 (MS) may indicate a suffix-consonant like DUMU-*la*-[616]. This demonstrates that the word for daughter cannot simply be a femininisation of the word for child on the model of *ḫassu*- "king", *ḫassussara*- "queen", as one might have expected from the above exposition on the use of DUMU and DUMU.NITA. It may be the case that one word was used for "child" of whatever sex, DUMU(.MUNUS)-*la*-, and another for daughter.

One should mention Luw. *tuwatri*- and the Hittite-declined [f./MUNUS]*duttariyati*-, the first of which is of which is clearly descended from the Indo-European word for "daughter" and also has this synchronic meaning[617]. [f./MUNUS]*duttariyati*- is generally accepted to be derived from the same Indo-European pre-form, but its synchronic status is in doubt[618]. It is also not entirely clear whether this isn't a (Hittitised?) Luwian stem and thus not Hittite at all. Nevertheless, the option should be left open that DUMU.MUNUS may hide more than one word, these being possibly separate words, one for "child" (DUMU.MUNUS-*la*-), where the gender determination is only relevant for the logogram, and one for "daughter". Here one should note the very rare i-stem complement of DUMU.MUNUS-*iš* at KUB 24.8+ i 16 (NSbii, the duplicate writes [DUMU].MUNUS-*aš*ᵗⁱ-*š*[*a*] at KUB 36.59+ ii 4, elsewhere in the text).

The writing XXX MUNUS.DUMU, which appears twice in the MS tablet of the Zalpa-text, is obscure. Otten reckons with an original differentiation between DUMU.MUNUS (= Akk. *mārtum*) and MUNUS.DUMU/TUR (= Akk. *ṣeḫertum*) that became confused in Hittite, but notes similar confusion at Mari and Nuzi, albeit very rarely[619]. Peculiar here is the restriction to the position after the numeral for the variant form MUNUS.DUMU. It also appears to be singular, which is normal after numerals.

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[616] Pringle 1993: 34. The noun apparently stands in apposition to ᴰ*ḫalkin*. Thus tentatively Otten-Rüster KBo XX p. IX fn. 22; Yoshida 1996: 145 with fn. 31 with further literature.

[617] Starke 1987.

[618] Starke 1987: 251-252 asking whether this is a proper name or a title. Similarly Melchert 1993: 238; Rieken 1999: 102A. Hittite (origin and) declension is predicated by all authors on the basis of gen. sg. [f./MUNUS]*duttariyatiyas* at KBo 24.126 obv. 28, although the i-stem gen. ending in *-iyas* is admissible for HLuw. at least.

[619] Otten 1973: 24, referring also to Mari: ARM XV p. 90 no. 554, 36, where MUNUS.TUR is given as the Sumerogram for *ṣuḫartum*, "maid servant", with one mistaken writing for DUMU.MUNUS at ARMT I 46, 11: *te-er-ḫa-at* MUNUS.DUMU-*šu*.

Akkadographic phonetic complementation DUMU.MUNUS*TI* at KUB 1.16 rev. iii 25 chimes with the appropriate quality of sibilant in the Akkadographic S3 enclitic possessive pronoun: DUMU.MUNUS-*ZU*[620].

As with DUMU-*IA* the Akkadographic S1 encl. poss. pron., DUMU.MUNUS-*ia*, is not regular from a Mesopotamian point of view. This is surprising given the correct Akkadian usage in an Akk. text from Boğ.: DUMU.MUNUS-*ti* (acc. sg., *mārtī*) "my daughter" at KBo 1.1 obv. 62, and the otherwise correct use of DUMU.MUNUS-*ia* in Akk. texts for the genitive (*mārtīya*)[621].

Interpretation

The Hitt. phonetic reading of "son" remains unclear. I. Hoffman's attempt to read Hitt. *pulla-* as the Hittite word behind DUMU, DUMU.NITA and DUMU.MUNUS on the basis of an equation between É *pu-ul-l*[*a-aš*] in KBo 17.29, 2 and É.DUMU[(MEŠ)] in KBo 17.1+ has been rejected on the grounds that there is nothing from a text-critical standpoint to suggest that the fragments are otherwise in any way related or that two institutions were the same[622]. One might add that a supposed pre-form *putlo- "son" would give Hitt. *putalla- by regular sound-change, not *pulla-*[623].

H.C. Melchert proposed the hapax *ayawala-* (KUB 14.3 obv. i 12) as a reading of DUMU, but this is unlikely as the word appears to mean "agent" contextually, which may also have a cogent etymology (professional derivative of Luwian *aia-*, "do")[624].

F. Starke has suggested that "child" is a derived meaning of Hitt.-Luw. (↖)*niwalli-/a-*, which he derives from Luwian *ni*(privative)+ **walli-* "strength"[625]: "powerless". The meaning is rejected by CHD for Hitt./Luw. *niwalla/i-* on the grounds that the Hittite

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[620] The NS tablets of §29, from the series dealing with betrothal, have variant readings KBo 6.3 ii 11 (B): DUMU.MUNUS-*aš* = KBo 6.5 iii 6 (C): MUNUS*TUM* (Hoffner 1997: 39). The scribe of C has gone his own way, for whatever reason, and this is not to be taken as an indication that the word for "daughter" could be identical to the word for "woman".

[621] DUMU.MUNUS-*ti* acc.sg. + S1 pron. also at EA 21: 14 (Tušratta). CAD M/1 301f.

[622] Hoffmann 1992: 292f.; CHD P 374: "equates it arbitrarily"; "..attractive but uncertain" Melchert 1994: 160; accepted by Tischler 2001: 645.

[623] Starke 1987: 243f. fn. 3 and Melchert 1994: 160 see the possibility of a derivation from *pu(t)slo-, apparently the pre-form seen in Latin *pullus* "young animal". The text-critical objection remains.

[624] Melchert 1980: 90-95; "fraglich" Neu 1983: 229 fn. 9. For discussion of a different etymology and meaning see Goedegebuure 2002). It is worth pointing out that the reading is not entirely free of doubt, after collation of the original, although it is most likely.

[625] See HLuw. *ni(muwi)za-*, lit. "powerless", meaning "son" etc. Starke 1990: 452 with fnn. 1630-34. The CLuw. lexeme **walli-* is reconstructed from HLuw. *wali-*, which Starke translates as "strength". This is not at all certain, see infra.

word patently means "innocent" in the majority of attested cases. While this is true, the derivation may still be correct[626].

Pringle (loc. cit. 25f.) wonders whether *niwalla-* may not have lain behind DUMU-*la-*, adducing a new reading of KUB 48.106, 19f. (MS) which I reproduce here:
(19) [*am-me-e*]*l* DUMU-*an ma-aḫ-ḫa-an* Ú-UL *da-at-ti nu-wa-az* ŠA ^MUNUS^LUGAL *ni-wa-*[*al-la/i-a/in* (?) *le-e*] (20) *da-at-ti*.
"So [   ] as you will not take [m]y child, do [not] take the chi[ld? (lit. 'innocent one') of the Queen!" [627]

This, as admitted by Pringle, does not prove that *niwalla-/i-* was the word behind DUMU-*la-*, even if it is the correct reading. It is in fact very unlikely that a Luwian word would stand behind a logogram in OS Hittite contexts (DUMU-*li*)[628]. Furthermore, there is serious doubt that HLuw. *wali-* actually means "strong", the attestations adduced by Starke being nom.-acc. n. pl. in adverbial function in a curse formula:
wa/i-tu-ta za-zi DEUS-*ni-zi wa/i-la* "PES"-*tu* KULULU 5, 6 §8[629] "upon him may the gods come *wala*"
a-pa-ti-pa-wa/i (god-names) (CRUX)*wa/i-la* "PES"-*wa/i-tú* CEKKE 2, 11 §24 "against him may (the god-names) come (CRUX)*wa-la*."
See further: [*wa/i-tú-tá-* ʾ (god-name) | ("CRUX") *wa-la/i/u* | PES *wa/i-tú* KARKAMIŠ A4d §2
(CRUX)*wa/i-la-ha* "I was ill(?)", KARKAMIŠ A23, 4 §9, is connected with these and with HLuw. verb(s) *arḫa* ("MORI") *wala-/wara-*, (MORI) *wawariya-*, meaning "to die", by J.D. Hawkins[630]. If this is correct then the construction of *niwalla/i-* as

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[626] With Melchert 1993: 159. We should remember that ideas of innocence and guilt vary between cultures and that the Hittite expression of guilt, at the least, seems to have involved the use of the verb "to be".

[627] Pringle loc. cit 26 with fn. 109; Unal 1984: 99-100 reads ÌR-*a*[*n* instead of *ni-wa-*[...]. Pringle points out that ÌR in the copy (l. 21) looks slightly different. D. Schwemer kindly confirms this for me on collation of the tablet in Berlin (VAT 6700).

[628] The construction of the word is certainly Luwian, but while the i-stem rather than the a-stem appears with a double Glossenkeil, it also occurs without it. See CHD L-N/4, 459. Possibly Luwian lexemes are restricted to a very few OS texts. See Neu 1983: 315-317.

[629] Hawkins 2000: 486

[630] See Hawkins 1981: 152; id. 2000: 486. For elucidation of the verb "to die" (CLuw. *walanti-/ulanti-* "dead") see id. 1980: 109-119. See also: KARKAMIŠ A18h §3: *wa/i-wa/i+ra/i-mi-sa* ARHA PES_2-*ha* "having *died* I went away" (Hawkins 2000: 181 "I went away WAWARAMIS").

"powerless" is truly without substance, but it is not entirely clear to me at present that these are all the same verbs or derivations from the same root[631].

A convincing reconstruction of the CLuw. word for "child" behind writings such as DUMU-*ni-iš*, DUMU-*ni-in* has been made by Starke: **niwaran(n)i-*[632]. The sense posited is *ni-warra-ann-* ("keine Hilfe habend, Hilflos") "Kind". The word is attested in HLuw. at MARAŞ 4, 5 §14: (INFANS)*ni-wa/i+ra/i-ni-zi-pa-wa*[633].

DUMU.NIN[(*TI*)] and DUMU.ŠEŠ, "nephew", lit. "sister's son", "brother's son". The only attestation of DUMU.NIN with Akkadographic phonetic complement, DUMU.NIN[*TI*]-*ŠU* (acc. sg.) KUB 1.16 ii 9, corresponds to DUMU.NIN$_9$-*ŠU* in the Akkadian column. The most we can surmise is that DUMU.NIN[*TI*] -*ŠU* represents Akkadian *mār aḫātīšu*. Whether there was a specific Hittite word for "nephew" or just descriptive terms, "sister's son", "brother's son", is not ascertainable from this[634].

J. Pringle also points to the HLuw. construction FRATER-*la-sa* | INFANS-*ni-sa* (nom. sg.) "brother's son" TELL AḪMAR 2, 8 §18[635], when contrasted with FRATER-*la-sa-na* (INFANS)*ni-za-*' (dat. sg.) KARKAMIŠ A4a[636], each formed with different words for son[637].

DUMU in patronymics and ethnic phrases.

DUMU PN:

KBo 3.22, 1: [I]*A-NI-IT-TA* DUMU [I]*PÍ-IT-ḪA-NA* LUGAL [URU]*KU-UŠ-ŠA-RA QÍ-*⌜*BÍ*⌝-⌜*MA*⌝. "Anitta, son of Pitḫana, King of Kussara, speak:" The question of how this would be read in Hittite is thorny. Luwian and Lycian use a genitival adjective to express

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[631] Problems remaining include the supposed difference in meaning between *arha* (MORI) *wala-* and (CRUX) *wala-*, where Hawkins suggests it lie in the difference between "suffering" (CRUX) *wala-* and "dying" *arha* (MORI) *wala-*, with MORI perhaps even being the cursive form of CRUX (Hawkins 1981: 152). The latter is unlikely if Melchert's analysis of MORI as MAN-MINUS is correct. Furthermore, the context of (CRUX)*wa/i-la-ha* is very fragmentary, and the meaning "suffer" is not unambiguously clear from the context alone, although it does make sense. Further attestations of CRUX as a determinative would help solve this matter. If it turns out to have a positive sense this might invalidate the connection of (CRUX) *wala* with *wala-* "die".

[632] Starke 1990: 452; Melchert 1993: 287 "probably" with attestations; "might also be identified" with the CL forms Pringle 1993: 25.

[633] Hawkins 2000: 258.

[634] Thus Pringle 1993: 72f.

[635] Hawkins 2000: 228.

[636] Hawkins 2000: 152.

[637] Pringle loc. cit.

patronymics, with the father's name being written after as a kind of surname. (e.g. Karkamiš II § 10). Hittite also had genitives that were adjectival in function. With normal Hittite word order could we thus expect something like *Pitḫanas* (gen. sg.) *Anitta*(*s*) (nom. or voc. sg.) *Kussaras* (gen. sg.) *ḫassus*? Or, with a different interpretation of the syntax *Pithanas Kussaras ḫassuwas Anitta*(*s*). Filiation is, however, never expressed in Hittite texts without the use of the Sumerographic phrase, and it is only comparison with related languages that leads one to suspect that the word "son of" was not present in Hittite.

J. Pringle compares the no longer productive "Anatolian" suffix ⸗ahsu-, known from the Kültepe tablets, as well as other Anatolian names, with phrases involving DUMU ^{URU}x[638]. ⸗(a)ḫsu- has been derived from *ḫass-* "beget" as a syncopated u-stem[639]. While this indeed indicates, should the analysis be correct, that Anatolian may have possessed another method of forming phrases of affiliation at some point, this cannot be what is represented by DUMU constructions in Hittite texts[640].

Cited are Udniahsu (NH 1458), Upatiaḫsu (NH 473), Nakkiaḫsu (NH 849), Niwaḫsusar (NH 891), Isputahsu(s) (NH 473). None of these correspond to actually attested DUMU ^{URU}GN phrases, nor are there any place-names among the examples. In fact Anatolian personal names from Kültepe that appear to be formed from place-names appear to use the ⸗*uman-* suffix: *Lihsuman*, from Mt. Liḫsa[641].

Rather the alternation in the titles of Hattusili I, from documents of the reign of Hattusili III and beyond, between LÚ ^{URU}*KUSSAR* and DUMU ^{URU}*KUSSAR* may indicate that the same Hittite expression was being written simply by two different methods. This would probably have used the well-known suffix -*uma-* , -*umna-*[642]. This appears clearly in the writing DUMU ^{URU}*pu-ru-uš-ha-an-du-um-na-an* at KBo 3.28 ii 5 (OH/NSc?), literally "the Purušhandan son"[643].

Both DUMU$^{MEŠ\ URU}$ and LÚ$^{MEŠ\ URU}$ are attested from OS texts, the former being attested only once, in the Anitta text, but this reflects its rarer attestation throughout the corpus.

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[638] Pringle 1993: 31.

[639] Götze 1954: 355; id. 1960: 48f.

[640] Pringle loc. cit. "doubly hypothetical".

[641] See Götze 1960: 46ff.; Melchert 1983b:4.

[642] On this see Melchert 1983b: passim.

[643] with Laroche 1973: 186f.; CHD P 393 translates "prince (?)", followed by Tischler 2001: 667, without the (?).

On the other hand there appears to be a distinction implied at KBo 14.12 rev. iv 27f.: *ma-aḫ-ḫa-an* LÚ ^{URU}*KU-RU-UŠ-TA-MA* (28) DUMU ^{URU}*ḪA-AT-TI* ^{D}10-*aš da-a-aš*, "when the storm-god took the man of Kurustama, the son of Ḫatti". Here there appears to be a distinction between the gentilic expressed by LÚ^{URU} and another relationship. Does this refer to the Kurustamans being subject to or vassals of Ḫatti? Surely this would be expressed by ÌR.

This opens up the possibility that political ends were being followed by the choice of DUMU^{URU} over the simple gentilic LÚ^{URU}, in an attempt to define a particularly close relationship between subject area and the capital[644]. Where this is demonstrably the case it would be churlish not to expect the Hittite to have had its own expression to give this the weight it deserves, most probably involving the use of a word for "son". This, of course has repercussions for the initial question, whether the word "son" was in fact represented in patronymics.

EN KUR^{TI}

Mestieri 451-452. Main Discussions: Imparati 1974: 55-62; Beal 1993: 437-442.

Hitt. ^{LÚ}*ut-ni-ia-aš-ḫa-an* = Hurr. *ḫa-zi-ia-na* at KBo 32.14 rev. 25 = 30. A form ^{LÚ}KUR-*ia-aš-ḫa-aš* is attested at KUB 13.1 rev. iv 10 (MS), a ms. of the *bēl madgalti* instructions[645]. These have been associated with the Sumerogram EN KUR^{TI} by E. Neu[646].

This has in turn been associated with the hieroglyphic designation REGIO.DOMINUS found on seals from Boğazköy. For discussion of the political implications of the title in Hieroglyphic Luwian, particularly with reference to the Iron Age inscriptions see Hawkins 1995: 73-85. Writings such as REGIO-*ni*(-) DOMINUS may indicate that a compound form parallel to *utniyasḫas* was kept in Luwian at least. With reference to the cuneiform and Empire period hieroglyphic evidence, Hawkins mentions that the EN KUR seems to have been a subordinate official.

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[644] DUMU ^{URU}GN "implies a similar, although possibly more personal, relationship" to LÚ ^{URU}GN at Pringle 1993: 31.

[645] It is very unlikely that ^{LÚ}KUR-*ia-aš-ḫa-aš* is meant to stand for ^{LÚ}*auriyas isḫas* here. KUB 13.87 obv. ii 5, which belongs to the same tablet, writes ^{LÚ}*a-ú-ri-ia-₍ša₎-kán* EN-*aš* and in the passage in question the ^{LÚ}KUR-*ia-aš-ḫa-aš* appears to be doing something in the third person, while the order to the *aurias isḫas* is in the 2nd person imperative KUB 13.1 obv. 10 *ma-a-an-kán* ^{LÚ}KUR-*ia-aš-ḫa-aš A-NA* SAG.GÉME.[ÌR^{MEŠ}........] (11) *ḫar-zi na-an* EGIR-*pa ti-i-ia* "if a country-lord has [done something bad] to [his] serva[nts], step after him" . See Pecchioli-Daddi 2003: 124, 181. and ibid fn. 475, where she suggests that the ^{LÚ}*utniyasḫa-* was inferior to the *aurias isḫa-*.

[646] See Neu 1994: 199 "naheliegend"; id. 1996: 182.

R.H. Beal sees the *utniyasḫa-* (= *ḪAZANNU* = EN KUR) being on a level with the [LÚ]*bēl madgalti/auriyas isḫa-*, arguing that they have similar functions. The *utniyasḫa-* had power over districts with large cities in them and the [LÚ]*auriyas isha-* was responsible for a "relatively rural district". This theory is required to explain the alleged absence of the *utniyasha-* from the [LÚ]*BĒL MADGALTI* instructions and suffers under the identification of [LÚ]KUR-*ia-aš-ḫa-aš* in these, as above.

The EN KUR[TI] is attested five times in the Tiliura agreement, although it has been suggested to read EN *MAD<-KAL->TI* (CHD L-N 166a-b). The writing of EN *madgalti* at ibid. iii 9, however, (EN KUR[TI]-*KAL-TI*) suggests that the Akkadogram *MAD-KAL-TI* was re-analysed as KUR[(TI)] KALAG[TI] (*māti dannati*), before the scribe thought better of it and erased *-TI-KAL-TI*. Thus EN KUR may have been the more understandable term to the scribe[647]. The EN KUR[TI] according to this text will have ruled several towns (URU[DIDLI.ḪI.A] ... *ma-ni-ia-aḫ-ḫi-eš-ki-ši*, obv. i 8 f.).

Attestations beyond the historical texts:
KBo 2.4 left edge 2 (NSbii, only URU); KBo 13.150 rev. 3 (sjh); KBo 26.227 rev. iii 10 (sjh.); KUB 25.22 ii 13 (LNS); KUB 25.23 i 16 (NSc, jh.), of the town of Urista[648]; KUB 25.25 i 10 (NSc, Tudhaliya IV), KUB 26.43 [obv. 19, rev. 12 (*EL-KI* ⸗, NSbii, Tudḫ. IV[649]), = KUB 26.50 obv. 10, rev. 4; KUB 26.58 obv. 9 (NSc, Hattusili III); KUB 48.83 obv. 5.

All attestations, with one exception, occur in documents that can be dated after Hattusili III. Those which cannot be dated show typically late or very late palaeography. This type of a cluster of occurrences after a gap with no attestations raises the question whether Middle Hittite [LÚ]*utniyasha-* is in fact something different to the later Hittite EN KUR[TI]. We should consider that the determinative LÚ is used in both MS phonetic writings, but EN KUR[TI] is never attested with a determinative. It is worth remarking that EN KUR[TI], despite its frequent Akkadographic complement, is never written with Akk. *bēlu*.

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[647] See von Schuler 1969: 148f. *Mestieri* 451 fn. 2, *-TI-KAL-TI* was erased.

[648] Hazenbos 2003: 30 dates this palaeographically to Hattusili III "at the earliest" due to "late SÌLA" (iv 59). Also regular ḪA with one Winkelhaken, DA and ID broken and unbroken. Generally thought to be a document of Tudhaliya IV. Hazenbos (loc.cit. 36) translates "the lord of the district", presumably including more than just the town.

[649] consistently middle URU. Broken and unbroken DA and ID.

In the Bilingual the ^{LÚ}*utniyasḫas* multiplies (*maknut*) "taxes" (IGI.DU$_8$$^{ḪI.A}$) from a city [URU-*ri*][650], but given that the same words are used to describe the corruption of another official in the same text, this does not tell us very much.

Unlike the ^{LÚ}*utniyasḫas*, the ^{LÚ}*bēl madgalti* does not disappear temporarily from view after the MH period.

EN KUR.KUR$^{ḪI.A}$ in KBo 11.1 obv. 11 (NSbii, URU, DU) is used as an epithet of Muwatalli II, and is thus not directly relevant to an understanding of this logogram[651]. The EN^{MEŠ} KUR^{TI} in Puduḫepa's letter to the king of Alašiya (KUB 21.38 obv. 19), to whom the island king is to send riders with "writing boards" (^{GIŠ}ḪUR^{MEŠ}) may be peripheral representatives of Ḫatti, thus also with border duties like the *BĒL MADGALTI*.

In the annals of Mursili, Anniya, the EN KUR *AZ-ZI*[652], in a very broken context, may be undertaking some duties with regard to a town called Ura, which is defined as [*ŠA* KU]R *AZ-ZI* IGI-*zi-iš a-ú-ri-iš*, "the foremost fort [of the lan]d of Azzi". This again puts him in a similar function to the ^{LÚ}*BĒL MADGALTI*.

The equation Hitt. ^{LÚ}*ut-ni-ia-aš-ḫa-an* = Hurr. *ḫa-zi-ia-na* from the bilingual was made by Neu (loc. cit.) under the proviso that one could not exclude that Hurrian *ḫaziyani*, a loan-word from Middle Assyrian *ḫaziānu*, might have acquired a different meaning during its transfer. Other scholars have extended the equation to the Akkadogram ^{LÚ}*ḪAZANNU* in Hittite texts[653]. This involves a series of assumptions: 1) that the Akkadogram meant the same to Hittite writers as it did to Akkadian writers[654]; 2) that the Hurrian word as adapted from Assyrian also shared that meaning; 3) that *ḫaziyani* was readily understandable as ^{LÚ}*ḪAZANNU* (for example, why didn't the scribe just write that in translation?).

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[650] restored from ibid. rev. iii 15.

[651] Also not relevant is KBo 47.67 obv. i 12 (MS): KUR-*ia-an-ta-aš iš*-x-[.], where the traces do not fit ḪA and there is very little room (BF00502), contra Neu 1994: 199 fn. 26. Perhaps: LÚ ŠAH KUR-*ia-an-ta-aš* SAḪAR$^{Ḫ[I.A]}$ (13) [*ar-ḫa*] *da-a-i*.

[652] It is hard to decide whether this would have been read *Azziyas utniyaṣḫa-*, or *Azziyas utniyas isḫa-*.

[653] Nakamura 2002: 162 with full literature accepting ^{LÚ}*ḪAZANNU* = ^{LÚ}*utniyaṣḫa-*. Further attestations as per Mestieri 449f. with palaeography: KBo 8.116 obv. 3 (fest., NS); KBo 13.207 obv. 7] (fest., sjh), KBo 16.68 i 27(MS, KI.LAM fest.); KUB 2.7 i 16 (fest, NS); KUB 10.28 iii 5 (fest. NS); KUB 24.13 iii 21 , = HT 94 obv. 5 ($^{LÚ i}$*ḪA-AZ-ZI-IA-AN-NI*, rit. Allaituraḫi, NS); KUB 30.32 i 13 (fest., MS); KUB 34.128 rev. 4 (fest. MS); KUB 53.29 obv. ii 8 (fest., NS); IBoT 1.36 iii 47 (instructions, MS); IBoT 2.66 rev. 9 (fest. NS).

[654] Beal's review loc. cit. 440f. shows quite different social functions for this official across the regions where it was used, ranging from tributary kings in Amarna to a village "headman" in Mesopotamia.

Güterbock and van den Hout 1991: 55 sound a note of caution saying that "The traditional translation 'mayor' for Akk. *ḫazannu* should be avoided. The instruction for the Hittite official whose title is written with this Akkadogram ... makes it clear that he was responsible for the security of the capital." This would make the equation *ḪAZANNU* = *utniyasha-* = EN KUR*^{TI}* much less likely. It is countered by Beal who suggests that a restriction of the *ḪAZANNU* to the capital is due to the fact that this is who the surviving instructions were actually for, the *ḪAZANNU* of Ḫattusa, which should not exclude there being a *ḪAZANNU* anywhere else.

Five hundred years later, the Hieroglyphic Luwian inscriptions of CEKKE and BULGARMADEN attest an official (LIGNUM) *ha-za-ni-sa*(-)[655] and *ha-⌜zi⌝-ia-ni-sá-*⌐[656]. In Cekke this is without doubt a very subordinate official, much like a village "headman" and very much inferior to Kamani, the *kar-ka-mi-sà*(URBS) *MA*$_x$*-zá* (URBS) REGIO.DOMINUS, "Country-Lord of Karkamiš (and) Malizi (?)"[657]. This leads J.D. Hawkins to suppose: i) that *haz(iy)ani-* is a loan-word in Luwian; ii) that it probably also existed already in Hittite as a loan-word behind ^{LÚ}*ḪAZANNU*. Comparison is made with the loan-word (LIGNUM) *su-ka-la* "vizier" at EĞRİKÖY §3 = Akk. *šukallu*, Hurr. *šukalli*. There is a great deal that could have happened in the intervening time, however.

A hypothetical way out of this slightly confusing mass of evidence is offered by taking a historical approach, as hinted above. The ^{LÚ}*utniyasha-* was a low-grade official in the Middle Hittite period who could be punished for misdemeanours by the ^{LÚ}*BĒL MADGALTI*. At this stage the ^{LÚ}*ḪAZANNU* may have been identical with the *utniyasha-*. After the imperial expansion of Suppiluliuma I an EN KUR was introduced, who may have been operative in areas where there was no ^{LÚ}*BĒL MADGALTI*. Whether he was also called a *utniyasha-*, or whether **utniyas isha-* was used for his office, is undecidable. These EN^{MEŠ} KUR^{TI} increase in power towards the end of the imperial period (See the Tiliura-declaration above), a development which continues through to the post-imperial power-struggle between the "Country-Lords" and "Great Kings" posited by Hawkins on the basis of hieroglyphic evidence.

The ^{LÚ}*ḪAZANNU* remained throughout a lower grade official, one whose standing in a capital city like Hattusa will naturally have been higher than in a provincial centre.

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[655] CEKKE 5 §14 Hawkins 2000: 149f.

[656] BULGARMADEN 4 §10, Hawkins 2000: 525.

[657] Hawkins 2000: 145.

EN *MADGALTI* is the only phrase using *isḫa-* + gen. that uses EN instead of Akk. *bēlu* on MS tablets. This includes cases with phonetic writings of the first element. The title ^{LÚ}*bēl madgalti* is restricted to Hittite cuneiform. The Akk. word *madgaltu* may be attested in a Neo-Assyrian text, and also is a Middle Assyrian place-name, attested once, but that is all (CAD M/i, 16). Hittite *auri-* is derived from the verb "to see" (*au-*), just as Akk. *madgaltu* is derived from the verb "to look" (*dagālu*). The linguistic parallelism promotes the probability of a calque, although it is not clear in which direction, as the office *bēl madgalti* is not otherwise known from Akkadian texts.

ÉRIN^{MEŠ}

Beal (1992: 1) argues that the word underlying ÉRIN^{MEŠ} is likely to be a common gender stem ending in *-att-*, as is supposed to be apparent from the nom. sg. ÉRIN-*az*, acc. sg. ÉRIN^{MEŠ}-*ta-an*, dat. ÉRIN^{MEŠ}-*ti*[658]. This is one of the considerations leading Beal to rule out an identification of ÉRIN^{MEŠ} with Hitt. *tuzzi-*, first proposed by Friedrich, the other being the apparent co-occurrence of these two terms in contexts which indicate they are something different to each other: "ÉRIN^{MEŠ} ('troops') are a component of the *tuzzi-*"[659]. (The other proposed correspondent to Hitt. *tuzzi-* is KARAŠ [Ehelolf], which Beal also rejects, mainly on the basis of the neuter gender of KARAŠ.) On the other hand, Beal follows the argument of Kammenhuber that the Old Hittite term ÉRIN^{MEŠ} was "meant to include both mounted troops and infantry", and further observes that ÉRIN^{MEŠ} alone, without further qualification, is, with a few exceptions, rare in texts after Mursili II[660]. Given the restricted semantic range of the later ÉRIN^{MEŠ}, it is possible that it had come to be used to denote a different word, although the continued attestation of dat.-loc. sg. ÉRIN^{MEŠ}-*ti* in and nom.sg. ÉRIN^{MEŠ}-*az* in NS mss. militates against this[661].

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[658] See Beal 1992: 1 fn. 1 for OS references, also Neu 1983: 235. A probable NS attestation is KBo 54.1 Rs. r. Kol. 10: EGIR-*iz-zi-iš-ma* ÉRIN^{MEŠ}-*az*[, although the group of texts to which this fragment probably belongs (CTH 310, see Groddek KBo 54) have been shown to tend to archaism. See however also ÉRIN^{MEŠ}-*az-ma-kán* KUB 1.2 obv. ii 21, nom. sg. (Ḫatt. III), for which compare URU-*az* for *ḫappiryanz* in KUB 41.8 (LNS), ^{MUNUS}*da-ga-zi-pa-aš-sa* KBo 3.38 obv. 3 (NS copy of OH), *da-a-ga-zi-pa-aš-ša* KUB 31.127 obv. i 2 (NS, MH tradition).

[659] Beal loc. cit. 29 mainly on the basis of ŠA ÉRIN^{MEŠ LÚ}KÚR *tu-uz-zi-in*, "the army of the enemy troops" in the Annals of Tudhaliya KUB 23.11 ii 22, 26 (LNS).

[660] Beal 1992: 5 with fn. 16.

[661] NS ÉRIN^{MEŠ}-*az* also KBo 21.13 rev. iv 12 (Konk. jh., MS/NS). The OS cases of ÉRIN^{MEŠ}-*az* could still be read *tuzziya(n)z*. Neu 1989: 5 compares nom. sg. *tu-uz-zi-az* from KUB 23.11 rev. iii 16, a NS version of the Middle Hittite Annals of Tudhaliya. Compare also URU-*az*, *pé-e-ra-az-mi-it* < *peran=smit* KBo 17.2 rev. iii 45, OS (Otten/Souček 1969: 58). Admittedly, to explain the oblique cases in -t- we

The interpretation of KBo 3.1 obv. ii 13 as ÉRIN^MEŠ-*iš*! (UŠ), referring to the army of Ammuna, presents problems for Beal, who wishes to see this as ÉRIN^MEŠ-*uš* in a plural construction. While the word is definitely construed plurally in the next clause (*n=e*), it is singular in its own clause (*paizzi*). Plural construal in adjacent clauses is common as a constructio ad sensum (usually with acc. pl. *n=as*, sometimes also with verb forms[662]). Either this is a further word underlying the logogram, possibly a u-stem, or ÉRIN^MEŠ at this period could also stand for *tuzzi-*, with UŠ for -*iš*!. Although the text is OH, the script is definitely NS, thus a later copy.

According to Ph. Houwink ten Cate, KARAŠ replaces ÉRIN^MEŠ in the phrase ÉRIN^MEŠ ANŠE.KUR.RA^ḪI.A/MEŠ in later New Hittite texts as well as replacing ÉRIN^MEŠ in the phrase ÉRIN^MEŠ (*ù*) ^GIŠGIGIR^MEŠ in later Akkadian language texts from Boğazköy[663]. Given that KARAŠ definitely appears in alternation with Luwian *kuwalan(a)-* , in names at least, it may be worth asking if this is because *kuwalan(a)-* had started to replace the word underlying ÉRIN^MEŠ (see below).

Some functions of ÉRIN^MEŠ are never usurped by KARAŠ, however: the non-collective singular; the ÉRIN^MEŠ + place-name.

The writing ÉRIN^MEŠ.ḪI.A is of interest in that it appears to be restricted to use in the late Middle Hittite period, the earliest attestation being Arnuwanda I (Madduwatta) and the Early Hittite Empire period, the latest attestation being Mursili II (Targasnalli). Also of interest is its occasional but not exclusive plural construction, although nothing different is expressed by it, apparently.

ÉRIN^MEŠ ANŠE.KUR.RA^MEŠ/ḪI.A

After the full discussion by Beal (1992: 5-7) it is clear that these two Sumerian words are not a compound nor a genitive syntagm ("troops of horse") but two, separate terms referring to different types of troops: "infantry (and) horse(-troops)"[664]. The meaning of

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would have to posit not only a personifying nom. sg. in -*ant*- but a whole declension *tuzziyant-*, "one who *tuzzi*'s", as opposed to *tuzzi-* , the nomen actionis, denoting the act/place of *tuzzi*-ing. On the verb *tuzziya-* , "to camp, vel sim." see Beal 1992: 23-24. This does away with the need to posit an original but otherwise unattested neuter gender for *tuzzi-* (Tischler HEG s.v.) which would have served as the motivation for the creation of the personifying nom. sg. in -*ant*-.

[662] KBo 5.8 obv. i 4 has ÉRIN^MEŠ URU*ta-ag-ga-aš-ta-aš-ma* construed with the sg. verb *harta* and then with the plural *sekkir*.

[663]Houwink Ten Cate 1984: 57; Beal 1992: 14 fn 58. The quotation from the Alaksandu-Treaty (Muwatalli II) is misleading in that it suggests a connective, "KARAŠ and ANŠE.KUR.RA^MEŠ, which is not in the text (KUB 21.1+ iii 3-7). Thus a text originating in the reign of Muwatalli is the earliest attestation (Klinger 1996: 37 "zeitgenössische Niederschrift"). The phrase ÉRIN^MEŠ (*ù*) ^GIŠGIGIR^MEŠ is attested in Akkadian language documents at least as late as the treaty between Hattusili III and Benteŝina of Amurru.

[664] Beal refrains from using the traditional translation, "infantry and chariotry".

ÉRIN^MEŠ is thus specialised in this case to refer solely to foot-soldiers. The ANŠE.KUR.RA^(MEŠ/ḪI.A) in this particular bipartite phrase may include chariots in the metonymic sense proposed by Starke (see s.v. ANŠE.KUR.RA) but the evidence is ambiguous, as is demonstrated by one of the earliest occurrences: Madduwatta and his hungry retinue are provided among other things with chariots, beer, malt (and?) beer-bread after being saved from Attarissiya, the Aḫḫiyawan, by the Hittite King. Unusually, the description of the retinue includes ÉRIN^MEŠ ANŠE.KUR.RA^ḪI.A-*KA* in obv. 11, but simple ÉRIN^MEŠ-*KA* in obv. 9[665]. It is tempting to see the gift of chariots from the Hittite King as effectively upgrading Madduwatta's ÉRIN^MEŠ to ÉRIN^MEŠ ANŠE.KUR.RA^ḪI.A. On the other hand, the two references to the father of His Majesty's beneficence towards the ungrateful Madduwatta and his extended retinue presumably refer to the same event, and not two separate events differentiated by the types of military at Madduwatta's disposal.

The earliest attestations are agreed to be Middle Hittite (the Akkadian language Sunassura Treaty and Madduwatta-Indictment), but it is a remote possibility that there is also an occurrence in the Old Hittite Zukrasi-text[666]. If this were the case it would skew the outline of the development sketched by Beal from an older ÉRIN^MEŠ and ^GIŠGIGIR^ḪI.A to a later ÉRIN^MEŠ ANŠE.KUR.RA^ḪI.A.

As well as it being possible for an individual to be an ÉRIN^MEŠ, it was also possible for one person to be an ÉRIN^MEŠ ANŠE.KUR.RA^(ḪI.A/MEŠ). The best example here is KBo 5.13 obv. ii 4 (*kuis imma ⸗*) and 31 (⸗ *nasma=as kuis imma kuis antuḫsas*) [667], where a particular type of soldier must be meant as a member of a particular troop. The absence of the professional determinative LÚ.(MEŠ) may possibly be conditioned by the presence of ÉRIN^MEŠ, the two of which are generally mutually exclusive[668]. It is strange, on the other hand, that there is no single case of a mis-writing.

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[665] Goetze read ÉRIN^MEŠ-*KA* A[NŠE.KUR.RA^ḪI.A] in obv. 7. As copied the traces could possibly be G[ÌR]. The traces on the photo (Madd. Tafel I), however, far more resemble EL. If the former is the case we would have an explicit progression from "foot-soldiers" (obv. 7) to "troops (and) horse" (obv. 11). The latter alternative could entail a restoration *E[L]-Q[É]* with Akk. S1 for S3, which fits the traces but is unlikely.

[666] KBo 7.14 rev. iii 2 is read by Houwink Ten Cate 1984: [x] *LI* ÉRIN^MEŠ GÌR *Ù* II *ME* ÉRIN^MEŠ ^G[IŠGIGIR^ḪI.A] "[x] thousand foot-soldiers and 200 ch[ariot]-troops" which is followed by Beal 1992: 141, 279. There is a little more on the tablet than copied by Otten as can been seen on the photos published on the Hethitologieportal Mainz (Ph B0575b, B1472), and the traces do not support the reconstruction GI[Š]. Collation of a photo in Mainz suggested the reading *Ù* II *ME* ÉRIN^MEŠ A[NŠE.KUR.RA^ḪI.A/MEŠ], although ÉRIN^MEŠ L[Ú] might theoretically be possible. The reading is too insecure to use as the basis of further investigation. If A[NŠE.KUR.RA] is correct it would leave no doubt about a distinction between horse-troops and infantry in Old Hittite times.

[667] See Beal 1992 6f. fn. 25.

[668] For exceptions see Beal 1992: 7f. with fnn. 28, 29.

Furthermore, the question of the syntactic relationship between the two words still remains to be clarified.

While we do indeed find phrases such as ÉRIN^MEŠ Ù ^GIŠGIGIR^MEŠ from as early as the Zukrasi text, never once do we find a writing *ÉRIN^MEŠ Ù ANŠE.KUR.RA^ḪI.A. There is one example of ÉRIN^MEŠ-ma ANŠE.KUR.RA-ia, apparently connected by -ia, in one ms. of the Kupanta-^DKAL treaty: KUB 6.41 rev. iv 4, but the duplicate has a different reading[669]: "[writ]e to My Majesty, but put infantry and horse under the command of one general of yours". This refers to an exceptional situation where Kupanta-^DKAL will not be able to come to the aid of the Hittite king himself, but will instead send a single proxy commander, chosen from the commanders of the various types of military division. It cannot be taken as the normal construction, which is shown by a rare form with double phonetic complementation: ÉRIN^MEŠ-it ANŠE.KUR.RA^[ḪI].A-it KBo 5.3+ obv. ii 28 MH/NS CTH 42[670].

Another case where the two components are joined by a connective and even construed in different cases is HKM 15 obv. 6 - rev. 13: nu ÉRIN^MEŠ an-da (7) da-ru-up-pa-an-te-et (8) ANŠE.KUR.RA^ḪI.A-ia-aš-ma-aš-kán (9) ku-iš an-da (10) na-an MA-ḪAR (11) ^DUTU^ŠI I-NA UD.III^KAM (12) li-li-wa-aḫ-ḫu-wa-an-zi (13) ar-nu-ut-ten: "and together with the troops gathered there, bring also the horse-troops which you have there in great haste before My Majesty." In this case "horse" is nom. sg. c. in the relative clause, while ÉRIN^MEŠ is instr. c. or n.[671]

The two terms of the syntagm can be separated not only by considerably lengthy clitic chains attached to ÉRIN^MEŠ, but even by other parts of the sentence (ŠA ÉRIN^MEŠ-ma-mu ku-it ANŠE.KUR.RA^ḪI.A ut-tar HKM 26 obv. 11). Despite the bipartite structure of the phrase, it is never definitely directly construed as a plural[672]. In certain cases it is even clear that an individual can be an ÉRIN^MEŠ ANŠE.KUR.RA^MEŠ. Under normal

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[669] KUB 6.41 rev. iv 3: nu A-NA ^D[UTU^ŠI (5) ḫa-at-ra]-⌜a⌝-i ÉRIN^MEŠ-ma ANŠE.KUR.RA^MEŠ-ia A-NA I^EN LÚGAL-KA pé-ra-an ḫu-[i-nu-ut], dupl. KBo 3.4 rev. iii 8: nu A-NA ^DUTU^ŠI ḫa[-at-ra-a-i] (9) A-NA [ÉRIN^MEŠ ANŠE.KUR].RA^ḪI.A-wa I LÚGAL pé-ra-an ḫu-u-e-nu-ut. The -wa in KBo 3.4 is unusual. It is either a mistaken insertion of the quotative particle resulting from a misconstrual of the syntax after ḫatrāi, or it is a stray phonetic element, albeit unwanted after A-NA. If the latter, it would also have to be either an "Akkadianising" writing ending in the "stem-vowel" of a thematic stem, which *eḱwos was in Indo-European, or a Luwism, as it does not have the expected Hitt. dat. sg. ending -uwi for a u-stem noun.
[670] For similar complementation in a co-ordinate phrase see KBo 54.19, 10: Ì-it LÀL-it.
[671] The connective -ia after ANŠE.KUR.RA^ḪI.A is slightly disconcerting, as it is only expected after a vocalic ending. Given that the ending in question will have been -us, as a collective is ruled out by the relative pronoun, the most efficient explanation is that the Sumerogram was read in Sumerian with the -ia being added to this and not the underlying word. See also BE-LU-uš-ša-an.
[672] The exception here may be the plural verb a-ra-an-zi in HKM 26, 13f. The reading is not at all clear, however, and could conceivably refer to a slightly different combination using ÉRIN^MEŠ.ḪI.A, given that [ÉR]IN^MEŠ ANŠE[......] occurs in the next line as well.

Hittite rules of syntax, if these were two words in apposition, or even merely listed co-ordinately, the number or gender of the final element should determine that of the whole group[673].

As is well-known, the gender of ÉRIN^MEŠ ANŠE.KUR.RA^MEŠ/ḪI.A fluctuates[674]. Secure Middle Script cases with transparent gender or number cannot be found[675]. Both neuter and common gender are found in all three classes of New Script. The earliest identifiable cases are in texts originating in the reign of Mursili II. Indeed, all cases of neuter determination, apart from KBo 3.6 obv. ii 31 (Hattusili III), occur in texts originating in the reign of Mursili II, the greatest number being in the various mss. of the treaty with Kupanta-^DLAMMA of Mira[676].

Both ÉRIN^MEŠ and ANŠE.KUR.RA^ḪI.A/MEŠ are consistently common gender. If ÉRIN^MEŠ, however, is to be associated with *tuzzi(yant-)*, then it may have had a neuter collective at some time, from which the "ergative" *tuzziyant-* was formed, as suggested by Tischler (HEG s.v., but see above). On the other hand, it may be that it is the Luwian word *kuwalan(a)-*, which F. Starke argues to be neuter, that lies behind ÉRIN^MEŠ in these cases[677]. This may be correlated with the concentration of neuter examples in the Kupanta-^DLAMMA treaty. While this may be what lies behind the relatively frequent neuter gender of our phrase, it is unusual that it should be taken as determining the gender of the whole phrase rather than it being determined by the second element, "horse". A further possibility is that the syntactic agreement is regular according to Drohla's rule, i.e. determined by the second element, but that horse here appears in the "collective" case, and takes neuter singular agreement.

As discussed at Beal 1992:12-16, ÉRIN^MEŠ in this phrase can sometimes be replaced by KARAŠ, which entails a similar restriction of semantic range for KARAŠ (from "army" to "infantry") as was found in ÉRIN^MEŠ (from "troops" to "infantry"). It should be

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[673] Drohla 1933: 11, 72, 87

[674] Beal 1992: 6 with fnn. 20, 21. With ibid. fn. 22, however, it can be resumed by a plural common noun, but this is a constructio ad sensum.

[675] KUB 23.77 obv. 21 is restored by von Schuler 1965: 119 as follows: [Fußtruppen und Wagenkämpfer] *wa-al-ḫu-wa-an-zi pa-iz-zi na-aš-kán....*, indicating common gender.

[676] All mss. share neuter agreement here. In the mss. of the Annals both occur. Common gender occurs in the Targasnalli Treaty. See Beal loc. cit. From the prayers see KUB 14.11 obv. 23 (neut.).

[677] Starke 1990: 234 reconstructs a Luwian neuter n-stem, *ku(wa)lan-* with a "hethitisierten" common gender stem ˀ*kulana-*. The forms cited for this "Hittitised" stem, however, are both marked by the double Glossenkeil, and there is no reason I can see to posit common gender for them, given that both occurrences are in the genitive. Further there is no reason to reconstruct an n-stem from the available cuneiform material, although an n-stem in Hieroglyphic Luwian does appear to be correct (Starke 1990: 235). The form *AŠ-ŠUM* ÉRIN^MEŠ-*na-aš* read by von Schuler (id. 1965: 116) at KBo 8.35 rev. iii 5 (MSc) is in a broken context and could read *AŠ-ŠUM* ÉRIN^MEŠ-*aš꞊wa꞊aš*.

noted, however, that it is only in the case of KARAŠ ANŠE.KUR.RA that different numbers are given for the "infantry" and "horse" components of the army[678]. As demonstrated by Beal, the KARAŠ (which appears to be equivalent to and alternate with ÉRIN^MEŠ in the relevant passages) is subject to different conditions in the requirements laid down for the king of Tarḫuntassa in the Bronze Tablet to those laid down for the ANŠE.KUR.RA^MEŠ. While members of the KARAŠ can be used for farming, shepherding or other jobs, there shall be no requirement on Kuruntiya to provide ANŠE.KUR.RA^MEŠ for Hittite campaigns[679]. To introduce this subject both KBo 4.10 obv. 42 and BT iii 32, however, use a writing in reverse order with clitics positioned after the second element: ANŠE.KUR.RA KARAŠ-*wa-aš-ši* and ANŠE.KUR.RA^MEŠ KARAŠ-*ia-at-ta*[680]. The position of the clitics indicates that this is not a regular case of "horse-troops (and) infantry", at least syntactically speaking[681]. Here too, it does not appear to be "horse" which determines the gender of the syntagm, but rather "army"[682]. KBo 4.10 obv. 47 ends the section with a reversion to the usual order and syntactic alignment: KARAŠ-*ma-aš-ši* ANŠE.KUR.RA^MEŠ *le-e ku-it-ki ša-an-ḫa-an-zi* "but they shall not seek from him infantry (and) horse-troops at all"[683]. One possible inference from this is that the actual Hittite word-order is betrayed by those cases where the the gender is neuter, or where the order has been reversed as in KBo 4.10 obv. 42 and BT iii 2,: **akkus tuzzi-/kuwalana-*.

A number of syntagms including ÉRIN^MEŠ appear to have been similarly construed: ÉRIN^MEŠ *asandula/i-*; ÉRIN^MEŠ *panku-*; ÉRIN^MEŠ *warrai-*; It is worth listing the entry from Erimḫuš on the compounds with ÉRIN[684]:

(17) [érin].⌈á⌉.daḫ   *na-ra-ru*   *wa-ar-ri-iš* ÉRIN^MEŠ-*za*

(18) [éri]n.ka.kéš   *bi-ir-du*   ⌈*a*⌉-*š[a-a]n-du-liš* ÉRIN^MEŠ-*za*

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[678] 1 SIG₇ KARAŠ VII *ME* ANŠE KUR.RA^ḪI.A KBo 4.4 obv. ii 73-74; Beal 1992: 13. KARAŠ in this phrase never appears with a plural determinative.

[679] Beal 1992: 16; BT iii 32, 38.

[680] A similar order is apparently observed in the fragments of the parallel ABoT 57, 13. See Van den Hout 1995: 34, who translates "Die Wagenkämpfer (und) die Truppen".

[681] Contra Beal 1992: 52f.; van den Hout loc. cit.

[682] With Van den Hout 1995: 65f.: KBo 4.10 obv. 43, 44 resumes with *kuit* and *apāt*. The individual soldiers, whose various non-military uses are then detailed, are referred to as *kuin*. This pattern appears to be followed by ABoT 57. The Bronze Tablet, however, uses only the common gender, and could thus be referring to the "horse".

[683] For a possible pairing of "chariot and horse" in HL see Laroche HH 293, interpreting the sign, which only occurs in Karahöyük 11, as a ligature of chariot and horse's leg. Hawkins 2000: 295 also "likely".

[684] MSL 15.110

In both cases where the Sumerian word is translated into Hittite, the word defining the kind of troop is placed in front of the phonetically complemented logogram, as is usual in Hittite adjectival syntax. In text examples where ÉRIN^{MEŠ} is not phonetically complemented, the order is reversed (eg. ÉRIN^{MEŠ} *asandula/i-*). Thus in these cases, too, the syntactic priority of ÉRIN^{MEŠ} is established, making it all the more likely that this is the case for ÉRIN^{MEŠ} ANŠE.KUR.RA$^{ḪI.A/MEŠ}$, although the phrasal syntax is in each case different. ÉRIN^{MEŠ} ANŠE.KUR.RA$^{ḪI.A/MEŠ}$ thus follows regular logographic word-position. The fact that the word-order could change within 6 lines of one text from ANŠE.KUR.RA^{MEŠ} KARAŠ to KARAŠ ANŠE.KUR.RA^{MEŠ} probably indicates that it was possible to change the word order in Hittite as well.

Ḫattusa, KUR ^{URU}ḪATTI [685]

Beside the phonetic writings the logographic writings KUR ^{URU}ḪA-AT-TI, KUR $^{URU.GIŠ}$PA^{TI}, KUR ^{URU}ḪAT-TI, KUR ^{URU}KÙ.BABBAR^{TI} are attested. The writing ^{URU}KÙ.BABBAR^{TI} is generally assumed to be formed from an as yet otherwise unidentified Hattic word for "silver"[686]. It is only found in NS texts[687]. The writing with ^{GIŠ}PA/GIDRU is clearly based on the Akk. word *ḫaṭṭu* "staff", and can be traced back as early as the late Middle Hittite period (Maşat, ABoT 65)[688]. The writing without determinative, sometimes interpreted as a syllabic writing, ^{URU}ḪAT-TI (^{URU}GIDRU^{TI}), is the latest of all to appear, with a frequency in texts of the time of Hattusili III[689] and or tablets in ductus-type NSc[690].

Interpretation:

H.G. Güterbock[691] advocated /Hattusas/ as the reading of the Akkadogram ^{URU}ḪA-AT-TI. This he took to be both the name of the capital city and of the country[692]. Hoffner,

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[685] Otten 1973: 61f.; Klinger 1996: 87-91.

[686] HWb. 316; Hoffner 1967: 52 fn. 88 compares the place-name ^{URU}ḫa-wa-al-ki-na (KUB 7.24 rev. 9), ^{URU}ḫa-wa-ar-ki-na (KBo 2.4 rev. iv 6) as an example of a toponym formed form a metal ("iron").

[687] See Otten/Kühne 1971: 35f. These are not necessarily all texts of the 13th century with Klinger 1996: 88 fn. 32. KBo 5.6, KBo 3.3 and KBo 5.9, which all write KUR ^{URU}KÙ.BABBAR^{TI}, are all NSa documents, the last having a number of MS features (AR, SAR). Of course, they may still have been written in the 13th century. This is less likely with KUB 3.7 (Akk., Aziru-Suppiluliuma I Treaty), which is to be classed as MSc, and "sich gut in das Schriftbild der sonstigen Überlieferung einfügt" (Klinger 2003: 242.

[688] Klinger 1996: 88 fn. 32.

[689] Klinger 2003: 244.

[690] It does also occur in KBo 1.4, the Tette-Suppiluliuma I treaty, which has a script with Syrian features, particularly in col. iv. The logographic transliteration GIDRU is probably best, due to the fact that it had to represent not only the sound /ḫattu/ (^{URU}GIDRU-*ši*) but also simple /ḫat/.

[691] Güterbock 1956: 98, fn. o. id. Symbolae Hrozny III 350, IV 327f. (ArOr 17-18).

commenting on Laws §19 b, states that "...^uru Hattusa, despite the city determinative, can mean the same thing as KUR ^uru*Hatti* "Hatti (-land)...".[693]

This is supported by textual variations in narrative:

KUB 8.81 + KBo 19.39 (MH/MS) forms one of the Hittite versions of the Sunassura treaty (CTH 41). It concerns the regulation of fugitives. Obv. ii 2 has *ma-a-na-aš ta-[me-d]a-az* KUR-*az I-NA* KUR ^URU*KI-IZ-ZU-WA-AT-NI a-pa-ši-la pa-iz-[z]i* "if he goes by himself from another country into the land of Kizzuwatna". Describing the same movement of a fugitive a little later, obv. ii 11: *ma-a-na-aš-ta* ^LÚ*pít-te-an-za* ^URU*Ḫa-at-tu-ša-az* ^URU*K[i-iz-zu-wa-a]t-[ni]*[694] *pa-iz-zi* "or if the fugitive goes from Hattusa to Kizzuwatna".

Further on, the co-ordination of ^URU*Ḫattusa* and ^URU*Kizzuwatni* parallel to entities denoted by KUR is clear, although the text has been restored: rev. iii 9 *[ma-a-a]n-kán* ^LÚ*pít-te-[an-z]a* ^URU*ḫa-at-tu-ša-az* (10) *ta-mi-e-ta-ni* [KUR-*e*] *p[a]-iz-zi na-aš ta-mi-e-da-az* (11) KUR-*ia-az* EGIR-*p[a (A-NA/I-NA?)]* ^URU*Ki-iz-zu-wa-at-ni pa-iz-zi* "if a fug[it]ive goes from Hattusa to another [land] and he goes from another country back into Kizzuwatna".

In these cases Hattusa is clearly being used as an entity on the same level as a "country".

Akkadogram or Hittite stem-vowel?

The Hattic name for the capital of the Hittites was *Hattuš*, which is an attested writing of the place-name in OA texts from Kültepe, Alişar and Boğazköy[695] and is generally accepted to have been adopted into Hittite in the thematised form *Hattusa-*[696]. This "Hittite" name may have formed the basis for the ethnic adjective *ḫa-tù-š[a]-i-am* attested in an Old Assyrian text[697], and the writing *[ḫ]a-[a]t-tu-ša*^ki, which occurs at

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[692]ibid. p. 98, l. 35: [*k*]*a-ru-ú-i-li-ia-za-wa-kán* ^uru*ha-at-tu-ša-aš* (36) [^ur]^u*mi-iz-ra-aš-ša iš-tar-ni-šum-mi a-aš-ši-ia-an-te-eš* (37) [*e*]*-šir*... "of old Hattusa and Egypt were friendly with each other". Compare l. 29: ...*nu-kán* ^d*U-aš* (30)[*A-NA*] KUR ^uru*mi-iz-ri Ù A-NA* KUR ^uru*HA-AT-TI ma-aḫ-ḫa-an* (31) [*iš-h*]*i-ú-ul iš-tar-ni-šum-mi iš-ḫi-ia-at*, "...and how the storm-god concluded a treaty between the countries of Egypt and Hatti. Also ibid. p. 93, where A ii 19 has ^uru*KÙ.BABBAR*^TI, but D 1 has [... ^uru] *ḫa-at-t[u-ša-aš* ...].

[693] Hoffner 1997: 180.

[694] As per CHD P 362 with literature. The minor character writing of *Kizzuwatni* indicates that it is to be taken as a locative and not an abbreviation of an Akkadogram KUR ^URU*KI-IZ-ZU-WA-AT-NI*.

[695] Nashef 1991: 97; Otten 1973: 61 fn. 16.

[696] Klinger 1996: 87 with lit.

[697] Larsen 1971: 101, with the argument that the text in question, which is unprovenanced, might belong to Kültepe Ib on the basis of this Hittite form of the name. As he further notes, the retention of mimation points to the text being earlier. While the usual OA ethnic formant certainly is *-ium*, it is a little opaque

Mari in a text from the reign of Zimrī-Līm[698]. Dossin 1939: 71, 8f.: *i]š-tu ka-ni-iš*[ki] *ḫa[r]-sa-am-na-a*[ki] (9) [*ḫ*]*a-[a]t-tu-ša*[ki699].

Indeed, the writing [URU]*ḪA-AT(ḪAT)-TI* never occurs in the nom. or acc., but only ever in what appears to be the genitive after KUR, DUMU[MEŠ], LÚ[MEŠ], or after the Akkadographic pronouns *INA* and *ANA*. This appears to indicate an Akkadographic, or at least an Akkadicising, writing, in that it shares exactly the distribution of an Akkadogram.

On the other hand it is clear that the Hittite language had a designation for text in the Hattic language that was based on quite a different stem to *ḫattusa-* or *ḫattu(s)-*: *ḫattili*. Comparison with other such stems in ⸗*ili* suggests that the stem here would have been **hatta-* (cf. e.g. *nesili*), although a stem **ḫatti-* would also be possible[700]. It must then remain a possibility that [URU]*ḪATTI* was formed from this latter, with a stem-vowel formation exactly parallel to all other "Akkadicising" stem-vowel forms in place-names. Why forms such as ***[URU]*ḫattis*, ***[URU]*ḫattin*, or **KUR/INA/ANA* [URU]*ḪATTUSA* are never found, is left obscure by this account. Furthermore, *hattili* itself appears to be an adverbial language description that may have only been created once the language Hattic had ceased to exist, and thus cannot be said to be itself definitely old[701]. On the other hand, what other designation for "in Hattic" might one have used in Hittite of the time before *ḫattili* is attested?

Besides *Ḫattuš* OA also preserves the place-name **Ḫatum*, which is always written in the gen. *ha-tim*, unless the personal name *ḫa-tum* is also to be included here[702]. Kh. Nashef argues that this must refer to a country, to which a town such as Burušḫattum may have belonged[703]. If the OA city-name *Ḫattuš* hypothetically developed to Hittite *Ḫattusa*, is it possible that the OA country-name **Ḫatum*, *Ḫatim* developed to an Akkadian/Akkadographic **ḪATTU*, *ḪATTI* in Hittite texts?[704] If this were the case, we would at least expect forms of the nominative and the accusative **ḪATTU*, **HATTA* to

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why the variant *-aium* should be restricted to stems in *-a*, and this be used as proof of the undeniable presence of Indo-Europeans in OA Kültepe as per Klinger 1996: 88 with fn. 30.

[698] Dossin loc. cit. 70 dates the tablet to the reign of Zimrī-Līm on the basis of the hand-writing. cf. also ARM XVI/1 15. Otten thinks that the writing Ḫattuša should date the text to the later tablets from Mari.

[699] A further possible Anatolian "stem-vowel" in a personal name from Mari has been suggested for ARM I 68 [d]IŠKUR-LÚ-*ti* and ARM I 25 [d]IŠKUR-LÚ-*ti₆* an official under Šamši-Adad. J. Sasson reads this as *Tarḫunda-Ziti* (Sasson 1966: 155f.).

[700] Landsberger 1950: 325f., 350.

[701] Klinger 1996: 90f.

[702] Nashef 1991: 57.

[703] Nashef loc. cit. with ref. to Dissertation.

[704] Otten 1953: 63 with additional reference to the OA personal name [f.]*Ḫatītum*.

be preserved somewhere[705]. While *ḪATTI* itself is not attested in the nominative, which lends credibility to its status as an Akkadogram, ^{URU}KÙ.BABBAR*^{TI}* most certainly is.

Furthermore, the equivalence "Land" = "Town" Hattusa is often ambivalent. In the Instructions for the Temple Officials (KUB 13.4 ii 46// KUB 13.6+ ii 31f.) royal gifts to individual temple officials can only be sold on under the watchful eye of the EN^{MEŠ} ^{URU}*ḪA-AT-TI*[706]: EN^{MEŠ URU}*ḪA-AT-TI a-ra-an-ta-ru nu uš-kán-du*, "may the lords of Hattusa stand by to inspect." These can only be the lords of the city Hattusa, as these are the instructions for temple officials specifically in that city. On the other hand, if particular officials are meant here, rather than generic "lords", the text can only be referring to the EN^{MEŠ} KUR*^{TI}*, who in the case of Hattusa would probably have been officials of quite a different order to those EN^{MEŠ} KUR*^{TI}* outside it[707]. In that case ^{URU}*ḪA-AT-TI* may be referring to the "land" after all, although only by reference to this official designation.

HLuw. of the Empire Period certainly had two different writings for Ḫattusa, but it is unclear what they refer to. The usual writing with HH 196, *HATTI* (REGIO), is attested on SÜDBURG, YALBURT and NİŞANTAŞ. KARAKUYU's *HATTI* (URBS), along with the writing of the name Hattusili as HH 196+*LI*, show that this could also be used for the city "Hattusa"[708]. The Yalburt writing LINGUA+CLAVIS-*tu-sa*, which appears from context to be in the dative, can be little else than *Ḫattusa*[709]. The writing LINGUA+CLAVIS is opaque, as is the precise nature of the logogram *ḪATTI*, which is not to be confused with the sign TONITRUS (HH 199)[710]. Two signs in Hieroglyphic Luwian may require two words for the capital. If LINGUA+CLAVIS is clearly Hattusa, then *ḪATTI* may correspond, indirectly via Luwian, to a Hittite *Ḫatti*, although the only evidence for its pronunciation (the name Hattusili) is that it, too, was *Ḫattusa*. One

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[705] ^{URU}*ha-at-tu*[-*ši*] is in all likelihood to be read at KBo 13.55 rev. 6, with the final sign at the end of the line. A reading ^[URU]*HA-AT-TU-⌜e⌝*, ^{URU}*ḪA-AT-TU-az* at KBo 7.14+ rev. iii 15 is a possible candidate for the nominative of the Akkadogram with Hittite phonetic complements as consistent with the occasional OH practice of complementing Akkadograms, but could also indicate a Hittite u-stem! See Otten 1953: 62; De Martino 2002:120.

[706] Taggar-Cohen 2006: 52, 101. I am grateful to J.L. Miller for bringing this to my attention.

[707] For the observation that these were lowly officials in Hattusa see EN KUR s.v.

[708] Hawkins 1995b: 24f., 72f.

[709] Hawkins 1995b: 72f.

[710] One ad hoc but unverifiable solution is to see LINGUA+CLAVIS as a logogram for Hitt.(-Luw.?) *ḫatta-* "stick, pierce", which may suit a tongue pierced by a nail, although the precise choice of image remains obscure. (Mark Antony's wife Fulvia apparently pierced Cicero's tongue with her hair-pin after he was killed, but no such activity is attested in Hittite ritual or incantation). This would then be a rebus writing.

cannot exclude that HH 196 was susceptible of a changed phonetic realisation according to its determinative, whether Ḫatti (URBS) or Ḫattusa (REGIO). The two-name theory for the two different signs is of no use, however, if LINGUA+CLAVIS is a rebus writing.

The options then are these:

1) Hittite had two, perhaps originally three, words for the country and the city, which may have originally been distinguished semantically but later came to be used interchangeably: Ḫattusa- (city) which is always declined, Ḫatti- (country), which is never declined (and Ḫattu- which is only attested in one text, declined).

2) Ḫattusa- was the only Hittite word for the city and the country, with ḪATTI (and the oddly complemented ḪATTU-e, ḪATTU-az) serving as Akkadograms.

At present it is not possible to move the choice of alternative forward in any meaningful sense.

The syntax of the phrase KUR ^{URU}ḪATTI:

KUR ^{URU}ḪA-AT(/ḪAT)-TI, KUR ^{URU}KÙ.BABBAR$^{(TI)}$ = ḫattusas utne?

The most convincing phonetically complemented forms of this phrase indicate one unambiguous syntactic interpretation of this phrase as a genitive phrase "the land of Hattusa":

ḫa-at-tu-ša-aš-ša KUR-e VBoT 1, 27 (letter from Egypt).

IBoT I 30 obv. 3f.: ^{URU}KÙ.BABBAR-aš KUR-e (4) ḫu-u-ma-an pa-iš

A possible example of an appositional phrase is provided by the duplicate tablets of CTH 381. While it is impossible to compare the texts of KUB 6.45 i 14 and 6.46 i 15 directly due to the amount of erasure and apparent "proof-reading", which has resulted in the two tablets having essentially different texts at this point, it is not possible to interpret the unerased phrase in KUB 6.46 i 15 (B) as anything other than a syntactically appositional reading of the logogram: ^{URU}ḫa-at-tu-ši KUR-e, "in the land Hattusa". A further slightly ambiguous example with normal position of uncomplemented logogram and fully phonetic Hittite word is d.-l. KUR$^!$ ^{URU}ḫa-at-tu-š[i] at KUB 31.64 obv. ii 38 (OH/NSc).

An appositional phrase for a place-name is not that unusual:

KUR KUR *a-la-ši-ia-an-ma-za-kán* KBo 12.38 obv. i 7; KUR ^{URU}*Ḫar-ra-na-az-ma-z*[*a*] KUB 19.13 obv. ii 31; KUR ^{URU}*ḫar-zi-ú-na-aš* KUB 21.6a rev. iii? 14; KUR ^{URU}*Ḫa-at-ra-aš* (nom.) KBo 3.46 obv. ii 15; KUR ^{URU}*iš-ḫu-pí-it-ta-aš* KUB 19.9 obv. i 23; KUR ^{URU}*Iš-ḫu-p*[*í-it*(?)]*-ta-az-ma* KBo 14.16, 3; KUR ^{URU}*Kam-ma-la-aš-ša* (gen.sg. *Kammalass=a*) KUB 19.10 obv. i 9; KU[R ^U]^{RU}[*Ka*]*t-ḫa-ri-ia-aš* (nom.) KUB 19.10 obv. i 21; KUR ^{URU}*Ma-a-ša-aš* (gen.sg. ⸗ ÉRIN^{MEŠ}) KUB 19.10 obv. i 8; KUR ^{URU}*pár-ḫa-an-na* BT i 63 (*nu utnē parhann=a*); KUR ^{URU}*šal-la-aḫ-šu-wa-aš* KBo 10.2 obv. i 42; KUR ^{URU}*ša-ad-du-up-pa-an* KUB 1.6 obv. ii 12; KUR ^{URU}*táq-qa-aš-ta-aš* nom. sg.: KBo 3.6 obv. ii 17; KUR ^{URU}*za-al-la-ra-aš* nom. sg.: KUB 21.6a rev. iii? 12;

In fact, evidence for phonetic writings of place-names other than Hattusa that indicate a genitive syntagm, "land of GN", is decidedly lacking. If KUR ^{URU}*ḪATTI* were similarly primarily an appositional phrase, the translation "the land Hatti" using the stem-form of a Hittite i-stem noun *Ḫatti-* would win more credibility. However, a form *^{URU}*ḫatti* KUR-*e*, for example, is never found.

Other Akkadianising Writings

From the dawn of Hittitology there has been a tendency to see the endingless form which occurs in the compound logograms of place-names (KUR ^{URU}GN), as well as after Akkadographic prepositions, as essentially Akkadographic or Akkadianising. Akkadographic is certainly the wrong term for it, as the forms are not specially Akkadian names that are different to the Hittite ones. The fully phonetic forms of names after KUR ^{URU} demonstrating apposition, and listed above would not be called Akkadographic, as they are full Hittite words, although their position is owed to the usual Hittite cuneiform rule of writing an uncomplemented logogram before its dependent Hittite word in a compound. This is presumably borrowed from Akkadian syntax. It is thus erroneous to call them Akkadographic. However, the declensional pattern resulting from the use of these endingless forms has much similarity with that of Akkadian declension, in that one has a nominative, accusative, and an oblique case, which fulfils the functions of the Hittite genitive, instrumental, ablative and dative-locative by the addition of Akkadographic prepositions. We are thus dealing with a morphological calque[711].

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[711] Some scribes appear to mark Akkadian case endings in such phrases: ^D*IŠTAR* ^{URU}*ŠA-MU-ḪI* KUB 21.17 rev. iii 5; ^DLIŠ ^{URU}*ŠA-MU-ḪI* KUB 21.17 obv. i 11, obv. ii 5, rev. iii 2] NH/NS CTH 86.1.

There are however a number of other uses of the endingless form in place-names without any of the qualifying criteria for pseudo-Akkadographic usage such as Akkadographic prepositions, which demonstrate a tendency to use these as logograms. Those collected in the course of the current project are as follows:

^{URU}AN-KU-WA-i KBo 22.214 rev. vi 2 col. ŠU ^{I}a-la-li-mi (with "Syrian" LI) + hieroglyphs. p[i]+ l[i].

^{URU}KA-RA-AḪ-NA ^{URU}MA-RI-IŠ-TA nom. sg. (?) KBo 3.6 obv. ii 16 NH/NS (// ^{URU}ka-ra-aḫ-n[a-aš]-ša ^{URU}ma-ri-iš-ta-aš KUB 1.1 obv. ii 31f. NS) **CTH** 81

^{URU}ḪA-IA-ŠA (d.-l.) KBo 4.4 rev. iii 26 (pāun) NH/NS **CTH** 61.II.5

^{URU}[ḪI-I]N-DU-WA KUB 14.1 obv. 67 (i-it-ten) MH/MS, 68 (zaḫḫiya peḫutet) CTH 147

^{URU}GA-AŠ-GA$^{ḪI.A}$ KBo 3.6 rev. iii 57 (ku-i-e-eš) NH/NS (= KUB 1.8 rev. iv 12 NS, = ^{LÚMEŠ} GA-AŠ-GA^{Ḫ}[$^{I.A}$ KUB 1.1 rev. iv 27 NS) **CTH** 81. KBo 16.36 obv. ii 11 (-]an-za anda aras) NH/LNS **CTH** 83. KUB 21.11 obv. 8 (ḫūmantes) NH/NS **CTH** 90, KBo 22.73 obv. i 13 NH/NS **CTH** 90?

^{URU}ḪAT-TI KBo 12.30 obv. i 1 NH/LNS **CTH** 122.

 [A-NA?]^{URU}IŠ-NA-TI KUB 31.19 rev. iv? 10 NH/LNS? **CTH** 82?

^{URU}KU-WA-LA-PA-AŠ-ŠA d.-l. sg.? KUB 31.19 rev. iv? 6 NH/LNS? **CTH** 82

^{URU}PA-AḪ-ḪU-WA za-aḫ-ḫi-ia QA-TAM-MA pa-i-mi KUB 23.72 rev. 31 MH/MS CTH 146

$^{URᴵU?}$ŠA-AḪ-ḪU-U-I-LI-IA KUB 26.71 rev. iv 12 (pa-it). Not clear from photo B0545b if actually URU. Also enough room for preposition. OH/NS CTH 18

^{URU}TA-AK-KU-MI-ŠA KUB 26.71 rev. iv 10 (broken context went/ conquered etc, cf. ibid. 11 [GUD$^{ḪI.A}$-ŠU]-NU UDU$^{ḪI.A}$-ŠU-NU) OH/NS CTH 18

^{URU}DA-LA-U-WA KUB 14.1 obv. 67 (pa-i-mi) MH/MS CTH 147

$^{[URᴵU}$TE-GA-RA-MA acc. sg.: KBo 6.28 obv. 12 NH/NS **CTH** 88.

^{URU}TI-PÍ-IA KUB 26.71 rev. iv 13 (pa-a-ir) OH/NS CTH 18

^{URU}TI-PÍ-IA-ma (loc. sg.) KUB 26.71 rev. iv 5 OH/NS CTH 18

^{URU}TI-WA-RA KUB 23.11 rev. iii 16 (loc. sg.) MH/LNS CTH 142.

^{URU}TÚL-NA KUB 26.71 rev. iv 9 (^{URU}ḫa-at-tu-ši ⸗ ú-it) OH/NS CTH 18

^{URU}WI$_5$-IŠ-TA-W[A-AN-DA] KUB 19.9 obv. ii 4 (wemiyanun) d.-l.? (Ünal THeth. 3:68) NH/NS **CTH** 83

^{URU}*WA-AŠ-ḪA-NI-IA* $^{LÚ.MEŠ}$*ḫu-wa-an-ta-lu-uš a-ša-an-zi* BT i 83 "die *ḫuwantala*-Leute von Wasḫanija sind vorhanden." (Otten BT 15) NH/LNS **CTH** 106.

The MS cases all appear in the d.-l. sg. and could very well be late examples of the OH directive in *-a*, thus not endlingless at all. The same may be true of the OH texts on NS manuscripts. The writing ^{URU}*AN-KU-WA-i* in a colophon may represent a scholastic variation on *I-NA* ^{URU}*ANKUWA*. It would then also indicate that the final "stem-vowel" of these forms was not pronounced[712]. The nom. sg. cases are either constructed after the endlingless personal names or perhaps represent the "collective" in some form. Like ^{URU}KÙ.BABBAR^{TI} in the nom. sg. they only appear late.

It is at present unclear what this endlingless form is supposed to represent and a full investigation must remain beyond the bounds of this work[713]. Quite clear, however, is that the fully declined form *Ḫattusa-* is substantially different to the undeclined form *ḪATTI*, in a way that cannot be paralleled by any other place-name.

KUR ^{URU}GN

KUR ^{URU}GN is by far the predominant writing although omissions of URU and occasional uses of the determinative KI do occur. The following are the only examples of KI as a determinative booked in Del Monte/Tischler 1978 and Del Monte 1992.

KUR$^?$ ^{URU}*AN-KU-WA*$^{K[I]}$ LS 3 rev. 29

KUR ^{URU}*a-ta-ni-ia*^{KI} KBo 1.5 passim (Šunaššura, MS[714])

KUR ^{URU}*ḫa-at-ti*^{KI} KBo 1.5 rev. iv 61, 64[715]

KUR ^{URU}*I-LA-AN-ZU-RA*^{KI} KBo 3.60 rev. iii 11 (cannibal text, OH/LNS)[716]

KUR ^{URU}*ki-iz-zu-wa-ta-na*^{KI} KUB 34.1+22, 34, 38; KUR ^{URU}*ki-iz-zu-wa-ta-ni*^{KI} ibid. 30; KUR ^{URU}*ki-iz-zu-wa-at-na*^{KI} ibid. 16[717]

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[712] Admittedly this can only be proved by a similar writing using a sign that does not have an i-value in cuneiform outside Anatolia, which is the case for PI (= *wa*, *wi* etc.). Note the "Syrian" LI used here, Syrian texts being characterised by just such a use of PI with the value *wi*.

[713] The use of the endlingless case in the so-called "vocativus commemorativus" springs to mind, but E. Neu is no doubt right in keeping these phenomena separate. For further remarks see the section LÚ^{MEŠ} GN below.

[714] See ibid. iv 49, 51 ^{URU}*a-na-mu-uš-ta*^{KI}. ^{URU}*a-ru-u-na*^{KI} iv 43, 45; ^{URU}*e-ri-im-ma*^{KI} iv 46; ^{URU}*la-mi-ia*^{KI}; ^{URU}*lu-wa-na*^{KI}; ^{URU}*pí-tu-ra*^{KI} iv 40; *pí-i-tu-ra*^{KI} iv 43; ^{URU}*ša-a-li-ia*^{KI} iv 48; ^{URU}*še-ri-ig-ga*^{KI} iv 58.

[715] [LÚ]^{MEŠ} ^{URU}*ḪA-AT-TI*^{KI} KBo 3.45 obv. 3 OH/NS

[716] LUGAL ^{URU}*I-LA-AN-ZU-RA*^{KI} ibid. 14; LÚ ^{URU}*ŠU-Ú-DA*^{KI} ibid. ii 7, ^{URU}*ḫal-pa*^{KI} ("Dir." Del Monte/Tischler 1978: 71) iii 6.

KUR ^{URU}MAR.TU^{KI} KUB 34.13 obv. 6 (sun-omen)[718]

KUR ^{URU}NIM.MA^{KI} KUB 8.8, 2], 5; KUB 29.11 ii 15 (moon-omens)[719]

See also: ^{URU}*ha-la-ab*^{KI} KBo 1.11 rev.$^!$ 25, 28. ^{URU}*ḫa-an-ḫa-na*^{KI} LS 2 rev. 8. ^{URU}*I-IA-ḪA-LA*^{KI} KUB 8.14 rev. 11. KÁ.DINGIR.RA$^{K[I]}$ KUB 31.64 iii 17; ^{URU}*ku-uš-šar*^{KI} KUB 1.16 iv 75 (Akk.); ^{URU}*ne-ša-aš*^{KI} 2BoTU 14a obv. 13. ^{URU}*ús-sa*^{KI} KBo 19.95 obv. 4[720].

The distribution demonstrates a clear direction. With the exception of Ḫanḫana there are no Northern or Western names. Kizzuwatna and Northern Syria are otherwise the most frequent geographical areas with place-names marked by KI among the Boğazköy texts. In most cases these are Akkadian texts, or, in the case of KUB 1.16, an Akkadian colophon to a bilingual, or Hittite translations of Akkadian omen-literature[721]. The finding that determination of place-names with KI has a bias towards Kizzuwatna and Syria can be compared with the use of the determinative KI in the writing practices of Alalaḫ, Ugarit and Emar.

Among the writings without URU, i.e. KUR GN, I propose to recognise the following groups

1) Examples from OS tablets or later tablets from OH traditions: eg. KUB 36.104 obv. i 9 KUR *AR-ZA-Ú-I-IA* (= KBo 3.34 obv. i 11 NS). KBo 17.21+ obv. 36 *ḫa-ni-ik-ku-un* ^{D}*k[a-taḫ-ḫa-an]*[722]. These are very rare.

2) Examples from tablets of texts dealing with "Syrian" affairs, e.g. KBo 3.3 (Barga Arbitration, scribe Tatiggana, NS), KBo 1.4 (Tette, NS), KBo 1.5 (Šunaššura, MS).

3) Tablets from texts originating in the time of Hattusili III or later.

4) Tablets exhibiting LNS or at least features of LNS. KBo 3.4 (eight occurrences), a tablet of the annals of Mursili II which exhibits a few LNS features, should be mentioned in particular.

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[717] But see ibid. 17, 28 without KI.

[718] Del Monte/Tischler 1978: 14. Contrast without KI KBo 18.19 rev. 10; KUB 8.2 rev. 8; KUB 8.21, 13; KUB 15.34 i 55 = 38 i 3.

[719] Contrast KUR ^{URU}NIM.MA KUB 43.20, 8; KUR NIM.MA KUB 8.1 iii 13; 8.35 rev. 13; KUR NIM.MI KUB 8.35 rev. 15 (Del Monte/Tischler 1978: 138).

[720] This unassigned NSc (contra Konkordanz "jh.") Akkadian fragment displays a number of orthographic peculiarities: (3) LUGAL ^{URU}*ḫa-at-tu-uš*, (11) *iṣ-bat-zu*.

[721] Exception: *ne-ša-aš*^{KI}.

[722] Neu 1980: 55 with fn. 198 with ref. to Laroche RHA 31, 1973: 89, reading this as Hattic for ^{URU}*Ankuwas* ^{D}*Kataḫḫan*.

There are a number of exceptions to this very general division[723]. Absent here are any MS tablets that are not concerned with "Syrian" affairs (with one exception[724]), as well as the vast majority of OS tablets. This suggests that we are once again in the realm of ultimately Syrian writing practices when we encounter this writing; the consequence of this conclusion would, however, be to assume that there was a lull in the influence of Syrian place-name writing on Hittite cuneiform during the periods during which MS and the earlier stages of NS were in use. This does not square with what we usually assume about cultural influence on Ḫattusa during this time.

If we are able to accept the few deviations from this general grouping, a welcome corollary is the pairing of groups (3) and (4) above, especially in light of the fact that the signs associated with NSc must have been introduced in Ḫattusa around the time of Muwatalli II and Hattusili III. Whether these two phenomena had anything to do with each other is speculative.

LÚ[(MEŠ) URU]GN

LÚ [URU]GN vs. LÚ KUR [URU]GN

F. Starke asserts the equivalence of LÚ[MEŠ URU]ḪA-AT-TI, "Hittites", with phonetic *Ḫattusumenes* and declares that this phrase: "... meint klärlich nie die Bevölkerung des heth. Staates, sondern ebenso wie der Begriff *bangu-* 'Gemeinschaft' deren massgeblichen Teil, die Angehörigen der grossen, weitverzweigten königlichen Sippe"[725]. He does not say whether this is supposed to be extended to all cases of LÚ[MEŠ] [URU]GN. It is thus not clear whether he means the restriction of the the population denoted by a place-name to the royal family to be specifically a function of the use of the place-name Ḫattusa, or whether it has to do with the ethnic suffix *-umen-* or its Sumerographic representation LÚ[MEŠ].

The examples cited to underline this point do not necessarily imply what Starke wants. KUB 36.106 (OS/MS), 6f.: *na-an-za* ŠEŠ[MEŠ]-*ŠU* NIN[ḪI.A]-*Š[U]* (7) [*pa-*]*an-ku-uš-ša* LÚ[MEŠ URU]ḪA-AT-TI *še-ek-kán-du* should be translated "let his brothers (and) his sisters, and all the Hittites recognise him". Although *pangu-* is not declined adjectivally here, it

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[723] Exceptions: KUR *AR-ZA-U-WA* (nom.) KUB 14.15 obv. ii 4 NH/NS **CTH** 61.II.2; KUR *BA-LA-A* KUB 21.16 obv. i 9 NH/NS **CTH** 84.1; KUB 23.72 rev. 39 (*A-NA ... Ù* ⸗) MH/MS **CTH** 146; KUR.KUR[MEŠ] *GA-AŠ-GA-ia* nom. (*ḫūmanda*) KBo 5.8 obv. i 33 NH/NS **CTH** 61.II.7; KUR *PA-LA-A* KBo 5.8 obv. ii 30 (*ŠA* ⸗; pre-posed) NH/NS **CTH** 61.II.7; LUGAL KUR *AḪ-ḪI-*ᵍ*Ú*ᵍ*-W[A-A]* (*A-NA* ⸗) KUB 14.15 obv. i 24 (coll.) NH/NS **CTH** 61.II.2.

[724] The Mita of Paḫḫuwa text (CTH 146) omits URU once (see previous footnote).

[725] Starke 1996: 153 with fn. 54. Refers to Imparati 1991: 176 (this book was not available to me).

is construed as a zeugma "the totality, the Hittites" which can be translated as "all"[726]. If this were an apposition wherein *pangus* was then further defined by "the Hittites", we might not expect the verb to be plural. As a zeugma we might expect it to follow Drohla's rule.

Without the special definition of *pangu-* as those who belong to the king's council, the definition of LÚ[MEŠ URU]*ḪA-AT-TI* as referring solely to the members of the extended royal family is unnecessary.

LÚ [URU]GN does, however, often refer to the leaders of a community rather than to the whole population. Certain rulers are never referred to as LUGAL, but only as LÚ[727]. Mita of Paḫḫuwa exclaims indignantly that he is not a [LÚ]IŠ but a LÚ-*aš*, not a "chariot-fighter" but a "ruler", where the word for "ruler" is probably identical with the word for "man" as male procreator, *pesna-*, although it could also stand for *antuḫsa-*[728]. It is quite possible, although it cannot be proved from the available evidence, that the expression LÚ [URU]*IŠUWA*, for example, is to be read as **Isuwas pesna-*. At the very least we should be wary of associating LÚ [URU]GN immediately with the ethnic adjectives. CHD wonders whether this use of LÚ [URU]GN for "ruler" has been influenced by Akkadian usage. The question arises whether the other primarily ethnic uses of LÚ [URU]GN are not also examples of genitival phrases in Hittite.

There are several ethnic adjectives in Hittite, primarily apparent in names and there are no examples where they alternate convincingly with the ethnic LÚ[(MEŠ) URU]GN. It is commonly accepted that the the first of these, *-umna-*, attested relatively frequently in Old Hittite, is the most common Hittite equivalent to the ethnic phrase LÚ [URU]GN[729].

1) The gentilic suffix *-uma-*, *-umna-*, *-umen-* has been convincingly explained by H.C. Melchert as (-u-) plus a locatival suffix **-men-* with a holokinetic Ablaut-pattern[730]. When the LÚ(.MEŠ) is written alongside the full phonetic spelling of the gentilic suffix, it is usually understood as a determinative, [LÚ.MEŠ]*ša-la-am-pu-me-ne-eš* etc. This

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[726] The objection that *panku-* can be used for a kind of assembly which cannot have consisted of the whole population is irrelevant (Starke 1996: 142 fn. 9 with ref. to Imparati loc. cit. 161ff.). The adjectival uses applying to a totality of objects (e.g. mountains) are well documented (CHD P 88-90; Tischler 2001: 410-414). Whatever assembly this was (Beckman 1982: 435ff.) it is not unusual for elites to meet and refer to themselves as if they were referring to everyone. CHD P 92 gives the noun the basic sense "all those present (on a given occasion)".

[727] CHD P 327 g 1´-2´.

[728] KUB 23.72 obv. 40. It is also possible that the contrast is between LÚ-*iš* (*pisenis/zitis*) and LÚ-*aš*, although a (class-related?) inferiority of one of the former to one of the latter is not otherwise attested.

[729] Gentilic forms are used frequently in name-giving (*Suppi-luli-uma-*) and these are discussed by Laroche in *Noms* II Chapter 4.

[730] Melchert 1983.

follows the sensible tendency assuming that Hittite adjectives capable of substantivisation are thus substantivised in such phrases. Thus "the Salampans" rather than "the men of Salampa". However, when it is written before the short "stem-form", it is often written as a logogram, LÚ^MEŠ ^URU*ŠA-LA-AM-PA*, as this is understood as an "Akkadicising" genitive construction. This does not mean that the LÚ is supposed to represent a specific Hittite word, merely that it has a function, in this case as part of a noun-phrase, in the Akkadian linguistic register of a text.

As in the case of ethnic adjectives in -*umna*- the phrase LÚ ^URUGN can function adjectivally as well as nominally, as is demonstrated by KBo 5.4 rev. 39 (Targasnalli):

na-aš-ma-za-kán IŠ-TU KARAŠ-*pát ku-iš-ki ar-ḫa an-tu-uḫ-ša-an* LÚ ^URU*AR-ZA-U-WA ta-i*[*a-az-zi*]

"or if anyone k[idnaps] an Arzawan person from the army"

Beckman 1999b: 72 translates *an-tu-uḫ-ša-an* LÚ ^URU*AR-ZA-U-WA* as an apposition: "... a man - an Arzawan -..." presumably in order to avoid having LÚ ^URU*AR-ZA-U-WA* in adjectival function. However, both LÚ ^URUGN with "stem-form" and -*umna*- already appear in OS texts with no immediately apparent difference in meaning.

KBo 20.3+ obv. 1-6 lists the LÚ^MEŠ UR.BAR.RA ^URU*ša-lam-pu-u-me-né-eš*, ⩣ ^URU*ka-a-da/ta-pu-u-me-né-eš*, ⩣ ^URU*Kar-da-ba-ḫ*[*u-u-me-né-eš*], "the wolf-men of Salampa, Katapa, Kardabaḫa", who all give an ^UZUÚR to the old woman of the palace[731]. In ll. 8-10 all of these are written in the stem-form: LÚ^MEŠ UR.BAR.RA ^URU*ŠA-LAM-P*[*A*], ⩣ ^URU*KA-A-DA-BA*, [⩣^URU*KAR-DA-BA*?]. The only perceptible motivation for this is as an abbreviation, although it does not occur in any other part of the text with ethnic adjectives from these place-names. The stem-form is always used, however, when other place-names occur in the rest of the tablet, e.g. [^LÚAGRIG ^UR]^U*ZI-IP-LA-AN-DA* ^LÚAGRIG ^URU*A-AN-KU-WA* KBo 20.4 obv. i 3[732].

A similar alternation between the ethnic adjective and LÚ ^URUGN is found in a LNS copy of an OH text: KBo 3.60 obv. ii 6 ^LÚ.URU*šu-tu-um-ma-na-aš* is presumably identical to ibid. 7 LÚ ^URU*ŠU-Ú-DA*^KI, as already noted by Güterbock[733]. If, as

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[731] Neu 1980: 44
[732] Neu 1980: 42 (rev. iv!) Other ethnic formations of the type LÚ ^URUGN with stem-forms on OS tablets are documented at Neu 1980: 354-360.
[733] Güterbock 1938: 109.

Güterbock contended and subsequent commentators have not contested[734], the form
$^{LÚ.URU}$*šu-tu-um-ma-na-aš* is a nominative, it squares ill with Melchert's observations
concerning the distribution of the of the ablaut variants *-uma-*, *-umna-*, *-umena-* in OH
and would have to be a modernisation for original **Sutumas* on the part of a later scribe.

2) The adjective suffix *-ili-* was clearly used at some time to denote geographic or
ethnic origin in names such as Hattusili-. It was also used to form a limited number of
other adjectives (*karuili-*) and adverbs. Its apparent lack of productivity at all
documented stages of the language is tentatively ascribed by E. Rieken to its early
restriction to an adverbial function in the nom.-acc. sg. n. *-ili* when used to denote the
language of an utterance (*nēsili* "in Hittite", *ḫattili* "in Hattic") or the way in which
something is done (MUNUS-*ni-li* "like a woman")[735]. That it apparently remained
productive in this last function at least is shown by the doubly suffixed *nesumnili* found
in the Middle Hittite Arzawa Letter (VBoT 2 rev. 24), meaning "in Hittite", literally "in
the manner of the people of Nesa"[736]. A case such as this may indicate that the gentilic
aspect of *-ili-* was not as strong as we suppose, and needed re-characterising in Hittite.
It is very unlikely that the Hittites ever used *-ili* for the ethnic adjective, apart from in
the construction of names, but it is necessary to consider these formations in more detail
for the possible light they may throw on the status of the so-called "stem-form".
Both *-umna-* and *-ili-* are sometimes affixed directly to the so called stem-form of the
base noun: $^{LÚ.MEŠ\ URU}$*an-ku-ul-la-u-me-né-eš* KUB 28.97 obv. ii 3 (OH/MS)
^{URU}*Palaumnili*, ^{URU}*Gasgaili*, ^{I}*Gasgaili*, ^{I}*Neriqqaili*, ^{I}*Ḫupišnaili*, ^{I}*Katapaili*, ^{I}*Sunaili*[737].
This is highly unusual from the point of view of Hittite suffix-formation. We expect the
thematic vowel to be deleted when a further suffix is added to the suffix chain after it.
When the thematic vowel is retained it is usually a case of nominal composition[738].
Several Hittite place-names form their stem-forms from a vocalic as well as a
consonantal stem: *Nerik* vs. *Nerikka*, *Pittiyarik* vs. *Pittiyariga*. It is usual to assume that

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[734] Güterbock loc. cit.; Soysal 1987; id. 1999.

[735] For these adjectives and adverbs see van Brock 1962: 121-125.

[736] On the reading see note in CHD L-N 454. As copied at VAS 12.204, collation shows that not only the
form of *-um-* (=RA) is very peculiar, but also the syllabification: *ne-e[š-u]m$^{!}$-ni-li*. See also
^{URU}*Palaumnili*, ^{URU}*kanesumnili*.

[737] ^{I}*šu-na-i-li-iš* KBo 8.34 rev. iii 1 (MS).

[738] Examples: *anna-nega-*; *assu-zēri-*; *suppi-washar-*. For an overview of Hittite nominal compounds see
Vanséveren 2006: 115-118.

the vocalic stem-form is a simple derivation from the consonantal one using the thematic vowel, as often thought for *Ḫattuša* in relation to *Ḫattuš*[739].

The conventional derivation of the *-ili-* gentilics assumes an origin at least partially identical with that of Hattic adjectives with the suffix -il[740], although it is impossible to exclude a relation to the inherited stems using a suffix *-il-* in all cases. This explanation accounts well for the lack of productivity enjoyed by the suffix in Hittite[741]. Just as with *Ḫattušil* from *Ḫattuš*, as attested in the OA period, Nerik-il would be the normal Hattic derivation from "Nerik", as far as the evidence permits us to see, and this is indeed attested in a Hattic context: URUne-ri-ki-il, "(the storm-god) of Nerik" at KUB 28.92 i 5[742].

That this Hattic expression was clearly considered identical with LÚ URUGN by scribes familiar with Hattic is explicitly shown by the phrase ḫa-ni-ik-ku-⌜i-il⌝ spoken in Hattic and referring to the man "from the house of Ankuwa" at KBo 10.24 rev. iv 30[743]. In VBoT 68[744] however, a tablet listing officials from various cities and consistently using the Hattic construction, the possessive/ethnic suffix -il is always preceded by the vowel -a-, e.g. obv. ii 19 URU*ḫa-at-te-na-a-il*, or with a different convention obv. ii 14 URU*ga-it-ḫar-za-i-il*[745]. Otherwise Hattic had the facility to reduce the sequence -ail(-) in toponyms and other words to -al-, cf. URU*iš-ta-ḫa-ra-al* (< *Istaḫara-il)[746]. In VBoT 68 the pattern URUGN-*a-il* is clearly performing the same function in Hattic as LÚ URUGN does when used as a logogram in Hittite texts. KBo 4.13 obv. i contains similar list of place-names, contraposed to VBoT 68 by A. Götze for his geographical investigation, and gives the following correspondences:

KBo 4.13 i	VBoT 68
20 *Ta-wi-ni-ia*	URU*Ta-ú-ni-ia-il*
21 *Za-al-pa*	URU*Za-al-pu-ú-i-il*
23 *Tu-ḫu-pí-ia*	URU*Tu-ḫu-up-pí-ia-il*
Zi-iš-par-na	URU*Zi-iš-par-na-il*

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[739] Klinger 1996: 87; here s.v. Ḫattusa.

[740] Rieken 1999: 430 contra Kammenhuber HdO, 297f. See also ibid. 446, 461.

[741] The association with the Hittite pronominal genitive in *-el* and the particle *-ila* "oneself" made at HbO 2: 298 is unconvincing, but the elements themselves remain obscure. See Rieken 1999: 430f.

[742] The writing I*ne-ri-ki-i-li* also occurs at KUB 3.27 rev. 15, an Akkadian letter from Ramses II to Hattusili and Puduḫepa.

[743] Klinger 1996: 191

[744] Götze 1930b: 18-23; Klinger 1996: 194f.

[745] See also KBo 10.24, KUB 10.1.

[746] Hoffner 1998: 117f.

25 *Kaš-ta-ma*	^{URU}*Ga-aš-ta-mu-il*
A-li-ša	^{URU}*A-li-ša-il/A-li-ša-a-il*
26 *Ša-na-ḫu-it-ta*	^{URU}*Ša-na-ḫu-it-ti-ia-al*
Ḫa-ag-miš	^{URU}*Ḫa-ag-ga-mi-iš-ši-ia-il*
28 *Iš-ta-ḫa-ra*	^{URU}*Iš-ta-ḫa-ra-al*
Ta-pí-ka	^{URU}*Ta-pí-ik-ki-ia-al*

Interestingly, the -a-il in Hattic is metathesised in cases where the penultimate syllable of the GN contains an i-vowel. *Tapikkail > Tapikkiyal*; [*]*Ḫaggamissail > Haggamissiyal*.

Thus a parallelism emerges:

Hattic	Akkadicising	Hittite
-il : -a-il	:: LÚ ^{URU}GN : LÚ ^{URU}GN-*A*	:: -*ili* : -*aili*- (:: -*umna*- : -*a-umna*-)

The case of ^{URU}*pa-la-um-ni-li* might be excluded from the comparison on the grounds that its stem form is always written plene, in contrast to the other words and names[747]. In this case, however, we might expect it also to be written plene, see ^{URU}*ḫa-at-te-na-a-il*. In the one other case where both a Hittite ethnic adjective from a place-name and a name utilising the elements -(a)-il(-) are preserved, the -a- does not appear in the ethnic adjective: ^I*ka-ta-pa*-DINGIR^{*LIM*}-(*iš*)[748] at KBo 2.2 iv 24 (NSbii); KUB 16.32 ii 25 (NSbii) vs. ^{URU}*ka-a-ta-pu-u-me-né-eš* KBo 20.3 obv. ii 5 (OSa)[749].

Given that VBoT 68 is a late manuscript, although doubtless reproducing older material[750], it is difficult to infer from this whether -a-il is a case of influence from writings of the type LÚ ^{URU}*NERIKKA* on the Hattic construction or vice-versa. The Hittite -*a-ili*- formation is however attested in a personal name on a tablet exhibiting features of Middle Script: *Alaša-ili* (Noms 27) at KBo 28.137, 4, and the name *Taḫurwa-ili*-, "the Taḫurpan", certainly goes back to the earlier part of the Middle Hittite period. There are no -a-il forms in Hattic language material in OS nor are there any -*aili*- forms in Hittite personal names from OS tablets, but this may well be coincidence.

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[747] Tischler 2001: 391.

[748] Noms 543.

[749] Götze 1960: 53f. fn. 40 adduces the classical place-name Lukaonia < * *Lukkaumna*- and compares *Pa-la-a* with *Lu-uk-ka-a*. Here he wishes to see a parallel to the addition of *wa* in place-names such as *Aḫ-ḫi-ia-a* to *Aḫḫiyawa* and connects the hieroglyphic name *Pa-la-wa-a*. This is likely to be a case of initial a-final for *Apallawa* besides being a personal name, not a geographical one.

[750] Klinger 1996: 197.

The alternation between consonantal and vocalic stem-forms of the same place-names is not paralleled in Akkadian texts from Syria or Mesopotamia[751]. If the ethnic personal names in *-aili-* are not to be derived from the stem vowel of the relevant name and are difficult to derive from Akkadian, the logical conclusion is that these are already (Hattic?) variants of the old place-names: *Nerik*, *Nerikka* etc., possibly using a Hattic particle -a[752]. If so, this must have been re-interpreted as the stem-vowel and generalised to include place-names which do not originate in a Hattic context, but which still show both vocalic and consonantal stem-forms, such as *Kargamis*, *Kargamissa*. This -a will have formed Hattic adjectives in -a-il, and by extension also provided the model for Hittite names in *-a-ili-*. Such an interpretation is overly cumbersome.

Alternatively, if we assert that these are already the thematised stem-forms of Hittite, as with Laroche 1966: 251, we should assume a re-interpretation of the suffix GN-*il-i-* as a nominal compound with -il- assuming nominal function: "the x of GN", rather than just "the one of GN". This is parallel to, but cannot have arisen from analogy with, other later ethnic onomastic constructions, such as *Ḫattusa-zidi-* "the man of Ḫattusa", *Tarsa-zidi-* the "man of Tarsa", but separates *-il-* in *-ili-* from *-il-* in *karuili-*. Note that where we can juxtapose the forms, names of the type GN-*ziti-* may be the later forms of those of the type GN-(a)-*ili*, although they can not be said to replace them all[753].

If this is the case, we need to understand the Hattic GN-a-il for LÚ ᵁᴿᵁGN in Empire period texts as a non-Hattic scribal creation under the influence of the Hittite thematised form, demonstrating perhaps an insecurity how to deal with the Hattic suffix -il[754]. One problem with this solution is that Hittite determinative compounds are relatively rare, and that ethnic determinative compounds appear late in the onomasticon, exclusively with Luwian language material. Furthermore, the oldest attestation of a name using -*aili-*, *Taḫurwa-ili-* may use a Hattic form of the place name: *Taḫurwa* for Hitt. *Taḫurpa*[755].

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[751] The case of *Ḫalpa* for *Ḫalab* is interesting, as it not only displays the addition of an -a to the end of the root, but also shows a typical Sumero-Akkadian syncope, not found in *Nerikka* and others.

[752] Soysal 2004: 207 records two particles -a. -a^1 is attached to nouns, and -a^2 to verbs, neither to place-names, although -a^2 could conceivably have a locatival sense.

[753] *Ḫalpa-ili* (HKM 111 rev. 21), *Ḫalpa-ziti* (Noms 259); *Taḫurwa-ili*: *Taḫurpa-ziti*

[754] With Laroche 1966: 251.

[755] See *Taḫurpa-ziti* (KBo 32.136 rev. 5). Contrast Hattic *ḫal-wu$_u$-u[t]-te-la-aš-ḫa-a-wi$_i$* KUB 28.83 obv. 4, *ka=ḫal-wu$_u$-uz-ze-el* KUB 28.75 ii 3-4 with Hitt. ^{D}*Ḫalputili-* and ^{GIŠ}*Ḫalputili-* (van Gessel 1998: 79). The Hattic is also written with a [p]: *ka-a=ḫal-pu-u-ut-ti* KUB 28.15 rev. 34b. Laroche 1966: 248.

It thus seems likely that the gentilic forms in (LÚ+) GN-a (+-il) , are not merely graphic variants of the more usual forms without -a, but do in fact originally represent either different phonetic shapes of the place-names, or the thematised form re-interpreted as a compound. The preservation of a- instead of its usual deletion in these cases perhaps indicates an awareness of the foreign origin of the suffix. Although ethnic formations using this suffix to make names are most frequently the only evidence for ethnic adjectives formed from place-names, it is not permissible to expect that an *-ili-* form was ever represented by a LÚ ^{URU}GN construction in writing.

3) *-a-ḫsu-* This has clearly died out by the time of the Hittite archives, but is attested in Anatolian names from Kültepe (See above). At HKM 51, obv. 4 and rev. 8-7 there is a suggestive alternation between two writings for the same place, albeit both in the Akkadicising genitive construction: (4) LÚ ^{URU}*PÍ-IT-TA-LA-AḪ-ŠU-WA*, (8) LÚ^{MEŠ} ŠU.GI (9) ^{URU}*PÍ-IT-TA-LA*. One can only wonder whether the first is a relic of an older, no longer productive ethnic adjective in *-aḫsu-*. *Pittala-* would be the original place-name, **pittalaḫsu-* at some time a "denizen of Pittala" and **Pittalaḫsumna-* or **Pittalaḫsuwas* (*pesna-*) a later re-characterisation of the no longer understood and unproductive formation, written heterographically as LÚ ^{URU}*PITTALA*.

4) A few forms are preserved which write a Hittite genitive instead of a stem-form after LÚ^{MEŠ}:

LÚ ^{URU}*ḫa-at-ti-na-aš-kán* KUB 40.36 obv. i 8 (MH/MS)[756]

LÚ^{MEŠ} KUR ^{URU}*Ḫur-la-aš-ša* KUB 24.72 obv. 9 (OH/NS)

To these can be added those cases where further sentence elements have been inserted between the LÚ and the place-name:

KBo 8.35 obv. ii 30: V LÚ^{MEŠ} *kat-ti-iš-mi* ^{URU}*tal-ma-li-ia-aš* (MH/MS),

vs. ibid. 32: V LÚ^{MEŠ} *kat-ti-iš-mi* ^{URU}*IA-AḪ-RI-IŠ-ŠA*[757].

Here both the construction using the stem-form and that using the Hittite genitive follow the rule, presumably inherited from Akkadian writing practice, that uncomplemented logograms are followed by genitives dependent on them rather than being preceded by them as is normal in Hittite syntax. A similar occasional occurrence

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[756] Dupl. KBo 8.35 obv. i 3: *-a]t-ti-na-aš-kán* (MS)
[757] // KBo 50.67+ obv. ii 31] MS.

of this is found among the place names using KUR ^{URU}GN. We can therefore expect that the Hittite in these cases at least will have been *Hattinas*, *Talmaliyas pesna-/antuḫsa-* etc.[758] In the cases of LÚ KUR ^{URU}GN we are then doubtless dealing with with *Ḫurlas utniyas pesna-/antuḫsa-*.

A parallel for these from the onomasticon is to be found in the determinative compounds expressing ethnicity, *Ḫattusa-zidi-*, *Taḫurpa-zidi-*, etc.

Equally comparable and implying a parallel construction which indicates the normal position of the genitive, are phrases designating a woman from a particular area, e.g.: *ŠA* KUR ^{URU}*AZ-ia-za* MUNUS KBo 22.40 rev. 27 (Ḫukkana, MS).

^{LÚ}**UKU.UŠ** On the form of UKU and the practical argument for keeping it separate from AGA for Hittitological purposes, see Güterbock 1973: 75f. A very similar form of the sign in the same logographic writing can be found in Amarna. The form from Mari is written with three horizontals in both front and rear as is normal in Mesopotamian texts[759].

For explanation of the role of the ^{LÚ(.MEŠ)}UKU.UŠ as a "gendarme" rather than "Schwerbewaffneter" see Alp 1991: 321f.; "scorta" Rosi 1984: 109-129.

In the earliest attestation, KBo 7.14 obv. 14f., two or three Aleppine generals are mentioned as allies of Hassum: (14)[^IZ]*a-lu-di-iš* GAL ÉRIN^{MEŠ} *MA-AN-DA* ^I*ZU-UK-RA-A-ŠI* UGULA UKU.UŠ.E.NE (15) [LÚ ^{UR}]^U*ḪA-LA-AB QA-DU* ÉRIN^{MEŠ}-*ŠU Ù* ^{GIŠ}GIGIR^{ḪI.A}-*ŠU* ^{URU}*ḫa-al-pa-az* (16) [*ú*]-*e-er*. "Zaludi, head of the Manda-troops, Zukrasi, overseer of the UKU.UŠ (15) [(and?) the man] of Aleppo with his troops and chariots, they came from Aleppo"

The Sumerian animate plural ending -ene in KBo 7.14 obv. ii 14 (OS/MS?), is attested otherwise in the corpus at LUGAL.E.NE, KBo 1.3 obv. 5 (Šattiwaza Declaration), a NS manuscript showing signs of some external orthographic influence (PI = *pe*). The later manuscript of CTH 14 (KUB 31.5 obv. ii 8), which treats similar thematic material, presents us with the surely hypercorrect Sumerian UGULA UKU.ÚS.SA.E.NE, where the quality of the sibilant appears to have been marked by the addition of SA, written as

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[758] It is also conceivable that a substantive genitive construction without head-noun was used, although these are otherwise perhaps too rare in Hittite to have stood behind such a common gentilic phrase in any quantity.

[759] See FM VIII 64: 19, 22, photo p. 163.

the participial form of ús, "follow" + -ene[760]. Perhaps the ending .E.NE was associated with "Syrian" writing styles. It is attested in tablets from Alalaḫ.

Debate on the role of the $^{LÚ.MEŠ}$UKU.UŠ centres around whether these soldiers were part of the Hittite standing army or in some way adjuncts to it. Ironically it is precisely the fact that these troops spent the winter in garrison with the king which is used to argue both for their belonging or not belonging to the standing army[761]. The $^{LÚ.MEŠ/ÉRIN.MEŠ}$UKU.UŠ are mentioned sometimes in conjunction with the LÚ^{MEŠ} KIN, where it may be that they are to guard construction works in Ḫattusa for example, and sometimes with the $^{ÉRIN.MEŠ}$sarikuwa. These latter, always construed in the singular despite a plural determinative, are otherwise attested in what appear to be merisms expressing the totality of the army, or even the population, by mention of its parts. A similar series of merisms, aiming to include all types of people in the the provisions for the scope of a ritual's efficacy, KBo 22.37, 10-13, is plausibly restored thus with CHD Š2, 261:

[... *mān=aš* DAM *BELI* DUMU] *BELI mān=aš* É[RIN^{MEŠ} UKU.UŠ *mān=aš* $^{ÉRIN.MEŠ/LÚ.MEŠ}$*ša-r*]*i-ku-wa-aš mān=aš* [... *mā*]*n=aš* ^{LÚ}*ELLUM* [*mān=aš* ...] // [... *mā*]*n=aš* ÉRIN^{MEŠ} x[...]

"[Whether it is the wife or son] of a lord, or [an UKU.UŠ-soldier or a *šar*]*ikuwa*-soldier, or a [slave], or a free man, or [...], or a [...]-soldier".

This gives us three sets of oppositions: wife::son; [UKU.UŠ]::*sarikuwa*; [unfree]::free, all designed to encompass the totality of the population. It is tempting to assume that the category "unfree::free" in some way partially replicates or describes the category "[UKU.UŠ]::*sarikuwa*"[762]. This calls to mind the stipulation of the Ismeriga-treaty that the $^{LÚ.MEŠ}$UKU.UŠ provided by the Ismerigans for duty in Kizzuwatna, should be free (^{LÚ}*ELLUM*) and not slaves or paid-men (ÌR or ^{LÚ}*kussanatalla-*). The status of the *sarikuwa*-soldiers on the other hand may have been rather unfree, according to one's interpretation of the fact that they are "taken" and "given" to the stone-house (mausoleum) to serve in its staff.

This returns us to Goetze's original interpretation of the *sarikuwa* as a social class[763]. The pairing of $^{LÚ.MEŠ/ÉRIN.MEŠ}$UKU.UŠ and $^{LÚ.MEŠ/ÉRIN.MEŠ}$*sarikuwa* may thus be a

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[760] Unfortunately the form of this Sumerogram is broken in the duplicate, KBo 19.91, 7, where apparent care is also taken to mark a "foreign" sibilant at ibid. 5: ^{URU}ḪA-AŠ-ŠÍ. See also ^{URU}ÚS-SA in KUB 3.34 rev. iii 20 (NS-NSbi)

[761]"non appartenenza .... all'esercito regolare ittita" Rosi 1984: 117; contra CHD Š2, 262 (2005) s.v. *šarikuwa-*.

[762] Opposite interpretation at Beal 1992: 50

[763] Götze 1933: 231; dismissed by Beal 1992: 49ff.

merism, rather like "free or unfree", but not necessarily identical, alluding to the totality of the standing army. Thus we can interpret the following inquiries at the beginnings of letters not as questions about the health of particular types of soldiers, but as about the health of the army in general:

KBo 18.54 obv. 3-6: *MAḪAR* ^DUTU^{*ŠI*} MUNUS.LUGAL *aššul kuit maḫḫan* ŠÀ ^{ÉRIN.MEŠ}*ša-ri-ku-wa=ia-kán U* ŠÀ ^{ÉRIN.MEŠ}UKU.UŠ *ḫattulannaza kuit maḫḫan*

"(write back to me) what kind of welfare (there is) in the presence of My Majesty (and) the queen, and how (it is) healthwise among the *š*-troops and the UKU.UŠ-troops".

This analysis vindicates Beal's translation "standing army troops" (CoS 1, 210; Beal 1992: 37), but is contrary to his dismissal of the interpretation of ^{ÉRIN.MEŠ}*sarikuwa-* as a social class.

The inference from the use of this bipartite merism is that the ^{LÚ.MEŠ/ÉRIN.MEŠ}UKU.UŠ are paired with the ^{ÉRIN.MEŠ}*sarikuwa* on the basis of the opposition in a particular aspect of their functions. The other possible bipartite merism in which the ^{ÉRIN.MEŠ}*sarikuwa* are attested is with ÉRIN^{MEŠ}ANŠE.KUR.RA^{MEŠ/ḪI.A}[764]. Although an equivalence of the ÉRIN.MEŠ ANŠE.KUR.RA^{MEŠ} and the ^{ÉRIN.MEŠ}UKU.UŠ is out of the question, this may reflect a similar or parallel social opposition. Troops associated with horses, or cavalry, have until quite recently been populated by the upper classes. Similarly the UKU.UŠ troops, being free-men, as possibly opposed to *sarikuwa*, may be distinguished according to their social position.

The consequence of this would be that any derivation of the function of the ^{LÚ.MEŠ}UKU.UŠ from the Akkadian equivalent *rēdûm*, as apparent in such translations as "escort", i.e. members of a particular military unit or squad, cannot be given any substance. These are simply members of the army labelled in terms of their social class. Further it calls into question cross-cultural identifications of apparently homographic military posts from other cuneiform centres, as for example made with Zukrasi of Aleppo with far-reaching consequences[765].

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[764] On KBo 7.14: note that if Zukrasi is "the Ḫalabean", rather than translating "the man of Ḫalab" as a separate entity, the singular number of the enclitic pronoun -*ŠU* should refer to only one of the officers, namely Zukrasi. This brings him as UGULA UKU.UŠ.E.NE into association with chariot-troops. I would contend that the general troops are here designated by ÉRIN^{MEŠ} *MA-AN-DA*, a military category also appearing in the Laws (§54), where it seems to be ethnic.

[765] The presence of Zukrasi in texts from Alalah VII are used as an argument sealing the question of whether Hattusili I destroyed Alalah VII. Although there can be little doubt that he actually did this in his fourth regnal year as told in his Annals, the supposed instance of ^I*Zukrasi* UGULA UKU.UŠ in the witness list of the testament of Ammitakum at AlT 6 rev. 9 is not corroborated by the recently published copy (UF 36: 21.01, 27). Dietrich/Loretz transliterate as UGULA NAR^{MEŠ}, which is not convincing either palaeographically or contextually. Collation is desperately needed.

URU *ḫappira-*, *ḫappiriya-*; see HWb² III Ḫ (2000): 233-249.

Palaeography: The importance attached to this sign in the palaeographic literature warrants a documentation of the distribution of sign-forms to tablets from within the historical texts. Note that the following palaeographic classifications are based on the presence or absence of features other than the various forms of URU, and are taken from all mss. of the first twenty CTH numbers, by way of illustration:

HZL 229

A KBo 3.22 obv. 5?; KBo 22.2; KBo 3.38; KUB 3.89 (NSa?)

B KUB 36.98, b, c; KBo 12.3; KBo 10.1, KBo 10.2, KUB 57.48; KBo 3.27; KUB 48.79 KBo 12.18, KBo 12.63, KBo 19.92, KUB 23.23; KBo 3.34, KBo 3.36, KUB 26.87, KBo 13.44 obv. 1?; KBo 3.45, KBo 22.7 NSb?; KBo 3.57 NSc?; KUB 31.64 NSc; KBo 3.55 NSc; KUB 23.53+ NSbii?; KBo 3.46+ NSc; KBo 19.90+ NSbi; KUB 31.5 NSc?, KBo 19.91+ NSc?, KBo 22.3+ NSbii, KBo 3.56 II, KUB 23.28+ NSc?, KUB 40.4+ NSbii, KBo 12.14 NSc?; KUB 36.101 NSbi; KUB 36.102 III; KBo 13.78 NSc; KBo 3.60 NSc; KBo 3.1 (NSb), KBo 3.67 (NSb/c), KUB 11.6 NSc?; KBo 12.8 (NSc); KUB 31.74 (NSbii); KBo 40.2 (NS)

1 KUB 26.71; KBo 3.27; KUB 1.16; KBo 3.38, KUB 31.38, KBo 13.44; KUB 26.74 NSc?; KBo 13.52 OS?; KUB 31.4 NSa, KBo 3.40 NSa; KUB 11.5 NS, KUB 31.82 (MS); KUB 21.48 (NS)

2 KBo 3.22; KUB 36.99; KBo 13.52 OS?; KBo 7.14+ OS/MS; KUB 11.1 (NSa), KUB 3.89 (NSa?); KUB 31.82 (MS), KUB 31.81 (OS)

4 KUB 11.1+ (NSa), KBo 7.15+ (NSbii)

5 KBo 3.22; KBo 13.52 OS?

7 KBo 22.2 rev. 9?,

21 KUB 23.21; KUB 11.2+ NSa?;

22 KUB 23.21; KUB 23.117 III; KBo 7.15+ (NSbii)

The regular OS form, which remains regular at least through to MSb, is in fact HZL 229/2, with the left-hand vertical under the top horizontal. 229/A and 229/1 are the forms encountered in MSc, and characteristic of NSa. F. Starke claims that the "late"

form of URU, 229/B, is introduced during the reign of Hattusili III[766]. It is by far the most frequently represented in this corpus, and tends to appear mainly in texts with other NSbii or NSc sign-forms. Inspection of photos and/or originals shows, however, that it is very frequently drawn with a longest central horizontal, shorter bottom horizontal and shortest top horizontal. This precise variant is not listed at HZL 229. It is found throughout Copy A of the Alaksandu Treaty for example, which is dated to Muwatalli II by J. Klinger[767].

229/10 represents a "Syrian" form, well known from tablets of both Alalaḫ levels VII and IV, and occurring occasionally on tablets from Boğazköy with Syrian connections. HZL 16 with the split longer central horizontal is very rare: KUB 13.8 obv. 5. It is thought by H. Otten to be a contamination of the older and the younger forms[768].

Orthography: Determination by KI is rare in Hittite language texts. VSNF 12.57+ 81 i 14 *ŠA* URU^{KI} is matched in its dupl. (KUB 58.109+ i 25) by *ŠA* URU^{LIM}. A regular exception to this is $^{(LÚ)}$MAŠKIM URU^{KI} which is always written with the determinative KI from Old Hittite texts through to Hattusili III. (HWb^2 loc. cit. 248, 3.3). In Akkadian language texts it is attested in the MS Sunassura treaty, KBo 1.5, but not in the duplicate, and in the MS treaty of Taḫurwaili with Eḫeya of Kizzuwatna, KBo 28.108

The regular Sumerographic plural writing is URU$^{DIDLI.ḪI.A}$. URU$^{ḪI.A}$ as a plural is unusual. See KUB 13.8 obv. 2 (nom. pl.); KUB 26.43 (Tutḫ. IV) obv. 50 (*A-NA* =), rev. 8 (acc. pl.). KBo 27.51 obv. 11 (NSc?) All of these are cases of the meaning "villages" according to the interpretation of HWb^2 (loc. cit. Ḫ 15, 234f., 1.1.1, 3)[769]. It may be that the determinative DIDLI$^{(ḪI.A)}$ referred to larger entities[770].

KUB 57.84 iii 21 URU$^{DIDLI.ḪI.A}$ = KUB 57.82, 4 URU$^{ḪI.A}$

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[766] F. Starke in lecture, at the conference "Hittites and Achaeans" Jan. 4, 2006, with reference to KUB 26.91. A similar form, with a slightly longer bottom horizontal than in 229/B, occurs in the OH Siege of Uršu, KBo 1.11, but see introduction.

[767] Klinger 1996: 37. Similar forms occur irregularly such as at KBo 12.14 obv. i? 5, rev. 3 (PhB0420, 421b), KUB 8.57+ obv. i 11, but the usage in 76A is constant.

[768] Otten 1972: 246 remarks that this form is otherwise unattested.

[769] KBo 16.10, 8 reads UDU$^{ḪI.A}$ contra HWb^2 loc. cit. 243, 12.29. The point in understanding these as villages is that they are mostly cases of settlements small enough to belong in some sense to someone. In KUB 13.8 the inhabitants of the villages (URU$^{ḪI.A}$) of the ÉRIN^{MEŠ} *šari<ku?>wa* are given to the stonehouse along with their selves.

[770] DIDLI has restricted use in Hittite texts: DINGIR^{DIDLI} is the only other word determined by it in the plural apart from the dubious PA^{DIDLI} at KUB 36.98b rev. 4.

URU^{ḪI.A.DIDLI} is attested repeatedly in RS 17.368, referring to the settlements involved in Mursili II's edict concerning the border between Ugarit and Siyannu (CTH 65). This will have been a local copy.

The dat.-loc. URU-*ri* is attested in texts from all periods.

Complemetation by 3 signs: URU-*ri-ia-aš⸗ša-an* KUB 13.2+ iii 4 gen. sg. (MH/NS)

Mistaken Akkadographic complementation:

URU*^{LIM}* acc. KUB 26.71 i 12 (Anitta NS); KUB 1.1+ ii 78, iii 19 (⸗ DINGIR*^{LIM}*).

URU*^{LIM}-ŠU* acc. KUB 26.71 obv. 12

URU*^{LUM}* acc.: KUB 16.32 i 2 (oracle, NH/NS); KUB 15.1 iii 20 (NSbii); KUB 46.42 iv 9 (NS)

gen.: KUB 5.1 iii 42[771]; KUB 58.58 obv. 13 (DINGIR*^{LIM}* ⸗) sjh.

Incorrect Akkadographic complementation is thus relatively rare with this word, not being attested at all in Old or Middle script mss.

The normal form in apposition is of the type ^{URU}GN URU-*aš*/-*an* for the nominative and accusative singular[772]. This demonstrates that the first URU in this phrase is a determinative and makes it highly probable, but not definite, that the URU in the phrase KUR ^{URU}GN is also a determinative and thus not pronounced[773]. The appositional form of the GN in these phrases in the dative is not the regular d.-l. sg. but appears in the so-called "stem-form"[774]. The pattern nominative, accusative, oblique, suggests a morphological calque from Akkadian style declension, although other interpretations are possible[775]. The fact that the form with the "stem-vowel" never occurs in this appositional phrase in the accusative singular militates against an interpretation from within Hittite grammatical categories, such as the collective.

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[771] DINGIR*^{LUM}-za dapian* ZI-*an* (42) URU*^{LUM} minumarr=a* ME-*aš* "Die Gottheit nahm sich die ganze Seele und die Gunst der Stadt" (HWb² loc. cit. 240). This interpretation is logical from the parallel passages using *minumar* (CHD L-N 292f.), but one would expect indication of the Akkadographic genitive with *ŠA*. Conversely, CHD loc. cit. interprets this as an accusative: "*m.* not qualified by a gen. never occurs as the sole object taken but always in association with other objects" referring to this line of text by way of example.

[772] Exception: ^{URU}*Samuḫann=a* URU*^{LIM}* DINGIR*^{LIM}* KUB 1.1+ ii 78, iii 19

[773] For an alternative possibility see HWb² loc. cit. 235 "Land (und Haupt-)Stadt von", and KUR URU, interpreted ibid. as "Land (und Haupt-)stadt". See s.v. KUR.

[774] The one exception is KBo 8.80+ 23, 50 + HT 21+: 4: ^{URU}*Waššugg*]*anni* URU-*ri* (Beckman 1997: 87). Even here, however, the -*i* may be the vowel of a variant stem.

[775] One might for example think of a graphic zero case-marking where the case is made apparent by the phonetic complement in the following word, but would this not apply to the nominative and accusative singular?

On the other hand, the pre-posed stem-vowel form with the dative never occurs with an Akkadian preposition, *I-NA* or *A-NA*, which is expected with an Akkadographic writing[776].

Stem-vowel in apposition

^{URU}*AŠ-TA-TA* URU-*ri* KBo 4.4 obv. ii 61 NH/NS.

 ^{URU}*I-IT-LA* URU-*ri* [KUB 8.62 obv. i 8 (NS, Gilgameš)

^{URU}*ne-e-š*[(*a A-NA* URU-*IA*) KBo 3.22 rev. 63 (OS)+ dupl. KUB 22.71 obv. 10 (NSbii)

A-NA ^{URU}*PADA꞊ma꞊z꞊kan assiyanti* URU-*ri* .... *esḫut* KBo 3.21 iii 24f. (MS)

]x-*pe-e-ra* URU-*ri* (*ša-ra-a pé-e-da-aš*) KUB 33.121 rev. 5[777]

^{URU}PÚ-*NA* ^DUTU-*aš* URU-*ri* KUB 23.13, 9

[^{URU}*simm*]*urra* URU-*r*[*i*] KBo 26.88 iv 9

^{URU}*TI-LI-I-Ú-RA-kán* URU-*ri* KUB 21.29 obv. ii 6 (NSb)

x ^{URU}*U-RA* URU-*ri* KBo 18.40 obv. 6 (MS)

[^{URU}*U-R*]*A-GA* URU-*ri* KUB 8.57+ i 11 (NSc?) *a-ar-aš*

^{URU}*ÚR-MA* URU-*ri* KUB 27 iv 42 (NSbii?) *a-ar-aš*

A-NA URU^{DIDLI.ḪI.A} ^{URU}*GA-AŠ-GA* KBo 5.6 obv. i 15

Dat. Sg. in apposition without the stem-vowel:

^{URU}*Zippiri=ma=z* ^DUTU-*was ukturi* URU-*ri* KBo 3.21 iii 18f. (MS)

A distinction in complemetantion between marking the terminative and the d.-l. in apposition may exist at KBo 20.67+ rev. iii 7f.(MS) with dupl. [^{URU}*Ḫattuš*]*a ši*[*un*]*a*[*n* UR]U[-*ri-i*(*a* ^{URU}*ḫ*)]*attusi=ma* [(DINGIR^{MEŠ}-*aš*)] (8) [(URU-*i*)*a* "nach Ḫ., der [Sta]dt der Götter. In Ḫattuša aber, der Stadt der Götter..." (HWb² loc. cit. 239) but the traces on photo N07644 do not fit the restorations (Klinger 1996: 391-393)[778]. There is no OS case of terminative apposition with URU.

The Akkadian prepositions are found, however, used with place-names similarly written with the the "stem-vowel", when there is no apposition to URU. This indicates that these are in fact Akkadograms of some kind (see further s.v. Hattusa). Hittite word order, with the place-name before the word "city", is preserved in the cases where URU

[776] Admittedly the only probative cases are ^{URU}*I-IT-LA*, ^{URU}*ÚR-MA* and ^{URU}*TI-LI-I-Ú-RA-kán*.

[777] Probably not ^{UR]U}*Pera* with HWb² loc. cit. 3.1. See photo N05672, where the traces are too short for URU.

[778] See also VSNF 12.30 iv 3f.: ^{URU}*Ḫaddusa*{s} (4) *siunan* URU-*ri-ia* (7) ^{URU}*Ḫattusi꞊ma* DINGIR^{MEŠ}-*nas* URU-*ri*.

is phonetically complemented as a Hittite word: URU-*ri*. Where an Akkadian preposition is used for case-marking, as expected, Akkadian/Sumerian word-order is preserved: *A-NA* URU[DIDLI.ḪI.A] URU*GA-AŠ-GA*. Admittedly, the last example functions better if understood as an adjective, as there was no city of Gasga[779]. If the elements of the appositional phrase are separated by further sentence components, however, the Akkadian preposition is used with the stem-vowel form (see *A-NA* URU*PADA*). In the case of Akkadian phonetic complementation, however, the case is marked before the URU with the Akkadian preposition[780].

"Hauptstadt" is suggested as a translation of this appositional phrase at HWb.[2] loc. cit. 237, although this is only supposed to be transparent in some attestations[781]. "Bei den übrigen Belegen könnte eine Stadt gemeint sein, zu der noch etwas Umland gehört". The word-order in two examples of the Išmeriga Treaty is different to the pattern above, displaying different sentential topicalisation:

KUB 23.68 rev. 14f. [I]*wa-ar-l*[*a-* . (15) ..]*IŠ-MI-RI-GA* URU-*aš-ma*[*-aš*]*-ši* URU*zi-ia-zi-ia-aš I-NA* KUR URU*KI-I*[*Z-Z*]*U-WA-AT-NI-ma-aš-ši* URU*wa-aš-šu-u*[*q-qa-na-aš* URU-*aš*]
"Warla-[...], the Ismerigan, his city (is) Ziyaziya, but in Kizzuwatna Wassuq[qani (is)] his [city]"
ibid. 18 [I]*ma-az-zi-ia-aš* [I]*ḫur-la-an-ni-iš* II LÚ[MEŠ] URU*IŠ-MI-RI-GA* [URU-*a*]*š-ma-aš-ma-aš* URU*a-da-ra-aš* (19) [*I-NA* KUR URU*KI-IZ-ZU-WA-A*]*T-NI-ma-aš-ma-aš* URU*a-ra-na-aš* URU-*aš*
"Mazziya (and) Ḫurlanni the two Ismerigans, their [city] (is) Adara, but [in Kizzuwa]tna Arana (is) their city."

Both sentences present two co-ordinate phrases joined by a connective with contrastive force. The first phrase seeks to identify one city out of many as the city of the Ismerigans by means of a place-name, the second seeks to define the status of a place-name with reference to those Ismerigans when in Kizzuwatna: it is their city. We might

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[779] Similarly, we nowhere hear of a city of Arzawa, but the geographic name is always written with URU as a determinative.

[780] In the case of KUB 26.71 obv. i 10 it is impossible to tell definitely if [*A-NA*] also stood before UR]U*ne-i-ša*. The OS version KBo 3.22 simply has URU*ne-e-š*[*a*] with the directive case.

[781] One assumes that the editors understand KBo 3.4 ii 19 as a likely case of URU meaning capital: *ŠA* [I]*U-UḪ-ḪA-LÚ-ia* URU*a-pa-a-ša-an* URU-*an* GUL-*aḫ-ta*. This would be clear if the text read **ŠA* KUR URU*MI-RA-A*, but as it is this could equally well mean that Apasa was Uḫḫaziti's home-town.

similarly understand the appositional phrases: GN URU-*aš*/-*an*/-*ri*. A place name could refer to more categories of geographic or ethnic entity than just an URU. The apposition defines the place-name more closely, i.e. it is the URU and not the, *ḪALṢU* (q.v.) KUR (q.v.) or the people that is referred to. These concepts may have been relatively fluid.

Another phrase understood by HWb[2] as indicating that URU means capital is KUR URU in KBo 4.14, "Land (und Haupt)stadt" (loc. cit. 235, 1.2). Similar to this is the connected phrase is that is reconstructed from OS KBo 3.22 rev. 66 and NS KUB 26.71 obv. i 12: KU[(R-*e-še-et Ù* URU^{LIM}-*ŠU*)]. This interpretation is belied by KBo 10.12 i 6 (Aziru) KUR URU-*KA*, where, if we followed the translation of HWb[2], "dein Land (und deine Haupt)stadt", we would rather expect *KUR-*KA* URU-*KA*. Alternatively we should understand this genitivally as "the land of your (home)-town". The cases from KBo 4.14, which we take to be a treaty between Tudhaliya IV and an unknown king sometime after the battle of Niḫriya, are best interpreted as "the land of the city", possibly referring to Ḫattusa, but perhaps just to one's home country, the land where one's city is. Similarly we are to understand the prayer passage KUB 24.1 ii 7f. *tamedani* KUR URU (var. ⌜KUR⌝-*e* KUB 24.3 i 19) as "in another (home-)land", i.e. where other people have their city. Of course, the home-town of a ruler is the capital city of an area.

PART THREE

THE ANOMALOUS LOGOGRAMS

III.1 Anomalous Logograms in Hittite Cuneiform.

J. Friedrich's *Hethitisches Wörterbuch*[1] marked the fact that certain logograms do not occur outside the Boğazköy texts ("nur in Bog."). Not many logograms were marked in this way and thus far no attempt has been made to look at these or others belonging to this category in any detail[782]. A cursory look at the logograms listed in HZL, however, shows that while many others do occur in Mesopotamia, their regular usage there is very different to that of Boğazköy. In fact several of the aspects of usage attested by the logograms of the historical texts as selected in the last section were also unique to Anatolia. An overview of those logograms from oracle texts with special meanings in Boğazköy was provided by A. Kammenhuber[783].

The appendix to this section attempts a collection of logograms used in Hittite cuneiform writing that are in some sense anomalous from the perspective of what we might call standard Mesopotamian cuneiform, either from the point of view of their form, usage or composition. An immediate objective is to collect a useful body of material for the study of Hittite scribal education as evidenced by scribal practice. A longer term objective is to throw some light on the relationship of Hittite cuneiform to that of Mesopotamia in terms of transmission as well as of the degree to which a Hittite or Anatolian contribution could be said to have been made to cuneiform writing. In this process the notion of the anomaly will play a central role.

What do we consider to be the standard of Mesopotamian writing? It is worth bearing in mind that this is itself a continuously changing collection of signs due to the constant flow of new finds which alter our understanding of Mesopotamian cuneiform. "Standard" is only that which is done by the majority of tablets of a particular region that have been discovered until now. It is therefore rash to infer an Anatolian innovation as the origin of a particular logogram simply on the basis of its not being attested elsewhere. Other factors have to be taken into consideration, in particular reliance on deviant or otherwise extinct traditions of cuneiform transmission, which can themselves only be assessed after a survey of the different modes in which Hittite cuneiform differs from Mesopotamian.

At the same time it should not need pointing out that even within the collections of cuneiform writing from Mesopotamia already at our disposal there are considerable

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[782] Singer 2006: 254 fn. 51.
[783] Kammenhuber 1976: 119 - 149, 198ff.

variations in scribal practice. Even among the Old Babylonian schools of Nippur, there appear to have been differences in writing habits, not least those appearing in variations of lexical lists. Nippurite scribes appear to have been taught by slightly different curricula according to their teachers[784]. Far greater then, are the differences in practice when separated by greater geographic expanses, and a recurring theme of this work turns on the extent to which Assyrian, Syrian and Babylonian traditions of scribal education and practice can be isolated from each other in their influence on Hittite writing.

Hittite cuneiform culture flourished at a time when the consolidation of the corpora of Mesopotamian literature, commonly held to have been effected at the end of the second millennium, was not yet achieved, but was certainly underway. As outlined in Part One, our knowledge concerning especially the development of lexical traditions in the North of Babylonia and Assyria during the Middle Babylonian/Kassite and early Middle Assyrian periods is practically non-existant. Tantalising hints offered by Hittite sources may indicate that Assyrian scribal schools played some role in this consolidation process (see Part One).

Although the handbooks currently on the market may give the impression of a fairly monolithic Mesopotamian cuneiform culture, there is thus much headway that can be made by distinguishing strands of tradition, even if this be on such a general level as between that of Assyria and Babylonia. On the other hand, we must also be careful not to lose ourselves in minutiae, which is all too easy given the fragmentary but simultaneously extensive nature of our sources. The notion of standard here employed will necessarily be a slightly clumsy one, and every attempt will be made to point out exactly whose norms we are talking about in as far as this can be deemed useful.

A further category to be borne in mind is that of the "periphery". R. Borger takes care to point out that he has not generally included peripheral sign-values and Sumerograms in his *Mesopotamisches Zeichenlexikon*. It is becoming gradually clearer that within so-called peripheral schools individual scholastic traditions were developed. A very important factor here is the influence of OB Ešnunna, which appears to be related to the scribal reform at Mari. While the difference between these scholastic traditions and that of Assyria is doubtless of the highest importance for our topic, a detailed analysis will

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[784] Veldhuis 1997: 43ff.

not be attempted here. The following collection should, however, be of use to those considering this question at a later date.

Mention has already been made of a number of late Old Babylonian texts displaying Middle Assyrian and occasionally Hurrian linguistic features texts possibly related to the palace archive of Tigunanum. These provide evidence of a nexus of influences in a literary environment belonging to a kingdom that was demonstrably in contact with the Hittites during the earliest days of the Old Kingdom. This does not mean that there has to have been contact on the level of cultural transmission, but it provides a very plausible typological marker for the kind of background against which cuneiform cultural transmission to Anatolia must have occurred.

Despite the thus provisional character of any conclusions we may reach, not only concerning whatever general tendencies in the development from Mesopotamian to Anatolian cuneiform may be observable but also in view of the discussion of individual logographic writings, it is, I believe, still possible to make useful and illuminating remarks concerning a number of facets of Hittite cuneiform culture when approached from the perspective of difference to an observable Mesopotamian standard practice.

The "anomalous" logograms that have been collected in the course of this study are presented in Appendix II. Studies on selected logograms are presented below.

III.2) Studies in selected logograms:

^{LÚ}ALAM.ZU$_9$ "speaker"?[785]

The following deviant writings are collected at Kassian et al. (loc. cit.), but are reprised here on the basis of photo collations from the collections of the Forschungsstelle Hethitologie in Mainz:

$^{LÚ.MEŠ}$ALAM.KAxA KBo 23.74 obv. ii 9 (photo N00444, MS), ie. $^{LÚ.MEŠ}$ALAM.NAG, possibly a mistake for ALAM.GU$_7$, either as a semantic error (NAG, "drink", for GU$_7$, "eat") or, more likely, a writing of A for NINDA (GU$_7$ = KA x NINDA)[786].

^{LÚ}ALAM.GU$_7$ (*maldi*) KUB 34.115 + KBo 30.28 rev. iii 3 OS.

$^{LÚ.MEŠ}$ALAM.ZU 153/a, 10 OS; KBo 20.33+ obv. 16 (= SU?; photo B1262a) MS[787].

The usual Sumerian writing in Early Dynastic, Ur III and OB was ^{lú}ud.da.tuš, although ^{lú}alan.zu is also found in a lexical list from the OB period. It is presumably a phonetic "Sumerianisation" of Akkadian *aluzinnu*(*m*), albeit a somewhat odd one. What precisely the scribal association beyond the purely phonetic level may have been is not clear[788]. B. Landsberger was the first to point out a variant in the Old Babylonian lexical tradition,^{lú}alan.zu to ^{lú}alan.zú, thus providing a bridge to Hittite ^{lú}alan.zu$_9$[789].

The slight diffidence in two OS tablets in the writing of the second element, ZU$_9$, may indicate that this was a relatively new addition to the signary[790]. The writing ^{LÚ}ALAM.GU$_7$ is very likely a (mis-?)reading of ^{LÚ}ALAM.KA as ^{lú}alan.gù, a mistake very likely to have crept in from the misunderstanding of a lexical list. It is tempting to see the occasional Old and Middle Script Hittite writings with ZU as evidence for transmission of both OB writings, although they could easily be Hittite phonetic writings. The only later, Neo-Babylonian, attestation of this logogram in Mesopotamia writes it as ^{lú}alan.zú (CAD A 392).

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[785] Literature: = *aluzinnu* Güterbock 1964, 95ff.; "reciter"? 1989, 307ff.; "attore", "mimo" De Martino 1983, 131-148; "adoratore di statue" E.Badalì1984: 45-53. Singer 1983: 95 fn. 22 "comedian", followed by Kassian et al 2002: 180f. ; "Komödiant" Schuol 2004, 5.2.4, ead. "Performer" in summary.

[786] Singer 1983: 95 fn. 22

[787] Singer loc. cit.

[788] W. Römer (1975-78: 45-68) translates Akk. *aluzinnu*(*m*) as "Spaßmacher" (passim) and Sumerian ^{lú}alan.zú as "der mit großen (Masken)zähnen" (ibid. 48), while considering an Anatolian origin for the Akkadian word.

[789] MSL 12.72, 581, "lú". Both variants are on Nippur mss., A and R; Güterbock 1964: 95-97; see also Güterbock 1989: 307fn. 4.

[790] One might add KBo 40.200 ii 5 (OS), which omits the ZU$_9$, a mistake otherwise unparalleled.

Phonetic complements are extremely rare, Hittite ones being found only five times, both in OS and NS texts, and Akkadian complementation with *-TIM* being found only in two MS texts[791].

The question of an "Anatolian" origin for Akkadian *aluzinnu(m)* in the first place, raised by W. Ph. Römer, remains unanswerable for the moment. If "Anatolian" at all then Hurrian would be the most likely candidate, and this is not an "Anatolian" language[792]. The logogram is already attested in OB lexical lists from Nippur. If an "Anatolian" language derivation of the Akkadian word is in fact conceivable, given the tendency of OB and OA scripts to phonetic writings, it is very unlikely that our logogram would have been used for it in whatever as yet undiscovered cuneiform may have been used by the speakers of that language, if they used any at all at such an early date. The origin of the logogram is thus most probably to be sought somewhere (Northern Mesopotamia?) where the word *aluzinnum* was not understood and was thus given this peculiar "phonetic" etymology.

The activities of the ^{LÚ}ALAN.ZU$_9$ are described at De Martino loc. cit. 134, 143f. where the central function of this character is seen in the reproduction of Hattic cultural material in a possibly theatrical context[793]. That the word is not of Hattic origin, however, is suggested by the apparent Hattic equivalence at KBo 5.11 obv. i 11: ^{LÚ}*pár-ši-e-el* : ^{LÚ}ALAN.ZU$_9$.

De Martino lists *ḫalzai* (including calling *aḫā*), *memai* (including *hattili*), *paluiskizzi*, *maldi*, *tezzi* and SÌR^{RU} as the verbs denoting actions of this character. Additionally mention is made of apparent costumes[794]; spinning movements[795]; crouching naked in a pond before having *marnuant-* beer poured on their backs, stepping out of the ponds

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[791] KBo 21.85 also has the unusual writing $^{LÚ.MEŠ}$*ME-ŠE-DU-TIM*. Both tablets use the typically MH spelling *ma-a-aḫ-ḫa-an*.

[792] Römer loc. cit. See Old Assyrian *alaḫḫinnum*, a functionary's title which may be derived from Hurrian (Schwemer 2006b: 658 with fn. 24). A derivation from the Hurrian root *al(u)-* "say, speak", with the root extension *-uzzi-* and the professional suffix *-nni-*, is immediately very tempting given the frequent characterisation of the activity of the ^{LÚ}ALAN.ZU$_9$ with verbs of speaking, *memai, maldi, tezzi*, but does not square with the apparently Hattic background of recitations from the $^{LÚ.MEŠ}$ALAN.ZU$_9$. Nor is a combination of professional suffix with *-uzzi-* otherwise attested, nor the use of *-uzzi-* with a verbal root. The meaning would be "the one who does that which is to do with speaking". If the Hurrian etymology for the Akkadian word is correct, we could guess the Hittite might be **mematalla-* or something similar.

[793] See also Schuster 1974: 44.

[794] TÚG GÙN.A *wa-aš-ša-an ḫar-kán-zi* KBo 4.9 i 46.

[795] *na-at-ša-an pé-e-te-ši ú-e-ḫa-an-ta-ri* ibid. 49; De Martino loc. cit. 137. Schuol 2004: 187.

and blowing horns[796]; fighting each other (*zaḫḫanda*) before being chased off at a signal from the king by a LÚ *ME-ŠE-DI*[797]. One could add scooping wine[798].They also appear to take position in front of the *taršanzipa-*, possibly some sort of stage[799], and go up on to the ^{GIŠ}*pa-ra-na-al-la-*[*aš*], a wooden structure of some kind[800]. Further possibly theatrical activity is asking for wool and being given sweet milk[801], laughing[802], and one unpublished text has one of them playing a ^{GIŠ}*ḫuḫḫupal-* (possibly a lute)[803].

^{MUNUS}AMA.DINGIR^{*LIM*} "mother of god"[804]

This would appear to be a clear case of a logogram completely invented by Hittite scribes on the basis of a Hittite word: *siunzanna-/siwanzanna-*. The explanation of this as a genitival expression "mother of god" has never really received any contradiction, although the form of the genitive is peculiar, presumably involving syncope from **siunas-anna-*[805]. The only OS phonetic writing allows derivation from the usual genitive of the paradigm of *šiu-*: ^{[MUN]US}*ši-un-za-an-na-aš* (KBo 16.71+ rev. iv 22; StBoT 25: 43, no. 13)[806]. **siwanas* must simply be an otherwise unattested variant of *siunas*, with an anaptyctic vowel possibly following an accent shift to the second syllable related to the syncope.

The writings, attested at all periods, which place the DINGIR before the AMA are clearly errors based on the Hittite word order, showing in this case how clearly the original genitive construction and indeed the Hittite was present in the minds of the

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[796] KUB 2.3 ii 11-31; De Martino loc. cit. 138-140.

[797] KBo 23.92 ii 12-18; De Martino loc. cit. 140f.

[798] *kaltiaz* GEŠTIN *ḫa-a-ni nu kissan maldi* KUB 48.9 obv. ii 14 (NSc).

[799] KUB 25.3 iii 13; De Martino loc. cit. 142.

[800] KUB 20.76 i 9; De Martino loc. cit. 142f. interprets this as a Hattic word, whereas CHD P 134 (with lit.) appears to take it as Hittite.

[801] SÍG *we-e-ek-zi nu-uš-ši* GA KU₇ *pí-an-zi* VSNF 12.31 obv. i 15 (NSc); Yoshida 1996: 125f.

[802] *ḫaḫarsiezi* KBo 24.98, 2 MS-IIc (= KBo 19.138, 8 NSb); Pecchioli Daddi 1988: 204.

[803] ^{GIŠ}*ḫuḫḫupalli sapzi* Bo 3542 obv. ii 3; Although the ^{GIŠ}*ḫuḫḫupal-* can be "struck" (*walḫ-*), the usual verb for its operation is *ḫazz(isk-)*, frequently used of stringed instruments (See Schuol 2004: 108 - 110). Here we would have another verb for playing this instrument, itself in the semantic sphere of "hitting" (See CHD Š/1, 201f.: 1. "hit", 2. "churn milk").

[804] Lit.: Archi 1988: 10 with fn. 24; Bin-Nun 1975: 190 - 202. Taggar-Cohen 2006: 335-368.

[805] Potentially comparable for the syncope is *ne-pí-iš-za-aš-ta* if it can be explained from **nepisas-asta* > *nepiszasta* at KBo 3.22 obv. 2 (OS, Anitta). Recently A. Kloekhorst has proposed explaining the compound as participial: **siwanz anna-* , "the divine (lit. glowing) woman" (Kloekhorst pers. comm. and now Dissertation). This does not explain the creation of the logogram, although it could be relevant to the OS writings DINGIR AMA etc. However, the OS form *siunzanna-* is clearly not participial.

[806] E. Rieken (1999: 37, fn. 160) explains the later (from MH) nom. pl. *siwannes* as a Luwian re-interpretation of old *siunes*, possibly via an ablaut variant **siwanes*, on the basis of the Luwian suffix -*wann(i)-*. She refers to *siwanzanna-* in this context, but it is not clear to me what she wishes to compare it to; the ablaut variant or the "interpretatio luvica".

scribes. However, one older tablet with ^{MUNUS.MEŠ}DINGIR^{*LIM*}AMA at least shows other signs of scribal insecurity with logograms.

Despite the parallel in formation to *siwanzanna-*, it is conceivable that the creation of the logogram was in some part influenced by the writing of the well known Mesopotamian priestess, ereš.dingir (= NIN.DINGIR), Akk. *entu*[807]. However, the EREŠ.DINGIR, who is attested exclusively in Hittite texts of OH content, is never written with an Akkadographic phonetic complement[808], but is sometimes complemented in Hittite, which never happens with the ^{MUNUS}AMA.DINGIR^{*LIM*}. Furthermore, current thinking on the syntax of Sumerian ereš.dingir tends to interpret this as a appositional compound, "lady-god", or adjectival phrase "godly lady", rather than as a genitival phrase, "lady of god" . The plural form, ^{[MUNUS.]MEŠ}EREŠ.DINGIR.DINGIR (nom. pl. KBo 38.12 rev.[?] vi 14, OS or MS), also indicates a discrete Sumerian concept: "the lady-gods, divine ladies", not the "lady of the gods"[809]. contrast the plural of ^{MUNUS}AMA.DINGIR^{*LIM*} which only once substitutes the determinative MEŠ for the Akkadographic phonetic complement, in the form ^{MUNUS.MEŠ}AMA.DINGIR^{MEŠ} in an unpublished MS text.

^{MUNUS}AMA.DINGIR^{*LIM*} is thus parallel to other apparent Hittite logographic calques in that it appears to use Akkadian as the base language rather than Sumerian. This was probably also the case for É NA₄, the "house of stone", as suggested by D. Groddek on the basis of KUB 57.46 obv. 6: ⌜É⌝ [N]A₄^{*NI*}-*ia-az-za*[810] to be read as Akk. *bīt abni*. This was a calque on the Hittite expression which appears to have been a genitival syntagm as apparent from the OH writing NA₄-*an pár-na-aš ḫi-lam-ni* (KBo 17.15 rev.[!] 12), "in the fore-court of the house of stones"[811].

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[807] *ENTU* is attested twice in Boğazköy texts. Taggar-Cohen 2006: 387f. points out that both attestations of *ENTU* are associated with the cult of the goddess Išḫara, in one case in Kizzuwatna (KUB 20.1 ii 11; KUB 40.2), and thus assumes that they stem from a different cultural milieu to the EREŠ.DINGIR. The *ENTU* of KUB 40.2, she argues, may be the Kizzuwatnian equivalent of the priestess designated by EREŠ.DINGIR in Ḫattusa.

[808] Contrast ^{GIŠ}NIN.DINGIR^{*LIM*} KBo 4.13 rev. v 8; Laroche 1945-46: 7

[809] When she completed her dissertation, KBo 38.12 was not yet available to the author of the last detailed study of the EREŠ.DINGIR (written NIN.DINGIR) priestess in Hittite: Taggar-Cohen 2006: 384-422. Taggar-Cohen's study aims at demonstrating that the EREŠ.DINGIR priestess was a "royal princess" (loc. cit. 389) with close parallels to the ^{LÚ}*tuḫukanti* from the perspective of ritual status (ibid. 413-416). Part of her argument depends on the EREŠ.DINGIR always being singular. This is not necessarily invalidated by the present text, but the picture must be slightly more complex.

[810] Groddek 2001: 214f. with lit.

[811] Groddek loc. cit.

AMAR.MAḪ: cf. Hoffner 1967: 355, Laroche RHA 68, 44

Hoffner loc. cit. points out that MAḪ in this case cannot refer to the age of the animal, it being a calf, and recalls B. Landsberger's suggestion that MAḪ may have faded in meaning over time and come to mean only "spared from agricultural labour". Alternatively he suggests reading GUD[!].MAḪ, which is unlikely in the cases where GUD and AMAR occur together and are clearly differentiated (KUB 12.16 obv. ii 15). Mesopotamian máḫ (= AL) means "mature" when used of animals in general, "milk-bearing" when used of cows[812]. Hoffner has shown that MUNUS.AL(.LÁ) is used to designate the female of a species when no specific Sumerogram is available, obviously read as AL(.LÁ) in Ḫattusa, but máḫ in Mesopotamia[813]. We should entertain the possibility that MAḪ is being used here to indicate sex. KBo 47.12 obv. 6 has a listing of animals that may exhibit parallel structure among the items in the list: "[x number of catt]le, 1 female calf, 6 sheep, 1 male lamb". If this is to be interpreted thus, then maḫ would have to be a phonetic rendering of máḫ[814]. This is the kind of confusion that could easily have occurred within one of the "group" vocabularies. We would further have to assume that the attribute "milk-bearing" had been generalised to sex.

This interpretation sits ill with the well-established meaning "bull" for GUD.MAḪ, which presumably rests on the meaning "august, grand" for MAḪ. We should be wary, however, of generalising the meanings of individual Sumerian components of logograms over and above their occurrences in particular logographic compounds.

[LÚ.MEŠ]AN.BAR.DÍM.DÍM, "iron-workers"

These appear as recipients in a KI.LAM ration tablet at KBo 16.68 obv.! ii 15 ("mh",OH/MSc). They are mentioned in a list including the [[LÚ.MEŠ]ḫ]a-pé-eš [URU]A-li-š[a] (obv.[!] ii 3); [[LÚ.MEŠ]K]Ù.GI.DÍM.[DÍM (ibd. 9); [LÚ.MEŠ]AN.BAR.DÍM.DÍM (ibd. 15); [LÚ.MEŠ]KÙ.BABBAR.DÍM.DÍM (ibd. 21); [LÚ.MEŠ]URUDU.DÍM.DÍM (ibd. 27).

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[812] The one example of máḫ amar cited by EPSD (OrSP 47-9, 343, 8) in fact reads 1 (diš) áb.MUNUS máḫ amar šà.bi?, the last two signs being visible on the cdli photo, but not recorded on the transliteration: "1 milking cow, a calf inside it". R. Englund, on the other hand, reads kù.bi with a partial erasure here (personal communication).

[813] Hoffner 1997: 324; id. 1967: 19. While MUNUS.AL(.LÁ) is the regular designation of a female animal in Sumerographic usage at Boğazköy, we may have GUD.MÁḪ in the very obscure sequence of KBo 1.11: GUD.MÁḪ KISLAḪ, "a heifer of the threshing-floor", otherwise interpreted as GUD.SAG as an aberrant writing for GUD.MAḪ. On collation, the sign may resemble AL in having no top horizontal after the first two horizontals. There is a line of some sort, as copied, but it does not look like an imprint. The two verticals across the front horizontals is reminiscent of monumental or OB script, but not of the AL-forms otherwise used on the tablet. This would have repercussions for the discussion of the scribe's origin (see introduction).

[814] See Proto-Ea 676 variant maḫ = AL, and later máḫ appears at Aa VII/4, 16-17 as the equivalent of Akk. ṣ[i-i-ru], ra-b[u-u].

A similar order of officials with slightly different expression is found in an outline tablet of the KI.LAM festival. KBo 17.46 + KBo 34.2 (OH/MS?)[815] rev. 5ff.: $^{LÚ.MEŠ}$KÙ.GI.DÍM.DÍM (rev. 5, 7); LÚ^{MEŠ} AN.BAR (rev. 8); LÚ^{MEŠ} KÙ.BABBAR (rev. 9); $^{LÚ.MEŠ}$URUDU.DÍM.DÍM (rev. 10). In this case there is a clear and intriguing distinction between those artisans characterised by DÍM.DÍM and those that are simply LÚ.MEŠ[816]. The "goldsmiths" and the "coppersmiths" are both subjects of intransitive verbs or transitive verbs without an expressed object. The "goldsmiths come (*ú-en-zi*), stand (*ne ti-i-en-zi*) ... (and) sing (SÌR^{RU})". The "coppersmiths create (? = *ša-am-na-an-zi*)", with no expressed object[817]. On the other hand both the "iron-men" and the "silver-men" heap up balls of iron and silver (*p*[*u-ur*]*-pu-ru-uš* AN.BAR/KÙ.BABBAR *šu-uḫ-ḫa-an-z*[*i*]).

Similarly in the ration-tablet KBo 16.68, where the craftsmen are not subjects of any verbal activity at all, DÍM.DÍM is used. The use of the Sumerian dím "make/build" is very unlikely to correspond to any difference in the Hittite. As with any professional designation, we would expect the Hittite of these names to be formed of the metal-name + *-talla-*, or the like. The distinction appears to operate solely on the level of the Sumerian. Where the "smiths" are acting transitively, there is no need to add the verbal formant to the logogram. When they are not acting transitively, the Sumerian verbal form is added to the nominal compound, possibly to make clear that the "smiths" are "doers/makers" of some kind. This does not correspond to the methods used to characterise ergativity in Sumerian, and is most likely a creation of the Hittite scribes. We should note that these words only occur in the tradition of the KI.LAM festival.

Of the above words, no direct correspondents are attested from Mesopotamia. The regular logogram for "metal-worker" (Akk. *gurgurru*) is ^{lú}tibira (URUDU+NAGAR), also attested at Ḫattusa (HZL 109) from the Old Hittite period[818], as well as ^{LÚ}SIMUG, written ^{LÚ}E.DÉ(.A) at Hattusa[819]. There is a kù.babbar.dím in an OB literary text[820], of

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[815] CHD Š/1 125, P 390. Konk. "ah".

[816] Siegelová 1993: 117, "auch kurz LÚ KÙ.BABBAR", plainly thinks this is an abbreviation and no more.

[817] For a similar activity on the part of the $^{LÚ.MEŠ}$DÉ.E (= SIMUG$^!$, "smiths") see Bo. 3371, 6-12, CHD Š/1 125 with literature. In neither case can the object be lost in a lacuna as a new sentence starts immediately after the verb.

[818] Siegelová 1993: 117.

[819] HZL 187; Hawkins apud Dalley et al. 1976: 43.

[820] Enki and Ninmaḫ 68.

which our form could be the plural. We also find a kù.dím (Akk. *kutīmu*), "gold/silver-smith, jeweller", who is attested in Hittite texts as ^{LÚ}KÙ.DÍM[821].

The others are not attested in Mesopotamia. an.dím.dím is the designation of a craftsman in Ur III texts, but should almost certainly be kept separate as the following formal considerations suggest:

At ITT 2, 02680 the an.dím.dím are mentioned alongside the simug, "smith", the nagar, "carpenter", and the mu.sar, "scribe on stone".
In ITT 2, 04164 they appear with the nagar, the zadim, "bow-maker", the simug, and the mu.sar. Similarly at UET 3, 1474, 22, where an.dím.dím is singular and where the kù.dím is also mentioned, alongside a host of other craftsmen belonging to the ĝiš.kin.ti.
At UET 3, 0342 an.dím.dím is attested in the singular as someone's profession.
The function of double dím in an.dím.dím is thus not to express plurality. The an is most likely to be an abbreviation for AN.NA(nagga).dím.dím, the "tin-worker".

Smiths of various types are designated in North Syrian Alalaḫ by the logogram ^{LÚ}SIMUG with further characterisation of the type of metal: ^{LÚ}SIMUG ⌜URUDU⌝ (AlT 247, 7). The Hittite expression is thus very likely to be an adaptation based on the Hittite form of the word. At Mari we find among others the ^{LÚ}URUDU.NAGAR (= ^{lú}tibira) and the ^{LÚ}KÙ.DÍM, both of which are abbreviated, by way of contrast to the Hittite method, by eliminating the word for the metal; thus ^{LÚ}NAGAR and ^{LÚ}DÍM[822].

AŠGAB "Lederwerk" HZL 80

While the professional denomination ^(LÚ)AŠGAB appears frequently in Mesopotamia meaning "leather-worker" (Akk. *aškāpu*), AŠGAB meaning "leather-work, leather" does not appear to be used. This may be the case at KBo 20.13 rev. 15 (OS). This would be a back-formation from the professional title ^{LÚ}AŠGAB being re-interpreted as LÚ (=*ša*) AŠGAB, "the one of the leather".

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[821] Siegelová 1993: 118.
[822] Durand 2005: 89, 164.

BÁḪAR, BAḪAR₅: potters, hares and deserts.

BÁḪAR (DUG.SÌLA.BUR) HZL 162 is written DUG.BUR.QA KBo 17.78 ii 21 ("mh"
CTH 652) and DUG.BUR.GA at KUB 41.6 r.col. 9 (NSc CTH 470) apud HZL 162.
Thus QA is pronounced phonetically and not SÌLA.

A similar phenomenon has been hypothesised for a writing of SÌLA.ŠU.DU₈.A at Mari.
ARM 13.143, 8 reads ŠU.TAR.DU₈. D. Charpin posits a value qa_x at Mari for TAR on
the basis of A.2808 qa_x(TAR)-*du-um gi-mi-ir-ti-šu*, which is matched in the parallel
passage ARM 5.33, 7 by *i-na gi-mi-ir-ti-šu*[823]. This means that ARM 13.143, 8 could
have been read ŠU.QA$_x$.DU₈ at Mari[824]. In light of the similar observations concerning
BAḪAR₅ at Ḫattusa it may be that the same was true there.

MZL II 499 characterises DUG.SÌLA.BUR.NA = BAḪAR₅ as only Hittite.
[DU]G.QA.BUR.NA.LÁ 1080/u, 4 (NS) photo collated: LAL with raised horizontal
and broken vertical! The context is unclear.

UZU DUG.QA.BUR.NA (BAḪAR₅) is read (UZU) EDIN.NA by Berman/Hoffner at
KBo 10.28 + 10.33 v 1-2, where it may alternate with ([U]ZU) *AR-NA-BI* ("hare") in
the duplicate KBo 10.36 iii 3[825]. HZL 168 (AM) reads the component parts as
AM.SÌLA.BUR.NA, for which reason the authors presumably excluded the logogram
from HZL 162[826].

The Sumerian for Akk. *arnabu*, "hare" is KA.edin.na, according to lexical lists[827]. If
KBo 10.28 v 1-2 is in fact DUG$^!$.QA.BUR.NA, and it is the Boğazköy form of the
Mesopotamian sign (KA.)EDIN(.NA), it is possible that there is evidence for this
reading at the obscure Ea-style vocabulary fragment KUB 3.94 ii 4f. (photo N02284):
I DUG.QA.BUR(EDIN).NA = *ṣe-e-*[*ru*] (5) I DUG.QA.BUR = *pa-a-ḫa-*[*ru*], with *ṣe-e-*
[*ru*] for Akkadian *ṣēru*, "steppe"[828].

Hoffner/Berman point out that the QA in ii 4 has two wedges, while the QA in ii 5 has
only one[829].

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[823] Charpin *N.A.B.U* 1987: 65.

[824] However, we should remember that TAR also has the value SIL, although Röllig/von Soden 1967: 3
only have this value as a syllabogram in Akkadian from the MA period onwards. The evidence is thus
equivocal for this Sumerogram.

[825] Berman/Hoffner 1980: 49, followed by Singer 1984: 86.

[826] Criticised by Hoffner 1997: 220 fn. 65. The reading is correct, however: UZU AM.SÌLA.BUR.NA,
photo b307.

[827] CAD A/II, 294: Hh 14.155-155a (MSL 8.19), Hh 11.47. The variant reading at Hh 14.155
˹a˺.gú.edin.na (ms. D, Aššur) suggests similar uncertainty about the writing. It would be rash and overly
complicated to use this as evidence for a reading of Mesopotamian KA(.edin.na) as gù(.edin.na), or
similarly to use Hitt. dug.qa.bur.na as evidence of a reading dug₄.edin.na.

[828] Berman/Hoffner 1980: 50 fn. 2.

We thus have DUG.QA.BUR.NA (EDIN.NA) = *ṣēru* (lexical) and DUG[!].QA.BUR.NA = (KA.?)EDIN.NA = *arnabu* (text), beside [(LÚ)]DUG.QA.BUR.NA (BAḪAR₅) = *paḫāru* "potter" (lexical and textual)[830].

Given that LÍL (q.v.) is the usual logogram used to represent Akk. *ṣēru* at Boğazköy instead of the regular Sumerian EDIN, it is tempting to compare the equations from first millennium Ea V 34: ba-ḫar = DUG.QA.BUR *du-uk si-la bur-ru-u = pa-ḫa-rum* (36) li-il DUG.QA.BUR = [D]DUG.QA.DUR at Ea V 36 with the Boğazköy Ea-style vocabulary at this point. The li-il is here clearly not Sumerian líl (which is equated with *ṣēru* at Boğazköy, s.v. LÍL), but *lillu*, the name of a demon. The first millennium version of Ea at this point may nevertheless contain a re-interpretation of something once contained in the Boğazköy or some other Middle Babylonian version of Ea.

This involves the following assumptions: 1) DUG.QA.BUR (= EDIN) could at some point serve as a writing of phonetic Sumerian /lil/; 2) líl is a legitimate correspondent to Akk. *ṣēru*, for which see s.v.; 3) the Boğazköy version preserves a tradition where /lil/ = EDIN = *ṣēru*; 4) the first millennium version re-interpreted this /lil/ as *lillu*, "a demon", which has more in common with the dominant lexical association of líl with Akk. *ziqīqu*, "wind, ghost" 5) the transmission of this part of Ea at some time passed through an area where EDIN was written DUG.QA.BUR.

EDIN has left the faintest of traces in Boğazköy cuneiform, its function mostly being taken over by LÍL. The form of [(LÚ)]BAḪAR₅ (DUG.QA.BUR.NA), meaning "potter", can only reasonably have been generated by a miswriting of a lexical list where EDIN.NA occurred next to BÁḪAR. An instance of precisely this juxtaposition is provided by the Ea-type vocabulary KUB 3.94, although this particular scribe distinguishes the writings with and without the NA.

[TÚG]BAR.DUL₅ (= TÚG)

MZL 121 lists [TÚG]BAR.DUL/.DUL₅ (= TÚG)/.DUL₈ (=DIB). HZL 20 keeps [TÚG]BAR.DUL₈ (= DIB) and reads [TÚG]BAR."TE" additionally instead of [TÚG]BAR.DUL₍₁₎ due to the fragment 359/z i? 14 which has]x BAR.TE-E[831].

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[829] Berman/Hoffner 1980: 50 fn. 2.

[830] [LÚ]DUG.QA.BUR.NA KBo 2.1 i 25, ii 6!; KUB 8.75 ii 17]. 62; KUB 38.12 i 10, 16; HT 2 v 22.

The possibly phonetic writing at KBo 15.15 rev. 8 (ALAN ^{TÚG}BAR.T[U]?), if it is in fact related, would indicate that there were differences of opinion on the pronunciation of this logogram. The BAR-TE-E reading has at any rate arisen from a false identification of DUL.

^{TÚG}BÁR (HZL 235) "grobes Gewebe" Akk. *bašāmu(m)*.

See Güterbock Fs. Otten[1]: 71f. for forms, including from the logogram for the month *nisannu*: ^{ITU}BÁR.ZAG.GAR.

In the catalogue given here individual sign-forms are identified according to HZL (235/-) and where they are not covered by HZL they are identified with those listed by Güterbock, and where neither list has them they are given the notice 235/?.

Palaeographically speaking, the "simplified" signs (235/15, Güterbock type 2) only appear in the later texts, NS onwards, perhaps even with a tendency to NSbii and NSc.

The price of the ^{TÚG}BÁR regularly appears as 1 Shekel of silver. KBo 6.26 ii 51 has its price in a list of garments the most expensive of which is 30 silver shekels (TÚG SIG).

KBo 25.176 rev. 13-17 deals with the distribution of ^{TÚG}BÁR in a ritual context and follows two passages detailing the distribution of other cloths in a clear hierarchical order: Rev. 4-7 and 8-12, have TÚG *ḫantezzin* being given to the ^{LÚ.MEŠ}SANGA; TÚG *da-a-an* being given to the ^{LÚ.MEŠ}GUDU₄/^{LÚ}*tazzelli*; TÚG ÉRIN^{MEŠ} being given to the ^{LÚ}SÌLA.ŠU.DU₈ and ^{LÚ}NAR. All of these are given to the LÚ^{MEŠ URU}*ARINNA* in the first passage and the LÚ^{MEŠ URU}*ZIPPALANDA* in the second. Rev. 13 then has 4 ^{TÚG}BÁR for the ^{LÚ.MEŠ}*zilipuriayatalli* (var. *zilipuriyatallas*). Rev. 14-15 has one (var. 2!) ^{TÚG}BÁR for the LÚ ^É*ḪÉ-EŠ-TA-A* who lifted the ^{KUŠ}*kursa*-; Rev. 16-17 has one (var. 2!) ^{TÚG}BÁR for the ^{LÚ}(var. ^D)*kán-te-pu-it-ti* (var. *kán-ti-pu-u-it-ti*) who lifted the ^{KUŠ}*kursa*-. Whether the ^{TÚG}BÁR is thus supposed to be inferior to the TÚG ÉRIN^{MEŠ} is not clear. It could also be a reward for local officials as opposed to visiting ones. This is not the case for KBo 30.152 ii 2(?) where 78 ^{LÚ.MEŠ}SANGA KUR.KUR^{TIM TÚG}BÁR-*it wa-aš-ša-an-zi* "78 priests of the lands are clothed with a ^{TÚG}BÁR", these most probably being visiting priests. If the ^{TÚG}BÁR is indeed a garment of little worth, the fact that the

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[831] The sign before the BAR is not immediately recognisable as a broken TÚG, but it can hardly be anything else. TE, DU₆ and DUL are not always immediately distinguishable in Bo. texts. In these cases the "TE" sign is usually supplemented by a further wedge in the centre of the cluster.

priests don it in the presence of the king may indicate symbolic prostration or be part of some otherwise unclear rite of social inversion.

That this was a tunic of some kind is shown by the combination 1 ^{TÚG}BÁR-*an za-ḫur-ti-ia* "1 ^{TÚG}BÁR and belt" at KUB 56.46 rev. vi 20. See also KBo 38.12.

A ^{TÚG}BÁR ^{LÚ}DUB.SAR is listed at KBo 9.131 rev. iv 17.

In KBo 9.132 it appears associated with the Zintuḫi-women and in KBo 43.136 it may be associated with the ^{LÚ}GUDU$_4$ doing something MUNUS-*ni-li*. KBo 18.200 ii 8 has 1 ^{TÚG}BÁR L[Ú].

The Hittite evidence thus at no point indicates that this was any kind of sack, merely a comparatively common garment, irrespective of whatever material it was made of, possibly occurring in variations for women and men.

barag appears as a designation of a type of cloth in Mesopotamia and is usually translated "sack-cloth" (Akk. *bašāmu*)[832]. It can be used for the sack as a container as well as for the cloth out of which it is made, as in English "sack". Late sources indicate that the wearing of the *bašāmu*-garment was associated with punishment of wrong-doing[833]. It is unclear whether this association held for the earlier periods or for barag. The relation of Akk. *bašāmu*(*m*) to *saqqu*(*m*), juxtaposed in a late "group" vocabulary, is unclear[834]. In the OB period the *saqqum* cloth was obviously valued, and was particularly used for the ^{TÚG}BAR.SI, "head-band"[835]. On the other hand the *bašāmu*(*m*) did not have to be made of sack at Alalaḫ, if it can be identified with AlT 415, 11: 1 *be-ša-mu ša* SÍG.

^{túg}barag as a garment is extremely rare in Mesopotamia. That it was also used for the sack-container may be indicated by its apparent use as a donkey saddle or panier in anše.^{túg}barag.lá (ZA 56, 87, 1967). There is also a túg.šà.šà.barag in a Susa Forerunner (2) to Hh XIX, possibly a garment with this sort of cloth on the inside. túg.barag alone appears only at ED vessels 119 and in reversed order at Ebla: barag.túg, the very occasional usage of which appears to denote a garment[836].

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[832] PSD B/143 bára B

[833] AHw 111a.

[834] Antagal VIII 73ff.: bár = *ú-du-ú* (74) bár = *ba-ša-mu* (75) bár.ra = *saq-qu*

[835] ARM 18.49, 6ff; Rouault ARMT 18, 278 s.v.; as items for a dowry: Iraq 42.70 ii 13+15; Kraus AbB 5.268, 6; garments for the king: ARM 7.122, 2.

[836] The Ebla material appears to have two distinct uses of "bára" referring to cloths. Picchioni TLME 23 v.VII 2 (p. 167) has bára in "un elenco ordinato di numerali" leading to the surmise that this is maybe a numerator, perhaps something to do with the meaning "sacco, recipiente". D'Agostino MEE 7, 1996: 44 (Text 10 r. II 5) has 2 *mi-at* 50 bára.bára ^{ú}naga, "250 sacchi di salicornia", apparently a hapax (ibid. 46). bára.túg is attested as a logogram at MEE 5, 19 v. XI 3-4 and MEE 10, 29 v. XIV 12 "un tipo di stoffa

^{TÚG}BÁR only otherwise occurs once at Ugarit, where it is mentioned in the same breath as sheep, personnel, nu.luḫ.ḫa plant and birds of some kind, all totalling 320(?) shekels[837]. In this case it is unlikely to refer to the garment, rather the sack-cloth[838].

The Hittite logogram thus appears to preserve very ancient material from an otherwise lost lexical tradition, possibly continuing or adopting a North Syrian material cultural complex in which the designation of the material had been transferred to that of the garment. This tradition is not in evidence in the Ugarit attestation.

^{NA4}DUḪ.ŠÚ.A

Otherwise appears as ^{NA4}DUḪ.ŠI.A = Akk *dušû* in Mesopotamia[839].

The MS attestations of this writing, which must be phonetic for DUḪ.ŠI.A, are paralleled by at least one attestation of MS -*ŠÚ* for Akkadographic -*ŠU*, albeit from the reign of Suppiluliuma. ^{NA4}DUḪ.ŠÚ.A is also the writing found at Mari.

EGIR.KASKAL^(NI) cf. HWb² I, 157. Oracular term for the flight of birds, either "(auf dem) Rückweg" with HZL 126, or "hinter dem Weg" with HWb. Against the latter speaks the non-oracular MS attestation KUB 32.130, obv. 13, 22, where EGIR.KASKAL(-*ma-aš-ši*) clearly appears to be used adverbially meaning "on the way back" (cf. ibid. 23 *a-ap-pa I-NA* ^{URU}*ŠA-MU-ḪI*)[840]. Presumably this is a formation by analogy with (*I-NA*) EGIR.UD^(MI) = *appasiwatt-*.

GA.KALAG.GA/GA *DANNU* "strong milk; yoghurt"

This concept is unattested in Mesopotamia, but is unlikely to have been a Hittite creation if we compare the use of *dannu*/KALAG.GA, "strong" to characterise liquids. However, its use qualifying "milk", as here, is quite probably very different to the qualities specified when it is used of vinegar, wine and beer (CAD D 93-94).

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pregiata", cf. Pettinato .... : šušana_x kù.babbar/1 bára.túg "20 (sicli) per 1 stoffa a sacco". Either Ebla was suffering very high inflation or sack-cloth was a new invention!

[837] RS 20.16 rev. 33 (Ugaritica 5 no. 38): *ù* SÀM^{MEŠ} UDU^{ḪI.A.MEŠ TÚG}BÁR^{MEŠ} SAG.DU^{MEŠ} (34) ^ÚN[U].[L]UḪ.ḪA *gáb-bi* MUŠEN^{MEŠ} *e-re-e*.

[838] J. Nougayrol understands it as a writing for ^{TÚG}BAR.SI SAG.DU, "head-band", but this is unlikely due to the complement on SAG.DU^{MEŠ}, the apparent gap between the two words, as well as the fact that the complex and rare sign BÁR would hardly be used as a phonetic writing for the simple and common sign BAR. See Nougayrol et al. 1968: 120 fn. 2.

[839] cf. Hoffner 1968: 42. Polvani 1981: 245-246; RlA VIII 211.

[840] Contra HWb 155b, 159b for obv. 22, obv. 13 apparently not quoted there. See Otten HTR 88.

The equivalence GA.KALAG.GA = ^{DUG}ḫar-šu-ša is not completely unproblematic, given that ḫarsusa is clearly determined as a container of some kind. See, however ^{DUG}KA.DÙ, which is both used of the drink and the container. The tablet (230/p) needs collating[841]. If it reads GA ḫar-šu-ša, ḫarsusa would have to be an adjective, which may mean that GA is (neut.) plurale tantum[842]. A connection between this word, ḫarsusa, and ^{NINDA}ḫarsi- "thick bread" (NINDA.GUR₄.RA) cannot be excluded, but presents difficulties in its stem-formation, especially given that it remains a hapax[843].

GA.KIN.AG "cheese"

This combination is not attested at all in Mesopotamia, but is found at Ugarit[844]. The different types of Mesopotamian cheese are reviewed by M. Stol in his two articles on dairy products[845]. The usual Sumerian for Akk. eqīdu(m) is GA.ḪAR(.RA), which was probably also read ga.kín when referring to a different type of cheese, although the correlations between Sumerian and Akkadian are not at all apparent. The latter reading is assumed by CAD beside ga.ḫar (s.v. eqīdu), without giving an explanation, and the Hittite GA.KIN.AG is mentioned by Stol in this connection, although he does not venture beyond a mention. It appears that Hittite GA.KIN.AG is in fact the only indirect evidence for the reading Sumerian ga.kín, apart from the general assumption that there must have been different Sumerian words for the different types of cheese, and kín is a different phonetic value of ḪAR.

ag/dù are commonly appended to kin "work", especially in lexical lists, and generally imply the formation of an auxiliary verb in a participial construction. GA.KIN.AG is thus "worked cheese". The absence of writings *ga.kin for ga.kín, "cheese" from Ur III texts, encourages caution, however. kín may occur as a writing for kin at OBGT III 21 (še kín-GAM-ma), but this could also be kín = ṭênu(m) "to grind". The use of kín = ṭênu(m) in Mesopotamian cheese designations may make sense in terms of the types of cheese available in Iraq, for example the cheese balls that appear to have provided a

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[841] Photo B24 shows that the right horizontal is raised over the level of the left one, thus very likely to be DUG.

[842] Wegner 2002: 175 translates "1 Opferschale Dickmilch", possibly assuming that this is the stem-vowel representing the genitive, although an accusative of respect could also give this translation.

[843] The stem would probably have to be a Luwian genitival adj. to a u-stem, although the lack of -ss- is disturbing, as is the a-vocalism. cf. ^{NINDA}ḫarsupanni- (Puhvel HEG 3, 88) and ^{NINDA}ḫar-šu-wa-an-du[-uš] (KUB 45.52 obv.[?] i 13), although the -u- in the latter does not have to belong to the stem.

[844] The OB Forerunner to Hh 22, VAT 682, does not have ga.k]in.ag, as read at MSL 11.166, which was compiled from a photo. Collation of the original reveals that it may well have [ga.ga]l.la.

[845] Stol 1993-1997: 189-201; id. 1993: 99-113.

kind of cheese powder for later hydration and longer storage. Cheese balls are known from Hittite texts, if that is how we are to interpret Hittite *purpura-* in this context, but there is no reason to assume that this was dried pulverised cheese.

It cannot now be decided whether the inventors of the logogram GA.KIN.AG simply misinterpreted Mesopotamian ga.kín, because they did not have cheeses which would make sense being ground up, or whether local scribal schools simply invented GA.KIN.AG on the basis of comparable compound logograms found in lexical lists. In either case, the addition of AG to KIN has the sense of a semantic indicator, further determining the sense of KIN, presumably phonetically identical to kín.

(TÚG)GAD.DAM

See Košak 1982: 10 for reading as TÚG*patalla*, and CHD P 238 for a rebuttal of this.

If this logogram is formed from its Sumerian elements, then it must be a creation meaning the "cloth of the wife" which is as yet unexplained, has no relation to any obvious cultural complex and could only be hypothetically explained by reference to an underlying (Hittite?) linguistic construction, which does not occur elsewhere. The determinative KUŠ, attested once in KUB 42.77 (NSc), may militate against creation of a logogram using GAD, "cloth". That this article of clothing was not restricted to women is obvious from its usage, as well as by the specification GAD.DAM MUNUS in one text, suggesting that a (TÚG)GAD.DAM was not immediately associated with women.

The suggestion of a phonetic pseudo-Sumerogram for *kattama* is entirely speculative, but no more so than "cloth of the wife". The *kattama* would be the "low things", composed of *katta+man-* in a similar construction to (NINDA)*sarā-man-*. For further discussion see LÚGAD.TAR below.

Akk. *kimṣu/kinṣu* refers to the lower parts of the legs, and in Amarna and Nuzi refers to textiles most probably associated with that part of the body (CAD K 375). Its logogram was dùg.gam. The word is attested at Boğazköy in the meaning "foot" at KBo 1.18 i 4. Another Akkadian word for "leggings" was *kaballu(m)*, which is attested in Hittite as an Akkadogram[846].

[846] Laws §178b. See Hoffner 1997: 220. AHw. 414b.

^{LÚ}**GAD.TAR**

does not occur at all outside Boğazköy[847]. The main context, which also appears to provide a manuscript variant with possible phonetic or Akkadographic reading, is from the EZEN₄ SAG.UŠ:

KUB 25.27 rev. iv 13: *lu-uk-kat-ti-ma I-NA* É ^D10 ^{URU}ḪAL-PA (14) ^{LÚ.MEŠ}GAD.TAR-*ma-za* (9) ^DDAG^{*TI*} *i-ia-an-zi* (15) 1 GUD *ŠA* É-*ŠU-NU A-NA* UDU^{ḪI.A}-*ma* KÁ.GAL^{ḪI.A} (16) *ap-pa-an-zi* III *PA* ZÌ.DA III ^{DUG}KA.DÙ: "The next day (it is) in the temple of the storm-god of Aleppo, and the ^{LÚ.MEŠ}GAD.TAR celebrate the ^DDAG^{*TI*} (statue-base, throne?). One ox of their house, but for the sheep they take the (ones of) main gates. 3 measures of flower, 3 (beer-)jugs".

//KUB 55.5 rev. iv 8: *lu-uk-kat-ti-ma I-NA* É ^D10 ^{URU}ḪA-LA-AB ^{LÚ.MEŠ}*KAT-TA-RU-UT-TI-ša-za* (9) ^DDAG-*ti-in i-ia-an-zi ḫal-ku-eš-šar* I GUD *ŠA* É-*ŠU-NU* (10) UDU^{ḪI.A}-*ma* KÁ.GAL *ap-pa-an-zi* UD.18.KAM. "the next day (it is) in the temple of the storm-god of Aleppo and the ^{LÚ.MEŠ}*KATTARUTTI* celebrate the 'throne-dais' for themselves. The offering (is) one ox of their house, but they take the sheep of the main gate. The 18th day."

Ph.J. Houwink ten Cate interprets ^{LÚ.MEŠ}GAD.TAR-*ma-za* as a dictation error[848]. The logogram is attested elsewhere, however: KUB 20.92 i 9-11 (see Nakamura loc. cit. 56, fn. 205); KBo 5.11 obv. i 17.

J. Klinger thinks *kattaruttes⸗a⸗za* may be the Hittite word for the Sumerian ^{LÚ.MEŠ}GAD.TAR, while M. Nakamura transliterates as a phonetically complemented Akkadogram (see below). A further possibility is that *^{LÚ.MEŠ}GAD.TAR^{UT-TI}-ša-za* was meant, with bilingual (Akkadian and Hittite) phonetic complementation and a writing *TA-RU-* for TAR^{*UT*}[849].

If this *kattarutt-* is the Hittite stem, it is very unusual[850]. On the other hand, the phonetically complemented Akkadograms assumed by the two interpretations are equally unusual, but not unparalleled.

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[847] Ünal 1987: 477; Klinger 1992: 191f.; *Mestieri* 53-4 "sarto"?; Nakamura 2002: 56f.

[848] Houwink ten Cate 1988: 91f.

[849] Tischler 2001: 76.

[850] There are no direct comparisons. Stems in (-*r*)-*u-tt-* are very unusual: *pur-u-tt-* (Rieken 1999: 160ff.); *tep-u-tt-* (Rieken 1999: fn. 773; contra Weitenberg 1984: §962). They are both formed directly from the root, which does not appear to be the case here.

KBo 1.30 obv. 8-9 offers a lexical equation with Akk. *nuʾû*, Hitt. *dampupi-*:

8: ^{LÚ}AŠ.ḪAB　 = lu.aš.ḫa.ab　=　*nu-ʾ-ú = dam-pu-pí-iš*

9: ^{LÚ}GAD.TAR = lu.ga.ad.tar = *nu-ʾ-ú = dam-pu-pí-iš*[851]

The traditional explanation of this *dampupi-*, based on its occurrences in the Hukkana treaty to describe the land of Hayasa and its occurrence in the Laws to describe someone who can be bought for 20 shekels, as opposed to someone trained in augury, who can be bought for 25 shekels, is that of Friedrich: "minderwertig, gemein; unkultiviert". The semi-alternative translation suggested by J.Klinger, "schlicht auch «fremd»", is based on the assumption that one would not call the land of a vassal "barbarian" in a vassal treaty. However, it is not immediately apparent that a Hittite king would not do so, especially in a treaty which begins by calling its partner the "last dog" (*appezzin* U[R].G[I]$_7$-*an*). The essential passage for the definition of the *dampupi-* remains Laws §177. With Klinger, it is not immediately convincing that *dampupi-* is the Hittite phonetic form of ^{LÚ}GAD.TAR just because it corresponds to it in a lexical list[852].

Nakamura emphasises the Hattic correspondence in KBo 5.11 i 17 (NSc): ^{LÚ}GAD.TAR = ^{LÚ}tu-uš-ḫa-wa$_a$-du-un t$^{⌈}$a-a$^{⌉}$-n[i]-š[a]-$^{⌈}$ú$^{⌉}$-$^{⌈}$e$^{⌉}$, which he explains as the "*tanišaue-* (Mann) der (Gottheit) Tušhawadu".[853] Given that the Hattic ^{LÚ}ta-a-ni-ša-wa is identified with Sumerian LÚ ^{GIŠ}GIDRU in the previous line, the ^{LÚ}GAD.TAR is seen as a special kind of LÚ ^{GIŠ}GIDRU[854].

Beside the semantic context yielding the association of the $^{LÚ(.MEŠ)}$GAD.TAR with that which is *dampupi-*, their *halkuessar* to the ^{GIŠ}DAG^{TI} in the temple of the Storm-God of Aleppo (above) is marked by the fact that they provide one ox from their own house,

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[851] MSL 12.214-216; The ^{LÚ}AŠ.ḪAB (Akk. *isḫappu*, OB *ašḫappum*) is translated "Schurke, Schuft" at AHw. 387a, cf. CAD 189a.

[852] OA *nuwāʾum*, the Assyrian designation for the local inhabitants of Anatolia is invoked by Klinger (loc. cit. 194) but kept separate by Nakamura (fn. 203). The semantic field of Akk. *nûʾu* (thus CAD Nii, 356f.) is very difficult to determine. In the SB and NB Kudurru passages cited there, it could equally well be translated "foreigner" as "uneducated man". Then again, the Old Assyrian merchants may have called the Anatolian locals *nuwāʾū* because they regarded them as ignorant. For discussion of the interpretation of this word as "Luwian", not accepted here, see Carruba 1992: 251-257.

[853] See treatment of this passage, detailing "functionaries who sleep up at the palace" at Klinger 1996: 202ff, with no further informative comments concerning our Sumerogram. Similarly Klinger reads *tušhawadun* as a further determination of *tanišawe*, but without assuming identity with a deity.

[854] Literature, excluding Nakamura, at Soysal 2004: 839.

and sheep from the main-gate. One explanation for this could be that they did not have their own sheep.

Given the "low" social status of the *dampupi-* (see Laws §177), as well as the possible impecunity with regard to sheep, it is tempting to bring the possible Hittite word behind ᴸᵁ́GAD.TAR into a morphological relation with with that proposed for ᵀᵁ́ᴳGAD.DAM. While this may be a phonetic, pseudo-Sumerographic rendition of *katta-ma(n)-*, GAD.TAR could be formed by a similar process for an otherwise unattested *katta-ra-* (directive + -*ro-*) parallel in morphology to *katei-ro-* (Hitt. *kattera-*, dat. + -*ro-*). The three words would denote various shades of "lower", *kattera-* continuing as the regular word for this in Hittite, the other two developing specialised meanings related to clothing or social status. This still leaves the ᴸᵁ́·ᴹᴱˢ̌*KAT-TA-RU-UT-TI-ša* of KUB 55.5 without explanation, unless we assume an extremely cumbersome Hittite derivational form: *katta-r-u-tt-*.

M. Nakamura (loc. cit. 56) offers the transliteration ᴸᵁ́·ᴹᴱˢ̌*QÀT-TA-RU-UT-TI*, presumably with reference to the Neo-Assyrian hapax *qadaruttu*, although he dismisses its relevance (BM 13405, 9; Postgate 1970b: 25), which is also associated (by Güterbock?) at CAD Q 45-6 with our grapheme. A somewhat desperate alternative would be to assume an otherwise unattested Akkadian professional designation: **qattārum*, "incense-burner", but why these would be particularly *dampupi-* is not at all clear.

Neither explanation is satisfying and the logogram must remain unexplained.

ᴳᴵˢ̌GAN.KAL

KUB 29.4 i 28 = *la-aḫ-ḫu-u-ra-aš* KUB 29.5 i 12 (NH). "Offering table(?)" CHD L-N, 15. This hapax only occurs at Boğazköy. It could possibly related to the Mesopotamian logogram ᴳᴵˢ̌GAN = Akk. *kannu*[855], the latter of which occurs as an Akkadogram at Boğazköy, ᴳᴵˢ̌*GANNU(M)*. It may be worth considering whether ᴳᴵˢ̌*GANNU(M)* itself could also be used for Hitt. *laḫḫura-* although it is often read ᴳᴵˢ̌*kistu-*, and a firm mss. variant exists with ᴳᴵˢ̌*ḫapsalli-*[856].

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[855] CAD K 154: 1. "wooden rack (or similar installation) for storing earthern containers...2. metal potstand".

[856] ᴳᴵˢ̌*GA-AN-NU-UM* KUB 20.76 i 19 (NSbii?) // ᴳᴵˢ̌*ḫa-ap-ša-al-li*(-)[...] KBo 8.121, 9 (NS), Gonnet 1982: 67; ᴳᴵˢ̌*GA-NU-UM* KUB 41.44 ii 11 (NSbii?) // [ᴳᴵˢ̌*ḫ*]*a-ap-*[*š*]*a-al*ᴴᴵ·ᴬ KUB 20.28 ii 31 (NSc). The traces on photo b2954 are consistent with the transliteration given here, although the reading is not

GIŠ*GA-AN-NU-UM-it* at KBo 5.2 iv 36 shows unusual Hittite phonetic complementation of an Akkadogram. Where ascertainable it is always written with mimation, apart from: [G]IŠ*GA-AN-NU* KUB 9.28 i 12 (sg.)// [GIŠG]*A-AN-NI* KBo 27.49 i 9; *GA-AN-NI* GIR₄ KUB 59.53 i 16 (acc. sg.); GIŠ*GA-AN-NI, IŠ-TU* ⚌ KUB 31.147 ii 13; The oblique case is occasionally written with NIM: GIŠ*GA-AN-NIM* KBo 32.176 obv. 11 (*A-NA* ⚌, MS); KUB 39.88 i 9 (*A-NA* ⚌ AD.KID), iv 10 (*I-NA* ⚌AD.KID-*ia*, NS); KBo 7.66 iii 13 (*IŠ-TU* ⚌, MS).   The plural is written: GIŠ*GA-AN-NU-UM*ᴹᴱŠ KBo 30.81 obv. iii[?] 4; GIŠ*GA-AN-NU-UM*ᴴᴵ·ᴬ KUB 20.76 i 19; KUB 10.17 v 6; 127/w r.col. 6; KUB 25.9 iv 21; KBo 17.88+ ii 15; KBo 17.75 iii 19; KUB 9.34 i 47; Possibly plural: GIŠ*GA-A-NI* KUB 41.4 ii 9 (NS).

E. Neu suggested that the word behind GIŠ*GA-AN-NU-UM* would be a "collective", due to "one" of it being signalled by I*ᴺᵁ-ᵀᴵᴹ*[857]. According to Neu's interpretation, any more than "one" of a "collective" concept is signalled by the use of *TAPAL*. This is the case for GIŠ*ki-iš-du-un*, which is declined in the singular[858]. On the other hand, the apparent formation of the variant reading GIŠ*ḫapsal*ᴴᴵ·ᴬ (?), GIŠ*ḫapsalli* (n.), fits the "collective" pattern established by Neu very well. Notably, when during the death rituals the remains of a man are to be put somewhere, it is on a GIŠŠÚ.A<<.AN>>, while the remains of a woman are put on GIŠ*ḫa-ap-ša-li-ia-aš*, in the d.-l. pl.[859]. This leads Kassian, Korolëv and Sidel'tsev to consider that it may be plurale tantum, despite its occasional use in the d.-l. sg.[860]. It is sporadically used with *TA-PAL* in the numerated plural[861].

However, the fact that two lexical or graphic items function sententially as collectives is no ground to posit their identity. GIŠ*hapsalli*- appears to occur in similar functions to GIŠGÌR.GUB "foot-stool", particularly as a seat for women when contrasted to GIŠŠÚ.A for men[862]. HWb² is reluctant to posit an identity of these three terms and proposes the

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entirely secure. Groddek 2004b: 52 fn. 1 the traces are "hoffnungslos". The form is not mentioned at HWb² III Ḫ 14, 251 s.v. (GIŠ)*hapsalli-*.

[857] Neu 1992: 207.

[858] Neu 1992: 206

[859] KUB 39.19 + 30.15 obv. 8 *na-at-ša-an A-NA* GIŠŠÚ.A<<.AN>> *a-ša-an-na-*[*aš*] (9) *ti-ia-an-zi ma-a-an* MUNUS-*za na-at-ša-an* GIŠ*ha-ap-ša-li-ia-aš ti-an-zi*, "and they put them (*the bones*) on the Š-chair for sitting, but if it is a woman they set them on the ḫ.-benches" (trans. Kassian et al. 2002: 261). See also KUB 39.14 iv 8 (eid. 2002: 46), However, from beyond the Death Rituals see KUB 55.53 obv. 8f.: *ki-i Ú-NU-TE*ᴹᴱŠ (9) *ḫu-u-ma-an* GIŠ*ha-aš-ša-al-li-ia-aš da-a-i*, where the noun must be a real plural due to so many items being places upon these objects.

[860] Kassian et al. 2002: 285.

[861] KUB 58.103, 12: II *ḫa-ap-ša-al-li* vs. KUB 1.17 ii 9: III *TA-PAL* GIŠ*ha-ap-ša-li*

[862] KUB 29.8 i 58ff. HWb² loc. cit. 254.

following development: "Entwicklung aus Bed. 'Frauenstuhl' zu 'Fußbank' (mit
$^{\text{GIŠ}}$GÌR.GUB) und zu 'Hocker' sowohl als Sitzgelegenheit als auch als 'Gestell', z.T. mit
$^{\text{GIŠ}}$*KANNUM*". Nothing in any of the instances cited, however, definitively prohibits
substituting one of the other terms. We therefore cannot assume that "Frauenstuhl",
"Fußbank", "Hocker", and "Gestell" were not all the same word in Hittite, although
HWb^2 is doubtless methodologically correct in assuming that different meanings
represented by different graphic means do not have to all refer to the same word.

laḫḫura-, on the other hand, with its common gender and singulative syntactic function
is almost certainly to be kept separate from this complex[863]. It is also mentioned in a list
alongside the $^{\text{GIŠ}}$*KANNUM*[864]. This provides a good example of how a Mesopotamian
logogram ($^{\text{GIŠ}}$GAN) should not be immediately associated with its Mesopotamian
Akkadian counterpart (*kannu*), even if that counterpart occurs in Hittite as an
Akkadogram itself.

GEŠTIN ḪÁD.DU.A

"raisin" (HZL 131) = GEŠTIN ḪÁD.A in Mesopotamia. Although this particular
combination is restricted to Hittite cuneiform, the writing of Sum. ḫád, "to dry" with a
following vowel as ḫád.rá (i.e. UD.DU) fits an established Sumerian pattern and may
indicate that the final consonant was Sumerian [d$^{\text{r}}$][865]. It is not clear that the Hittites
would have been aware of this disctinction, or if they would have distinguished between
ḪÁD.DU.A and È.A (UD.DU.A).
ḪÁD.DU.A is also used of meats and can be written Akkadographically as *ŠĀBULU*:
$^{\text{UZU}}$ÚR UDU ḪÁD.DU.A KUB 39 obv. i 11, cf *ŠĀBULU* in KUB 30.32 rev. iv 10;
UZU ḪÁD.DU.A KUB 13.3 obv. i 4; UZU.UDU<.ḪÁD>.DU$^{\text{MEŠ}}$ KBo 10.31 iii 31.
ŠĀBULU is also used of "hare" (*ARNABU*, KUB 30.32 rev. iv 11) and birds,
(MUŠEN$^{\text{ḪI.A}}$ KUB 30.32 rev. iv 12)[866].

GI.DUR₅

HZL 30 "eine Art Schilf(rohr)", similarly Tischler 2001: 226. In lexical lists it is
equated with Akk. *appāru*, "marsh" (Hh 8.13, MSL 7:8; Diri iv 210, MSL 15:158),
raṭbu "damp (something)" (Hh 8.241-2, EPSD).

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[863] See examples at CHD loc. cit.
[864] KBo 5.2 i 23f. CHD loc. cit.
[865] Attinger 1993: 143; Edzard 2003: 18.
[866] Hoffner 1967: 33 fn. 38, 40.

However, the logogram is very unlikely to have denoted anything wet or damp at all in Hittite texts.

The Sumero-Akkado-Hittite trilingual found at Ugarit (an import from Hattusa) has an Akkadian equivalent. The Akkadian and Hittite are preserved, but it is difficult to match the two[867]. RS 25.241 obv.24-25:

šur-ḫu-ul-lu ṣí-ip-pa-tu   GI.DUR₅-*aš-ma-aš ḫu-uḫ-ḫur-ta-al-la-aš*

ša i-na ká-ša-ti i-ḫal-lu-lu ^{UZU}GÚ.ḪAL-*iš-ša-an ku-i-e-eš kal-x-li-iš-*x

CAD Š/II 315 s.v. *šerhullu* "(my mother is) a *š.* (and) a *ṣippatu* which they hang around the neck" connecting it with a word for a metal object appearing otherwise as *šerḫullum, šarḫullu, šulḫullum*, and explained by reference to the Hittite word *ḫuḫḫurtallaš* here as "necklace". If this is so, the "necklace" words are qualified by *ṣippatu* (in apposition) and GI.DUR₅-*aš* (genitive) in Akkadian and Hittite respectively. *ṣippatu* D = "(a reed)" at CAD Ṣ 203 and "eine Rohrart; Gemüse" at AHw 1104. The apparent equivalence gi.dur₅= *ṣip-pa-a-tu* cited by CAD for Hh 8.12a-b, as suggested by MSL 7:8 is no longer supported by the latest edition of the EPSD, and is not cited s.v. *ṣippātu(m)* by AHw. The lexical equivalences of *ṣippātu* support an image of this type of plant as dry, as is fairly apparent from its attestations. gi.zi/gi.izi of Hh 8, 6-9 (lit. "straight reed", "fire-reed") correlates well with the cited uses of *ṣippātu* for making fire (RS 9.159 ii 13) and in connection with materials for carving a *lamassum* figure at ARM 13.42, 12, where 2 talents of *ṣippātam* are to be delivered instead of an equally obscure 1 talent of *širḫān*·[868]. gi.ki.$^{(a)}$A (gi.ki.A.A = *ṣippātum*) of Hh 8.12a (MSL 12.8) is unclear, but provides the associative transition from gi.zi/gi.izi to gi.dur₅ (=A) in line 13 (= *appāru*). It looks very much like the Hittite lexical list from which this logogram was learned had allowed gi.dur₅ to stray into an equivalence with *ṣippātum*.

The attestation at KUB 31.87 obv. ii 11 (MS Instructions) also appears to be in a very dry context, describing the furnishings of fortifications and coming just after IN.NU$^{ḪI.A}$ "straw". Again, this sounds like *ṣippātum*, not like gi.dur₅.

Interestingly, gi.dur₅ (= *appāru*) is not attested at all in Hh 8 of the 2nd millennium, whereas variations on gi.zi (Nippur Forerunner), and gi.izi(.sahar.ra) = *ṣippātum* (Emar)

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[867] For the Sumerian see Civil JNES 23, 2:29, CAD loc. cit.

[868] AHw's intriguing but perplexing interpretative note ad loc, "für Schreiber", does not fit the context. Is it a misprint for "für Schreiner"?

do occur[869]. The confusion evidenced at Boğazköy must result from a lexical tradition closer to the First Millennium Hh 8 than what we otherwise have in the second millennium, one in which gi.dur$_5$ = *appāru* ("marsh") was already present, and positioned in the vicinity of gi.x = *ṣippātu*.

The peculiar form of GI with three verticals cited at HZL p. 105 for RS 25.241 obv. 24 is paralleled by KUB 31.87 obv. ii 11: IN.NU$^{ḪI.A}$ GI.DUR$_5$, as noted by HZL[870]. The logogram is also attested in the unpublished NS fragments 326/v, 330/v.

GIŠ.KIN.TI$^{ḪI.A}$ = "wagon".

In his edition of CTH 448.4, a Middle Hittite ritual, P. Taracha draws the following equivalences for this and other wagons.

The ritual describes a series of model wagons belonging to the king and queen that are to be installed in the É.ŠÀ, the inner chamber or bedroom[871]. After the ^{GIŠ}GIGIR^{MEŠ} come the GIŠ.KIN.TI$^{ḪI.A}$:

KBo 15.16 obv. ii 2 (IIc): 2 *TA-PAL* ⚍ ŠÀ.BA [...] (3) [...] I^{EN} *ŠA* MUNUS.LUGAL *nu* ANŠE.G[ÌR.NUN.NA$^{ḪI.A}$
// KBo 39.94 obv. ii$^?$ 3:] *TA-PAL* ⚍ [...] (4) *ŠA* MUNUS.LUGAL *nu* ANŠE.GÌR.NUN.N[A$^{ḪI.A}$]

The next wagons listed are either described as *I]R-KU-TU$_4$* ^{GIŠ}*ḫu-u-lu-ga-an-ni-uš* (KBo 34.94 obv. ii 7) or as ^{GIŠ}MAR.GÍD.DA. This is explained by suggesting that the ^{GIŠ}MAR.GÍD.DA is a "long" version of the ^{GIŠ}*ḫuluganni-*[872].
The GIŠ.KIN.TI$^{ḪI.A}$ are otherwise attested after the ^{GIŠ}MAR.GÍD.DA^{MEŠ} in the unpublished fragment Bo. 3257 rev.$^!$ iii 5 in a broken context.
Two further triads of wagons are then adduced:

KUB 48.100 ii$^?$ 7f. (NSb, Mursili's Aphasia):
^{GIŠ}GIGIR TUR - ^{GIŠ}*MA-AD*[-*NA-NU* TUR$^?$] - ^{GIŠ}MAR.GÍD.DA TUR
KBo 15.10 i 10 (MS, Ziplantawiya fest.):

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[869] gi.dur$_5$ = *raṭbu* does occur at Emar and in the North-Western MB forerunner, but this is consistently at the end (l. 298 in both cases!) of the series.
[870] GI transliterated as x at von Schuler 1957: 44 fn. 14.
[871] Taracha 2000: 121f.
[872] Taracha 2000: 122.

GIŠGIGIR TUR - GIŠ*a-ša-an-na-aš* - GIŠ*a-aš-na-te-ia-u-wa-aš*[873]

From this it is argued that GIŠ.KIN.TI[ḪI.A] was the Hittite Sumerogram for GIŠ*MADNANU* and that it is either read (GIŠGIGIR) *asnateiauwas* or (GIŠGIGIR) *asannas* in Hittite, with whichever of these terms does not correspond to GIŠ*MADNANU* being the Hittite reading of GIŠMAR.GÍD.DA.

On this interpretation GIŠ.KIN.TI[ḪI.A] would correspond to Mesopotamian Sumerian GIŠMAR.ŠUM which is known as the Sumerian equivalent of Akk. GIŠ*maialtum*, "bed or sledge" from late copies of lexical lists and two MB documents[874]. It is only in a late synonym list that GIŠMAR.ŠUM corresponds to GIŠ*madnanu*, and that only by virtue of the latter's association with GIŠ*maialtum*, but GIŠ*MAIALTUM* is a variant reading of GIŠ*MADNANU* in the Bilingual Annals of Hattusili I. The GIŠ*maialtum*, however, with its obvious Akkadian association with lying down, is unlikely to correspond to a Hittite chariot named after "sitting" or "sitting and standing?"!

On the other hand it appears that the construction GIŠGIGIR *MADNANU* (KBo 10.2 iii 13) bears some possible similarity to the constructions of (GIŠGIGIR) *asannas*, *asnateiawas*, most probably being a noun plus genitive.

PBS 13.73, 4 (MB) details the use of *kiškanû* (GIŠ.KÍN) wood for a GIŠMAR!.ŠUM and wheel. If it is in fact possible to link GIŠ*MADNANU*, GIŠ*MAIALTU* and GIŠMAR.ŠUM as variant names for the same thing in Mesopotamia, it is just possible that the use of GIŠ.KIN.TI[ḪI.A] for a "wagon" in Hittite texts, if it is the same vehicle, developed from a confusion of the material it was built from with its name, a common phenomenon in natural language but not in the transmission of scholastic knowledge. This still would not explain the TI, however, which calls to mind the form of (É)GIŠ.KIN.TI (Akk. *kiškattû*), "worker (work-camp)" (see Part One). This would be a very peculiar conflation indeed.

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[873] The genitives are to be understood as dependent on an assumed GIŠGIGIR. For *GIŠ*asnateiawar* Szabó 1971: 61; Neu 1982: 133; A.S. Kassian interprets the *a-aš-/* as an expression of "phonetic plene" 2000: 79. Also restored at KBo 39.94 ii 8 by Groddek 2002: 206.
[874] CAD M/1, 117. cf. PBS 13.73, 4; BE 14.124, 16.

The fact that a triad of wagons occurs in several different texts with different names, does not mean that these must be different names for the same three wagons. This basic objection to Taracha's scheme remains despite any of the above considerations.

GUD APIN.LAL

Sumerian apin.lal is a professional designation ("planter, tiller"), and is used thus in Hittite, apart from when it is applied to animals. Sumerian gud apin.na "plough-ox" occurs in Hittite cuneiform as gud apin.lal, which directly translates as either "the ox bound to the plough" or the "ploughman's ox". We might speculate the latter is meant, possibly because of homophony with the professional designation. (?*iugatalla-?). See ^{LÚ}APIN.LAL-li (dat.-loc. sg.) VBoT 24 iii 42. The GUD iugas appears to be something else (HED 2, 496-499).

$^{(UZU)}$GÚ.ḪAL (HZL 201)

Akk. ur'udum, "throat", is usually represented by Sumerian gú.mur in lexical lists. Only Izi Bogh A i 154 (MSL 13.137, 154; AHw 1436) has GÚ-[ḪAL?] = ur-du-x-du = GÚ.ḪAL-iš (= ḫaḫris?). This may indicate a reading of the Mesopotamian logogram as GÚ.ḪAR at some point in the tradition, quite possibly as a response to the Hittite word. Attestations outside the lexical tradition are:

KUB 15.1 obv. i 2: Ù^{TUM} MUNUS.LUGAL KA ^{UZU}GÚ.ḪAL-kán.

GÚ.ḪAL KÙ.GI KUB 42 64 rev. 8; KBo 9.92, 2-4.

This was therefore a regular aberration from the Mesopotamian tradition.

There is an occasional Sumerian alternation between /r/ and /l/, exemplified by TUR = dil$_4$ and tur, "small". It is, however, very difficult to use this as evidence for it, given that it involves a misreading of Sumerian mur in the first place.

GUR = "other"

GUR for Hitt. tamai-, "other", is not attested in Mesopotamia as a logogram. Following a suggestion of D. Schwemer (pers. comm.), it is quite likely that The Hitt. logogram for tamai-, "other", derives ultimately from Sumerian kúr = Akk. nakru "enemy", nakāru, "change, be hostile". The Akkadogram ŠANÛ is occasionally used for tamai- in the standard expression damēdani pēdi: KBo 4.9 i 15 ("sjh") has ŠA-NI-I pí-di[875].

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[875] Tischler 1991: 68.

Akkadian *šanûm*, "second, other", occurs as an equivalent to [[kúr]] at OB Proto-Aa 82.3 (Nippur)[876]:

82.1 [ku]r	PAP	*na-k[a-ru-um]*
82.2		*na-ak-ru-[um]*
82.3		*ša-nu-ú-um*

While this equivalence does not appear in first millennium Ea/Aa, PAP = *nakru* is spelled "gur" in the syllabic column at Ea I 261[877], Aa I/6, 8[878]. The Hittite axis GUR = *ŠANÛ* = *tamai-*, "other", thus finds its only comparanda in the Ea tradition, combining elements of it both old and late.

It is not necessarily apparent that Hitt. *tamai-* "other" shared the negative associations of Sumerian kúr, Akk. *nakru* "enemy", although this can doubtless be read into many of its occurrences. GUR appeared late in the logographic repertory. When looking for a logographic writing for *tamai-*, the space occupied by KÚR was found to be already negatively nuanced. Thus a new logogram was necessary, which was provided by the phonetic writing of kúr. This presupposes a level of independent and creative abstraction the part of the Hittite scribes, utilising a phonetic reading of an already established logogram to express something logographically that they could not associate with with the existing repertory. The less likely alternative is that the development of GUR = *tamai-* was based on a faulty interpretation of a lexical list.

^{DUG}ḪAB.ḪAB = ^{DUG}GUR₄.GUR₄

This logogram, tranliterated as ^{DUG}HAB.ḪAB thus at HZL 179, is difficult to disentangle from a number of similar words, which may or may not be different ways of writing the same thing.

The identification with Hitt. *ḫanissa-* (Carruba 1966: 10-11) rests on the parallelism of KUB 29.4 ii 54, 65 (^{DUG}ḪAB.ḪAB, NSb) with KUB 44.52, 3, 9 (^{DUG}*ḫa-ni-iš-ša-aš*, NSb/c) as well as its writing in KUB 29.4 ii 54, 65 in a pair with ^{DUG}*ḫuppar*, which is elsewhere always paired with ^{DUG}*ḫanissa-*[879]. The identification is rejected at HWb²

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[876] MSL 14.92. CAD N/1, 189.
[877] MSL 14.190.
[878] MSL 14.225.
[879] For the relationship between KUB 29.4 and KUB 44.52 see Miller 2004: 425-30. Miller dates KUB 44.52 to IIIb/c, apparently on the basis of TAR and one late ḪA.

III/12 145 as a "verfrühte Gleichsetzung", and it is not mentioned in HED 3, 77, s.v. ḫan-. A variant manuscript reading, however, coupled with a pairing in identical contexts, should be enough at least to accept this identification as a working hypothesis.

The logogram read in Hittitology ^{DUG}ḪAB.ḪAB was read $^{(DUG)}$GUR$_4$.GUR$_4$ in first millennium Babylonia, as made clear by Landsberger on the basis of a NB source of Hh probably from Babylon: BM 36643 reads dug.LAGAB^{kur}-[^{kur}LAGAB] (MSL 9.189f.). This prompted the revision of the readings of MSL 7.82 (Hh X 111 ff.) to ^{DUG}GUR$_4$.GUR$_4$ (Akk *gukurru*, CAD G 122, Hh X 87ff. = dug.níg.ta.gur$_4$, also = dug.la.ḫa.an.gíd.da) [880]. The reading is accepted for Hittite texts by Nakamura on the basis of the Mesopotamian evidence, but has not been otherwise adopted [881]. The use of the Sumerian gur$_4$ "roll round", "be thick, fat" of a jug is far more suitable than ḫab "stink". There is no evidence of Akkadian *gukurru* in Hittite texts, however. The form *ku-kur-ra* at KBo 2.8 obv. ii 9 is clearly an exclamation of some kind.

Yet there remains the issue of the reading at Diri V 266, which had originally occasioned the reading ^{DUG}ḪAB.ḪAB, because it is there equated with Akk. *ḫap-ḫap-pu*. This is itself also only attested here, and is given a question mark by M. Civil at MSL 15.176. Diri V is only represented by a Middle Assyrian tablet from Aššur at this point and Civil remarks (ad loc.) that *ḪAP-ḪAP-pu* is clearly visible on the tablet. If the Hittites were reading ^{DUG}ḪAB.ḪAB, this would align the Hittite writings with the Assyrian lexical tradition [882]. However, the relatively frequent writings ^{DUG}KU.KU$^{(ḪI.A)}$, rather than always requiring the restoration ^{DUG}*KU-KU-<UB>*, are most likely to be understood as phonetic "Diri-type" renderings of ^{DUG}GUR$_4$.GUR$_4$ [883]. The pronunciation

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[880] Civil still reads dug.níg.ta.ḫab = *gugguru*, *kukkubu* in the edition of Hh X. 89, 90 at Sallaberger 1996: 138 on the basis of the reading of Attinger 1993: §847. Sallaberger (loc. cit. 101) points out that the vessel itself was largely out of use by the Ur III period, but the use of *gukurru* in Hh X 89 to denote this and the dug.níg.ta.ḫab must mean that the vessels must: i) still have been in use; ii) have come to be quite similar. This is predicated on the assumption that the OB Forerunner to Hh X would have been a list of pots that were in use at the time. This does not seem necessary given the background of the development of Lexical Lists from the 3rd to the 2nd millennium, during which time the requirement of the scribal school to teach writing superseded that of describing the environment (see Civil 1987b: 138ff.). See also the Ebla forms ^{dug}gur$_4$ = *gú-gú-ru$_{12}$-tum/-du-um*; ^{dug}gur$_4$.gur$_4$ = *gu-ra-ru$_{12}$/-lu* apud Sallaberger 1996: 101.

[881] Nakamura 1989: 139.

[882] The only possible evidence for this is the writing ^{DUG}*ḪAP-ḪAP-PÍ*, although this can of course be read ^{DUG}GUR$_4$.GUR$_4$^{BI}, or indeed ^{DUG}GUR$_4$.GUR$_4$ KAŠ

[883] ^{DUG}KU.KU$^{ḪI.A}$ TUR KBo 21.1 ii 4 (NS) is cited by Coşkun (1979: 59-62) as a case of ^{DUG}ḪAB.ḪAB^{UB} (see below). Rüster (1992: 478) suggests reading ^{DUG}*KU-KU-<UB>*. The two cases referred to by D. Bawanypeck (ead. 2005: 101, 363) are ^{DUG}GUR$_4$.GUR$_4$ (Photo B 1483, see below).

of this in Sumerian is made clear by Akk. *gukurru*, so we might expect KU.KU to be a phonetic rendering of a Sumerian /gugur/ or something similar.

Matters are further complicated by the unclear relationship of ^{DUG}GUR$_4$.GUR$_4$ to ^{DUG}*KU-KU-UB*/*BU*[884] (HZL 206, CAD K 499f., Ḫ 84[885]). Both are listed as containers of wine at KBo 13.114 ii 16f. (Carruba loc. cit.), and therefore cannot be identical[886]. KUB 9.28 iii 22ff., however, has always been interpreted on the basis that the two were interchangeable, although the context is lexically and grammatically obscure and this interpretation is by no means necessary:

2 ^{DUG}*KU-KU-UB* ŠÀ.BA *I-NA* 1 ^{DUG}GUR$_4$.GUR$_4$[887] KAŠ (23) *a-ku-wa-an-na-aš pár-šu-il šu-u-uš* (24) 1 GI [*š*]*u-uḫ-mi-li-iš tar-na-an-za*. This is translated by CHD P 192: "Two pitchers: in one pitcher of beer for drinking a rigid (?) drinking straw full (of?) *p.* (or a full *p.*?) is inserted" (s.v. *paršuil*)[888].

It is possible to read this as follows: "2 *kukub* jugs. Between them in one GUR$_4$.GUR$_4$-jug (there is) beer for drinking. The *parsuil* (is) full. A [*s*]*uhmili* reed is inserted". It would be very unusual to mention the "pitcher" again when saying what was in it, let alone by a different logogram. The usual construction to express the sense made of this by CHD would be of the type: "number of objects; of them (ŠÀ.BA) one", not "number of objects: of them (ŠÀ.BA) in one." By the translation given here the separation of the two vessels ^{DUG}ḪAB.ḪAB and ^{DUG}*KU-KU-UB* is preserved; it is in fact likely that they be different[889].

On the other hand there is at least one variant manuscript reading where the two alternate: KUB 41.18 rev. iv 4 (^{DUG}*KU-KU-UB* GEŠTIN, MS/NS)// KUB 9.32 obv. 16

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[884] Sommer-Ehelolf 1924: 57. See also the writing ^{DUG}*KU-KU-UP-PÍ* KBo 29.168 rev. 2; ^{DUG}*KU-UK-KU-UB* KBo 13.135, 2; KUB 6.45 iv 22.

[885] See also the Hitt. ^{DUG}*kukupalla-*? For the *ku-ku-ub* at Mari see Guichard 2005: 219.

[886] Also KBo 15.24 ii 46: I ^{DUG}ḪAB.ḪAB GEŠTIN I ^{DUG}*KU-KU-UB* GEŠTIN. These appear to be more than just variations in writing (contra Nakamura loc. cit.). There would be no point in writing the same thing twice.

[887] Duplicate KBo 19.132 rev. 10 ^{DUG}KU.KU (photo N04232).

[888] Similarly the two translations offered by J. Tischler: "zwei Henkelkrüge, davon in einem Henkelkrug Bier zum Trinken (und) *parsuil*, gefüllt; 1 wohlgeformtes Rohr ist hineingelegt" Tischler HEG II 11/12 (P) 365; "2 Kannen; in einer Kanne der beiden (befindet sich) Bier zum trinken. (Sie ist) voll" II 2/14 (S 2) 1127.

[889] The translation sits uneasily with the "neuter look" of *parsuil*. CAD P lists the noun as neuter gender but admits the possibility of the translation "a full *p.*" As to what this *parsuil* would be inside the ^{DUG}ḪAB.ḪAB, I suggest a drinking filter of some kind. Otherwise the point about the difference between the two vessels is not impeded by translating "beer for drinking (and) *parsuil*" (see Tischler above).

(^{DUG}GUR$_4$.GUR$_4$, NSbi)[890]. Furthermore ^{DUG}GUR$_4$.GUR$_4$^{UB} at KUB 7.20 i 9 ("sjh"?[891]) is difficult not to undertand as an Akkadographically complemented logogram, unless it is simply a mistake: ^{DUG}*KU*$^!$-*KU*$^!$-*UB*[892]. By contrast, KBo 17.105 iii 12 apparently writes ^{DUG}GUR$_4$.GUR$_4$ over erased ^{DUG}*KU-KU-UB*[893]. They are thus clearly different writings for different objects according to that particular scribe.

The ^{DUG}GUR$_4$.GUR$_4$ GÚ.GÍD.DA GEŠTIN is also attested (e.g. KUB 2.9 v passim - NSc?; KBo 11.43 vi passim, cf. Coşkun loc.cit 60 for further references[894]), translated "Langhals" by HWb^2 loc. cit. There is no such vessel type for the ^{DUG}*KUKUB*. Similarly, a bronze ^{DUG}GUR$_4$.GUR$_4$ with a bronze lid is attested at VBoT 58 rev. iv 14, 27[895]. Again, there is no evidence for a ^{DUG}*KUKUB* having a lid[896].

The provisional conclusion is thus that the ^{DUG}*KUKUB* is to be kept separate from the ^{DUG}GUR$_4$.GUR$_4$ and the ^{DUG}KU.KU, both of which represent Hitt. *ḫanissa-*. Those cases where ^{DUG}GUR$_4$.GUR$_4$ appears to be complemented as ^{DUG}GUR$_4$.GUR$_4$^{UB} are possibly scribal errors.

IR "ask", "question".

Beal's suggestion that the verb IR was formed as a back-formation from the abbreviation IR^{TUM} (Akk. *erištum*) is attractive[897].

The number of phonetically complemented forms may suggest that this was thought of as a Sumerogram. The overwhelming majority of instances are from oracular texts, with the exception of a few "late" ritual mss. and a couple of letters. The other exception is the writing of the name Massanauzzi[898].

Akkadographic complementation is attested for the noun. IR^{TUM} is attested 229 times according to the card-catalogue of the "Forschungsstelle Hethitologie" in Mainz, while IR^{TAM} is only attested 22 times. There are 2 cases of IR^{TI}. IR^{TUM} is in most cases accusative.

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[890] ^{DUG}GUR$_4$.GUR$_4$ at KUB 35.10, 44// ^{DUG}*KU-KU-UB* KUB 9.31 i 16; KBo 17.105 iii 12 (photo B1483).

[891] Only one late ḪA, otherwise all old LI, DA and ID with broken central horizontals.

[892] Sommer-Ehelolf 1924: 57.

[893] Photo B1483 and note in Mainz card catalogue ad loc. Bawanypeck 2005:101 differently, see above.

[894] Also KUB 58.6 i 3; Bo. 6570 ii 17; KBo 30.77 rev. 23 (NSc).

[895] 14: *Ù NA-AK-TÁM-ŠU* ZABAR; 27 *QA-DU NA-AK-TÁM-MI-ŠU* ZABAR (IIIa but with late TAR).

[896] Nakamura 1989: 143 fn. 16 points out that the ^{DUG}*KUKKUB* is attested made of iron, while the ^{DUG}ḪAB.ḪAB is not.

[897] Beal 1992: 129, review of HZL.

[898] Hawkins apud Herbordt 2005: 296f. with further names. For the Emar attestation $^{f.d}$10-IR-*mi* see also Schwemer 2001: 570 with fn. 4577, although with wrong reading, for which see again Hawkins loc. cit.

IR^{MEŠ} and IR$^{ḪI.A}$ only occur in KBo 27.203 (obv. ii, rev. iii 14), most probably an oracle summary tablet with Hurrian components and a predominantly MS ductus, mentioning a certain Mursili[899].

The evidence suggests that IR was not introduced into the oracular scribal repertory until the advent of NS. This conforms to the observation that OS and MS oracle manuscripts have less of the typical oracular abbreviations. KBo 27.203 is most probably the earliest instance, possibly attesting uncertainty in usage, in particular as to whether the noun should be treated as a Sumerogram or an Akkadogram.

^{DUG}KAB.KA.GAG

(HZL 49, "ein Gefäß") is not attested in Mesopotamia, but twice at Boğazköy. ^{DUG}(KAŠ.Ú/ÚS.SA.) KA.GAG on the other hand = Akk. *pīḫu*, "ein Bierkrug" (AHw. 862b, CAD P 369-371, MZL 24; According to a note in the *Nachträge* to HWb (p.343) Güterbock apparently thought (on the basis of KUB 1.17 iii 36) that ^{DUG}KAB.KA.GAG and ^{DUG}KA.GAG were variants of the same Sumerogram, both signifying Akk. *pīḫu* and also Hitt. *walḫi-* "a kind of beer". It is clear from the context, however, that this is a container of *walḫi-* and not the *walḫi-* itself[900].

The article s.v. *pīḫu(m)* in CAD makes it clear that the OB logogram was not strictly ^{DUG}KA.GAG as suggested in AHw., but ^{dug}kaš.ú.sa.ka.dù, as perfectly illustrated by CH §111: 46, with the variant *pí-[ḫa-am]*[901]. ^{dug}ka.dù alone only appears in later SB and NA texts (CAD 370 lex.), apart from at Boğazköy[902]. It is tempting to assume that the Hitt. ^{DUG}KAB.KA.GAG was a misreading of ^{dug}kaš.ú.sa.ka.gag, although it is difficult to see how this may have arisen.

KAŠ.Ú.SA (Akk. *billatu*) appears as a type of beer in a Sumero-Akkadian bilingual from Boğazköy: KUB 37.115 (+) KBo 7.2 rev. 23 (- SIG$_5$.GA), but this is almost certainly either an imported tablet or copied from one[903]. The logogram is thus unlikely to have been known beyond very learned circles.

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[899] For the status as oracle summary see Van den Hout 1998: 13^{35}; S. Košak books it under CTH 500, "Fragmente der (Fest)rituale aus Kizzuwatna", and labels it "jh". The only indices of a NS ductus are AL in rev. 8 (183B) and possibly EL in rev. 12, although it is not clear to me that this form (307/6) is necessarily late. One should bear in mind, however, the apparent predilection of oracle texts for MS sign-forms, even when they are in a "late" ductus.

[900] (35) *ták-kán wa-al-aḫ-ḫi-ia-aš* (36) ^{DUG}KAB.KA.DÙ-*an* (37) *an-da ú-da-anzi*. It is somewhat difficult to believe Güterbock was responsible for this conflation. See Klinger 1996: 449 fn. 3.

[901] Del Monte 1995: 219f. for a full summary of the lexical evidence.

[902] For full discussion see Del Monte 1995: 219-224.

[903] Cooper 1972: 73.

G. del Monte sees dug.ka.gag as an abbreviation of dug.kaš.ú.sa.ka.gag[904]. It is quite possible that the Hittite ^{DUG}KAB.KA.GAG presents a stage in the process of abbreviation.

The KAB$^{!?}$.KA.GA at KBo 20.33 obv. 8 does not help, as KAB appears to be written KIN+LIŠ (photo collation, Mainz)[905]. This must denote a container, despite the absence of the determinative DUG, and the beer-vessel ^{DUG}KAB.KA.GAG is a good candidate, especially as it is it is supposed to contain KAŠ.LÀL. In this case the final GA would have to be phonetic for GAG[906].

Alternatively, J.N. Postgate suggests reading KAB$^{!?}$.KA.GA as an otherwise unattested Sumerian writing of Akkadian *kaptukkû*, thus interpreting KAB$^{?!}$.dug$_4$.ga[907]. It may be possible to interpret the KAB$^{?!}$ as Sumerian ga.b-, i.e. voluntative prefix and inanimate transitive object as infix, literally meaning "let's speak it". The reverse hypothesis is that ^{DUG}KAB.KA.GAG/DÙ is in fact a development from this, but this falters against the fact that GAG = *ga$_x$ is never attested, while *ka*$_{15}$ is only attested rarely in NB and NA documents. The safest hypothesis is that ^{DUG}KAB.KA.GAG/DÙ is a conflation of GÁB.DUG$_4$.GA (= Akk. *kaptukkû*) and ^{DUG}KA.DÙ.

KA.GÌR

(HZL 133) "Weg, Pfad", for Akk. *padānu*(*m*) (CAD P, 2-5), is only attested in the OB extispicy report YOS 10.19, 1, 13 as a logogram outside Anatolia, the logogram for *padānu* as a "crease in the sheep's liver" in extispicy texts of the first millennium being GÍR or KASKAL[908]. In Hittite texts it is indeed found outside extispicy contexts: KUB 38+ iii 1 KA.[GÌR] = ibid. i 25 *PA-A-TA-NI*; KUB 15.34, 29; The form KA.GÌR.KASKAL$^{(MEŠ)}$ also occurs (KUB 15.31 ii 36, 64; KA.GÌR.KASKAL-*ia-aš-ša-an* KUB 14.31 i 29 = KA.GÌR-*ia-aš-ša-an* KUB 15.32 i 31). The logogram is not given as an equivalent of Hitt. *palsa-* in CHD.

GÍR, on the other hand, is also found as a logogram for *padānu* in Akkadian extispicy reports from Boğazköy (CAD P 4).

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[904] Del Monte loc. cit. 220.

[905] The suggestion of HZL p. 115 to read KIN.DUG$_4$.GA involves just as surprising a form of KIN as the reading KAB requires, as well as positing an otherwise unattested logogram. This text is dated OH?/MS at CHD Š/1, 35, but "ah" by Konk. The form of KAB (KIN + LIŠ) can now perhaps be compared to a form with a broken right hand vertical at MS 1807 rev. 2, from a Late Old Babylonian tablet of Akkadian birth-omens written in a north-western peripheral ductus and to be published by A.R.George. GAB is also occasionally written with a broken right vertical in the Akkadogram *ḪUP-PI*.

[906] Del Monte 1995: 224 fn. 30 "Hörfehler".

[907] Personal Communication. This is written ^{dug}bán in Sumerian lexical lists, cf. AHw. s.v. *kaptukkû*.

[908] gír is read gìr at YOS 10, p. 5. See also gír in the MB extispicy reports from Nippur collected by Kraus 1985: 170f.

KAxGAG

"nose", KIR$_{14}$, for orthographic Sumerian KIR$_4$ (=KA). That KAxGAG appeared in the Sumerian columns of lexical lists at Boğazköy indicates that it will have been considered a regular Sumerian sign. The writing ^{LÚ}*GÍR-TAP-PU* for ^{LÚ}*KARTAPPU* may indicate that KA in KA.TAB.ANŠE (q.v. Part III) was pronounced KIR$_4$ by some scribes at least, but does not necessarily say anything about the pronunciation of KAxGAG.

KAxIM = BÚN (HZL 144)

"Gewitter, Donner", (Hitt. *tetḫessar*, cf. alternation in KUB 5.4 i 38 and ii 21; Tischler HEG T, D 3, 349). The Akkadian lexical equivalents all have to do with breath of some kind: *nappah(t)u* (CAD N/I 306f., AHw. 739), "bellows", *edēpu* (PSD B 181, CAD E 28) "to blow into, inflate".

The SI KAx IM ("blowing horn") of KBo 2.1 iv 2 and KBo 2.16, 10 (q.v.) and the LÚ SI$^!$ (=GADA) KAxIM ("man of the blowing-horn") at IBoT 2.103 iv 12 are possibly to be interpreted in this fashion (CHD P 107), thus showing a similar semantic nuance to the Akkadian and Sumerian uses of BÚN. That the logogram was read BÚN, just as in Mesopotamia, is likely considering NÍG.BÚN.NA$^{(KU6)}$, "toad", (see HZL 369).

The development of BÚN (KAxIM) from "bellows" to "storm", although intuitively somehow right, is not easy to follow philologically. Akk. *napāḫu(m)* "blow" and *edēpu* "id." are not generally attested used of the action of a storm (*rahāṣu* etc.)[909], and neither are Hittite *parai-* and related words (CHD P)[910].

BÚN at Emar appears to represent *killu* (Akk. *ikkillu*) "wailing, cry", if D.E. Fleming is correct in associating two passages, not duplicate, detailing a characteristic action of the *nugagtu*-priestess, as seems likely. RPAE VI.3 369.48 (and dupl.) reads ^{f}*nu-gag^{ag}-tu$_4$* BÚN SUM, while Emar 388.4 reads ^{f}*nu-ga$_5$-ag-tu$_4$ ki-il-la-ši i-na-an-di-in* "the *nugagtu* gives her cry"[911]. It is further attested in meteorological omens in the phrase ^{D}IŠKUR BÚN-*šú* ŠUB-*di* (RPAE VI.4, 608, 11ff.; 611, 23), which occasionally appears as

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[909] BÚN-*uḫ* is attested once at CAD N/I, 264 (mng. 1c) for the hissing of a snake and the D-stem is predicated of wind at ibid. 268 (mng. 5), both late oracle texts.

[910] Sa Boğ: [NAB] = Akk. *nap-pa-aḫ-ḫu* = Hitt. *pa-ri-pa-ri-ia-u-wa-ar* (StBoT 7 pl. 3 iv 8; CAD loc. cit. 234; CHD P...). Hitt. *za-a-hi* appears describing the action of the storm-god at KBo 6.25+ iii 7 the equivalent in function of Akk. *iraḫḫiṣ* (Riemschneider 1970: 25).

[911] Fleming 1992: 173.

^{D}IŠKUR KA-*šú* ŠUB-*di* (ibid. 610, 36; 611, 127)[912], and thus represents the Emar equivalent of Akk. *rigmu*, "roar, thunder". See also the name BÚN-^{D}IŠKUR, read by D. Schwemer as *Killi-Baᶜlu* "the cry (thunder) of Baᶜlu"[913].

At Ebla the entry KA.IM = *ga-ra-um*, *ga-la-um*, *ga-ru₁₂-um* in a bilingual lexical list has been associated with KAxIM = BÚN[914]. The Eblaite translations remain obscure, however. A. Sjöberg suggests a connection to Akk. *gerû* "to be hostile", rejecting the association made by M. Krebernik with Akk. *qerû* "to call to, invite". Although there can be no question of their being used for the sound of thunder, the W. Semitic cognates of this latter are more clearly situated in the semantic area of vocal utterances[915]. Ugaritic *qrʾ* is used of invoking or calling upon gods, and in one case is used of a goddess calling down from heaven: *špš b šmm tqru* "the sun-godess calls/shouts from heaven"[916]. It is thus quite possible that at Ebla the logogram BÚN was already associated with loud speaking, if not "roaring". This association, continued at Emar, would have provided the link to BÚN for "thunderstorm" at Ḫattusa, "the roar of the storm-god".

If KA.IM-*aš* at KBo 37.13 obv. 15 (NSa) is connected it is unlikely to be related to the Ebla writing, but rather an re-interpretation of the logogram as the "voice of the wind".

$^{(UZU)}$KAxU "mouth" Hitt. *ais* (HZL 141)

This writing is ubiquitous. Instead of attempting to list the occurrences of KAxU, the occasions where the normal Sumerian logogram KA are used for "mouth" are noted here:

KA = mouth at Bo.: 714/u (LNS), 2: *an-da* KA-*i*; KBo 43.94 (NS), 5: ^{UZU}KA; Bo 69/989 (NS) l.c. 6, 7], 8: ^{UZU}KA-*az-mi-it*.[917] All of these pieces are very fragmentary. It is not clear whether the attestations in Bo 69/989 shouldn't be read ^{UZU}*ka-az-mi-it*. This would involve positing an unattested body-part. The writing on both 714/u and Bo 69/989 is tiny. In all three texts KA is written with very close parallel verticals.

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[912] Schwemer 2001: 690 with fn. 5654.

[913] Schwemer 2001: 569 with fn. 4559; *Killu*-^{D}IŠKUR Pruzsinsky 2003: 560.

[914] Sjöberg 2003: 542 with comparison to KA.SAR (= KAxSAR) = mu₁₁/ma₈ = *qa₂-ma(-u₉)-um* (= Akk. *qemû*) "to grind".

[915] MHebr. *qrʾ* "read recite, crow" HALOT 1128ff.

[916] For further literature see HALOT loc. cit.; Olmo Lete/Sanmartin 2003: 708.

[917] Photos collated. Firthermore: KA-*ni* at Bo 6675, 5 is not clear semantically. It has been joined to KUB 36.87 (CTH 383.6 - "sjh") The Mainz card catalogue notes "nur nach Umschrift", which means the card transliteration was copied from a previous transliteration by Ehelolf, whose hand-writing was very difficult. The photo is not available in Mainz. KBo 13.68 obv. 17 KA-*ar* also needs checking.

That these are late writings suggests perhaps external cuneiform influences. KAxU is very well established already in OH.

D. Schwemer is doubtless correct in assuming that KAxU is the equivalent of KAxBÙR, "hole" (see Part One, 1.2.b, p. 68, and Summary IV). BÙR is being used as a semantic indicator to specify the facial feature out of the several that can be represented by KA. However, BÙR is not at all attested as a logogram in the Hittite texts[918]. KAxU is also attested at Emar, Amarna (EA 14 ii 67, iii 3: letter to Burnaburiaš), as well as in a tablet from the Schøyen collection which otherwise betrays a "North-Western" Late Old Babylonian ductus and may belong to the illegally excavated possible archive of Tigunānum (see introduction).

KARAŠ

The form of KARAŠ (KI.KAL.BAD) is consistently used at Boğazköy, but does not appear to be known as a logogram in Mesopotamia, where it is always written KI.KALxBAD. Lexically it is attested however: Proto-Diri 323; Diri IV 267a, 268f; Erimḫuš III 10f. A further example of Mesopotamian inscribed signs being written outside their sign-container: ^{GIŠ}BANŠUR = GIŠ.URU.URUDU.

KAŠ.GEŠTIN[919]

The older interpretation according to which this logogram was rendered "beer (and) wine" should now definitely be rejected. In its phonetic complementation and adjectival congruence, the word is certainly a simple neut. stem in -na-.

Furthermore, the identification of KAŠ.GEŠTIN with Akkadian *kurunnum* (KAŠ.DIN) should also be abandoned, based as it is on a misreading of an entry in OB Diri[920]. Consequently, the definition of kurun as a "sweet red alcoholic beverage of high quality" (Stol) can have no significance for the interpretation of KAŠ.GEŠTIN in Boğazköy and other peripheral texts[921].

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[918] KUB 31.77 obv. i 10 to be read *u-ša-ru-un-ti-in*, as demonstrated by KUB 29.4 iii 6 *uš-ša-ru-un-ta-az*. If the words are connected the alternative of reading BÙR-*ša-ru-un-ti-in* is very unlikely. The word must be Luwian due to the i-mutated declensional pattern. It is just possible that the *u* might be a Glossenkeil, ⸢*ša-ru-un-ti-in*. This would make it likely that *uš-ša-ru-un-ta-az* arose out of a misreading. Miller 2004: 337 gives the stem as *ussarunt(a)*, "spring?".

[919] Kammenhuber 1970: 563; Archi 1973: 217[57] "beer (or) wine". Neu 1983: 246 "eine besondere Art Bier", with fn. 32b: = Akk. *kuru(n)nu(m)* as at AHw 513b, and further literature; Del Monte 1995: 211-219.

[920] AHw. 513b has kaš.geštin = *kurunnum* attested in an OB Diri fragment, but this has since been corrected to kaš.din (MSL 15.46, 433)

[921] Stol 1994: 165 for neo-Babylonian times; Del Monte 1995: 217.

At Emar, a clear distinction was made between alcoholic drinks made from barley, KAŠ.ŠE, "beer", and those made from grapes, KAŠ.GEŠTIN, "wine" which is glossed as *ḫamra* in two texts[922]. While ^{geštin}*ḫamra* eventually crossed into NA Akkadian in the first millennium, KAŠ.GEŠTIN did not[923]. It remained a phenomenon of the second millennium periphery.

G. Del Monte argues that KAŠ kept its "original" Sumerian meaning of general "alcoholic drink", rather than just "beer", in Hittite cuneiform. This explains cases where a text mentions KAŠ.GEŠTIN in one line and then appears to resume the narrative with KAŠ or vice-versa[924]. GEŠTIN itself is also often no more than an abbreviation for KAŠ.GEŠTIN, it is argued[925], and furthermore KAŠ.GEŠTIN and KAŠ.LÀL can be synonymous[926]. KAŠ.LÀL itself can also be used for *marnuan*-beer, as well as being able to represent other sweet alcoholic drinks. We are thus left with a somewhat confusing situation[927].

The equivalence of KAŠ with KAŠ.GEŠTIN is taken to be proven from an apparent switch between the use of KAŠ.GEŠTIN and KAŠ at KUB 32.126+ rev. iv 7-9 (MSc). This is based on a misreading. The text runs (according to both hand-copy and photo N03263): ^{LÚ}SÌLA.ŠU.DU₈-*aš* ^{MUNUS}*ḫu-wa-aš-ša-an-na-al-li* GAL KAŠ *pa-a-i* (8) [*n*]*a-an pa-iz-zi* A-NA DINGIR^{LIM} *pa-ra-a e-ep-zi na-aš ti-ia-zi* GAL KAŠ-*ia ḫar-zi* "the cup-bearer gives a cup of beer to the priestess of Ḫuwassana, and goes and takes her forward to the deity, and she steps forward and holds the cup of beer"[928]. After this "proof" is removed, the equivalence of the two is no more than a theory to explain certain other passages where they both occur.

The equivalence KAŠ.GEŠTIN = KAŠ.LÀL is based on KBo 13.114 obv. ii 28-29// KBo 15.24+ rev. iii 10-11. A libation to Ea consists of GEŠTIN KAŠ.GEŠTIN *marnuan* at KBo 13.114 obv. ii 28 whereas [(GEŠTIN)] KAŠ.LÀL *mar-nu-an* is listed in the duplicate at KBo 15.24+ rev. iii 10. KAŠ.LÀL was not included in the list of

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[922] *ka-sà-ti* KAŠ^{MEŠ}.GEŠTIN ꝭ*ḫa-am-*[*ra*] Msk. 731042 obv. 23; [... GEŠTI]N ꝭ*ḫa-am-ra* Msk. 74303a obv. 30. Fleming 1992: 143; Also Schwemer 2001: 245 fn. 1717, with ref. to NA KAŠ^{MEŠ}.KAŠ *ḫammurtu* (a kind of beer), Mari *ḫimrum*.

[923] Schwemer loc. cit. with an attestation from a NA medical text, BAM 42 obv. 31: ^{geštin}*ḫa-am-ra*.

[924] Del Monte 1995: 215.

[925] Accepted by D. Groddek (2004: 30 with fn. 52).

[926] Del Monte loc. cit. 217.

[927] See Hoffmann 1997: 39

[928] See also parallel, but not duplicate, text at Schwemer 2006: 237f.

ritual ingredients at KBo 13.114 obv. ii 16-18, but could represent one of the other items mentioned there: *tawal*, *walḫi*[929].

The use of KAŠ.LÀL to represent *marnuant-* is clearly demonted from KBo 25.178 obv. i 5-15. The overseer of the cooks fills a *tapisana*-vessel with *marnuant-* and then libates KAŠ.LÀL[930].

The supposed synonymity of KAŠ.LÀL and KAŠ.GEŠTIN informs the identification of KAŠ.GEŠTIN as a "sweet wine"[931]. Consider however the contrast at KUB 15.34 rev. iii 26 where we find the following in a list of liquids being poured: KAŠ.GEŠTIN KU$_7$ GEŠTIN *kar-ši*, "sweet wine$^?$, unmixed$^?$ wine"[932]. If KAŠ.GEŠTIN is sweet anyway, why do we need it qualified as such? The contrast to GEŠTIN *kar-ši* may well support the identity of KAŠ.GEŠTIN and GEŠTIN here, "sweet" vs. "plain" versions of the same thing.

There are indeed numerous cases where KAŠ.GEŠTIN may be resumed by GEŠTIN, for which see KBo 39.15, 4 for example in the index, but there are certainly passages where both of these words appear side by side and therefore cannot be the same thing (KBo 13.114 obv. ii 28 above[933]), unless we interpret the lists of ingredients for rituals as being completely removed from any kind of reality and merely writing exercises on the part of the scribes. The identity of the two is further supported by the explanation of occasional writings of GIŠ.GEŠTIN "vine" for "wine" as dictation errors for KAŠ.GEŠTIN[934], although one cannot exclude the possibility of metonymic usage.

To sum up the Hittite evidence:

KAŠ does not alternate with KAŠ.GEŠTIN.

KAŠ.GEŠTIN can alternate with GEŠTIN. They most probably denote the same thing (*wiyana-* n.). Cases where the two are listed side by side are obscure by this account.

KAŠ.GEŠTIN is not the equivalent of KAŠ.LÀL.

KAŠ.LÀL can indeed be used for various alcoholic beverages: among others *marnuant-* and probably *walḫi-*.

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[929] A note under KAŠ.LÀL in the card-catalogue of the Forschungsstelle Hethitologie in Mainz shows that H.Otten (?) connects it with *walḫi*: "wohl gleicht heth. *walḫi*".
[930] Del Monte loc. cit. 218f.
[931] Groddek 2004: 66 "süßwein".
[932] HWb^2 Ḫ 14, 261.
[933] Groddek 2004: 30 "wohl ein Fehler".
[934] Del Monte loc. cit. 217.

Del Monte's interpretation of KAŠ.GEŠTIN as "wine" (i.e. an alcoholic drink of grapes) is illuminating from the point of view of the Sumerian and ties in nicely with the evidence from Emar, but is peculiar from the point of view of transmission. If we assume that KAŠ.GEŠTIN retains an old specification of the kind of alcoholic drink, from a time before KAŠ became restricted to beer, we should certainly expect to find kaš.geštin in third millennium or OB texts. If it is not to be found, and so far it has not been, the development must have been a peripheral one. The same will be the case for KAŠ.ŠE from Emar, which appears to exist in such an obvious symmetry with KAŠ.GEŠTIN. KAŠ.ŠE is only otherwise attested in an obscure entry in a lexical list: kaš.še.sa.a (MSL 11.116, 45), "beer with roast barley(?)".

^{KUŠ}KA.TAB(.ANŠE)

The orthographic Sumerian writing KIR$_4$.DAB, "nose-holder" is never found, only the phonetic TAB is used, presumably under the influence of the writing of Akk. *kartappu*. Furthermore, the Hittite cuneiform logogram for "nose", KAxGAG, is never used, thus prompting the question whether it was actually a "nose-holder" that the Hittite scribes were thinking of. That KIR$_4$ was certainly the phonetic reality for some scribes at least is shown by the writing ^{LÚ}*GÍR-TAP-PU* at KBo 18.50 obv. 7.

^{KUŠ}KA.TAB.ANŠE is also attested at EA 22.15 (letter of Tušratta) from Amarna, and in the OB Forerunner to Hh (CAD K, 303a).

KU$_7$

KU$_7$, Akkadian *matqu*, "sweet", appears to have the phonetic value *mitgaimi-* in Hittite, at least when it qualifies NINDA(.GUR$_4$.RA)[935], although it may also represent other words with similar meanings when qualifying wine or milk: *sanezzi-*, *maliddu-/miliddu / meliddu-*, or indeed have an as yet unidentified phonetic form[936]. The last-mentioned Hittite word is clearly related to the Indo-European word for "honey", Hitt. *milit-* n., while the first has been suggested to be a Luwianised loan-word from a Semitic root *mtq*[937].

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[935]Götze 1951: 67-73. Kassian et al. 2002: 178f. argue for NINDA as a determinative here, with *mitgaimi-* meaning "sweet bread". This is due the the fact that KU$_7$ is never spelled out phonetically in other combinations. This interpretation misses the contrastive use of NINDA KU$_7$/*mitgaimi* as against NINDA(.GUR$_4$.RA) *EM-ṢA*, "sweet bread" vs. "bitter (thick) bread"

[936]CHD L-N: 306. Hoffner 1974: 171

[937]Götze loc. cit. 72-3. CHD loc. cit. sceptical? StBoT 31 does not mention *mitgaimi-* at all.

As far as the logogram's form is concerned it has been compared with OB counterparts from Mesopotamia[938]. However, there is significant variation between the forms as they appear both within Mesopotamia and when compared to Anatolia. The Mesopotamian forms chiefly vary between one that looks like UŠ, called *uš-nu-til-lu-u* in lexical lists, and one that looks like NAB or AB[939]. The palaeography of the Mesopotamian forms is very poorly understood. The Anatolian forms are completely different, the "UŠ"-type being absent, and the "NAB"-type having apparently developed into something approaching "AL". The forms as they are attested in lexical lists from Emar and Ugarit retain the *uš-nu-til-lu-u*[940].

Collation of the photographs of a number of older instances of KU_7 in Hittite texts reveals that the bottom two horizontals are often at a somewhat larger angle to each other, and thus closer to the lower part of an AB, than indicated in the copies or in the drawings under HZL 184. The first vertical is also often not upright but distinctly slanted. This is thus much closer to the 3rd millennium form as encountered at Ebla, for example[941].

Orthographic usage deserves comment. It is always encountered written double ($KU_7.KU_7$) when used as a logogram meaning "sweet" in Mesopotamian Akkadian and Sumerian texts and in all lexical lists apart from Sa, Sb and (Proto-)Ea. In particular a Sumerian, Akkadian and Hurrian trilingual version of Sa from Ugarit writes it single[942], whereas the trilingual Sumerian Akkadian and Hittite poetic text imported to Ugarit from Hattusa writes it double in the Sumerian text. This is translated *mi-li-it* "honey" (for sweet) in the Hittite version, and *du-uš-šu-pu* in the Akkadian[943], with a possible attempt to render the doubling through the use of the D-stem intensive.

In the Sumerian literary texts edited in the ETCSL, KU_7 meaning "sweet" is written double in all but three cases. In one instance it may be a word for a kind of weapon, and is fragmentary in all mss[944]. The other two instances occur on one tablet from Nippur, where, in one line at least, an association with honey may be present, although the line

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[938] Götze loc. cit. 71. These need collating.

[939] *uš-nu-til-lu-u* at Ea IV 182-8 (MSL XIV p. 362) written singly meaning "sweet", Diri I 245 MSS A+E (MSL 15.112), written double meaning "sweet". For the AB type cf. Fossey p.294f. The mss. of Proto-Ea 283-4 (MSL XIV p.43) do not appear to be published, unfortunately.

[940] Emar: Msk. 731064.

[941] See the photo of éš-bar-kin$_x$ *Fonte A* rev. xi 29 at Picchioni 1997: 282; Mander apud Pettinato et al. 1981: 355, no. 284.

[942] KU_7 =*ma-at-qu* = (Hurr.) *ni*(?)-*šu* Ugaritica 5: 135 r. 6.

[943] RS 25.421: 47-8, ed. Ugaritica 5: Nougayrol 314f., 318, 445, Laroche 774f., 779 and dupl. KUB 4.97:11. CHD L-N: 250.

[944] To be read as Sum. gamle according to Civil 1976: 93 fn. 98. Copies: UET 6.17, PUL 551 in Limet 1971: 11-28. Type "AB".

is damaged[945]. However, it is attested written singly in archival documents from the archaic period (Uruk IV) on, but with the reading kurušta, which is equated with Akkadian *marû* "fat(tened)" in later lexical lists (also kuš$_6$)[946]. Thus in only one possible case that I have found from Mesopotamia might we have a single writing that may be associated with the meaning "sweet".

Other than the trilingual from Ugarit, KU$_7$ meaning "sweet" is attested written singly in Hittite in all but one case. The OS ritual fragment KBo 25.150: 1 is difficult to interpret otherwise than as a double writing NINDA.GUR$_4$.RA$^{ḪI.A}$ KU$_7$.KU$_7$$^!$, although the broken second KU$_7$ seems to be written quite differently to the first in the copy[947]. The double writing could be an attempt to render the plural. Otherwise, the difference between the OH and the later orthography may be due to different methods of transmission. The concentration of the single writing in the syllabic lexical traditions in Mesopotamia (Ea, Sa, Sb) may point to these having been the medium of transmission into Anatolia for this logogram. The Old Hittite double writing could also have been learned from lexical lists, but may have made its way into the Hittite world via other kinds of texts.

LÍL

(HZL 194) is the logographic writing for Hitt. *gimra-*, "field"[948] (Luw. *imra-*), and appears to be used in the sense of Akk. *ṣēru*, "Steppe" while the other regular Mesopotamian logogram for *ṣēru*, Sumerian EDIN, used at Emar, is not thought to be used at Boğazköy[949]. See however HZL 203 and 168 and discussion of BAḪAR$_5$ above. In Mesopotamia LÍL classically corresponds to *ziqīqu* "wind, breeze; ghost". EDIN was most probably contained in the broken portion of the trilingual Hymn to Adad, as the syllabic Sumerian column makes clear, but as with so many other cases, the Hittite column uses the logogram that was regularly used in Ḫattusa. KUB 4.5 + KBo 12.72 rev. 18:

[EDIN]   i-te-[en-na]   LÍL-*ri*[950]

The same hymn gives us the other equivalence for Akk. *ṣēru* at KUB 4.4 iii-iv 10:

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[945]Ni 4171, Šulgi Z: etcsl t.2.4.2.26, l. 19. Kramer 1969: 18-23.

[946]ZATU 445, 446.

[947]Neu 1980: 235, No. 150. CHD L-N 205.

[948] LÍL-*ri* KBo 10.45+ rev. iv 44 (NSc) // *gi-im-r[a]* (N12199) KUB 7.41 rev. 11 (MS). Otten 1961: 139 fn. 251 has the correct reading against the copy. This must be a directive, corresponding to a d.-l. in the later copy. Perhaps it was also used for *uliliya-*, see below.

[949] Noted by Soysal 1999: 139.

[950] ed. in Laroche 1964: 73. Schwemer 2001: 194.

(10) *ša-[a]m-mi ṣe-e-ri* = *ú-li-li-ia-aš-ma* (11) *ki-ik-la-an*

"the grass of the meadow"

 (11) *a-na ku-ru-um-ma-at bu-li* = LÍL-*aš* ḫ[*u¹-it-na-aš*] (12) *a-da-an-na*

"to feed the animals" = "for the a[nimals]? of the field to eat"

(12) *ta-bá-an-ni* = *e-eš-ša˺-[at-ti]*

"you create".

It is unclear whether *gimras* or *uliliyas* is hidden behind LÍL-*aš*. If the former, then it is not clear that the axis *uliliya-* = *ṣēru* = LÍL is always correct. A further possible equivalent for LÍL is provided by Hitt. *kuera-* if the correspondence KBo 3.45 obv. 8 // KBo 22.7, 5 can be trusted.

The correspondence between LÍL and *ṣēru* does occur in the first millennium lexical tradition, however: STT II 116, 159//An St. 6 158, 159. There also appear to be traces of such a meaning in Ur III texts, the máš/udu niga líl.la lú ma.rí[ki] should be translated "fattened goat/sheep of the desert of the man of Mari"[951]. Also OB Lu associates the lú líl.la with the Sutaean, the desert nomad. The Hittite use either represents an otherwise lost lexical tradition that is picked up again at Sultantepe, or it was adapted to the local situation by some means.

The sign LÍL corresponds to the use of the hieroglyphic sign L.463 in position after the name of the stag-god, as elucidated by J.D. Hawkins[952]. Unfortunately this does not help explain why LÍL came to replace EDIN as the equivalent of Akk. *ṣēru*.

LÍL[ḪI.A]-*aš* is used at KUB 27.1 obv. i 17, LÍL-*ri* at ibid. 23, 25, 32 for *gimri* describing the circumstances of offerings to [D]*IŠTAR* LÍL (of Samuḫa):

17 *ŠA* [I]*mur-ši-li a-pé-da-aš* LÍL[ḪI.A]-*aš*

23 LUGAL-*uš-ma ... ku-e-da-ni* LÍL-*ri pa-iz-zi*

24f. LUGAL-*uš a-pé-da-ni* (25) LÍL-*ri še-er*

31f. LUGAL-*uš-ma ...* (32) LÍL-*ri Ú-UL pa-iz-zi ...* LÍL-*ri pa-a-u-wa-aš*.

These are parallel to the earlier lines:

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[951] AnOr 7, 99, 1; MVN 5, 111, 2.

[952] Suggestion of I. Wegner apud Hawkins 1995: 33f.

(7) LUGAL-*uš-ma ku-i-e-eš gi-im-ri-uš la-aḫ-ḫe-eš-ki-it*

(8) *nu ma-ši-e-eš gi-im-ru-uš la-aḫ-ḫi-ia-an ḫar-zi*

(10) *nu-za a-pé-e-da-aš gi-im-ra-aš še-er.*

The role of Ištar of "the countryside", or of the king's expeditions into the fields, would be obscure in these cases. H. Ehelolf suggested translating IŠTAR LÍL as "Ištar des Schlachtfeldes"[953], and is followed by I. Wegner, who emphasises that the epithet (Hurrian *awarri-we*) is particularly used in texts where Ištar's warlike aspect is emphasised[954]. KUB 30.1 (MS) also asks for the support of Ištar $\bar{S}\bar{E}RI$ of Samuha in a Northern campaign[955].

This assumes that Hittite *gimra-* could mean "country-side, field", but also "military campaign", which isn't an isolated phenomenon (cf. French "campagne")[956]. The usual Hittite word is however *palsa-*, Sum. KASKAL, "way, campaign". One might ask if this was a calque on the use of Hurrian *awarri-*, which clearly means "field, steppe" as opposed to city[957]. The root av- appears to be used with other stem-formants in equivalence to A.ŠÀ in the Hurro-Hittite bilingual[958]. Apart from the attestations with Ištar, however, there is no evidence that Hurrian *awarri-* and related words meant "battle" so that the explanation of a calque into Hittite suffers from being one that tries to explain *obscurum per obscurius*.

LÚ É.ŠÀ

(HZL 78) "eunuch"? *Mestieri* (p.123) records LÚ É.ŠÀ as a hapax from a LNS copy of the DŠ and its duplicate[959]. A further attestation is at KBo 31.44 (LNS) which is possibly part of a legal document referring to the brother of "my sun", itself possibly part of the Kuniya-Piya case[960]:

KBo 31.44, 2: *nu-wa-kán* II GÍN KÙ.GI *ar-ha* [ME-*un*] (3) *na-at-za* ᴳᴵˢ*ḫu-la-li* DÙ-*nu-un n*[*a-at*] (4) *A-NA* ¹*Pal-lu-lu-wa* LÚ É.ŠÀ SUM-*u*[*n*] (5) *nu-wa-za* VIII UDU ME-*un* "and I [took] 2 shekels of gold away and I made it into a spindle and [I] gave it to Palluluwa the bed-chamber man and I took 8 sheep."

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[953] Ehelolf KUB XXVII p. III, no. 1.

[954] Wegner 1981: 28; ead. 1995: 36, "Feldzüge".

[955] Danmanville 1956: 41.

[956] CHD L-N, 8, 1c translates KUB 27.1 i 7-8 as "what regions the king used to travel in".

[957] Laroche 1980: 65 gives equivalences of *awarri* to Akk. *eqlu* (Ugarit, Nuzi), Sum. EDIN (Emar);

[958] Possibly *a-wa$_a$-al-li-we$_e$-na* = *ŠA* A.ŠÀ IKU at KUB 32.13 ii 5-6 (Neu 1996: 241, also 414).

[959] The form is definitely not LÚ É.ŠÀ-*aš*, contra *Mestieri* loc. cit., see photo N03582.

[960] Tani 2002: 827ff.

One possible further attestation is KBo 4.14 iii 47. CHD (P 354) restores to read: [LÚ SAG]-*ma-<an>-kán* É.ŠÀ-*za pa-ra-a pít-ta-a-iz-zi*. The traces on collation would also permit [LÚ É.Š]À-*ma-kán*[961].

LÚ É.ŠÀ$^{T[IM]}$ at KBo 14.9 rev. iii 10, may indicate that this was a genitival phrase in Akkadian at least. Precisely what the Akkadian should then have been is unclear. At Ugarit there are two LÚ$^{ME[Š]}$ É *ur-ši ša* ^{I}*ti-li*-LUGAL-*ma* DUMU LUGAL KUR *kar-ga-mis* (RS 17.28 obv. 5-6, PRU IV, 109), literally "men of the bed-house of Tili-Šarrumma, prince of the land of Karkamiš", who conduct business on behalf of said prince in his dealings with the king of Ugarit. Their names are Aman-mašu, which appears to be Egyptian, and Ḫattuḫu, which must be an Akkadianised Hurrian word meaning "the Hittite". Aman-mašu has an extravagant seal and was thus probably an important, or at least bombastic, person (see Ug. 3.50 fig. 68). While LÚ É *urši* is a similar construction and doubtless concerns a very similar office to the LÚ É.ŠÀ, LÚ SAG, it does not explain the *TIM* of the Hittite logogram, unless there has been a mistake and the *TIM* represents the end of Akk. *bīti*.

For the equation of the titles LÚ SAG = EUNUCHUS$_2$ (L.254) = ^{LÚ}*ša re-ši* (É.GAL-*lim*) on digraphic seals see Hawkins 2002: 225f. Güterbock also held that the hapax LÚ É.ŠÀ was a further term for "eunuch"[962], the eunuch being associated with the É.ŠÀ (Hitt. *tunakkessar*, "bed chamber")[963].

If this is in fact a further term for "eunuch", would it hide a different word to LÚ SAG? Hawkins (loc. cit. 232) suggests that *wasinasi-*, "he of the body", "could have been the Cun. Luw. reading of LÚ SAG, possibly even the Hittite"[964]. That the Hittite word was already a Luwian loan is quite possible give the late appearance of the LÚ SAG in Hittite texts. It is possible, however, but highly speculative that the two logograms, could have referred to different words for "eunuch", in the respective different languages, possibly *wasinasi-* and **tunakkesna(ta)lla-* or **tunakkesnas* (*antuḫsa-*). The alternative is to consider the two as similar but different offices.

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[961] There are two uprights here rather than the one copied, as well as the lower point of a Winkelhaken.

[962] Güterbock 1957: 361; Hawkins loc. cit. 222.

[963] KUB 30.23+ ii 11-16 illustrates the presence of the "bed", *sasta-*, in the É.ŠÀ-*ni*.

[964] For CLuw. *wa-aš-ši-ni* = NÍ.TE-*ni* (KUB 35.48 iii 11 = KUB 35.58 ii 8) see Laroche 1958: 105.

Hawkins also suggests that LÚ in LÚ SAG is the equivalent of the determinate relative in the expression *ša rēšī*. This has been questioned by J. Miller, on the basis of the colophon of KUB 32.133: (rev. 7) ŠU ᴵ*an-gul-li* ᴸᵁ́DUB.SAR DUMU⌐ ᴵ*Pal-la-a* (8) *PA-*⌐*NI* ᴵ*a-nu-wa-an-za*⌐ *ŠA* ᴸᵁ́SAG *IŠ-ṬUR*. The *ŠA* is taken as corresponding to the *ša* of *ša rēšī* and proving that the LÚ is in fact a determinative, "at least here". This does not have to be the case. The *ŠA* here serves solely to indicate that the logogram is in the genitive, and does not reproduce the *ša* of the Akkadian substantive genitive *ša rēšī*. On the other hand it also appears superfluous to claim that the LÚ in this or many other professional or indeed ethnic syntagms represents anything more than Akkadian *ša*, "the one of ...", corresponding either to a Hittite genitive phrase, an agent noun in -(*t*)*alla-* or an ethnic adj. in -*umna-*. Note the parallel between the writings LÚ *ismeriyas* and *ŠA* ᴷᵁˢKA.TAB.ANŠE. Whether one used *ŠA* or LÚ to represent an Akkadian substantive genitive appears to be bound to which particular logogram is being used.

A lú é.šà.ga is apparently attested in Ur III documents from Lagaš, but his social status and function are obscure[965]. It is otherwise not known as a logogram or lexically.

LÚ/ ᴸᵁ́UR.GI₇ etc.

The professional designations involving LÚ(.MEŠ) with the name of an animal are peculiar to Hittite cuneiform[966]. The difficulties involved in understanding LÚ(.MEŠ) as determinative or as a Sumerographic writing of the Akkadian determinative pronoun should be addressed here.

S. Alp proposed an equivalence of ᴸᵁ́·ᴹᴱˢUR.GI₇ with ᴸᵁ́*sarmeya-* on the basis that *sarmiya-* is clearly a wild animal of some kind according to HKM 48 obv. 12 and that there are no other suitable candidates from among those functionaries with animal names apart from the ᴸᵁ́UR.GI₇ that could correspond logographically. Furthermore, the ᴸᵁ́*sarmeya-* is occasionally found in the company of similar officials to the ᴸᵁ́UR.GI₇. This proposal has been variously accepted and rejected[967]. There is of course no reason why ᴸᵁ́*sarmiya-* must have an attested logographic correspondence in the first place. At

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[965] Yamamoto 1981: 108 refers to the lú é.šà.ga as a class of person mentioned in the "palace tablets" (šà.dub é.gal) of Lagaš alongside the GA₅.ŠU.DU₈ ("cup-bearer"), muhaldim ("cook"), sukkal ("court messenger") and dub.sar ("scribe") but gives no references.

[966] LÚ PÌRIG.TUR, LÚ UR.BAR.RA, LÚ UR.MAḪ.

[967] F. Peccioli-Daddi 2000: 349f. compares It. *mastino* "dog, watchdog"; Hoffner 1997: 11f. excludes it on the basis of the co-occurrence of GAL ᴸᵁ́·ᴹᴱˢ *šar-mi-ia-aš* and GAL LÚᴹᴱˢ KÁ.GAL UR.GI₇ at VS 28.7 i 9-12 (NH/ENS), although one might conclude the opposite from the same attestation.

present, however, there is insufficient evidence to decide one way or the other in this matter[968].

F. Pecchioli Daddi distinguishes between two meanings of LÚ(.MEŠ) UR.GI₇: 1) "cacciatore" 2) "uomo cane". It is the latter which takes part in rituals, characteristically barking when required to do so. Are there two separate Hittite words beneath these logograms?

H.C. Melchert identified the morphology of the P.I.E word for "dog", $*\acute{k}w\acute{o}n$, $*\acute{k}w\acute{o}nm̥$, $*\acute{k}un\acute{o}s$ in the phonetically written ^{LÚ}ku-wa-$a\check{s}$-$\check{s}a$, ^{LÚ}ku-wa-na-an-na, $^{[LÚ}k]u$-$\acute{u}$-na-$a\check{s}$-$\check{s}a$ at KBo 7.48, 10-12 and KUB 10.66 vi 1-4[969]. Each of these is last member in a threesome of officials, the other two being $^{LÚ}\d{h}a$-at-wa_{a}-ia-$a\check{s}/$-an and ^{LÚ}UR.GI₇(-an)[970]. The fact that we have two "dog-men" appearing next to each other is explained as being the result of a specialisation of the meaning of $kuwan$-, as in the case of English "hound", the synchronic word for dog being thus hidden behind the word LÚ^{MEŠ} UR.GI₇. This could be Alp's $sarmiya$-[971].

However, if, as is sensible to assume, the ritual performer was someone pretending to be a dog in some way, this explanation requires the distinction of two different dog types by whatever means, masks or costumes, the ritual performers were using to identify themselves as dogs apart from barking. It is alternatively possible that these are two different professional/cultic designations, each involving the word for "dog", one being perhaps the hunter with dogs, the other being the "dog-man". The personal name $^{f.}$Kuwatalla offers itself as an obvious candidate for the "hunter with dogs", as an agent noun most probably formed on the basis of the stem $kuwa$- "dog". This would have to assume a re-analyis of the old hysterokinetic n-stem as an a-stem[972]. The phonetic spellings of $^{LÚ}kuwas/kuwanassa/kunas$ would thus have been used in this case in order to distinguish the two types of LÚ^{MEŠ} UR.GI₇: the $^{LÚ}kuwas$ and the $^{LÚ}kuwatalla$-[973].

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[968] CHD Š/2 278f.

[969] Despite Melchert's characterisation of the palaeography as Neo-Hittite, KBo 7.48 could be MS (with Konk. "mh?"). KUB 10.66 is IIIb/c (one possible late ḪA).

[970] The comparison between ^{LÚ}ku-wa-na-an-na and Gk. kuṓn had been made by A.H. Sayce in AfO 4, 1924, but subsequently forgotten (see Melchert loc. cit. 101).

[971] D. Groddek prefers Melchert's explanation to Alp's on the grounds that it is unlikely that there be two words for the same creature and that Melchert's is more susceptible to Indo-European etymology (Groddek 2002: 83). However, Melchert's point is precisely that these are different types of dogs, referred to by different words.

[972] Van Brock 1962 misses this famous name. For a similar explanation of the morphology see ibid. 86.27 ($\d{h}alugatalla$-), and Melchert loc. cit. 100 fn. 4.

[973] It was obviously very unusual for these officials to appear together. The $^{LÚ}\d{h}a$-at-wa_{a}-ia, whose speciality appears to be shouting $\d{h}atwaya$, or even $waya$, also only appears in this context.

Until a phonetic writing in a suitable context is attested, however, this remains highly speculative[974].

The morpho-syntactic arrangement of [LÚ]*kuwa(n)*-, "dog(-man)", may apply to [LÚ]*parsna*- (acc. sg. [LÚ]*parsnan*, CHD P 189)[975] and indeed the [LÚ]*sarmeyas* (nom. pl. [LÚ.MEŠ]*sarmēs*), as well as possibly [LÚ]*hartaggas*, "bear-man", but it does not seem to have been the case with the [LÚ]UR.MAḪ, "lion man", which H.Otten identified with a phonetic writing, *walwalla*(-): KBo 53.134 (1461/u, LNS), 2-3 has phonetic [SAL.MEŠ]*ḫa-az-ka-ra-ri*(-) x[ ] (3) [LÚ.MEŠ]⌜*wa-al-wa-al-la-ma*⌝?[976].

These appear 4 further times together with the [MUNUS.MEŠ]*ḫa-az-qa/ka/ḫa-ra-*(*ri/ia-*), who were associated with the temple and also appear frequently in combination with the LÚ[MEŠ] UR.MAḪ[977]. Their concerted actions (fetching fruit and putting it before the god, KBo 2.8 iii 23-27), are bland[978]. In KUB 55.15 rev. iii (?) 7f (LNS) they set up the god in front of the *ḫuwasi*-stone (on?) Mt. Daḫa[979]. The following sacrifice, eating and drinking is presumably not just theirs, but includes the other participants. There are LÚ[MEŠ] UR.MAḪ from [URU]*LA-K*[*I*]*-MI-IŠ-Š*[*A*] in a LNS list of officials found in the House on the Slope[980].

The stem(s) of [MUNUS.MEŠ]*ḫazkara*(-) were last treated by H. Hoffner[981], who came to the conclusion that this is an *a*-stem used collectively and occasionally marked by the old

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[974] It is worth considering whether one should transliterate LÚ UR.GI₇ (*ša kalbi*) for [LÚ]*kuwatalla-* and [LÚ]UR.GI₇ for [LÚ]*kuwas*, but this would cause problems of interpretation in cases such as KBo 12.126 i 27f. (see below) where the connective particle -*a* comes after the UR.GI₇. On the other hand LÚ UR.GI₇ (= *kuwas*) + connective particle never occurs, and it may be that the two words were supposed to be read in apposition: *pesnas kuwas*: "dog-man", although we cannot know from the evidence.

[975] Pecchioli-Daddi 1987: 364f.

[976] Otten 1969: 95. Otten was reluctant to transliterate the last sign. It is most probably -*ma,* but collation is needed.

[977] *Mestieri* 387, in combination with the [LÚ.MEŠ]UR.MAḪ: KBo 2.8 iii 11, 23, 26; KUB 17.36 obv. 10]; KUB 44.42 obv. 7], rev. 19 (??); KUB 12.2 i 4 [LÚ.MEŠ]*wa-al-w*[*a-* parallel to the first two passages (Otten loc. cit.); Also KUB 50.47 (IIIbi) obv. 9 (cf. Hoffner JCS 50 p. 40, Groddek 2004c: 75f.).

[978] When the [MUNUS.MEŠ]*ḫa-a*]*z-qa-ra-i* go to the fruit in KUB 42.44 obv. 15 it is the [L]Ú[MEŠ] *ḫulḫula* who box in the next line (see Hazenbos 2003: 128, 130). It would be rash to conclude that these are from among the LÚ[MEŠ] *walwalla*.

[979] [EG]IR-*ŠU* [MUNUS.MEŠ]*ḫa-az-qa-ra-i* [LÚ.MEŠ]*wa-al-wa-l*[*a*!(AT)-...]/ DINGIR[LUM NA4]*ḫu-wa-aš-ši pí-ra-an ta-ni-nu-na-an-zi* (Popko 1984: 285-287).

[980] The writing has IIIbii URU and IIIc KI. It lists female singers from various places (of Tidaliya, of the Queen of Kasduwa[-ra?] -RGTC 6/195) a [LÚ]*ḫa-a-pí-aš* (l. 4), a [LÚ]*m*[*i*]-[*n*]*i*-[*i*]*a-aš* (ibid.), [LÚ]AGRIG [URU]*ne-ri-ik*(! rev. 4), a [LÚ]SANGA [D]10 *IZ-ZA-A-KI*(?) x[] (rev. 5) and a [LÚ]EN.NU.UN [GIŠ]TIR[!](=ŠAḪ) [URU]*ne-r*[*i*!*-ik*] (rev. 6). Lakimissa (RGTC 6/239) is in the district of Kukuwawa according to HT 2 vi 2. I. Rutherford argues that HT 2 lists female singers from the districts around Ḫattusa (Rutherford 2004). The other place names in this section are either unknown or known only from broken contexts (RGTC 6/195).

[981] Hoffner 1998: 37-40.

collective marker -*i* seen in ^{A.ŠÀ}*kulei*. When subject of a transitive verb, however, it uses the suffix -*ant*-, represented as -*az*, C*a-za*, the so-called ergative. In some cases the collective -*ai* is re-interpreted as a stem-vowel, giving the ending -*ais* (athematically) or -*ayas* (thematically). Hoffner points out that a similar distribution is observable for *walwalla*-: ^{LÚ.MEŠ}*walwalla* as subject of intransitive verbs, ^{LÚ.MEŠ}*walwallaz* as subject of transitive.

Where an ending is preserved, *walwalla*- appears to be a neut. pl./collective. In addition to KBo 53.134 there is KBo 26.158 obv. i 4: [^{LÚ.MEŠ?}*w*]*a-al-wa-al-la pí-ia-an-d*[*u*][982], and ibid. 7 ^{LÚ.MEŠ}*wa-al-wa-al-la-za ar-ḫa pí-tan*$_x$-*zi*[983]. Comparable with the last mentioned is the nom. -*a* + -*za* (Hoffner: -*ants*) ending of their female counterparts: KUB 12.2 i 4 LNS (^{MUNUS.MEŠ}*ḫa-az-ga-<ra>-ia-za*), KUB 17.36, 10, KUB 51.47 obv. 2 [^{MUNUS.MEŠ}*ḫa-az-ga*]-*ra-za*[984]. KUB 41.14, 7 has *w*]*a-al-wa-al-la-ia la*-[where it may be joined to ^{MUNUS.MEŠ}*ḫazkara* by the connective[985]. The formation LÚ.MEŠ + collective is paralleled by ^{[L]Ú.MEŠ}*ḫu-ul-ḫu-la* GÉŠPU *ti-ia-an-zi* "the *hulḫula*-men step into a fight" (KUB 44.42 obv. 16), although the verb is not singular[986]. Contrast this with ^{LÚ.MEŠ}*ḫu-ul-ḫu-li-ia-an-te-eš*[987]. Evidence for the collective ending of ^{MUNUS.MEŠ}*ḫazkara* is offered by occasional construction with a singular verb: KBo 2.8 rev. iii 12 ^{MUNUS.MEŠ}*ḫa-az-qa-ra-⌜ia⌝* EGIR *i-ia-at-ta-ri*⌝ (see HED loc. cit.; Hoffner loc. cit. 38)[988]. The frequently attested ^{MUNUS.MEŠ}*hazkara*(-) has been interpreted on etymological grounds as a group of percussionists of some sort[989]. This involves derivation from *ḫazzik*-"to play a musical instrument" by a very archaic agent suffix -*r̥*, which is

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[982] To conform with Hoffner's model this would have to be [*A-NA* ^{LÚ.MEŠ}*w*]*a-al-wa-al-la pí-ia-an-du*.

[983] On the value *tan*$_x$ for DIN in similar texts see Hazenbos 2003: 5 with fn. 34.

[984] Mestieri does not put the -*za* on this form under the rubric nom.pl., even when citing KUB 12.2 i 4. This may indicate analysis as nom.pl -*a* + -*za* reflexive. Unfortunately there are no full phonetic writings retaining both the ending of *ḫazgara*- and of *walwalla*-

[985] It is unclear if a *w*]*a-al-wa-lu-wi*$_5$-*iš* in a cult inventory of Pirwa, KBo 19.131, 9, is related.

[986] Hazenbos 2003: 16 leaves the trace as x, and translates *ḫulḫula* as an adverbial accusative with *ti-an-zi*. It is here interpreted as the equivalent of ^{LÚ.MEŠ}*hulḫuliyantes* Puhvel 1988: 30 "wrestlers", with GÉŠPU as "boxing".

[987] Neu 1974: 78f. not a transitive formation, but possibly denominal.

[988] Other examples of groups in the singular: ^{LÚ.MEŠ}*ḫa-a-pí-an pár-na pé-e-da-an-zi* KBo 38.12 rev. vi 11 contrast ^{LÚ.MEŠ}*ḫa-a-pí-eš* ibid. 13 (OS/MS).

[989] Kronasser, Carruba apud Puhvel HED III, 1991, 280f.; rejected by Tischler HEG I, 1983, 234 who translates "Mädchen" on the basis of an apparent alternation with Sumerian KI.SIKIL (Archi 1971: 222). However, KI.SIKIL is also used of the ^{MUNUS.MEŠ}*zintuḫi*-. The *hazgara* and *walwalla* are attested acting in combination with the ^{MUNUS}*palwatalla*- (KBo 2.8 rev. iii 16-27), who may well be a percussionist of some sort, here using the ^{GIŠ}*šuruḫḫa*- and the ^{GIŠ}*māri*-. For the latter see Schuol 2004: 122ff.). They do not, however, engage in noise making, but merely move things around.

unlikely to have been productive in Hittite during the historical period[990]. If the *ḫazkara* women do turn out to be musicians, perhaps *walwa-* relates to some onomatopoeic musical function instead or as well, possibly parallel to *palwa-(talla-)*[991]. Similarly it may be possible to interpret the ending in *-ri* on MUNUS.MEŠ*ḫazkara-* in KBo 53.134, 2 (above), for which Hoffner had no explanation[992], as MUNUS.MEŠ*ḫa-az-ka-ra-tal-l[a](?)*[993]. In this case the *hazkara* would have to be far less the professional designation rather than the instrument or sound used by this troop of women. We should remember that *walwa-* is not the Hittite word for lion, but the Luwian (*walwi-*), and none of the contexts appear to be under particularly Luwian influence, although they are all late[994]. The use of LÚUR.MAḪ would thus have to be a rebus writing which arose under Luwian influence.

The construction that is being used (LÚ/MUNUSMEŠ + collective) perhaps indicates the activity performed by the functionaries in an abbreviated form: (the people who do) *walwalla*, *ḫazkara*, *ḫulḫula*. That the ending *-ant-* is used when subject of a transitive verb may indicate that LÚ/MUNUSMEŠ should be read as a determinative. Further research is needed to determine when such collectives were used in professional designations. Apart from in the case of the [L]Ú.MEŠ*ḫulḫula* there is no immediately apparent connection between the activity in the ritual and the activity in the name. This we might expect to find if the *ḫazkara* women were in fact musicians and the *walwalla-* men were making noises of some kind[995].

The LÚ UR.BAR.RA[996] may have been a hunter of wolves or someone dressed as a wolf. In one ritual with Luwian elements a male child who has not yet been with a woman is dressed in a goat-skin and cries out "like a wolf"[997]. The context of sexual initiation is clear, although precisely what is meant by it lies well beyond the confines

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[990] Alternatives have involved using the agent Suffix *-tara-* (Kronasser), or *-sara-* (Carruba).

[991] In one case the *ḫazkara*-women and the *walwalla*-men perform activities while the *palwatalla*-woman (sic.) does *palwa-*.

[992] Hoffner 1998: 40.

[993] J.L. Miller's drawing in KBo 53 indicates too much space for the tiny traces of the final sign to belong to the same word. This seems less on photo B0800h, but I have not measured it.

[994] For *walkuwa-* as the possible Hittite word for "lion" see Lehmann 1987: 13-18.

[995] No mention of the *ḫazkara* women is made in Schuol 2004.

[996] Lit. *Mestieri* 373-375; Popko 1991: 125.

[997] UR.BAR.RA-*i-li ḫal-zi-iš-ša-i* KUB 9.31 ii 12; Starke 1985: 52. This was originally interpreted, Bossert 1944: 107, as being a writing of *luili*, "in Luwian", assuming a derivation from PIE *lukos* but it is followed by no speech, and the Hittite word for wolf is an n-stem, most probably declined nom. *ulipas* (cf. *ú-li-ip-za-aš-ša-an* nom. sg. + *-san* with syncope and possibly subsequent anaptyxis before *-san* KBo 3.8 iii 28), acc. *ú-li-pa-na-an* KBo 3.8 iii 10 . See also Alp 1991: 326f.

of the present investigation. An illicit sexual context is in evidence in Laws §37, where it appears that the abductor of a woman is addressed with the words *zi-ik-wa* UR.BAR.RA-*aš ki-iš-ta-at* "you have become a wolf" (KBo 6.2 ii 12)[998]. While neither of these examples involve the use of the professional determinative LÚ, they are both examples of people acting like wolves in ritual and social contexts. The ritual actors [LÚ.MEŠ]UR.BAR.RA appear in consort with the [MUNUS.MEŠ]KAR.KID in Hattic festivals[999]. They dance together and stand in line, one beside the other. This may have a sexual background but one cannot be sure.

One fragmentary complex of related tablets attests the [MUNUS.MEŠ]KAR.KID and the [LÚ.MEŠ]UR.BAR.RA together, KUB 57.77, 2ff.[1000]:

XV [LÚ.MEŠ]UR.BAR.RA (3) [(XV [MU]NUS.MEŠ]KAR.KID I [LÚ]UR.BAR.RA (4) [(I [MUNUS]K)]AR.KID *nam-ma* I [LÚ]UR.BAR.RA (5) [(I [MUNUS]KA)]R.KID *ḫu-u-ma-an-te-eš* (6) [(*ki-i*)]*ša-an iš-ga*(dupl. *ka*)-*ra-an-te-eš*.

"15 wolf-men (and) 15 prostitutes, 1 wolfman (and) 1 prostitute and then 1 wolf-man (and) one prostitute they are all positioned thus." This appears to be taking position for a feast of mutton cooked by the chefs.

Similar activity is attested in the parallel text, which is not a duplicate, KUB 58.63 rev. iii[?] 7-8. On the other side of the tablet a number of items called *ulupanni-* are manipulated in some way (*ar-ši-ki-iš-kán-zi*) in the "É.ŠÀ of the god" (*ši-ú-na-aš* É.ŠÀ-*ni*). Then 12 of these items are taken by the GUDU$_{12}$-priest of Inar. Whether this has anything to do with the procession of [LÚ.MEŠ]UR.BAR.RA and [MUNUS.MEŠ]KAR.KID on the other side of the tablet, and whether the *ulupanni-* have anything to do with Hitt. *ulipan-*, Luw. *ulipni-*, *walipna/i-*, "wolf", is completely unclear[1001].

The hieroglyphic sign for "hunter" has been identified by J.D. Hawkins as that which was previously read VITELLUS *285, now to be read CERVUS$_4$.IACULUM as an ideogram for "hunter"[1002]. The Empire period and Iron Age occurrences of this ideogram are listed ibid. 60f. Most important here is the case of KOCAOĞUZ, a relatively new stele that appears to have a dog's head instead of the cervid's (CANIS.IACULUM, loc. cit. 61)[1003]. An unpublished Empire period button-seal from

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[998] Hoffner 1997: 44, 186f.

[999] Schuster 1974: 26f.

[1000] // KUB 57.76 obv. i 17-2 // KUB 57.78 obv. i 5-10. Note the "Syrian" ŠA in KUB 57.77, 6.

[1001] For the Luwian forms see Melchert 1993: 252.

[1002] Hawkins 2006: 57, 58ff.

[1003] Published in Athenaeum 91, 2003; Ehringhaus 2005: 48f.; The CANIS.IACULUM in KOCAOĞUZ, could well be an onomastic element, as with the seal from Kaman-Kalehöyük.

Kaman-Kalehöyük also has a sign consisting of IACULUM + animal's head (CANIS$_x$?) as an onomastic element: *TA$_4$*-"HUNTER"[1004]. The animal is long-haired with large ears, most probably a dog, but of a different type to the one featured in KOCAOĞUZ. This may indicate that there were different words for different kinds of hunters in Luwian, either depending on how they hunted or what they hunted, and the same may well have been the case in Hittite[1005]. However, it has not been possible to trace anything other than cultic functions for the ^{LÚ}*walwalla* or the ^{LÚ}UR.BAR.RA.

The "hunter" with his dog only appears in limited contexts, particularly the Laws, the Kessi story and in a portion of the ritual of Alli KBo 12.126 i 27f.:

27 [*ki-i*]*š-še-ra-aš* ^{D}UTU-*uš* ^{LÚ}UR.GI$_7$-*aš-ša* LÚ-*aš pí-ra-an nu-uš-ši* ^{GIŠ}BAN-*ŠU e-eš-zi*

28 [*nu-uš-ši* G]I$^{HI.A}$-*ŠU e-eš-zi nu-uš-ši A-NA* UR.GI$_7$-*ŠU* NINDA UR.GI$_7$-*ŠU e-eš-zi.*

"(28)Oh Sun-God of the [ha]nd even the dog-hunter, the man (is) in front, he has his bow (29) [he] has his [arr]ows, and for his dog he has the bread of his dog"[1006]. As in the cases of ^{URU}GN URU-*aš*, this passage can be taken as evidence that LÚ here is a determinative, although this is slightly problematic as one might like to understand the LÚ as an Akkadian substantive genitive (*ša kalbi*). One conclusion may be that just as $^{MUNUS.MEŠ}$*hazgara-* appears to denote the performers of a particular cultic activity simply by mentioning that activity prefaced by a professional determinative, thus a hunter with dogs is denoted by simply mentioning the tool of his trade, the dog, prefaced by a professional determinative. As indicated above, in this case the parallel construction in Hittite language may be *kuwatalla-*, i.e. DOG + professional suffix.

MÁŠ = *ḫassatar*

Akk. *kimtu* ("family") has the logogram IM.RI.A, which is the regular word for family in Sumerian and does not appear in Hittite texts[1007]. The equation *MÁŠ = *ḫassatar* does not occur in the apparently complete treatment of MÁŠ in Izi Bogh A 309-318[1008].

[1004] The seal was printed on a T-Shirt for the 2004 excavation season, but has not otherwise been published.
[1005] For a review of the words for "hunter" in Hittite and Luwian see Hawkins loc. cit.
[1006] Jakob-Rost 1972: 24f, 62f.
[1007] CAD K 375ff.
[1008] MÁŠ is treated at Proto-Izi 344-348, but does not occur in the First Millennium Izi texts.

Hittite cuneiform, or its predecessor, inherited the Sumerograms MÁŠ , MÁŠ.TUR and MÁŠ.GAL as logograms for different kinds of Akk. *urīṣu* "billy-goat" [1009]. However, MÁŠ on its own is not used for the goat, rather UZ$_6$, which represents Akk. *enzu* (= "female goat") in Mesopotamian cuneiform. Obviously Hittite did not distinguish between male and female goats by individual logograms[1010].

E. Forrer argued for a development of MÁŠ from MUD "blood", which he also declared to have the meaning "give birth", Akk. (*w)alādu*. MUD itself, when used in Hittite texts, appears to be translatable by "rebellion", especially in KBo 4.14 obv. ii 26 and obv. iv 67 (MUD.BAL). This Forrer attributed to a second wave of influence from the Assyro-Babylonian area[1011]. Most recently in her unpublished dissertation on the Hittite Family, J. Pringle argues for a development of MÁŠ by loss of a vertical from MUD = (*w)alādu* and compares the OB forms of MUD and MÁŠ[1012]. Similar relations exist between signs in Sumerian, such as dal = "fly" and mušen = "bird", where one vertical has again been lost to cross from verb to noun. Such an innovation would be quite unparalleled in Hittite scribal practice, but is not unthinkable.

However, the primary Mesopotamian logogram representing Akk. *dāmu*, "blood" is ÚŠ (= BAD), which can also be read MÚD, the latter belonging to the first millennium lexical tradition[1013]. MUD is also attested lexically with the meaning "blood", but again only late and then with a number of question marks as to the relevant lexical tradition[1014].

While at least one use of MUD-*tar* at KBo 4.14 obv. i 42 may refer to the "family of the [k]ing", there is no instance where it definitely means "blood" in Hittite[1015].

Furthermore, the use of Hitt. *esḫar*, "blood", to refer to "family" is restricted to two

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[1009]The precise meanings of these terms and their Akkadian will have varied geographically. The essential distinction was made by B.Landsberger: máš.gal = *daššu* "ausgewachsenes Männchen"; máš = *gizzu* "zweijähriges Männchen" ; máš.tur = *lalû* "einjähriges Männchen" (Landsberger 1935: 158-9). Hh XIII 215-116 makes no distinction between the two, glossing *urīṣu*, ŠU-*lum* respectively. The Nippur forerunner is very similar to the first millennium text in its order, but we cannot tell if a distinction was made as it is unilingual.

[1010] For Sumerographic distinctions between male and female animals see Hoffner 1997: 324 s.v. MUNUS.AL.LÁ.

[1011] Forrer 1926: 161; Sommer 1932: 136.

[1012] Pringle 1993: 78. Some of these can now be seen at Mittermayer 2006: 14-15.

[1013] uš BAD = *da-mu* Proto-Ea 103 (MSL 14.35); mu-ud BAD = *da-a-mu* Ea II 78 (MSL 14.250).

[1014] mu-ud MUD = *da-mu* certainly occurs in the late Sb I 58. It is also contained in the Neo-Babylonian version (A) of Aa II/6, 29 (MSL 14.293) . The Neo-Assyrian version (B, 19ff.) has MÁŠ = *ṣi-ib-tu*, *bi-ru*, *bi-ru*-⌜*ú*⌝ at this point and no MUD at all. The equivalent passage from Ea II, which is only preserved on a MA tablet at this point has neither. M. Civil conjectures that these sections of Aa may have been filled in after Sb I 57ff. "to fill a broken portion of a model".

[1015] Sommer 1932: 136

texts, the edict of Telipinu, if the phrase *esḫanas⸗pat isḫās* is in fact to be interpreted in the sense of "pater familias"[1016], and the phrase expressing the relationship of Arma-Tarḫunda to Hattusili III, KUB 19.67+ i 18: [*ku*]*it isḫanas antuḫsas ēsta*, "because he was my blood-relative"[1017]. From neither of these cases is it clear that "blood" is an immediate metaphor for family, and the only case of MUD that may mean "family" is complemented MUD-*tar* anyway[1018].

This leaves the equivalence of MUD = (*w*)*alādu*, or more strictly: mud = *ba-nu-u šá a-la-di* at Idu II 53 and Nabnītu I 14[1019]. Pringle associates the use of the verb *iya-* of "creating" children used by Hattusili and Puduhepa[1020]. Nabnītu is a MB composition, one of the "group vocabularies" organised according to associations based on its Akkadian rather than its Sumerian column. It is not attested at Hattusa, although of course such material was popular there. It does not mean that it or something like it were not available in Northern Babylonia in the Kassite period.

MÁ.URU.URU₅ "quiver".

Ehelolf suggested the value URU$_x$ for TE-gunû on the basis of the Hittite phonetic complementation by URU[1021]. As can be seen from the collection under HZL 87, with attestations here in the appendix, the character of this element as a phonetic complement is made clear by its omission, placing after the URU₅, and replacement in one case by the phonetic complement RU. Apparently unknown in Hittite texts is the frequent OB writing (é.)mar.uru₅, which also occurs at Amarna[1022]. Instead Hittite scribes employed a very archaic phonetic use of MÁ to denote the first syllable of Sumerian /maru/. Unsurprisingly the Hittite scribes had some problems with the complex sign URU₅, which they appear to have used in a particularly archaic form. A conflation with TE or TU (= TE-*g*.), as witnessed in Mesopotamia, has not occurred. The number of attestations in texts which, while being palaeographically late, still show markedly

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[1016] Hoffmann 1984: 53 "des Blutes Herr"; Puhvel HED I, 307 "the one in charge of the murder [i.e. the kinsman entitled to extra-judicial settlement]".

[1017] Puhvel HED I, 307.

[1018] Sommer 1932: 136.

[1019] MSL 16.5, 13, 38, 45-46; 51. AHw. 103.

[1020] Pringle 1993: 79 with reference to KUB 1.1+ iii 4 and Beckman 1983: 9-10

[1021] Ehelolf 1924: 46f. Goetze 1968:22. Modern Sumerologists sometimes write maru$_x$ for URU₅, interpreting any further signs as phonetic complements. The phonetic writing a.ma.ru in Gudea indicates that both variants derive from the third millennium (é = ḫa in Old Akkadian). The relationship between the two and the homophonous word for "flood" is unclear. URU₅ appears to be a sign for a kind of bird in the archaic texts from Uruk, which fits the context of arrows.

[1022] EA 266. Note also ^{KUŠ}É.AMAR.RU at EA 29.184 (letter of Tušratta) CAD I-J, 258.

archaic features is interesting, although the rarity of the Akkadogram *IŠPATU* indicates that the Sumerogram is in fact the regular cuneiform designation.

IŠPATU:

IŠ-PA-TUM Bo. 5015, r. col. 7;

I]*Š-PA-TUM* Bo. 87/ 5b, 6;

^{KUŠ}*IŠ-PA-TUM* KUB 18.170a rev. 7; KUB 42.81, 7 (⋍ ^{URU}*ḪA-AT-TI*), ibd. 8 (⋍ ^{URU}*ḪUR-RI*), 9 (⋍ ^{URU}*GA-AŠ-GA*); KBo 49.292, 8;

^{KUŠ}*IŠ-PA-DU* KUB 36.67 ii 18 (*nu* ^{GIŠ}BAN^{ḪI.A} *ú-e-ki-ir* ^{KUŠ}*IŠ-PA-DU* AN.ZA.GÀR [...]);

IŠ-PA-A-TUM KBo 32.176 obv. 17] (MS); KBo 23.47 rev. iii 6;

IŠ-PA-A-TI-ŠU, A-NA ⋍: KBo 23.47 rev. iii 6 //*A-NA* ^{KUŠ}*IŠ-PA-TI-ŠU* (KBo 46.62);

ÉRIN^{MEŠ} *IŠ-PA-T*[*I*] KBo 28.61 rev. 10.

The use of this rather complex logogram for "quiver" rather than the common Mesopotomian logogram É ^(GIŠ)BAN may have something to do with the apparent use of the latter for "Bogenhaus" (HZL 199).

Tangentially, the use of URU as phonetic complement shows that Hittite scribes definitely pronounced URU as uru and not as iri. The lexical traditions distinguish between later ones, which give the pronunciation of Sumerian URU as /uru/, and earlier ones which book it as /iri/. For present purposes it is not relevant what distinction in Sumerian this rests on, merely what traditions of transmission can be isolated. Contrast the use of URU as a syllabogram *rí* in Akkadian texts from Alalaḫ IV and elsewhere[1023]. This is perhaps another piece of evidence that the streams of cuneiform tradition did not always flow into Anatolia via Northern Syria. The Hittite evidence thus sides with the First Millennium lexical traditions (Sb II 259, Ea VI C 1) rather than the earlier ones (Proto-Ea).

^{NA4}MUL

HZL 101 "Sternförmiger Stein?" HFAC 84, 6]?; "star-shaped seal"
JCS 37, 84, 6; KUB 43.68+ rev. iii 15 (MH/NS-IIIa?, prayer) appears to have this logogram according to the hand-copy (]x ^D10-*aš-ša* ^{NA4}MUL) but I. Singer (2002: 25) translates "[the seal] of the storm-god and the seal [of the Sun-god(?)]" thus presumably splitting MUL into KIŠIB+DINGIR and reading ^{NA4}KIŠIB ^D<UTU> . the full text KUB 43.68 rev. 12ff. (// KUB 40.156 rev. 15ff.) reads:

[1023] *rí* is the regular third millennium Akkadian writing of /ri/.

(12) [*nu* (*ka-a-ša* DINGIR^MEŠ-*aš*)] *ud-da-a-ar* AN.BAR-*aš* ^GIŠGAG-*an* (13) [x x x x x *tar-ma-*(⌊*a*⌋)]-*it nu* ITU-*aš* GIBIL (14) [DINGIR^M](^EŠ GAL.GAL AN) x x *ku-ut-r*]*u-e-eš a-ša-an-du* (15) [x x x x x x]x ^D10-*aš-ša* ^NA4MUL(// ^DIŠKUR-*aš-ša*^! ^NA4[x])^1024

"the words of the gods here he has [hamm]ered [like] an iron peg and the new moon [...] the great gods may be witnesses [...] and the star-stone of the the storm-god".

The unpublished duplicate 871/z rev. iii 12 has the identical sign according to the Mainz card catalogue, but the edition given by H. Otten and Chr. Rüster in ZA 64 (p.243f.) only tranliterates 871/z as far as its parallel at KUB 43.68 iii 12. Singer's translation is faulty in that he renders the connective =*a* as if it came after the alleged ^NA4KIŠIB. It has the advantage, however, of introducing a familiar topos, as opposed to the literal translation "and the ^NA4MUL of the Storm-god". We can either split this logogram up into an otherwise unattested collocation, ^NA4KIŠIB.DINGIR, referring to a special type of divine seal, or retain ^NA4MUL, possibly again referring to a special type of seal, perhaps suitable for gods^1025. One thinks of the cruciform seal-type famously found at Boğazköy (Mursili II), but also as yet unpublished cruciform seal impressions found at Kaman-Kalehöyük, most probably to be dated to the late Middle Hittite period. These latter have star-shape patterns on the wings of the cross. The translation "Reifen(?)" offered by Siegelová (1986: 523) for MUL as a qualification of a type of belt at KUB 42.56, 8 is just as ad hoc as assuming that it simply means "shiny".

MUŠEN *ḪUR-RI*

This is well attested in Akkadian, particularly Assyrian, texts as *iṣṣūr ḫurri*, lit. "bird of the hole in the earth": AHw. 390. HZL 24 transfers the Akkadian interpretation: "Steinhuhn^?, Höhlenente^?, Brandente^?"^1026. Beckman (loc. cit.) translates "sheldrake" without explanation. The qualification (ŠIR) MUŠEN *ḪUR-RI* NÍTA at KUB 37.8, 8

[1024] According to the hand-copy the scribe possibly wrote *-aš-ša-* over an erased NA4. Collation is needed.

[1025] Lexical attestations of na4 in combination with mul are quite obscure as to whether they could be related to seals of any kind: na4.za.gìn.mul.mul = *kak-ka-b*[*a-n*]*u* Hh XVI 64 (MSL 10.6) appears to have mul used participially; [na4.mul.za.gìn] = [*kak*]-*ka-bu* RS Forerunner 64 (ibid. 40) does appear to relate to the shapes of the stones (see l. 65 na4.igi.za.gìn = [*i*]-*nu*); [na4.z]a.gìn.mul at Nippur Forerunner 26c is surrounded by obscure entries.

[1026] Kammenhuber 1976: 11; Beckman 1983: 91, 314.

may well indicate that the basic designation is not marked for gender, so it should be "shelduck" if anything[1027].

The partially phonetic writing I MUŠEN ḪUR-RI-li-in SUM-an-z[i] at KUB 41.11 rev. 4 (IIIc, purification ritual)[1028] could indicate an adjective in -alli- formed to a word for "hole". Alternatively, this has been seen as a re-interpretation of the Akkadian term and the transliteration MUŠEN hur-ri-li-in, "Hurrian Bird" offered[1029]. While the transliteration advocated here admittedly involves an unusual phonetic complementation of an Akkadogram, the alternative leaves us with an otherwise unattested (possibly Luwian?) word for "Hurrian", which in Hittite clearly has an a-stem: ḫurla-.

Whether Hurrian or not, the practice of "asking the Ḫurri-bird" has long been thought to be in some way related to extispicy[1030]. The Schøyen tablet MS 1806 now provides a previously unattested form of oracular inquiry combining features of both oracle by oil and oracle by animal entrails. The heart of a bird is cut out and thrown into water and the behaviour of the flesh and fluids in the water are observed. Although this is not specifically called a Hurri-bird oracle, it may be related. The sacrificial bird would presumably be one that does not fly particularly well, otherwise it would be subject to the normal augury practice. This may indicate the use of rock partridges or other flightless birds, which fits with the other evidence on the identity of the MUŠEN ḪURRI.

On the other hand, if the practice attested at the court of Tigunānum in the Old Hittite period is identical with the Ḫurri-bird oracle known from Hittite sources, the fact that it is not specified as a Ḫurri-bird in Tigunānum may be an argument ex silentio for the Hittites having understood it as a "Hurrian" bird-oracle and named it as such.

MUŠEN.MUŠ (not in HZL)

ku-uš MUŠEN.MUŠ-ma-kán KBo 47.63 r. kol. 5 (MS - contra Konk. "jh"- Photo B1132b; bird oracle). Despite the occurrence of numerous bird-names involving compounds of Sumerian muš = "snake" (Veldhuis 2004: 268-270), the muš.mušen is

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[1027] The shelduck, however, inhabits purely coastal regions and inland waterways as well as being migratory. The rock partridge (Steinhuhn), which also nests in burrows, is perhaps a more likely candidate.

[1028] Hoffner 1973, 86-88; Strauß 2006: 86f.

[1029] Hoffner 1973: 86, with the proviso that one could also read 1 MUŠEN <1> ḫur-tal-li-in.

[1030] It is, however, undeniable that the Ḫurri-birds were also used in a non-extispicial function in rituals, see particularly KUB 58.88 rev. iii 15-22, where they are "turned" (waḫnu-) and "let go" (arḫa tarna-).

only otherwise attested as a type of animal fat in the phrase Ì.UDU.muš.mušen in the unprovenanced OB Forerunner to Hh 22, VAT 682.

^{UZU}NÍG.GIG

This logogram has been taken to mean "liver" since the discussion at HAB 78-83, but is not listed or even mentioned under the CHD entry for Hitt. *lesi-*, *lissi-*, which Goetze interpreted as "liver". HAB's reasons for equating ^{UZU}NÍG.GIG with the liver essentially revolve around its position in lists of bodily organs. The chief logogram for liver in Akkadian texts is UR₅.

While NÍG.GIG is well attested in Mesopotamian cuneiform representing Akkadian *ikkibu* "taboo" or *maruštu* "illness" the combination with UZU as a body part is not attested. Sommer-Falkenstein tentatively propose a graphic development based on the Akkadian word for "liver", *kabittu*, which is a feminine substantive formed from the adjective *kabtu*, meaning "heavy". The Sumerian word for heavy is dugud, its sign consists of MI + AŠ. The sign GIG consists of MI + NUNUZ. An unattested logogram *NÍG.DUGUD is posited for Akkadian *kabittu* which was then changed by (Hittite?) scribes to NÍG.GIG. This imaginative proposal involves a graphic development from the most simple sign-element, AŠ, to one of the more complicated, NUNUZ, which makes it *prima facie* unlikely.

A similar combination of signs in the context of the liver is found in the Emar version of Hh XV, the list of body parts. Ms. B (Msk. 731086) rev. ii 5, 6 has: (5) UZU NÍG.GIG.GI.A (6) UZU UR₅[1031]. The form in l. 5 is not attested in the Mesopotamian versions of Hh XV. The closest form in the Fore-runners to Hh XV is l. 44a: uzu níg.kíg.gi₄.a, which brings us back into the realm of liver-oracles (Akk. *têrtu*)[1032]. The Emar version, UZU NÍG.GIG.GI.A, sounds very much like a dictation error for uzu níg̃.kíg̃.gi₄.a[1033]. The Hittite ^{UZU}NÍG.GIG is then a re-interpretation of this incomprehensible phrase.

[1031] Emar 551 C, 39, 40. Peculiar in this tablet is that it writes the "Hattusa" form of UZU on the obverse, but the Assyrian form on the reverse.

[1032] MSL IX p. 43. Akk. *têrtu* is attested in lexical lists from Boğazköy both equivalent to Hitt. *ḫatressar* and *li*[*ssi*]. Cf. AHw. 1350a. This is indirect evidence of a meaning "liver" for uzu.níg.kíg.gi₄.a in the second millennium in Mesopotamia. Akk. *amūtu*, "liver-omen" (and *kabittu*, "liver") are given as equivalents to uzu.kíg.gi₄.a in late lexical lists, AHw. 43.

[1033] This can only be the case assuming that the scribes in question did not hear the difference between the nasal g̃ in Sumerian kíg̃ and the guttural in gig.

It is difficult to see the motivation for a converse influence from Ḫattusa (^{UZU}NÍG.GIG) on Emar (UZU NÍG.GIG.GI.A), although influence from Ḫattusa on Emar in matters lexical lists cannot be excluded. A further hint that the error may have originated in Syria comes from the ignorance shown to the value of Sumerian g̃. In the phonetic Sumerian texts from Boğazköy this is regularly written -ng-, with attention paid to the nasal. At Emar on the other hand, phonetic renderings of Sumerian words regularly only write the velar stop.

However, we must assume that the dictation error, which does not have to have originated precisely at Emar, will have become the normal writing for this particular body-part at least in the tradition of this lexical list, quite possibly over a large area and over several hundred years, in order to account for the earlier attestation of the Hittite re-interpretation.

The unpublished ritual fragment Bo. 3936 displays a number of orthographic oddities, including the writing ^{UZU}NÍG.GI$_4$.A (line 4), which looks like it could be a mistake for ^{uzu}níg.kin.gi$_4$.a, or perhaps a confusion of the latter with the usual Hittite cuneiform writing ^{UZU}NÍG.GIG. At least one other spelling on the small NS fragment looks as if it could be a scholastic writing: A.ŠÀ.GA$^{Ḫ[I.A]}$ (ibid., for ^{UZU}ŠÀ.GA?). See also the rare logogram [^{UZU}]SA.DU in the same line, and the probably erroneous writing of LÍL for É at ibid. 6, possibly also URUDU$^{ḪI.A}$ for UDU$^{ḪI.A}$ ibid. 5. The number of elements that fit into established patterns if one assumes an error is quite significant given only 15 fragmentary lines. These are either peculiar cryptographic writings or the work of an overly ambitious learner. The value of this writing is thus quite limited for the discussion of ^{UZU}NÍG.GIG, especially given that both its relevance in this passage and its relationship to ^{uzu}níg.kíg.gi$_4$.a are no more than hypotheses.

$^{(URUDU)}$PAD

See the full discussion at Singer 2006: 252-258.

The assertion is made there that PAD^{MEŠ} *a-na* LÚ$^{(MEŠ)}$*ḫi-a/ia-ú-wi-i* in two unpublished letters from Ugarit refer to payment in copper ingots for (Aḫ)ḫiyawans in the Lukka lands rather than food rations, and comparisons are drawn with the archaeological record, in particular with the cargo carried on the shipwreck off Cape Gelidonya[1034]. It is also tentatively suggested that *še-bi-ra še-bi-r*[*a*] in RS 20.255 left edge 1-2 (Ug. 5, no. 30), another letter from a Hittite king, may refer to a similar kind of currency

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[1034] RS 94.2530: 31-18 from the Hittite king to the king of Ugarit; RS 94:2523: 35-37 from the Hittite official Penti-Šarruma. Singer loc. cit. 250.

involving broken pieces of metal (parallel to Mesopotamian *še/ibirtum*, = lagab, kù.pad.rá/.da)[1035].

Both in Mesopotamia and Anatolia there is much contamination between terms for metal ingots and cakes, loaves of bread etc., presumably on the basis of similarity in shape. PAD[(MEŠ)] in Hittite texts, however, is never used for "food-rations" (*kurummatu*), its main usage in Mesopotamia (read šug/kurum$_6$). This "restricted semantic field" (Singer loc. cit.) in Hittite cuneiform is not immediately explainable, and does not appear to have applied in parallel to the loan-word (and Akkadogram) via Hurrian, *kakkari-*, which refers to (round?) loaves and copper discs in Hittite texts as well as referring to both loaves and metals in Syria, albeit with apparently mutually exclusive geographical distribution. Akkadian *kakkartu(m)* refers to loaves of bread in Mesopotamia from the OAkk. period (HED 4, 15ff.; CAD K 49f.)[1036]. Although the lack of Hittite economic documents makes such surmising very tentative, we may perhaps infer that this disproportion was due to the fact that payment in items of food was less well institutionally established among the Hittites than in Syria and Mesopotamia. Witness also the absence of the ŠE.BA from Hittite cuneiform.

Mesopotamia: pad = *kusāpu* (late) meaning a "bite", "loaf" (AHw. 514a); pad = *kasāpu(m)* "to break in pieces" particularly used of bread, OB onwards (AHw. 453a). kù.pad.rá = *še/ibirtu(m)*, "piece (of metal)" (ED, OAkk., UrIII onwards, AHw 1227a). (Presumably Akk. *kaspum* is itself a transferred epithet meaning "broken [silver]", which was generalised due to its predominance as currency). PAD (šug) = *kurummatu,* usually a food-ration, but also occasionally of silver (CAD K 575). The use of PAD for units of bread is attested from the third millennium in a Sargonic text from the Lagash region[1037].

All occurrences of PAD are New Script, which correlates with the extension of Mesopotamian pad(.rá)/*šebirtum* to units of metals other than silver noted by Reiter for the MB period (see fn. 924).

LÚ/MUNUS[MEŠ] SÌR

Hitt. *isḫamatalla-* HED 2, 394. *Mestieri* 369 lists only the entry KUB 28.79 obv. 8, "the Tuḫm[iyarean] male singers" (LÚ[MEŠ] SÌR). Since then we have KUB 55.43 (MS) which

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[1035] For the development of kù(.babbar).pad.rá ("Bruchsilber") and *šebirtum* ("Stücksilber") from the OAkk. and UrIII through to the Middle Babylonian period see Reiter 1997: 89f., 98ff., where (p. 100) "erst ab mittelbabylonischer Zeit ist ein Bedeutungs-übergang zu Bruchstücken (aus Metall) feststellbar".
[1036] *kakkaru* at Alalaḫ exclusively refers to copper discs, weighing one talent (CAD K 49). At EA 41:42 (an Akkadian letter from Boğazköy) it refers to silver units weighing 5 mina; at Ras Shamra it only refers to silver; at Mari it only refers to bread. On *kakkarum/kakkartum* as units of copper specifically ("Scheibenbarren") see J.D. Muhly, "Kupfer" in RlA 6, 358, §3:17.
[1037] Foster 1989: 162.7, 2.

has numerous mentions of the LÚ^{MEŠ} SÌR, including the specification *pé-e-da-aš* LÚ^{MEŠ} SÌR, "the male singers of the place", referring to local singers as opposed to a foreign troop[1038]. The MUNUS^{MEŠ} SÌR occur more frequently, in particular in the list of female singers, HT 2 (= KBo 2.31 rev., Mestieri 426-433[1039]).

It is difficult to decide whether LÚ^{MEŠ} and MUNUS^{MEŠ} are functioning as determinatives here, as the Sumerian word is obviously verbal as well as nominal. I incline to interpret "the ones of the song" given the nominal derivation of *isḫama-talla-* (HED loc. cit.). The extension of determinative pronoun status to MUNUS, however, does not follow Sumerian usage and would constitute an innovation.

lú.sìr is known from ED Lu C22 and E107. A lú.sìr.sag = *š[a] šer-[š]a-n[im]*[1040], *ša ṣi-ir-ḫi-im* is known from OB Lu A 255, 256, referring to the singer of a particular kind of Sumerian song, the sìr.saĝ. Otherwise SÌR is used as a logogram for the Akk. verb *zamāru(m)*, as indeed it is in Hittite SÌR^{RU}, as well as for the related noun *zimru* "song". It does not, however, appear as a logogram for the related agent-noun *zammeru(m)* (CAD Z, 40), which may well be juxtaposed to the Sumerian equivalent NAR (= Hitt. *kinirtallas=pat*) at Sa Boǧ. L 15f. The imagined Akkadian behind LÚ^{MEŠ} SÌR SÌR^{RU} may thus have been *ša zimrī izammarū*, Hitt. *isḫamatallus isḫamiyanzi*.

SUR$_{14}$.DÙ "falcon"

The note in HZL 192 to the effect that the Boǧazköy form of Sumerian súr is in fact SAG (to be transliterated SUR$_{14}$) should be modified in accordance with the observation of J.L. Miller (2004) that 9-10 of the 29 instances of this logogram recorded in Mainz show SÚR. All of these occur in manuscripts of Kizzuwatnean rituals, although it should be noted that all occurrences of SÚR/SUR$_{14}$.DÙ occur in these.

ŠU.AN

KBo 3.6 i 10, ii 26; KUB 1.6 ii 19: both times accusative object of *wedaḫḫun*, "I built" designating something built in Wistawanda by Hattusili III after a victory in Ḫaḫḫa[1041].

[1038] See Schuol 2004: 145f., 175.

[1039] See also Schuol 2004:175; Rutherford 2004.

[1040] Thus EPSD. CAD Ṣ 206: *ša še-er-⌈ša⌉-g[i-im]*

[1041] Thus following H.Otten's interpretation of the narrative of Apology II 2 - 47. This means that the Kaskans were fighting over a very broad front, from Ḫakmis in the very North-East, which escaped the Kaskan ravages but lost its lands, to Haḫḫa in the South-East near the Euphrates (RGTC 6, 1978: 97f.). Thus the site of the victory monument, if it was one, at Wistawanda, does not necessarily need to have been near Ḫaḫḫa. KUB 19.9 ii 13-19 indicates a proximity to Ḫisashapa, which is itself associated with place-names further to the North-West from Ḫaḫha (Timuḫala etc.). See RGTC 6, 1978: 485f., 111f.

"Siegesdenkmal?". Otten (1981: 11 fn. 25) transliterated thus, invoking Sumerian ŠU.NIR, Akk. *šurīnum* "(Gottes)-emblem", while Goetze had rendered ŠU-*an*. The latter is also the option of J.M. Durand, who compares Hebrew Yad, "hand, memorial"[1042].

Hawkins 2000: 106 compares ŠU.AN (*weda-*) to the phrases *wa/i-ta-'* (SCALPRUM.CAPERE₂) *u-pa-ní-zi a-tá* / ("CAPERE₂") / *u-pa-ha* tentatively translated as "I brought in the *trophies*" at KARKAMIŠ A11b 4 (§13) and *wa/i-tú-'/ pa+ra/i(-i)-ha* (SCALPRUM.CAPERE₂) *u-pa-ní(-i)-na* / (CAPERE₂) *u-pa-ha* "before him I brought a *trophy*" at KARKAMIŠ A1a 2 (§7, 10). In both hieroglyphic instances we have god(s) aiding victorious campaigns of rulers of Carchemiš against countries or cities (Kawa, Alatahana) followed by an etymological construction *upana- upa-*, in the first case with the locatival particle *-ta* and *anda*, in the second with the dative of the enclitic pronoun indicating an offering to a god (Saparkean Tarhunzas).

In the Hattusili passages it is again a victorious campaign aided by Ištar of Samuḫa. The use of the determinatives SCALPRUM, indicating a stone object, and CAPERE₂ (the "taking" hand), would thus be compared to the use of *weda-* and ŠU. While highly intriguing, I cannot at the moment see this working, and assume that the determinatives in Hierglyphic Luwian are due to developments within the hieroglyphic script and language which post-date Hattusili's usage of "hand" here and are motivated by the conventions of a different writing system[1043].

The further reference to the hand-motif as part of a stone cult of Northern Syria, although very tantalising given the possibly North-Syrian location of Hattusili's victory, runs up against the anomaly that the West Semitic loan ᴺᴬ⁴ZI.KIN, which serves as a pseudo-sumerogram in Hittite cuneiform, already appears to refer to this institution, or its (distant) Hittite relative (ᴺᴬ⁴*ḫuwasi*). The enormous amounts of speculation that would be necessary to make this whole complex fit together are best avoided here.

[1042] Durand 2005: 174.

[1043] There are numerous problems. If "hand" is enough to denote this installation for Hattusili, what is the sense of *upani- upa-*? The Luwian verb *upa-* means "to bring" (possibly related to Hitt. *uppa-* "to send"; Hawkins 2000: 630), which makes some sense of the "taking" hand determinative, but is no good for a monument. One would thus need a different but homographic verb in Luwian, possibly *uba-* "to found" (cf. Starke 1990: fn. 1921; Hawkins 2000: 247, 260). This in its turn make no sense of CAPERE₂ as a determinative, given that *uba-* appears to be determined by AEDIFICARE elsewhere. The possiblity raised by Hawkins that the two verbs have fallen together (loc. cit. 260), while quite conceivable, would eliminate the relevance of the determinative CAPERE₂ as, it would thus have been attracted to *uba-* "found" phonetically. This eliminates its relevance for comparison with ŠU-*an*. The further determination of *ubani-* by SCALPRUM may well have been its primary determinative, CAPERE₂ having been attracted additionally given its use in determining the verb *uba-*.

ŠU.GÁN

ŠU.GÁN-*i* (*A-NA* ⸗) KUB 25.1 i 5, or *A-NA* ŠU.GÁN.TUR[!]. The barber places a sweet bread upon this object as part of the ritual activity on the 16th day of the AN.TAḪ.SUM[SAR] festival. The parallel passage at KBo 4.9 rev. v 11, misses this action out, saying merely that "the barber brings a sweet bread". It has been suggested (cards Mainz) to read this ŠU.GUR$_6$ and associate it with Akk *šugurru/ûm* (AHw 1260), a hapax meaning a kind of (rollable) mat. This in turn is associated with Sumerian šu.gur.ra. šu.gur$_6$ occurs at Hh XX-XXIV, OB Forerunner 16 iv 12-18 (from Kish), clearly as a kind of container (MSL 11.179[1044]). Perhaps to be connected with ŠU.GÁN[SAR].

[GIŠ]ŠU.I "barber's knife"(?)

See discussion at Starke 1990: 200-205. Hitt. *sittar-/sittra-* is according to Starke "Speerspitze", represented by the logogram ŠU.I-*ta-ra-an* at KUB 36.95 iii 4. "Spear" would thus be [GIŠ]ŠU.I (implicitly loc. cit. 203 "Spitze + Holzschaft"), possibly Hitt.-Luw. [GIŠ]*siyattrit-*. However, Starke's reconstruction of the stem involves special pleading to obviate the numerous writings which suggest *ši-ia-tal*[1045]. It is thus best to reject the connection between this stem and ŠU.I-*ta-ra-an*. This may still represent a word for the blade used by the barber, [GIŠ]ŠU.I being simply that blade with a wooden handle.

The most economic explanation is surely the old one, implicitly rejected by Starke, that there has been a re-interpretation of the Sumerian professional designation ([LÚ]ŠU.I as LÚ ŠU.I by back-translation), leading to the creation of the logogram [(GIŠ)]ŠU.I, possibly referring a broad, pointed blade mounted on a wooden handle[1046]. The "barber" would thus be the man who carried such an instrument; the "knife-man".

The shortcomings of the translation "barber" for [LÚ]ŠU.I have been noted (loc. cit. fn. 667 with lit.). That the barber also fulfilled the function of a cleaner is possible on

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[1044] The drawing in OECT 4.158 breaks off before these entries, but the tablet was collated by O.R. Gurney.

[1045] *siyatal-* at Tischler 2001:151; id. HEG II/2 14 (S2) 1031f., 1070ff.

[1046] The shape of the blade is important due to its comparison with mountain-tops in the Ullikummi myth. See also CAD s.v. *naglabu* on the association between the barber's blade and the shoulder-blade, indicating a broad slicing blade. Laws §144 provides us with words for two cutting instruments associated with barbers: [URUDU]*zin[alli]* (n.pl.) and [GIŠ]*ḫanzan-*, cf. Hoffner 1997:119, 206, the latter of which is used for cutting fine cloth. Neither of these provide a stem-formation to explain ŠU.I-*ta-ra-an*.

anachronistic prima facie grounds, but does not have to be the case[1047]. These may also have been different officials.

IBoT I 36 i 64ff. illustrates that a Hattic word for LÚ/LÚ ŠU.I was ta-ḫa-ia (*Mestieri* 195; Soysal 2004:7 25f.) and secondly that this had been loaned into Hittite (stem *taḫaya-*) where it existed beside LÚ*taḫiyala-* (*Mestieri* 147-149[1048]). What this does not show, however, is that the Hittite word behind LÚŠU.I was anything similar, in fact it indicates quite the contrary[1049].

The unpublished fragment Bo 6681 obv. 5 lists the [LÚ.]MEŠŠU.I next to the LÚ.MEŠ*ta-ḫi-ia-le-e-*[*eš*], prompting Otten to reject the identification, and despite pleading to the effect that this is a case of a special troop of LÚ.MEŠŠU.I associated with the EZEN₄ *daḫiyas*[1050], it is most prudent to follow his lead[1051].

It is tempting to see in LÚŠU.IŠ-*kán* (KBo 14.72 rev.? 14, NS - "son" fest.) a phonetic writing of LÚŠU.I+-s (nom.)=*kan*.

GIŠŠU.NAG.NAG etc.

S. Alp's argument for the identification of *kattakurant-* with libation arms found in Hittite centres proceeds on the basis of logic: they resemble an arm that has been "cut underneath" given that the the "amputated" stump would have to function as a base for the arm to stand[1052]. One could equally well argue on the basis of an entirely different logic that the Sumerogram GIŠŠU.NAG.NAG refers to these "drinking arms" due to its

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[1047] Van Brock 1962: 126-127 "nettoyeur". Klinger 1996: 251 fn. 461 with lit. and comparison with the activities of the Mesopotamian *gallābu(m)*. See also Jasink 1979.

[1048] HEG III/ 8, 16f.; Klinger 1996: 250-251.

[1049] *nu hattili* ta-ḫa-ia *ḫalzai tahayan=ma=za hattili* LÚŠU.I *ḫalzissanzi* "and he calls out 'taḫaya' in Hattic; the taḫaya is what they call the barber (?) in Hattic". If anything this shows that it is precisely not the Hittitised stem *taḫaya-* which is behind the logogram. The further example of KBo 5.11+ iv 23f. (NS on the basis of TAR, but many archaic features; cf. Klinger 1996:201 with fn. 295) supports the non-Hittite context of the word. KBo 5.11+ obv. 8-20 lists Hattic names for officials with their Hittite or Sumerographic correspondents. In part of the ritual (rev. iv 23f) the LÚŠU.I is asked by the gate-keeper who he is, and replies ta⌈ʾ⌉-a-ḫ[a⌈ʾ⌉-ia]. taḫaya, if the reading can be supported from photo N01243 (ta⌈ʾ⌉= GÁN), is thus very much the Hattic word, in the context of a ritual using Hattic terminology and identifying it as such. LÚ*taḫiyalla-*, by contrast, is never written *ta-ḫa-ia-*, but always *ta-(a)-ḫi-ia-*.

[1050] Jasink 1979: 213-231

[1051] Otten 1973: 77 fn. 2; *Mestieri* 147; Klinger loc. cit. Furthermore, the LÚ.MEŠ*ta-ḫi-ia-le-e-eš* appear in the NS outline tablet of the KI.LAM festival KBo 25.176 obv. 17. Parallel in the Old (ABoT 5+, 10, 12) and the Middle (KBo 20.33+ 9-12) versions are the LÚ.MEŠE.DÉ(.A), or SIMUG, and LÚ.MEŠKAŠ₄.E, although it should be emphasised that these are not duplicates but parallel and fairly fragmentary versions. However, considerable agreement in officials listed can be observed where the three versions are otherwise preserved in parallel. See Singer, who also accepts the equation LÚŠU.I = LÚ*taḫiyala-*, loc. cit.

[1052] Alp 1967: 529. DUG*kattakurant-* had previously been argued to stand for the Akkadogram DUG*KU(K)KUBU*, but this appears separately in a list: KBo 30.124 iii 7 (see Carruba 1966: 10).

composition out of Sumerian "hand" and "drink"[1053] . Unless both arguments are coinidentally correct, this does not imply that ^{GIŠ}ŠU.NAG.NAG can be read as Hittite *kattakurant-*, which itself could equally well refer to a different kind of vessel, for example one with a pointed base[1054]. The Sumerian combination is unique to Anatolia and may have been coined to denote precisely these very Anatolian implements.

There is obviously a limited degree of contamination between this logogram and ^{GIŠ}ŠU.GU$_7$.GU$_7$, as illustrated by forms such as ^{GIŠ}ŠU.NAG.GU$_7$ and ^{GIŠ}ŠU.GU$_7$.NAG. The distribution of the two is striking in that ^{GIŠ}ŠU.GU$_7$.GU$_7$ occurs predominantly in MS documents, while ^{GIŠ}ŠU.NAG.NAG is entirely NS and LNS. It is thus worth asking whether they in fact refer to the same vessel. This would either be a phonetic rather than ideographic use of the logograms, or some scribes simply did not take their inscribed signs too seriously. See ^{LÚ}ALAM.ZU etc.

Is the same object denoted by ^{GIŠ}NAG.NAG at *Bildbeschreibungen* 3 ii 14, 17?

ŠU.ŠÈ.LÁ (HZL 68: ŠU.TÚG.LÁ)

This is identified as the Ur III name for a vessel, šu.šè.lá by Hoffner. See Singer, forthcoming, identifying the "Aḫḫiyawan" ŠU.ŠÈ.LÁ of KBo 18.181 with a type of Mycenaean crater with handles, and the URUDU *la-ḫu-aš*, with which it is named, as a ladle or dipper[1055]. This would imply that the users understood the reference of the Sumerian construction of šu.šè.lá and were able to re-apply it to a new and foreign vessel-type[1056].

This logogram appears in Ur III documents and earlier (šu.šè.lá, šu.uš.lá, šuš.lá), but disappears in the second millennium apart from in the Emar version of Hh XI and XII, where it appears alongside the zag.šè.lá.

In particular it has disappeared at Mari, although the Sumerian names for possibly related vessels continue to be used there: šu.uš.gar.ra (= Akk. *šušmarrûm*), which occurs in conjunction with *muṣarrum* (= *muṣarrirtum*), thought to be from the root ṢRR

[1053] Note that the Hittite use of NAG is not directly equivalent to the Sumerian: "wash" in the sense of "giving a drink" to objects, such as steles, is sometimes a better translation than "drink". See CHD Š/1, 49.

[1054] For the morphology compare *še-er-ku-ra-an-te-eš* KUB 9.2 obv. i 19, Hoffner 1967: 27 with fn. 28; id. 1966: 394-5.

[1055] I am very grateful to Prof. Singer for sending me a copy of his essay prior to publication.

[1056] The lexical equivalent of the verb šu.šè -- lá is Akk. *šuqallulu*, which simply means "to hang". This does not in itself imply that the vessel had handles, and indeed the words for vessels with handles at Mari, listed at Guichard 2005: 133ff., have more to do with "lifting" (*šušûm*) than carrying. See, however, the obviously similar construction in the pot-name zag.šè.lá, "hanging from the shoulder".

"to flow" (see Ugaritic mṣrrt, later Akk. ṣurruru "libate"). This set is thought by Durand and Guichard to be a basin (šušmarrûm) with a ladle (muṣarrum) for washing[1057]. Besides the šušmarrûm there is also a vessel at Mari called the turnipakkum, or tarnapakkum, which is associated with the muṣarrum in documents from the time of Yaḫdun-Līm[1058]. This was probably a foreign word due to its many different spellings[1059]. An "Anatolian" etymology is very unlikely at this period, though tempting in view of the superficial resemblance to the Hittite root tarna-, "let go", as well as its semantic suitability.

The present evidence thus has the logogram šu.šè.lá preserved only in the Syrian lexical tradition during the second millennium, yet being used to denote objects in Hittite texts. It is presumably only accident that it is not preserved in other late second millennium texts from northern Syria.

UDU SÍG+SAL (HZL 66, 210)

Hoffner 1997:71 fn. 240 transliterates UDU.U_8 on the basis that the sign-group "denotes what Akkadian lahru means" thus assuming that "the Boğazköy sign-group is intended as a variant of UDU.U_8". Beal (1992: 128) argues for U_{23}, on the basis that this is a Boğazköy permutation, and CHD (s.v. mān 8b) has it as U_{10}.

The peculiar form UDU.DU+MUNUS at KBo 42.80, 5 (CTH 772, jh., photo collated) may speak for a scribal separation of the two component parts of the sign, UDU.DU+ being a hearing error for UDU.U+, but it is impossible to know whether the MUNUS was read out separately or added for clarification only in the writing.

Graphically, however, it is easy to see how Mesopotamian U_8 (= LAGAB x GUD+GUD) may have been re-interpreted (from an OB cursive form as at Mittermayer 2006: 399) as being composed of SÍG + MUNUS, to be read as U. Thus the transliteration U_8 is kept here.

U_8 occurs alone at KBo 20.39 i 13 (MS), KUB 12.16 ii 16 (448, jh), and presumably requires a restoration of UDU in each case.

UḪ7

[1057] Durand ARMT 21: 356ff. Guichard 2005: 201-202 . A Ur III šu.ša.gar with a "handle (?)" (kun.dù) occurs in UET III 335.

[1058] Guichard 2005: 107-9, 324f., where it is hypothesised that this was a larger version of the šušmarrûm.

[1059] The Akkadian for šu.šè.lá is unknown. The ePSD equates Akkadian kandu, a late word with apparent West Semitic cognates, although it is unclear on what basis they do this; possibly as a loan-word from Sumerian kun.dù, which may mean "handle"?

UḪ$_7$ (Hitt. *alwanzatar*) replaces the two central Sumerian words for magic, namely uš$_7$ (KAxLI) and uš$_{11}$ (KAxBAD), and is completely unknown from Mesopotamia. In my unpublished MA dissertation I investigated the use of Sumerian uš$_7$ and uš$_{11}$, concluding that:

i) uš$_7$ is the older, third millennium term for "magic", and is connected with magic as incantation (mu$_7$, tu$_6$).

ii) uš$_{11}$ is introduced during the OB period and is connected with destructive "black magic", often associated with "spit" (*ru ʾtu*) and "venom" (*imtum*, the spit of the gods)[1060].

The association of magic with spittle has presumably partially informed the suggestion of R. Borger to transliterate the Hitt. logogram U+GAG as UḪ$_7$, given that úḫ is the Sumerian for "spit", which is written uḫ at Emar. The notion that U+GAG was derived from a frozen variant form of AḪ has already been mentioned in Part I (Alalaḫ). Comparison with similar variant forms from Syria and Mesopotamia does not lend credibility to the notion. One should also mention the similarity with the logogram MUD$_4$ (Akk. *ḫubūru*), a container of beer and wine, which is composed of LAGAB/KU+U+GAG. How this might be connected is unclear and quite possibly a blind alley.

$^{\text{MUNUS/LÚ.MEŠ}}$ÙMMEDA

The sign, composed of URUDU+DA, is read ÙMMEDA under HZL 109. The sign combination does not occur in MZL except by way of reference to HZL 109 under MZL II 238. It is not apparent where HZL have taken this reading of the sign from. Borger 238 is UMMÉDA, which is composed of UM+ME+DA and can be found in lexical equivalences with Akkadian *tārītu* = "nurse, nanny"[1061]. The relevant manuals contain no example of URUDU = umme$_x$, so one can only assume that HZL has inferred this reading from the similarity between the sign URUDU and the ligature

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[1060] Geller 1988: 629-632.

[1061] AHw s.v.; CAD T 232. The earlier lexical tradition appears to have e-me-da as the reading for UM.ME (Proto-Aa), later fixed by addition of the phonetic complement, -DA.

UM+ME which occurs in the Sumerian word for wet-nurse: umme-da/ga-lá[1062]. There are no examples of UM that are identical to URUDU in Fossey and that the Hittites would have known this particular Sumerian word cannot be assumed. We can be almost certain that the analysis umme+da (da being the Emesal word for "milk", Emegir ga) was not known. The most cautious approach would be to keep the transliteration URUDU.DA.

The earliest (?) occurrence occurs without the determinative in the case of the ÙMMEDA ANŠE.KUR.RA[HI.[A]] belonging to the estate in the Kuwatalla land donation KBo 5.7 rev. 13 (Arnuwanda I). The determinative is also missing, however, in the late lexical list KBo 1.42 i 39, where it means "nurse-maid".

The span from wet-nurses to horse-attendants to functionaries of some kind possibly associated with pastures (BT i 79), and also with the delivery of oxen and sheep for festivals (KUB 16.39 ii 33f., Otten loc. cit.) strongly indicates that the association works via the Akkadian verb(s) (t)arû, which underlies tārītu (also male tārû)[1063]. This may well be supported by the writing of ÙMMEDA as URUDU.UŠ (AN[ŠE.KUR.RA]), as documented in the catalogue, where UŠ, could conceivably be functioning as a semantic indicator (ÚS, "follow"). This would leave URUDU very opaque, which it is under any interpretation.

Furthermore, the Hittite understanding of the function of the wet-nurse is amply illustrated by the lexical list KBo 1.42 i 39: ÙMMEDA-za ku-iš DUMU-an kar-pa-an ḫar-zi "the wet-nurse who has lifted the child"[1064]. It is lifting, not leading, that the Hittites associated with their activity.

UZ₆ HZL 23, MZL 203 = MÁ+KASKAL. UZ₆ Akk. *enzu* "goat".

HZL 23 must be the same sign as ÙZ, MZL 203 (Fossey p. 284f.), which is analysed as "MÁ+KASKAL"[1065]. Previously confused with MÁŠ (HZL 38 with reference to Güterbock JCS, 16, 23). The Hittite sign-forms, mostly with only one vertical, presumably to prevent confusion with "old" GI, do not have any direct counterparts in the palaeography-manuals, which all show variants with more than one vertical. A half-

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[1062] umme.da.lá, cf. Alster 1972: 104; PBS V 22 obv. 22-28 (Ištar's Descent) um.me.ga.lá = *mu-še-niq-tum* Lu Excerpt II 41. Sommer/Falkenstein refer to this at HAB p. 125. They also adduce Amarna (EA 25 iii 62) [MUNUS]EME.DA, where it is not clear to them whether EME is an error of writing for URUDU, or a dictation error for UM x ME. A simple phonetic writing (cf. e-me-da in Proto-Aa) should suffice as explanation. It is URUDU.DA that needs explaining, not EME.DA.

[1063] CAD T 250 s.v. *tārû* "male nurse-maid" points out that the verb for the activity of nurse-maids is always *arû* in Akkadian. For *tarû* of "fetching" animals see T 248.

[1064] Güterbock (MSL 13:134) translates "a nurse who has lifted (abducted?) a child for herself", but compare VBoT 120 obv. ii 16 (Tunnawi) and KUB 36.60 iii 5-6 (Siegelová 1971: 10).

[1065] cf.: JCS 17.110 fn. 27.

way stage is possibly to be found in the simplified "cursive" OB Nippurean form at Mittermayer 2006: 054 LU 68D (Lamentation on the Destruction of Ur), perhaps to be compared with the form with two verticals at KBo 32.7 obv. i 12 (NS Telipinu *mugawar*[1066]), which appears descended from a more complex immediate progener than any other Bo. example, although here too care appears to have been taken to avoid confusion with "old" GI.

Forms not attested under HZL 23:

KUB 54.67 obv.i 9 (LNS)   KBo 5.7 rev. 30, 38 (MS - Arn.I)   KUB 54.85 obv. i 13 (MS - Telipinu mugawar)   KBo 4.6 rev. 10? (no photo of rev. right edge)

[1066] Otten 1985: 145; Rüster 1992.

PART IV

SUMMARIES AND CONCLUSIONS

The following part of the dissertation attempts an amplification and synthesis of information covered in the preceding two parts with reference to the the central questions posed on pp. 45-46. With regard to question (a), "in what language are we to conceive of Akkadian and Sumerian words in Hittite texts?", a section collecting comments from the secondary literature on the phenomenon of phonetic writings of logograms as well as further evidence that has arisen in the course of this study and could only be subsumed under the heading of "phonetic writings", and a short section detailing certain aspects of the Akkadian of the Akkadograms are prefaced to a more general consideration of the question.

IV.1 Evidence for a phonetic pronunciation of Hittite logograms

H. Otten points out that BA.ÚŠ is surely the correct reading of BA.BAD among the Hittites, in contradistinction to the older interpretation as BA.UG$_6$. He refers to KBo 3.54, 8 LU]GAL ERÍN^{MEŠ} *ḪUR-RI* BA.UŠ (CTH 13), which he sees as "Ideogramm-vertauschung"[1067]. Phonetic writings of Sumerian signs are especially frequent in third millennium Sumerian, as well as peripheral Sumerian of the Old Babylonian period. The writing UŠ for úš (BAD) is frequently attested in incantations. KBo 3.54, 8, however, is simply a case of the scribe writing what he heard at dictation, rather than writing the correct logogram.

This latter explanation is clearly called for in the passage that Ph. H. J. Houwink ten Cate refers to in order to prove the point that Sumerograms and Akkadograms were dictated in Sumerian and Akkadian rather than being read out in Hittite. KUB 14.13 obv. i 51 (CTH 378) has LÚ.MEŠ DINGIR.MEŠ EN.MEŠ which is clearly a mistake for *šu-meš* DINGIR^{MEŠ} EN^{MEŠ}[1068].

C. Kühne draws attention to another possible case of phonetic/graphic confusion in KBo 22.3, a late Hittite copy of an Old Hittite text associated with the fragments mentioning Zukrasi and dealing with Hattusili I's wars in northern Syria[1069]. Lines 2 and 5 mention a ^{m}*A-na-an-ma-aš*, which Kühne interprets as a dictation error. The original text would have had *^{m}DINGIR.DINGIR-*ma (for Ilim-Ilimma) which, the person dictating misunderstood and misread as ^{m}*An-an-ma*. We might also consider

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[1067]Otten 1971 fn. 1. It is worth remembering that the Mesopotamian Sumerian reading of BAD with the meaning "kill" or "die" will also have been ÚŠ. See particularly the pun in the Sumerian proverb CT 58.30, 5: uš$_{11}$.ĝu$_{10}$ nu.mu.ni.úš "my poison will not die/kill there."

[1068]Houwink Ten Cate 1970: 54.

[1069]Kühne 1973: 248.

that the Boğazköy pronunciation of the Sumerogram DINGIR could well have been AN[1070]. This is explicitly the case in the syllabic Sumerian version of the Iškur-Hymn KUB 4.6 (A) obv. 4 [x] abgal.dingir.e.ne kalag.ga = ni.gal.a.ni nu.kal a.né[1071]

Occasional phonetic pronunciations have been uncovered in the course of this investigation. The cases of *BE-LU-uš-ša-an* and ANŠE.KUR.RA[HI.A]-*ia* (HKM 15 obv. 8), both from Maşat letters, indicate that at some level at least these were being read phonetically. The fact that these are both in letters may attest to a dictated environment, involving quick writing, quite the opposite of the finding derived from Singer's analysis of the two manuscripts of CTH 381 (see introduction). It is quite possible that a kind of learned pidgin had emerged for dication purposes, a "scribe-talk" much comparable to the mixture of much Latin, less Greek and various levels of native tongue found in early English or Irish manuscripts.

The writing NINDA.A.GÚG (See Appendix II), which in one case alternates with NINDA.GÚG may be explained as a partially phonetic writing indicating that this is NINDA, not NÍG, rather than indicating a different kind of cake. However, I have not found this elsewhere, despite the many hundreds of attestations of NINDA. Transliteration as NINDA[A] GÚG may thus be in order. Of course, this indicates that the NINDA was pronounced in this case, it being a determinative in Mesopotamian cuneiform, see Akk. *kukku*.

The writing ŠÀ.BAL.LAL at KBo 3.6 obv. i 4 (// KUB 1.2 obv. i 4 // ŠÀ.BAL KUB 1.1 obv. i 4 // ŠÁ.BAL.BAL KUB 19.69 obv. i 4) also appears to fit into the category of a one off phonetic error during dictation, albeit one that occurred twice. This may be an indication of differing traditions of education during the period of writing (Hattusili III and after). On the other hand, it is clear that the Hittite designation for a female animal, MUNUS.AL.LÁ, must have been a regular and already systemic phonetic error for the Sumerian word máḫ (=AL) by the Old Hittite period (see under AMAR.MAḪ in Part III).

By contrast to these occasional phonetic confusions, there are more systemic ones that indicate the kind of tradition the Hittite writings were developing from.

[1070]M. Astour, UF 29 (1997): 24 24, fn. 118, proposes reading Anailimma on the basis of an Alalaḫ text from the reign of Niqmepa; AlT 63 rev. 15: *A-na-i-lim-ma*. The example is thus not certain.

[1071] Schwemer 2001: 192 fn. 1318 as reading for AN.e.né.

NINDA.DÙ.DÙ, meaning baker, Akkadian $\bar{e}p\hat{u}$, is the only logogram for this profession in Hittite texts. Otherwise the Mesopotamian logogram is NINDA.DU$_8$.DU$_8$[1072]. The Sumerian for the verb "to bake" appears to be du$_8$, which also means to "open" or "release"[1073]. Both NINDA.DÙ.DÙ and NINDA.DU$_8$.DU$_8$ occur at Alalaḫ in texts from Level VII[1074]. This is possibly an archaic phonetic rendering. According to A.R. George, the phonetic value /DÙ/ for GAG is not current in Mesopotamia after the late third millenium in Mesopotamia.

Commenting on the various writings of the name of Gilgameshes companion Enkidu, George points out that the writing $^{d/m}$*en-ki-dù*, known from the Standard Babylonian version of the epic, as opposed to the Old Babylonian and Sumerian writing $^{(d)}$*en-ki-du$_{10}$*, is first attested in the Diyala region of the Old Babylonian period, before occurring at Hattusa, Emar, Ugarit and in Middle Babylonian fragments[1075]. In the peripheral regions an archaic phonetic writing may have survived. That DÙ was pronounced DU at Boğazköy is supported by the writing DÙ-*at-ta-ri* for DU-*at-ta-ri* (Hitt. *iyattari*) at StBoT 3.106ff[1076], although this may just be a rebus writing using Hittite *iya-*, common to both *iya-* "to do" and *iya-*(med.) "march".

Both in the cases of $^{(m/d)}$*en-ki-dù* and NINDA.DÙ.DÙ, this older phonetic spelling was susceptible to learned re-analysis. $^{(m/d)}$*en-ki-dù* can be scholastically explained as the "creature of Enki/Ea"[1077], and NINDA.DÙ.DÙ as the "creator of bread". This presupposes both knowledge of the old phonetic value of GAG and of the meaning of this Sumerogram among the Hittites. The scholastic re-interpretation of an older spelling would have supported the choice to write DÙ instead of DU$_8$. It is surely only a matter of chance that archaic writings of the type NINDA.DÙ.DÙ have not yet been found in Mesopotamia.

[1072]CAD sub $\bar{e}p\hat{u}$

[1073]$^{du-u}$du$_8$, du$_8$.du$_8$ = *e-pu-u ša ak(a)li* CT 12, 11 iii 4 (Aa), AHw 231a.

[1074]NINDA.DÙ.DÙ at AlT 240, 8 (=Zeeb 54). NINDA.DU$_8$.DU$_8$ at AlT 256, 26 (BM 131564 = Zeeb 12); AlT 283b, 16 (BM 131577 = Zeeb 16); AlT 268, 7 (AM 9027 = Zeeb 46). All texts refer to a baker called *Bur-ra*.

[1075]George 2003 138ff.

[1076]cf. HZL 75. Kümmel 1967: 106f.

[1077]George loc. cit. 140.

IV.1.1. The Akkadian of the Akkadograms

In general the Akkadograms of Boğazköy adhere to Babylonian forms, but Assyrianisms are not unknown.

E for I: *EL-KI* (*il-ku*); *E[L-Q]É* for *IL-QÉ*, *MA-ME-TE*^{MEŠ}-*mu*, *E-EŞ-BAT* for *IŞBAT*

Sibilants: Akkadograms consistently write the result of Akk. -*t* + *š*- in the combination of dental stem and enclitic pronoun as -*zz*-, thus adhering to the writing practices and phonology of Old Babylonian as displayed for example in the Law Codes of Ḫammurabi[1078].
However, it also appears that occasionally stems ending in dentals were treated as though they ended in vowels: *ÌR*^{*TUM*}-*ŠU*^(?!) KUB 23.72 rev. 68 MH/MS CTH 146

Loss of initial *w*-. This is the case for the two probable examples of Akk. (*w*)*ardu* "slave, servant":

[AR]-DI-ŠU-NU (?) KBo 3.1 obv. ii 58 (= *ÌR*^{MEŠ}-*ŠU-NU* KUB 11.6 obv. ii 4) both OH/NS CTH 19[1079].
AR-TE[!]-*KA-MA* nom. sg. HKM 27 rev. 19 MH/MS.

Mimation[1080]:
One should avoid labelling cases of CVm writings as definite examples of mimation, either as part of Akkadograms, e.g. *BE-LAM*, or as complements to Sumerograms, e.g. KUR^{*TUM*}. *TUM* is definitely used occasionally to write the syllable -*tu*- in Hittite words: *ú-e-tu₄-un* (KUB 21.11 obv. 12 NH/NS), as well as Akkadograms: ^{LÚ.MEŠ}*MU-IR-TU₄-TI*, ^{LÚ.MEŠ}*MU-NAB-TU₄-TI*. Occasionally we also find it being complemented by UM, which could be understood as a writing -*tu₄-um* for -*tu-um*: ^I*TU₄-UM-MA-AN-NI* KUB 43.77 rev. 3 (Colophon, Akk.). While *tu₄* is clear in the writing of *wedun*, it is not so apparent in the other case, where the writing *TUM*^{*UM*} is paralleled by various cases of phonetic complements to other CVC signs, always in Akkadian words or else

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[1078] See Streck 2006: 228-231.

[1079] *ARDU*: The attestation at KBo 3.1 obv. ii 38 can no longer be verified on the tablet]-*ŠU-NU* being all that is left. An old photograph preserves the DI, however, and it does look very similar to the DI in l. 40.

[1080] Labat 1932: 48-51. Durham 1976: 483-487 and ibid. 187f. with the use of the word "Akkadographic" to denote the writing of Akkadian words in Akkadian texts.

names: *DAN^AN*, *MAŠ^ĀŠ*. This is a phenomenon known from Amarna, and indeed all cuneiform.

Mimation is generally lost in Akkadograms. In the case of *AN-NI-IA-AM* for OB Akk. *anni'am* a form with mimation has been retained on the model of formulae of the Akkadian-language Land-Grants, which were borrowed from a Late OB Akkadian dialect that obviously preserved mimation at least sporadically.

Nom. for Acc.: *BÁ-AŠ-LU* q.v. *BE-LU* q.v. *BI-IB-RU* q.v., DINGIR^*LUM*, *ḪAL-ṢÚ*, ^LÚ*ḪA-DA-*(A)-*NU*, *IM-PA-A-RU* 23 cases of KUR^*TUM* in the accusative against 9 cases of its "correct" nominative use. The correct accusative form occurs exclusively in the various manuscripts of CTH 68 (Kupanta-^DLAMMA). KUR^*TI* is never used in the nom. or acc. LÚ^*LUM*; *MAḪ-RU-Ú*; *MA-MI-DU*;

Acc. for gen.: KUR *A-BA*
Gen. for nom.: *A-ḪI-TI-ŠU* KUB 14.1 obv. 56 (nom. sg.: *a-ra-aḫ-za ḫa-an-da-it-ta-at*) MH/MS. LUGAL-*UT-TI* nom. sg.: KBo 3.3+ obv. ii 17 NH/NS (=KUB 19.41 obv. ii 21] NS) **CTH** 63, ^LÚ*MU-DI-IA*

acc. for gen.: *AŠ-ŠUM* EN-*UT-TA* KUB 23.1 obv. i 22 NH/LNS
Nom. for gen. *MIM-MU-KA* etc.

Construct for genitive: *MA-MIT*, *AŠ-ŠU-UM BE-LU-UT* KUB 6.4 obv. 4 NH/NS.

Adjectival plural in nouns: *BE-LU-TIM*[1081], *AT-ḪU-TIM* "brothers"[1082].

Syntax. Prepositions. A full study of the syntax of Akkadian prepositions in Hittite texts is beyond the scope of this investigation. The following remarks have only summary nature. The central issue to concern us is whether the Akkadian prepositions correspond to Hittite pre- or post-positions or whether they merely indicate Hittite case-forms. *A-NA* and *I-NA*. It has long been observed that these Akkadian prepositions are used to indicate the d.-l. case of an underlying Hittite word and are not used in the same

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[1081] As opposed to Friedrich's interpretation of *TIM* as the equivalent of an Sumerian plural determinative.
[1082] See s.v. *AḪU*, contrasting the correct Akk. plural form *aḫḫē*, and less correct *aḫḫūti* in Akkadian language texts from Boğazköy.

syntactic fields as in OB Akkadian. This usage is thus meant to explain their apparent interchangeaability, or the use of the one where we might expect the other: *A-NA* BÀD.KARAŠ *sesta* KUB 19.37 obv. ii 25.

It should be noted, however, that similar observations have been made for the grammars of other peripheral Akkadian dialects such as Alalakh[1083]. Whether these too are due to the influence of an underlying language still needs to be investigated. It is not the case that a weakening of the semantic distinction between *A-NA* and *I-NA* is to be observed in Mesopotamian Akkadian of the later second and first millennia. The case for substrate influence thus remains very strong, but the fact that similar phenomena are observable in the Akkadian of neighbouring cuneiform cultures prohibits us from using this as evidence for a Hittite pronunciation of Akkadographic prepositional phrases.

The double meaning of the New Hittite ablative, which combines both ablative and instrumental-comitative functions is reflected in the use of the Akkadogram *IŠ-TU* with both meanings.

The function of Akkadographic *ITTI* in a Middle Hittite text is well illustrated by a passage from the Indictment of Madduwatta: KUB 14.1 rev. 29 refers to a fugitive in the terms *IT-TI* [I]*MA-AD-DU-WA-AT-TA pa-it*. This resumes a description of the same event earlier in the text, this time as part of a second-person discourse: *kat-ti-ti ú-it* (ibid. obv. 60). The parallel is not absolutely exact. In the one case the action is described from the point of view of the speaker, in the other it is described from the point of view of Madduwatta, as indicated by the opposite use of the preverbs *pa-* and *u-*. This should, however, not affect the meaning of the adverbial phrase. Parallel to *katti ⹀ ti* we should thus expect Hittite *Madduwatti katta* for *IT-TI* [I]*MA-AD-DU-WA-AT-TA*.

In this case we can thus say that there is, at least on occasion, a direct correspondence between an Akkadian preposition and a Hittite post-position (*ITTI* = *katta*), whereas the function of *A-NA* and *I-NA* is merely to mark the presence of a Hittite dative.

It has been noted on a number of occasions during this work, that a correct Akkadian usage in Akkadian language texts can be juxtaposed to an incorrect Akkadographic one in Hittite language texts. This is particularly obvious with [DUMU]-*ri* vs. DUMU-*IA* in

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[1083] Aro 1954-56: 364.

the bilingual annals of Hattusili, but also finds parallels across unrelated texts. Thus one also finds Akkadographic *ATḪŪTIM*, but Akkadian *aḫḫē(-šu)*, "brothers", Akkadographic *ANNIYAM* but Akkadian *annâ*. Contrasts in "correct" usage appear in DUMU.NIN₉-*ŠU* (Akkadian) and DUMU.NIN*^TI*-*ŠU* (Akkadographic) both for *mār aḫātīšu*, both from the bilingual Testament of Hattusili I);

This is not the place to investigate case-distribution in Akkadian texts of Boğazköy, but it is quite obvious that most Hittite language texts after the Old Hittite period were oblivious to the use of correct triptotic Akkadian case endings in Akkadograms. Particularly the accusative singular appears to have suffered, and even texts that show an awareness of its form (e.g. acc. sg. + S1 enclitic pronoun, *abaia*), are not prone to use it correctly (see e.g. s.v. *ABU*). By contrast the Akkadian genitive has shown itself to be relatively stable. On the one hand this may indicate that the development toward a diptotic declension found in first millenium Akkadian was underway in the Akkadian dialect(s) from which Hittite Akkadograms were borrowed. One can compare other Akkadographic forms that only show diptotic declension thus far: *BIBRU*, *BAŠLU*. On the other hand it is also an indication of the extent to which some Akkadograms were themselves viewed as logograms at least after the Old Hittite period.

Merely on the basis of the compelling evidence that Akkadographic *BĒLU* was pronounced phonetically in some late Middle Hittite texts we cannot generalise to saying that all Akkadograms were pronounced phonetically at all times. This has to be a decision that is made on a case by case basis, with the majority of cases offering no evidence whatsoever.

Despite a number of exceptions, the rule that Akkadograms are not complemented with Hittite phonetic complements has to be said to hold true, although there are a number of apparent exceptions in OS documents[1084].

A form such as ^GIŠ*GA-AN-NU-UM-it* (see Part III s.v. ^GIŠGAN.KAL) shows not only preservation of obsolete mimation but also just such Hittite phonetic complementation. The tendency to interpret apparently Akkadographic forms as Sumerograms will doubtless have been promoted by the habit of writing "retrographic" Akkadian forms (with mimation) in the Sumerian columns of lexical lists. This explanation does not, however, hold true of a mimated form such as *AN-NI-IA-AM* from the reigns of

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[1084] Neu 1983: 297, 298, 304.

Hattusili III and Tudhaliya IV, where the mimation is clearly kept for reasons of tradition and genre.

There is also a tendency in some very late texts, as pointed out for the case of the scribe Pikku in the introduction, to write Sumerograms or Akkadograms in the d.-l. without *I-NA* and *A-NA*. This tendency is also observable for some place-names in certain Middle Hittite texts, although it is likely here to have had a different origin, possibly as a relic of the directive in *-a*.

It is most probably fair to say that a greater amount of awareness for correct Akkadian declension and use is observable in Akkadograms from the Old Hittite period, although a full investigation of this would go beyond the bounds of this work. A good example is the correct use of the enclitic feminine possessive pronoun *-ŠA* in one OH text and on one OS tablet (see catalogue).

IV.1.3. In what language are we to conceive of Hittite logograms?

The two criteria for deciding this question must be the amount of evidence for phonetic writings of logograms and the evidence for an innovative but at least partially correct semantic use of Sumerian or Akkadian linguistic elements.

Convincing phonetic writings of Sumerian words indicating that they were, if only at the level of dictation, pronounced in Sumerian are quite rare: BA.UŠ for BA.ÚŠ (only once), DÙ for DU in (DÙ-*attari*)[1085], ^{LÚ}ALAM.ZU (for ^{LÚ}ALAM.ZU$_9$), possibly ANŠE.KUR.RA-*ia* from Maşat, ^{DUG}KU.KU (for ^{DUG}GUR$_4$.GUR$_4$), ŠÀ.BAL.LAL for ŠÀ.BAL.BAL, LÚ^{MEŠ} for *sumes*, GUR for Sumerian kúr, possibly ^{LÚ}ŠU.*IŠ-kán* for ^{LÚ}ŠU.I-s-kan, UDU.DU+MUNUS for UDU.U$_8$, ^{TÚG}BAR.T[U]?, $^{[UR]U}$NE.MA^{KI} (for ^{URU}NIM.MA). These writings would have to be be attested more often and in less ambivalent contexts were we to infer from their attestations a wholescale use of the Sumerian pronunciation of words during dictation. Nevertheless, the few attested examples show that some scribes or teachers were pronouncing the Sumerograms in Sumerian.

Whether phonetically pronounced or not, it is reasonably clear that $^{(GIŠ)}$ŠU.NAG.NAG, which is attested nowhere else in the cuneiform world was created using known meanings of Sumerian signs in order to describe a peculiarly Anatolian item of material culture, "the libation arm". The use of ŠU.GU$_7$.NAG and ŠU.GU$_7$.GU$_7$ in earlier texts,

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[1085] This could, however, be a rebus writing on the basis of the Hittite value *iya-* (see above) and thus comparable to ^{I}DU-^{D}IŠKUR for *Ari-Teššub* (see introduction).

if they do in fact all refer to the same thing, may indicate that there was some difference of opinion as to which Sumerian sign was most appropriate to denote this object, the difference between GU$_7$ (KAxNÍG) and NAG (KAxA) consisting solely of one small wedge.

If the suggested use of ^{NA4}MUL to denote a star-shaped or cruciform seal is correct, this too indicates knowledge of Sumerian at the level of innovative logographic usage.

It is perhaps to be assumed that the possible application of ŠU.ŠÈ.LÁ, lit. "hanging from the hand" to an "Aḫḫiyawan" crater, as posited by I. Singer (s.v.) rests on a live understanding of the Sumerian word and what it should be applied to, the use of this Sumerian word having died out in the Ur III period and being only preserved in Syrian lexical lists during the second millennium. On the other hand, the presence of a Middle Hittite exemplar of Hh XVII at Ortaköy with Akkadian translations must indicate that bilingual Hh could well have been present at Boğazköy as well. The transmission of the requisite knowledge to apply the logogram to material objects anew could thus just as well have been transmitted via the Akkadian translation.

The use of inscribed semantic indicators to reduce the polyvalence of Sumerian signs such as KA by the insertion of an U (= bùr) has been discussed on several occasions so far, the conclusion being that this particular example is not original to Hittite cuneiform. The usefulness of the other adaptations to the usual Mesopotamian syllabary (KAxGAG, "nose", KAxUD, "tooth") for statements about the knowledge of Sumerian among the Hittites required to create these adaptations is thus severely limited.

GA.KIN.AG, if it is, as is likely on the present evidence, a Hittite rather than a Syrian development, involves the semantic redetermination of the sign KIN (phonetic for Sumerian kín, "to grind"), by the addition of the sign AG, "to do". It is thus indicated that the meaning of KIN here is "work". One could represent the levels of semantic determination involved here schematically as: [MILK [WORKED$^{[DO]}$]]. This is a Sumerian rather than a Hittite adjectival structure[1086].

Also exhibiting a Sumerian rather than a Hittite adjectival syntax is URU.BÀD, if it is to represent a Hittite *saḫesnas/saḫesnanz ḫappiriya-*, "fortified city".

[1086] It would not be surprising, however, to find this logogram in Hurrian texts, one must therefore be very careful to assert that this is a purely Hittite development merely because it is only attested in Anatolia.

The reasonably clear distribution of the professional designations LÚ^{MEŠ} AN.BAR (/URUDU/KÙ.BABBAR) vs. ^{LÚ.MEŠ}AN.BAR.DÍM.DÍM (etc.) as subjects of transitive and intransitive verbs respectively in OS tablets of the KI.LAM festival indicates that some level of distinction is occurring in the Sumerian as conceived by the Hittite scribes. Given that these logograms are not attested in these forms outside Anatolia, it is possible that the scribes of these tablets were projecting an incorrect interpretation into the Sumerian that they thought could be rendered via the use of the doubled use of DÍM. Such speculation is very highly dubious, however.

Further we noted the possibility in the Zalpa text that Sumerian DUMU.NÍTA was being used to express the same as DUMU, the difference between the two existing solely on the level of the Sumerian.

This is not an enormous amount of evidence for logograms derived from Sumerian being conceived in Sumerian. Far more convincing, however is the evidence for the assumption that a fundamental currency of Hittite scholarly writing was Akkadian, and that the Sumerian signs were used solely as a means of writing Akkadian words or graphemes.

The use of DINGIR^{LIM}(-*i*-) to denote the Hittite syllabic value -*ili*- has been remarked upon. This proceeds from the Akkadian value of genitive DINGIR^{LIM}, as marked by the Akkadographic phonetic complement: *ili*(*m*). The fact that this grapheme and almost exclusively this alone is used to write the alleged Hittite i-stem of the noun "god" in the form DINGIR^{LIM}-*iš* has been used here to call into question the existence of this i-stem in the first place. All we have evidence for is a writing *ILI*-. In order to avoid confusion we should thus best transliterate DINGIR^{LÌ}-*iš*.

The use of the sign DINGIR, for the Sumerian word diĝir, thus has no other function here than to indicate the Akkadian sound -*ili*-, as used phonetically in personal names, and as used logographically to write the Hittite word for god. In this case, however, we can say that the logographic writing DINGIR^{LÌ}-*iš* is in fact also allographic, in this case Akkadographic, because it is via the Akkadian, not via the Sumerian, that the writing developed.

Further evidence for Akkadian being the phonetic carrier of logographic representation is given by A.A = Hitt. *muwa*- "strength (?)" on the basis of Akk. *mû*, "water". This is

purely phonetic and it is the Akkadian phonetic value that is used to create the logogram.

In cases such as EN-*UTTA* (s.v. Part II *BĒLU*), LUGAL-*UTTA*, DAM-*ZU*, it is also relatively clear that the Sumerian word is only being written as a means of writing the Akkadian one, possibly starting by means of abbreviation. In the case of DAM-*ZU*, however, it is interesting to note that the logogram is complemented in Hittite when there is no S3 possessive pronoun: DAM-*an*. It is doubtful whether Hittite would have had an enclitic possessive pronoun in this position by the New Hittite period. If not, the Akkadian enclitic pronoun functions purely on the level of Akkadian syntax, as well as preserving the correct Akkadian sound. This needs further investigation.

Akkadian also provides the semantic background for GA *DANNU*/KALAG.GA, where it is the use of Akk. *dannu* to describe in some way "developed" forms of beverages such as "beer", "wine", "vinegar", which has been used by extension to apply to "yoghurt"[1087].

Akkadian constructions for place-names such as Dūr-PN may provide the basis for the logogram BÀD.KARAŠ, which does not appear to be substantially distinguished from the use of KARAŠ in Hittite texts.

Again, it is the semantic ambiguity of Akkadian *kabtu*, "heavy", "important", which allows for the occasional use of DUGUD to represent *nakki-*, "important" and *dassu-*, "heavy", although these are also semantically overlapping in Hittite. Akkadian *tarû*, "to lead" must lead us from UMMÉDA "wet-nurse" to ÙMMEDA (URUDU.DA) "horse-groom", although here too it was possible to speculate, somewhat desperately, whether one writing as URUDU.ÚS was in some sense semantically qualified by the Sumerian sense of ÚS.

Underlying Akkadian syntax is shown by EN KUR^{TI} (*bēl māti*), even though the locution presumably derives from a Hittite *utniyasḫa-* or **utniyas isḫa-*[1088]. This is also the case for ^{MUNUS}AMA.DINGIR^{LIM} although dependent on Hittite *siunzanna-*, and for É NA$_4$^{NI} (dependent on Akkadian *bīt abni* for Hittite NA$_4$-*an pēr*). EGIR.KASKAL$^{(NI)}$ also demonstrates by its phonetic complement that the language of the logograms was Akkadian ([*ina*] *arkat ḫarrāni*), but the phrase itself is probably Hittite (cf. *appasiwatt-*:

[1087] a kalag.ga, "strong water" is, however, attested at OB Kagal 316 (MSL 18.76).

[1088] The attestations of this title in first millennium Mesopotamia are almost entirely restricted to Neo-Assyrian designations of Median rulers, although one is at a loss to evaluate the significance of this.

EGIR.UD*^{MI}*) as the Akkadian would mean "after the journey" rather than "on the way back". Furthermore, ÉRIN^{MEŠ} ANŠE.KUR.RA shows agreement that may proceed from an underlying Hittite phrase headed by ÉRIN^{MEŠ} (*kuwalana-* n.), but shows Sumero-Akkadian word order.

The Akkadian word-form *kartappu* is the influence that leads to regular Sumerian kir$_4$.dab, "nose-holder" being written ^{KUŠ}KA.TAB(.ANŠE). Here the Sumerian itself is given an Akkadian look.

Evidence for Hittite as the base language for the use of logograms beyond the mere fact of complementation by Hittite phonetic elements is as follows:

It has been suggested here that two logographic writings have been created solely on the basis of the Hittite words they represent: ^{LÚ}GAD.TAR for a supposed Hitt. **kattara-*, ^{TÚG}GAD.DAM^{MEŠ/ḪI.A} for a supposed Hitt. **kattama-*. These are both extremely uncertain.

The metonymic use of logograms such as ANŠE.KUR.RA "horse" for "chariot" is something that appears peculiar to Hittite and presumably rests on a Hittite locution involving "horse". Similarly we should interpret the use of the logogram ANŠE.KUR.RA for "horse-rider", also not attested in Mesopotamian cuneiform[1089].

Underlying Hittite syntax is also shown by URU.DU$_6$, if it is to be interpreted as "the ruins of a town"; EGIR.KASKAL*^{NI}* was mentioned under the evidence for Akkadian as the underlying language.

Hittite-Sumerian sound-correspondences certainly also provide the background for the rebus writing of the name Ari-Teššub as ^{I}DU/GUB-^{D}IŠKUR, where the Hittite value of the Sumerogram, be it from *ar-*, "come, arrive", or *arai-*, "stand up" has been used to select the logogram[1090]. This may of course simply have been a misunderstanding of the Hurrian name, rather than an attempt at playful writing. Whether this is also the case for DÙ-*attari* instead of DU-*attari*, both of which represent a verb beginning *iya-*, cannot be decided (see above, under phonetic writings).

Peculiarly Hittite morphology appears to motivate, if not the construction of, at least the regularity of the terms for filiation, ethnicity and profession. Each of these was

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[1089] CAD S 328-326.
[1090] See view of J.L. Miller on this in the introduction.

expressed by a number of suffixes as well as genitival phrases in Hittite. Thus we have -(*t*)*alla-* as the suffix for professions, affixed to a noun denoting what it is that the profession has to do with: *ḫaluga-* "message", *ḫaluga-talla-* "messenger". It is frequently very difficult to decide, however, just how the Sumerian and Akkadian writings of these Hittite words were to be understood. For *ḫalugatalla-* we have the Akkadogram in Hittite texts: $^{LÚ}ṬĒMU/I$. If we transliterate LÚ *ṬĒMI* it means that we understand LÚ as *ša*$_{11}$, standing for the Akkadian determinative relative: "the one of the message". If we transliterate $^{LÚ}ṬĒMU/I$ we mean that the LÚ is to be understood merely as an indicator of the word-class "professional" and the Akkadian word *ṬĒMU* is to be understood as a logogram "message(-man)".

It is a good working hypothesis that the application of this LÚ as either determinative or logogram to all professions, by contrast to the Mesopotamian practice of leaving professional designations largely uncharacterised, was in some sense furthered by the fact that the professional suffix(es) in Hittite are so ubiquitous and so standardised. However, it is occasionally clear that scribes must have on occasion, and doubtless not consistently, understood this LÚ as representing the Akkadian *ša*. This is indicated by back-formations such as AŠGAB, "leather-work" from LÚ AŠGAB, "leather-worker", whereas AŠGAB only refers to the craftsman in Mesopotamian texts. More controversially we have the discussion of the LÚ or ^{LÚ}SAG as the Sumerian equivalent of the *ša rēšēn* (s.v. LÚ É.ŠÀ). Unfortunately, this matter has to be explored on a case by case basis and general principles not yet visible, if indeed they are at all possible.

In cases of ethnic designation we also have to distinguish between the level of logographic representation per se and that of a transliteration that reproduces the linguistic reality. LÚ$^{MEŠ\ URU}$*ḪA-AT-TI per se* means "the men of Hattusa", while *Hattusumenes* is most probably the Hittite equivalent, "the Hittites". For this reason we would not, however, start writing $^{LÚ.MEŠ\ URU}$*ḪA-AT-TI*. Transliterating LÚ$^{MEŠ\ URU}$*ḪA-AT-TI* assumes that we are granting a level of linguistic reality, or at least notional linguistic reality, to the logographic phrase. Perhaps this could be accommodated by the semiotic framework that distinguishes between the "message", what the utterance or piece of writing denotatively says and the "code" in which it is framed, the code in this case also encompassing denotative signification.

Special mention is due to the status of the so-called "stem-forms" in personal and place-names that have been discussed under the sections *Hattusa*, LÚ^{URU} GN, KUR ^{URU}GN. It is common in Hittitiology to call these "Akkadographic"[1091]. However, few follow the convention introduced by F. Starke and adopted here of transliterating them in the cursive capitals reserved for Akkadian[1092]. As already outlined, these forms follow a three-ending pattern also seen in Akkadian nominal declension, although they consist of Hittite rather than Akkadian language material. I have called them a "morphological calque". This morphological calque, however, only appears on the level of writing and is thus a graphic phenomenon. Most accurate would be to transliterate, for example, *I-NA* ^{URU}*wa-al-la-ri-im*-MA standing for the dative *Wallarimmi*; KUR ^{URU}WA-AL-LA-RI-IM-MA for *Wallarimmas utnē*, where neither the position nor the ending are noted. The decision to follow Starke's writing practice in this dissertation was motivated by the desire to indicate the position that this is a graphic phenomenon, without wishing to introduce another writing convention. It is not to say that these are definitely Akkadograms, and that's the end of it. They are logograms.

The situation with these phrases is complex. This is Hittite language material used logographically, just as Akkadian language material can be used logographically in Akkadian. The morphology that informs it is, however, Akkadian-style morphology in the case of the three-ending declension. The syntax that informs the genitive construction is the rule of Hittite cuneiform that a Hittite genitive must follow an uncomplemented logogram, whether it have an ending or not. A further governing principle that informs it synchronically is that the writing system should not use more than one element to express one thing. Thus, if *INA* is used, there is no need for *-i*; if the Akkadographic genitive position is used, then there is no need for *-as*. This in itself is a very Hittite form of economy in expression, if we may speak of such a thing.

Indeed, while the general three-termed declensional pattern may well be Akkadian (nom., acc, oblique), it is certainly not the case that Akkadian place-names are declined in Akkadian very frequently, certainly not beyond the third millennium. The nominative

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[1091] H.A. Hoffner and H.C. Melchert will in their forthcoming Hittite grammar call these expressions "Akkadographic in the traditional sense of the word" according to a personal communication from H.C. Melchert, for which I am very grateful. For the use of the word "Akkadographisch" with respect to the bare stem-form of proper nouns beyond names see e.g. Rieken 2004: 8, to whom I am also very grateful for sending me her article.

[1092] Starke 1977: 34 appears to equate "sprachunwirklich" with Akkadographic: "die sogenannte Stammform ist eine sprachunwirkliche Form (Graphik) und wird deshalb wie ein Akkadogram behandelt". Other forms, such as Sumerograms, are, however, just as "sprachunwirklich". The choice of cursive capitals for translitertation is therefore random.

is used for the accusative and genitive of well-known names, whereas the absolute form is used for nom., acc. and oblique syntactic cases of names felt to be foreign, according to GAG §64 e 5. Place-names in the Akkadian of Alalaḫ are almost always in the absolute form. It thus appears that this format of expression is an artificial construction of the Hittite scribal schools.

By conclusion, Hittite cuneiform presents a complex linguistic picture. While some knowledge of Sumerian cannot be disputed, especially for those scribes responsible for introducing innovations into the orthography, those examples that definitely demonstrate some knowledge of Sumerian are sure are rather faltering and lack confidence (ŠU.GU$_7$.NAG), while those examples which may demonstrate the most confidence with Sumerian are in fact the most unsure ($^{LÚ.MEŠ}$AN.BAR.DÍM.DÍM vs. LÚ^{MEŠ} AN.BAR).

By contrast, it is clear that Akkadian formed the basis of most of the innovations in logographic usage made by the Hittites and is thus demonstrably the underlying language of scholarship. This is no surprising conclusion given that this was also the situation with Kassite-period education of the period in Mesopotamia. For the Hittites using logograms in writing texts Sumerian had retreated to the Sumerian column of a lexical list, whence occasionally an innovation could be fashioned for a logographic writing (see GUR for kúr, Part III).

That Akkadian was itself often construed according to the rules of Hittite morphology and syntax is not all too surprising. Furthermore the Hittite scribal school appears to have developed its own jargon, especially in the use of Akkadianising constructions to deal with common phrasal or compositional syntax.

IV.1.1. Reflections on the relationship between ductus and orthography

Problematic here is the restriction of the corpus of texts investigated to the historical texts, CTH 1-216. Any conclusions reached within thee next section can only be applied to those texts. It is clear, however, that the conclusions reached here do little more than to complement the philological basis already in use for the edition of texts in Hittitology.

A simple mapping of orthographic variants onto ductus types is not possible. Between dating by means of palaeography and by means of orthography there exists an unbridgeable chasm. A palaeographic dating proceeding from the latest sign attested in a text assumes by default that any later sign-forms were not yet known at Hattusa,

meaning they had not yet been introduced into the active scribal repertory. This is not the case for logograms. EGIR(-*ŠU*), for example, may be known in OS[1093], but it is clear that the predominant writing in OS is phonetic *a-ap-pa*. The phonetic writing is also continued in later texts, but it is only especially as a variant manuscript reading in OH textual traditions.

A blanket assumption that a phonetic writing is in some sense "earlier" is unwarranted. Among the writings of *iya-* and *kis-* (both = DÙ) collected from the historical texts, the predominant writing in texts displaying NSc characteristics is in fact the phonetic one[1094].

Suppiluliuma I:

DÙ KBo 5.3 (NSbi)

ki-: KUB 19.24 (MSc)

Mursili II:

DÙ KBo 3.4 (NSb/c); KUB 14.15 (NSbi); KUB 6.41 (NSbii); KBo 5.13 (NSbii); KBo 5.8 (NSa); KBo 5.9 (NSa); KBo 3.3 (NSa).

iya- KBo 16.1 (NSb/c); KBo 4.3 (NSb/c); KBo 4.7 (NSbi); KBo 5.13 (NSbii); KUB 6.44 (NSa);

kis- KUB 14.16 (NSb);

Muwatalli II:

DÙ KUB 21.1 (NSbi, but one late ḪA); KUB 21.5 (NSb/c);

iya- KUB 21.1 (NSbi); KUB 19.4 (NSa?)

kis- KUB 21.5 (NSb/c); KUB 21.4 (NSc);

Hattusili III

DÙ KBo 4.12 (NSbi, but one late ḪA); KBo 3.6+ (NSbii); KUB 1.6+ (NSa); KUB 1.1+ (NSb); KUB 21.37 (NSbi)

iya- KUB 1.1+ (NSb); KUB 19.67+ (NSbii)

Tudhaliya IV

DÙ KUB 23.1 (NSc), KBo 4.14 (NSc)

iya- KUB 8.82 (NSc);

Suppiluliuma II DÙ KBo 12.38 (NSc); KUB 23.44 (NSc).

[1093] KBo 17.18 ii 6 is declared "aheth 'orig.'" at HWb[2] A 149, and by S. Košak in the Konkordanz, but it displays all the characteristics of at least Neu's OS II, if not already MS. See Heinhold-Krahmer et al. 1979: 162.

[1094] DÙ is not attested in OS but is in ŠS, cf. *A-NA* DÙ EME KBo 15.10 iii 58-59 (MH/MS), CHD L-N 23.

This overview of the historical manuscripts using DÙ and their duplicates that use *iya-* and *kis-/ki-* demontrates that DÙ was well established in tablets of ductus NSa, being used in 3 NSa tablets of texts from the reign of Mursili and in the NSa tablet of Hattusili's Apology. Variant mss. of NSb-c do not show any penchant for the logographic form. The Bronze Tablet (Tudhaliya IV) is missing here because it only uses *iya-* in the phonetic form (Otten 1988: 62). By contrast, KBo 4.14 (Tudhaliya IV) only uses DÙ.

It is thus quite clear that DÙ cannot be used as an additional criterion for the assignment of a text or tablet to a ductus-type within the NS category.

Similarly, substantially phonetic writings (such as EGIR-*pa-an-da* for normal EGIR-*an-da*) cannot be said to be antecedent to less complete ones as far as dating or assignment to ductus-type is concerned. The examples collected here come from all varieties of New Script, with three attestations belonging to NSc tablets.

It should be assumed that both the Sumerian and the Akkadian words for "lord", EN and *BĒLU*, were known by scribes and could be used by them from an early period. However, the usual writing before NS is the Akkadogram, although EN may even be used in one Middle Script text, for example, where the scribe has run out of space, a practice also observable in late copies. EN *MADGALTI* is one of the earliest logograms to use EN rather than *BĒL*, again presumably because the whole phrase was so unwieldy in terms of space.

By contrast, with the possible exception of the ductus type NSc, one cannot say that a general tendency towards the abbreviation of unwieldy logographic writings existed. Witness for example the occasional Middle Hittite tendency to write *NAPŠĀTI* for ÌR^MEŠ, "slaves", or SAG.DU^MEŠ, "personnel", which is otherwise attested at Amarna but primarily in northern Neo-Assyrian documents[1095]. Each of the other writings is attested as early as OS.

A "mechanical" inference from an orthographic form to a dating of a manuscript is not permissible. This is also the case for logographic writings. The most one can observe is clusters of particular writings in particular periods, which reflects little more than fashion among scribes and their teachers, as long as the particular writings have not been inherited from earlier textual traditions.

Among further such clusters are the following:

[1095] For the Hittite use see Alp 1991: 314, and CAD N/1, 301.

DI-*essar* (q.v.) in the reign of Hattusili III;

GAM for *katta* begins to be used during the reign of Hattusili III, while GAM-*an* for *kattan* is used earlier in the NS period, but also later.

GIM-*an* is clustered in the last two ductus types, NSb/c, there being 10 cases where a NSc GIM-*an* corresponds to a NSa or NSb *ma-aḫ-ḫa-an* in duplicate manuscripts and there is only one case where a NSc *ma-aḫ-ḫa-an* corresponds to a NSb(ii) GIM-*an*[1096]. There is not a single case, as far as I have seen, of GIM-*an* on a NSa tablet.

IGI used as a logogram (IGI-*anda* for *menaḫḫanda*, IGI-*zi-* for *ḫantezzi-*) appears to be restricted to documents of Hattusili III and NSc.

The kind of clusters thus observed for GIM-*an*, IGI and GAM indicate a small degree of parallelism between sign-forms as categorised in ductus-types and the occurrence of logographic writings. It does seem possible to distinguish between the use of some writings in NSa as opposed to NSb/c, for example. The NSa writings, along with their sign-forms, are from this perspective to be seen as a continuation of the MS writing traditions. The label "Early New Script" used by the Chicago Hittite Dictionary may be apt in this regard, but "Late Middle Script" would be just as fitting a name to describe the essential characteristics of NSa, without necessarily wanting to derive chronological conclusions from its use on this or that tablet. It would appear that some scribes were writing "Late Middle Script" at least as late as ms. E of the Apology of Hattusili III!

KAR (= *wemiya-*) is only found in NSb and NSc documents, with the majority of those that are not NSc being omens. *KAŠĀDU* is the older heterogram for *wemiya-* and is attested several times in texts originating in the reign of Mursili II, although the tablets themselves may well be later (i.e. NSc), as well as in the Tawagalawa-document (KUB 14.3 i 29; NSc). The distribution is thus not mutually exclusive between the Akkadographic and Sumerographic writings of this word in the ductus-types.

It does appear, however, that KAR belongs to a set of logograms that cleave to NSc and "similar" ductus-types[1097]. Among these are RA (Akk. *maḫāṣu*, Hitt. *walḫ-*) "strike", for which the "older", or more usual, logogram is GUL; KIN (verbal); ME (for *dai-* "put" and *dā-* "take"), SUD (for *ḫuittiya-* "pull"), TA (= *IŠTU* "from"). Each of these is earliest attested in omen texts. This observation combined with the observation that the

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[1096] The last case is that of the Bronze Tablet (NSc) which frequently writes phonetically as opposed to the logographic writings found in KBo 4.10. Of course, these two texts can not strictly be called duplicate manuscripts.

[1097] Compare the list compiled at Introduction p. 42 from one of the most recent text-editions.

earliest attestations of the sign-forms belonging to the ductus-type NSc also occur in omen texts provides a possible background for the introduction of these sign-forms, as well as an indication that not only absolute chronology but also genre may have played a role in the use of sign-forms. This does not necessarily mean that an individual scribe would partially change the sign-forms he was using according to the kind of text he was writing. It could perhaps be explained by the presence of different teachers for the writing of different kind of texts. Some of these teachers may well have come from abroad, and brought their sign-forms with them.

The other text-genre displaying early NSc sign-forms is the "letters", which may lead one to infer that the use of such signs crept in, initially generically, in text-genres that require fast writing. Here one is reminded of the "späthethitische schreiberliche Arbeitsökonomie" once mentioned by C. Kühne, implying a simplification of sign-forms and logographic writings towards the end of the Imperial period[1098]. While it cannot be said that all NSc sign-forms are immediately "simpler" than their earlier counterparts, there is a noticeable tendency to write logograms with less phonetic complementation. Logograms that in other ductus-types may have been given Hittite phonetic complements from a suffix morpheme following the root, are in NSc sometimes only complemented at the ending (cf. DI-*essar*/DI-*za* q.v.). This is not completely generalisable, however (see ÌR-*aḫḫ*-/ÌR-*naḫḫ*-). Proof of the link between NSc logographic writings and the omen-genre would require a more exhaustive study of the palaeography and orthography of omen texts than could be possible here, but it remains a credible hypothesis.

It is also noticeable that this group of particularly "late" signs contains a number of verbal roots as well as two Sumerian writings of prepositions. In the introduction we sketched the findings of previous research as to which parts of speech occur represented by logograms at which periods. In the following the verbal logograms catalogued from the historical texts are presented. Of 459 lemmata for logographic writings collected from the historical texts, the following are verbs:

Akkadograms:

ABNI/IBNI (*banû*); *IDABBUB* (*dabābu*); *UḪALLIQ* (*ḫulluqu*); *ĪDE*; *IKKIR* (*nakāru*); *AṢBAT/IṢBAT/EṢBAT* (*ṣabātu*); *IŠKUN* (*šakānu*); *IŠME* (*šemû*); *IKŠUD* (*kašādu*); *ELQÉ* (S1+3, *leqû*) *ADDIN/IDDIN* (*nadānu*); *AQBI/IQBI/TAQBI* (*qabû*); *ŠA I-RA-AG-*

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*GU-U[M]*¹ (*ragāmu*); *IRDI* (*redû*); *AŠPUR/IŠPUR/ŠUPUR/TAŠPUR* (*šapāru*); *IŠṬUR* (*šapāru*); *AŠME/IŠME/IŠMÛ* (*šemû*);

In total 16 verbs are written Akkadographically in the historical texts as catalogued. One should note immediatley the predominance of preterital forms.

Sumerian logograms:

BÀD-*esnai*-; BAL-*aḫḫ-/-uwanzi/-nu*-; BA.ÚŠ; DÙ-*at/-nu-/-mi* etc; GAR-*ri/-ru/-tari*; GIG-*at/-zi*/GIG.GIG-*at*; GUL-*aḫḫ-/-anne-/-un*; ḪUL-*aḫḫ/-ues*-; ÌR-(*n*)*aḫḫ*-; [KA]LAG-*asta*; KAR-*at* etc.; KIN-*mi*; LUGAL-*uit/-ezzi/-ueznai*-; MÈ-*ia*-; PAP-*aḫḫ-/-nu*-; RA-(*aḫ*)*zi*; ŠID-*it*; SIG₅-*aḫḫ-/-es*-; SUD-*at-/-nu*-; SUM-*ir/-un/-anzi*; ŠE₁₂-*ia*-; TI-*nu*-; TUKU.TU[KU]-*es*-¹⁰⁹⁹.

Whereas 23 verbs are written Sumerographically in the catalogued texts.

This weighting towards a Sumerographic writing of verb-forms in the historical texts is doubtless conditioned by the nature of the texts catalogued, which, as mentioned in the introduction, are composed mainly of texts written in New Script.

However, while Akkadographic writings of verbs do occur in the earlier ductus-types (MS, *IṢBAT*), the Sumerographic writings do not not at all.

Note also that, by contrast to nouns, the Sumerian words denoting verbs are only ever complemented with Hittite phonetic complements. This indicates that they are being used to write Hittite words rather than Akkadian. This is perhaps a development from the perspective of the conclusion reached in the last section, that Sumerograms were essentially conceived of as writings for Akkadian words.

To complement the palaeographically somewhat skewed picture provided by the historical texts, we may look at the editions of Old Script tablets.

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¹⁰⁹⁹ The form NU.GÁL is not included here because it does not certainly always function as a verb in Hittite texts, frequently being construed NU.GÁL *e-eš-zi* (see Starke 1977: 165 fn. 21). However, not all cases without *e-eš-zi* can be construed as verbless predicates (Cotticelli-Kuras 1991: 85ff.). However, in Middle Hittite tablets it only appears to occur alone, cf. KUB 43.58 i 17 (Strauß 2006: 328, 331). This may indicate a verbal construction for NU.GÁL in the earlier period. Also OS/MS: ABoT 5 ii 17, 20, 30 (Groddek 2004: 44), Neu 1983: 263. This diachronic aspect is not respected in Cotticelli-Kuras' investigation, but it is clear that she assigns the common earlier usage the meaning "ist nicht vorhanden" with the substantive verb, *ēszi*, expressed by the Sumerian.

In the Old Script tablets edited in the Series StBoT the following occur from Sumerian:
SÌR^{RU} (Hitt. *isḫamianzi* "they sing", Akk. *izammarū*)[1100]; TUŠ-*aš* (Hitt. *asandas*
"sitting" part.); GUB-*aš* (Hitt. *arandas* "standing" part.)[1101];
from Akkadian:
MA-ḪI-I[Ṣ] ("is struck")[1102] *UŠ-KE-EN, UŠ-KE-EN-NU* ("he/they prostrate themselves"
šukênu)[1103];

E. Neu notes that the Old Hittite storm-ritual KUB 34.123+ has only two examples of
SÌR^{RU} beside numerous examples of phonetic *isḫamianzi*. One of these he attributes
"perhaps" to space considerations[1104]. Thus it is possible that the logographic writing
was in fact something to be avoided in this case.

From the OS mss. of the Laws there are no verbs written Sumerographically.
Akkadographically:
I-[NA-AK-KI-SÚ] ("they will cut off [his head]", Akk. *nakāsu*, §173a/58, ms. aa)[1105].

If we exclude the non-finite participial forms (TUŠ-*aš*, GUB-*aš*) it is clear that finite
verbs were only written in logographic form under clearly defined and regular
circumstances: Singing and prostration. The two further examples, the stative of *maḫāṣu*
and the G-present of *nakāsu* are too isolated to allow any judgement, but it is clear that
they are Akkadograms. Given this circumstance it is probably wisest to interpret SÌR^{RU}
as no more than a writing for Akk. *izammarū*.

The verbal logograms from the historical texts also demonstrate a semasiological
division. The Akkadograms denote basic action verbs: "build" (*banû*); "put" (*šakānu*),
"take" (*leqû*), "sieze" (*ṣabātu*), "destroy" (*ḫulluqu, leqû*), "know" (*edû*), "hear" (*šemû*),
"give" (*nadānu*), "say" (*qabû*), "speak" (*dabābu*), "lead" (*redû*), "refuse" (*nakāru*),
"send" (*šapāru*), "write" (*šaṭāru*), "find" (*kašādu*).

[1100] Neu 1970: 53f. 97; Singer 1984: 214f. also Groddek 2004: 31 (with lit.), 68; Neu 1983: 271 also with nominal SÌR^{RA}.
[1101] Neu 1983: 241, 275. Out of 8 texts listed by Neu with these logograms, only 3 fall into his OS category I, the rest are I/II, II or II(-). Also the OS/MS ms. at Groddek 2004: 65, 68.
[1102] Neu 1983: 297 (OS II).
[1103] Neu 1983: 302; Groddek 2004: 69f., but not ŠD but G-stem, as usual with quadriliteral roots.
[1104] Neu 1970: 54.
[1105] Hoffner 1997: 331. The *ZU* writing for *-SÚ-* is restored from the late duplicate and displays even more conservative orthography than the Codex Hammurabi!

All of these are active-transitive. The only exception is *ragāmu* which is used for its specific legal overtones, and therefore belongs to a special code.

This is the case with some of the Sumerograms: "strike" (GUL), "do" (DÙ), "give" (SUM), "to be set" (GAR), "die" BA.ÚŠ, "pull" (SUD),
but several denote more complex activity: "count" (ŠID), "be king", (LUGAL-*uezzi-*), "make/be bad" (ḪUL-*aḫḫ/-ues*), "be ill" (GIG.GIG), "enslave" (ÌR-*naḫḫ-*).
One should not push the semasiological approach, however. It is clear that we are not in a position as moderns to appreciate ancient semantic nexuses on the basis of our own translatons. However, we can observe that the introduction of the use of Sumerian to write Hittite rather than Akkadian in verb-forms brought with it the possibility of expressing a variety of diatheses for one particular semantic root, whether factitive (-*aḫḫ-*), or stative (-*es-*). This was not possible with the Akkadogram, which could only be used in its one function, that expressed by Akkadian. The change that brought with it the use of Sumerograms to write verbs thus also brought about an increased flexibility in the use of logograms to write Hittite.

It is not possible, however, to say that Akkadographic writings of verbs automatically indicate a slightly older date of inscription or textual tradition. Consider for example the Akkadographic writing *ŠA TA-RA-(A)-AM-MI*, "which you love" (S2f. pres. G.) found in a ms. from the reign of Hattusili III/Tudḫaliya IV as secured by the name of its scribe[1106].

The change that brought with it the facility to write verbs with logograms derived from Sumerian may possibly be seen in terms of the more general change throughout the Ancient Near East that the Kassites brought with them to Babylonia. While the beginnings of this process are wholly dark, it is clear that by the time we reach the late second millennium, many elements of Mesopotamian cuneiform that were previously written syllabically were now written logographically using Sumerograms. This affects the verbs, but also all other areas of cuneiform. It is perhaps typical of a people, the Kassites, who were trying to wrestle with a language that they themselves needed to learn from the school environment.

[1106] Miller 2004: 346. The particular phrase is, however, possibly not Akkadographic, given the Mesopotamian context of the evocation, but may be meant to be spoken in Akkadian.

Earlier stages of this process are now beginning to be observed for Middle Babylonian writing of the late 16th to 14th centuries on the Middle Euphrates and at Alalaḫ IV[1107]. Interestingly, the change of the orthographical practices observed there goes hand in hand with a palaeographic change, involving at least one sign that would have been introduced at Hattusa around the end of the Middle Hittite period: AZ with subscript ZA[1108].

While we should be very careful indeed given that the whole of Kassite Mesopotamia is cast in such darkness at this period, particularly with regard to the substance of scholarly reforms, this is indeed a tantalising perspective on the kind of influences that may have been coming from Mesopotamia more generally. These are the kind of changes that provide the background to developments in Hittite orthography. The arrival of Sumerographic writings for verbs at Hattusa most probably came some time after AZ with a subscript ZA, which can be found in Middle Script mss., but given that we should date the end of Middle Script to the period of Suppiluliuma I, it may not have been too long.

Phonetic complements and dating:

It has been suggested that Sumerograms without phonetic complementation tend to increase in later texts, or at least that it belongs to the "older" orthography to provide phonetic complements[1109]. It is at least also the case that certain classes of word always tended to avoid phonetic complementation and that other classes of word never lose it. Where we expect Sumerograms to remain uncomplemented in the first place is where they represent Akkadian construct states, such as LUGAL KUR for *šar māti*.

The professional designations provide a noun-type that is clearly not embraced by any tendency to write phonetically earlier, while writing Sumerographically later[1110]. Furthermore, OS tablets, while writing other personal designations with phonetic complements, do not often do so for the professional ones[1111]. Accordingly it can be difficult for us to find out what the Hittite correspondences of so many of these labels were.

[1107] For the replacement of syllabic writings with Sumerograms at Terqa, north of Mari, see Podany 2002: 212ff.

[1108] Podany 2002: 183f.; also mentioned is the form of LUGAL with three verticals, generally thought to have arrived much later in Hattusa than AZ with a subscript ZA. We do well to remember that the communication of cuneiform developments did not happen in blocks, as much as trickles.

[1109] Christiansen 2006: 293; but see Miller 2004: 129, as well as fn. 126 in introduction here.

[1110] e.g. Neu 1970: 53.

[1111] This excludes LUGAL, MUNUS.LUGAL, which are always complemented.

There are exceptions to this rule:

^{LÚ.MEŠ}ALAM.ZU$_9$-*uš* Neu 1983: 224 (acc. pl.).

^{LÚ}ALAM.ZU$_9$^{*TI*} ibid. 64 (gen. sg.).

LÚ ^{GIŠ}BANŠUR-*aš* Neu 1983: 250 (nom. sg.)

LÚ ^{GIŠ}GIDRU-*aš* Groddek 2004: 66;

^{LÚ}SANGA-*eš* etc. ibid. 68; Neu 1983: 267ff.

^{LÚ}NAR-*aš* Neu 1983: 260 (nom. sg.).

It should also be mentioned that these forms with phonetic complement are extremely rare among the attestations of each logogram.Those that do appear with phonetic complements do so perhaps because they are among the most frequent participants in ritual activity, not because it was necessary to indicate what the underlying word was, but because it was necessary to indicate the underlying grammatical relation and syntactic function of the logogram.

It is difficult to know what to conclude from this. Can we speculate that the less frequently a word is used the less likely it is to receive a phonetic complement? The fact that it is particularly among the professional designations that phonetic complementation is rare indicates that it should be something to do with this class of words that determines their aversion to Hittite phonetic complements. One might suppose that this may have something to do with the way the logograms were learned, but to go any further would be guesswork[1112].

We might compare the rarity of the phonetic complementation of Akkadograms in this regard, the conclusion usually drawn from this fact being that they were more likely to have been read in Akkadian. Does this mean that the Sumerian logograms for professions were pronounced in Sumerian, or something approaching it?

One class of words which does not lose its phonetic complement once it has started being represented by logograms is that of the verbs, at least within the corpus of historical texts. No examples have been found of Sumerographic verbs that are not phonetically complemented in the corpus, and it has not been possible to find any elsewhere.

[1112] It is surely of no relevance that two examples of possible phonetic readings of Sumerograms found during this study come from the professional names: ^{LÚ}ALAM.ZU; ^{LÚ}ŠU.IŠ. If one was forced to guess, we could speculate that the lexical list of professions LÚ occupied a more fundamental and central place in the beginner's curriculum at Hattusa, the terms were therefore better known.

A further group of logograms that are not often given phonetic complements is the metals (see remarks s.v. AN.BAR in Part II), although here, too, a phonetic complement was on occasion provided in order to clarify syntax: AN.BAR-*aš tup-pí ḫazziyanun* KBo 4.10 rev. 22 (NSbii), "I engraved it on a tablet of iron". It was suggested in Part II that this came under influence of the frequent occurrence of these items in inventory or other lists, which may have been written largely Sumerographically. Once again one could speculate on an educational context for this usage[1113].

No cases of non-complemented EGIR for *appa* or *appan* have been found in the course of this study. This is attested for a Middle Hittite ms. of the Mastigga corpus at Miller 2004: 229, but this could simply be a mistake of that scribe, who does use non-complemented forms occasionally (LÀL for LÀL-*it*, KU$_6$ accusative) but not consistently. In the case of GAM, however, it is possible to identify a *terminus post quem* for its use in the uncomplemented form according to the current evidence, namely the reign of Hattusili III. However, it is used just as frequently in the complemented form in later texts!

The above remarks invite caution when using an uncomplemented Sumerogram as evidence of a later dating. These were most probably issues that related not only to the way cuneiform was taught at Hattusa, but also to the idiosyncrasies of the individual scribe. We might hypothesise: the phonetic complement was essentially an aid to comprehension, not of the sound of a word, but of its grammatical function. If the grammatical function was clear to the scribe, there was no need to write it. This may provide a far less useful framework for dating than we might wish, but perhaps a more realistic one that we might otherwise construct.

ḪI.A and MEŠ

These plural determinatives have been mentioned several times during this study with regard to the ductus-type or the absolute chronology of their use. In the case of ANŠE.KUR.RA$^{ḪI.A/MEŠ}$ we observed that cases of ANŠE.KUR.RA$^{ḪI.A}$ are more numerous in the Middle Hittite period, with the writing in KUB 14.1 (Madduwatta) using typically ḪI.A, which is also mainly used in the late Middle Hittite Maşat letters, although here the use of MEŠ has begun to insinuate itself. Particularly instructive is the contrast between the MS version of CTH 142 (Annals of Tudḫaliya I) by contrast with

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[1113] For further examples see Polvani 1988: 130-179

the LNS version: [ANŠE.KUR.R]A$^{MEŠ \, GIŠ}$GIGIR KUB 23.11 obv. ii 11 MH/LNS (// [ANŠE.K]UR.RA$^{ḪI.A \, GIŠ}$GIGIR^{MEŠ} KUB 23.12 obv. ii 2 MS).

Similarly, while the plural determination of GUD and UDU may fluctuate between MEŠ and ḪI.A in NS tablets, ḪI.A is exclusively used in MS.

Beyond the animal kingdom, when speaking of mountains ḪUR.SAG$^{(DIDLI.)ḪI.A}$ is used exclusively in MS tablets, while NS and LNS tablets use predominantly ḪUR.SAG^{MEŠ}. The same appears to be true of rivers, the evidence for ÍD$^{ḪI.A}$ being sparse, however. On the other hand we never encounter a LÚ$^{ḪI.A}$. Perhaps unsurprisingly, however, the plural determinative of NAM.RA *arnuwala-* (c.)"deportee" is most frequently ḪI.A in NS tablets[1114].

As far as objects are concerned the writing ^{GIŠ}GIGIR$^{ḪI.A}$ is restricted to MS tablets (or texts from OH traditions).

ÉRIN^{MEŠ} is also determined consistently thus with a cluster of ÉRIN$^{MEŠ.ḪI.A}$ (q.v.) occurring in texts from Arnuwanda I to Mursili II.

Here it would be churlish not to see a reflex of the distinction between animate and inanimate plurals in Sumerian. Although it is important to remember that me.eš and ḫi.a did not represent means of forming plurals in Sumerian, they were certainly used to do so on Sumerograms in Akkadian. me.eš was the Sumerian enclitic copula with plural ending, while ḫi.a represented the nominalised or participial form of the verb ḫi "to mix". me.eš, later the determinative MEŠ was used in late Sumerian texts to "pluralise" animate nouns (persons, human or divine), while ḫi.a was used to "pluralise" animals and things, e.g. udu ḫi.a "various sheep"[1115]. The observed distinction that appears to have held until the end of the Middle Hittite period at Hattusa is very similar to this. We are thus presented with the paradoxical situation that it is just after this period that Sumerograms start being used for verbs, while a perceived Sumerian distinction that may have been inherited intact from Old Babylonian was destroyed around the same time.

Around the time of Hattusili III, however, a fashion seems to have arisen which involved giving the plural of certain Sumerograms representing people as ḪI.A. Thus we find DUMU$^{ḪI.A}$ in the Apology referring to the children both male and female, whereas the male children are referred to as DUMU^{MEŠ}. This may just hint at a

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[1114] Interestingly, however, while we find NAM.RA$^{ḪI.A/MEŠ}$ GUD$^{(ḪI.A)}$ UDU$^{(ḪI.A)}$, never once do we find a NAM.RA$^{ḪI.A/MEŠ}$ GUD^{MEŠ} UDU^{MEŠ}.

[1115] Thomsen 1984: 62f.; Black 2007: 11.

perceived distinction between "male and female" and "male alone". Further: *BE-LU*^{ḪI.A} is also attested in texts from the reign of Hattusili and a number of manuscripts of Mursili II that have later palaeography. It is tempting to further adduce the unique DUMU.NITA^{ḪI.A} and ŠEŠ^{ḪI.A} from the NSbii (?) tablet KUB 42.82.

e.meš and ḫi.a are both attested in the Middle Babylonian Grammatical Text, MBGT II 241-2, with the Akkadian equivalent *ma-du*, "much". The above mentioned fluctuations indicate that this entry, were it known at Hattusa, as some of these grammatical texts were, may have been a topic of some debate.

IV.2. Anomalous Writings and Lines of Transmission

In Part III we reviewed a number of logographic writings in Hittite cuneiform that were sufficiently peculiar from the point of view of standards of Mesopotamian cuneiform for us to wonder where they could have come from; whether the Hittites had created them themselves, or whether they displayed aberrations accrued on the way from Mesopotamia to Boğazköy that could hint to us some of the routes taken by cuneiform during its transmission to Anatolia.

The discussion of the previous sections, as well as the reflections on palaeography from the introduction, have begun to exhibit a framework that most definitely confirms the dictum of H. Otten quoted on p. 26: the development of cuneiform writing in Anatolia was "keine innerhethitische Gelegenheit, sondern abhängig von der Wandlung der Zeichenformen im akkadischen Bereich". Thus, as we began to attempt to sketch details of a historical development, we noted that some the changes occurring within Hittite cuneiform may have been paralleled by more general changes in the world of Mesopotamia. This we should keep in mind when discussing how it is that Hittite cuneiform comes to be different from Mesopotamian.

Before detailing some of the ways in which Hittite cuneiform could be said to be different from Mesopotamian, we shall pass in review those neighbouring areas of cuneiform culture detailed in the introduction as possible conduits for cuneiform cultural influence:

i) Hattic:

In the introduction we mentioned how dangerous it is to try to explain unknown logograms via Hattic, a poorly understood language. This was demonstrated through the case-example of the ^{LÚ}ŠU.I, who has been associated with the ^{LÚ}*taḫiyalli-* on the basis

of the similarity of this professional label to a name the ^{LÚ}ŠU.I is called in Hattic in a Hattic ritual.

However, it is very probable that the Hattic language was responsible for the writing ^{URU}KÙ.BABBAR^{TI} for ḪATTI or Ḫattusa, on the basis of an as yet unidentified word for "silver" in Hattic. If ^{URU}KÙ.BABBAR^{TI} can stand directly for Ḫatti, this is an example which contravenes the interpretation of Hatti as Akkadographic only, as ^{URU}KÙ.BABBAR^{TI} can stand in the nominative.

ii) Northern Syria:

The commonly accepted thesis that Hittite cuneiform was adopted during Hattusili I's Syrian campaign was found to be unlikely in Part I.1. The fact that the Hittites had at the dawn of our evidence a highly developed and extremely stable writing system, that was already clearly differentiated from that of the Syrian neighbours makes it more likely that the adoption happpened at an earlier period, perhaps even within Anatolia itself. This is supported by a meagre degree of internal evidence within Hittite texts (limited Old Assyrian style orthography, palaeograpy and expression in the Anitta text), as well as by the existence of limited non-Old Assyrian ductus at Kültepe, although the significance of this has been over-estimated in the past.

A tablet from Boğazköy (KBo 1.11) showing a Syrian ductus similar to that found on the Labarna's letter from Tikunani, was decided to be a composition by a Syrian and not a Hattusan scribe primarily due to the different orthographic conventions used on it.

In Part I we saw evidence that the prism of Hh. III-IV had at least passed through Syrian hands, even if it was unlikely to have been an import itself. This evidence consisted of Syrian orthography and manuscript variants that pointed at a route through North-Western Syria from Mesopotamia, with particular reference to one variant tradition at Emar. This evidence is obviously culled from the later stages of cultural transmission.

Evidence that similar routes of transmission were already in place in the earlier period, once again via the Northern stretch of the Middle Euphrates, is offered by the fact that the only comparandum for (Old) Hittite ^{UZU}NÍG.GIG "liver" that makes sense with respect to Mesopotamian Sumerographic writings for the liver, albeit as an object of oracular inquiry, is a reading from Emar ^{uzu}níg.gig.gi.a or ^{uzu}níg.gi$_{17}$^{gi}.a, as a development from Mesopotamian ^{uzu}níĝ.kíĝ.gi$_4$.a. There are many problems with this comparison but I maintain it is the best offered yet.

Another logogram preserved solely in lexical lists in Syria in the second millennium but in use at Hattusa was ŠU.ŠÈ.LÁ, possibly a "crater" or "pot with a handle". The absence of this from Mari, despite the existence there of utensils associated with it in the Ur III period, leads us to suspect that the Sumerogram really had gone out of use and was resurrected by the Hittites to describe, among other things, foreign vessels.

Further older Syrian evidence for early transmission at least through this area came through the comparison of the OH form of KU_7 with that found at Ebla in the third millennium. This is to be compounded with the comparison of Hittite ^{TÚG}BÁR with Ebla barag.túg, where only Hattusa and Ebla use the logogram a) in this determinative combination, b) with BÁR/barag as an item of clothing in the first place. We also made a comparison between the use of KAxIM at Hattusa for "thunder" and KA.IM at possibly meaning "roar" at Ebla and demonstrably continuing in this meaning at Emar, by contrast to the semantic development taking place in Mesopotamia ("blow"). This is by no means to say that there is a special "Ebla-Hattusa connection", merely that some of the scholarly material preserved at Hattusa finds its only context in traditions that were ancient and otherwise lost. Further excavation in Syria may well reveal that these were far more widespread elements of cuneiform culture during the mid-second millennium BC, but at the moment this is all we have to go on.

Comparison with early second millennium Northern Syrian writing traditions was also offered by the writing ^{NA4}DUḪ.ŠÚ.A, for Mesopotamian ^{NA4}DUḪ.ŠI.A, found both at Mari and at Hattusa.
In the designations of "hand"-monuments (ŠU.AN) connections have been seen with Syria once more, and the West-Semitic loan-word that functions as a pseudo-sumerogram in Hittite cuneiform, ^{NA4}ZI.KIN, = ^{NA4}ḫuwasi, "standing stone" has been referred to. If there are any connections to be pursued here, they will be of limited value for the history of scholarly transmission due to their limitation to this cultural area.

The illegally excavated tablets from Tigunānum offer an important comparandum to the early Hittite material, especially if those tablets are in fact from the same archive which display very early Middle Assyrian dialect forms, just as in the Labarna's letter, at least one Hurrian gloss and what must be the earliest example of KAxU = "mouth". In fact it is precisely from an area and multi-lingual environment such as this that we might

expect influence to have proceeded to Hattusa. This area was later occupied by the kingdom of Mittani and after that by the Assyrians.

iii) Hurrians and Mittani:

The Mittanian state was doubtless and extremely important conduit of cultural material to Hattusa. It is however, very difficult to identify any specific logographic writing practices in Hittite cuneiform that can be said to have developed due to the influenceof the Mittanian state, due to the fact that we have so little material from the period. From Tušratta's Akkadian letters to Amenophis IV we can tell that he was using an orthography with many similarities to that used at Hattusa, for example in his use of the Z-series of signs to write /ss/. By the time we get to the tablets that have been found Tell Fekheriye, probably Waššukanni, or were found at Dūr-Katlimmu sent from Waššukanni, we are dealiong with a Middle Assyrian administration.

The only mention that Mittanian logographic writing conventions have received in the course of this study have been negative, for example Tušratta writing É.AMAR.RU as opposed to Hittite É.MÁ.URU.URU$_5$.(q.v.).

As regards Hurrian, however, it has been possible to identify Hurrian origins for Akkadograms in Hittite cuneiform, *ḪALṢ/ZU*, *ḪAZANNU* (the Hurrian itself being here a borrowing from Assyrian *ḫaziyanu*), but these are likely to have been borrowed via Akkadian. An explanation for the use of the Hitt. *gimra-* (LÍL) for both "battle" and countryside on the basis of a calque on Hurrian *awarri* was criticised for explaining what we know little about by what we know less about.

A possible Hurrian background was speculated for Akkadian *aluzinnu*, ultimately the basis of ^{LÚ}ALAM.ZU$_9$, but this is of no use given our present state of knowledge due to the fact that ^{LÚ}ALAM.ZU/ZÚ is already attested in OB lexical lists from Mesopotamia. A Hurrian cultural background and re-interpretation of the Akkadian *ḫurru* "hole", as Hurrian was speculated for the MUŠEN *ḪURRI*, but this is little more than a guess.

The possibility of Kezzuwatnian transmission was raised by the logogram ^{MUŠEN}SÚR.DÙ"falcon", which is written ^{MUŠEN}SUR$_{14}$.DÙ at Hattusa, with the Mesopotamian SÚR being kept in mss. of Kezzuwatnian rituals, but this leads nowhere, because all attestations of the logogram are in these rituals. We would further not be able to tell the difference between a Boğazköy and a Kezzuwatnian writing, due to the fact that all Kezzuwatnian material is found at Hattusa.

iv) Assyria:

Proceeding presumably from precisely the same area as that occupied by the Mittianian empire after its downfall, Assyrian influence begins to be felt in cultural matters towards the end of the imperial period, as we saw in the introduction. The one tablet of Hh 20 (KUB 37.145) that mentions a field of Aššur, without however, showing any Assyrian sign-forms, demonstrates that traditions of scholasticism were passing via Assyria to Hattusa with yet other intermediaries between. Another possible connection is the attestation of early tablets of the group-vocabularies, particularly Erimḫuš, at Aššur and at Hattusa, although silence on this topic from Kassite Mesopotamia in this period obscures the issue considerably.

The beginnings of Assyrian-style sign-forms at Hattusa, to be dated to around the time of Muwatalli II and Hattusili III according to the palaeographical study performed in the course of this research, do not have to have come directly from Assyria. They are just as likely part of a general movement of a North Mesopotamian cuneiform koine Westwards, of which Assyrian cuneiform is but one part. The typical Middle Assyrian TA, or AḪ, for example are never found at Hattusa other than in Assyrian or Assyro-Mittanian documents.

The sign ŠÚ, as a syllabic sign (*e-šú-un*) and as *-ŠÚ* (Akkadographic) is usually understood as Assyrian influence[1116], and this fits chronologically, as it is attested from Muwatalli II/ Hattusili III onwards.

The possibility was mooted that the writing *AB-BA*[ḪI.A]*-IA* for "my fathers" may have been an Assyrianism, but this is more likely to be a Sumerogram: AB.BA[ḪI.A]*-IA*. Very likely to be Assyrian, however, is the spelling *E-EṢ-BAT* in a LNS version of the Annals of Tudḫaliya I, although this is not all too surprising at this date[1117]. It demonstrates a scribe who has been in contact with Assyrians, little more, apart from adding another piece of evidence that the Akkadograms were phonetically spoken. This tallies in time with the evidence that is provided by the seal calling Tudḫaliya IV the A *Ḫattusili* (see introduction).

[1116] Kühne 1988: 232 fn. 138. The logogram [GIŠ]ŠÚ.A is OS.

[1117] By contrast, a case such as *EL-QÉ* for *ilqe* does not have to be an Assryrianism due to the possibility of EL being read *il₅*.

While the uses of BE for "lord", as well as for "if", are attested in the first millennium in Neo-Assyrian, it is not permissible to assign them to Assyrian influence at this period as well. BE for "lord" is just as likely to derive from a more ancient Syrian tradition.

v) Babylonia:

The dominant influence was continually from Babylonia, but more or less directly. We have demonstrated how the forms of complex signs such as DÀRA are consistently aligned with the Babylonian ones, whether that be the Old Babylonian cursive form in the OS Anitta text or the later forms which more resemble the Neo-Babylonian forms. Again, when a Hurrian word is available for borrowing, *ḫaziyani*, and that is itself borrowed from Assyrian, the Hittite scribes still chose the Babylonian form: *ḫazannu*. It was argued during the discussion of the lexical lists, that the Hittite material provides a window onto the development of Kassite period reforms of the scholastic corpora, given that the Hittite lists sometimes have more in common with the first millennium lists than they do with other peripheral Middle Babylonian relatives.

Hittite cuneiform, from its beginnings onwards, essentially remains a Babylonian phenomenon. We have already mentioned some of the larger developments emanating from Babylonia which may have brought about the largest changes in Hittite writing habits. These remain, however, often filtered by the transmission through neighbouring cuneiform cultures. However, it is quite likely that only direct contact between the courts can explain the presence of Southern Mesopotamian elements such as Ea at Hattusa, not only in the lexical lists but also when we consider the basis for some of the logographic adaptations such as GUR from kúr for *tamai-*. These are elements that neighbouring scribal schools do not have, and may perhaps be due to the influence of high level diplomatic and cultural exchange during the 14th and 13th centuries.

vi) Egypt:

Despite the influence of Egyptian cuneiform on Hittite writing practices through the copying of treaties, which was doubtless a method of introducing change into the writing system, this study has not come across any obvious examples of Egyptian influence in the use of logograms.

vii) Luwians and Hieroglyphic:

Mention has already been made of the development of GEŠTIN to the syllabic value *wi*$_5$, a development that can be traced to the late Middle Hittite period, as can the

development of the syllabic value *wí* for the hieroglyphic sign VITIS. Given that acrography is an established principle of hieroglyphic writing, but not of Hittite cuneiform, I would suggest that the cuneiform development followed the hieroglyphic.

The main conduit for cuneiform scholasticism to Hattusa thus appears to be Northern Syria, which is exactly what we might expect.

IV.2.1. The Different Logograms

The logograms that only occur in Anatolia need to be considered carefully. It is not always the case that just because a logogram is used in a particularly different manner among the Hittites that it will have been invented there.

By way of example, at the 5th International Hittite Congress in Rome, September 2004, H.A. Hoffner held a talk concerning the Hittite number system. In particular he demonstrated how one proceeds from ME "100", to 10 ME = IGI (*LIM*) "1,000", to IGI-*gunû* = SIG_7 "10,000". While the first step is obviously Mesopotamian, the use of SIG_7 for "10,000" by means of adding horizontals to IGI Hoffner held to be Hittite. The Hittite scribes would thus have been using the repertory of sign-metamorphosing implements that were available to Babylonian scribes in order to create their own signs.

In the mean time, however, Y. Cohen has demonstrated that SIG_7 was in use at Emar in the same function, representing "10,000" as a very large number in the cryptographic writing of the name of the scribe Saggar-Abu: $^{I.D}NU_{11}{}^{NU}.SIG_7\text{-}AD$[1118]. This Emar use of an unfamiliar sign is far too confident to be owed to a poorly understood import from Hattusa.

Similar writing traditions, using *gunû*-forms of familiar signs can be demonstrated to have existed in OB Northern Syria. The OB writing $^{LÚ}MÁŠ.ŠU.GÍD.GÍD$ (for *bārûm*, "haruspex") occurs at Mari with GÍD (=BU) in a *gunû*-form (= SUD), often transliterated $MÁŠ.ŠU.SU_{13}.SU_{13}$[1119]. While the latter might be misinterpreted as a different logogram or pronunciation, D. Schwemer points out that this is a different writing tradition, using BU-*gunû* instead of BU. It is likely that the use of IGI-*gunû* for "10,000" as a development from *LIM* "1,000" will have been the product of a similar environment.

[1118] Cohen 2006: 76f. Cohen interprets SIG_7 as GALxU, which is used as an intensive attribute to $NU_{11}{}^{NU}$ (= *nūru*), thus giving "very great light" = Saggar, as the Western name for *Sîn*.

[1119] Schwemer 1999: 189f.

Thus it is that a number of logograms that appear so peculiar in Hittite cuneiform are products of more widespread peripheral norms, in particular those of Northern Syria, as we have seen above. MUD_4, which is sometimes written KU+GAG in Hattusa rather than the normal Mesopotamian LAGAB+GAG, is also written KU+GAG at Alalaḫ; KAŠ.GEŠTIN is attested at Emar. The frequent development of an E prior to a complex sign as in the case of SIMUG (E.DÉ)[1120] and HZL 188-90 is also a mark of this peripheral writing context, which is clearly North Syrian but also stretches further East.

The logograms which only occur in Anatolia are divided into the following groups:
1) Those which appear to be inner-Hittite/Anatolian creations:
^{MUNUS}AMA DINGIR^{LIM}?; AN.BAR GE$_6$?; ŠU.NAG.NAG/GU$_7$.GU$_7$; BÀD.KARAŠ?; EGIR.KASKAL^{NI}; EZENxŠE; KAxGAG?; KAxGIŠ?; KAxÚR?; MÁŠ = "family"; ^{TÚG}GAD.DAM; ^{LÚ}GAD.TAR.
How do we decide whether something is an inner-Hittite or Anatolian creation? These range from the logograms that may have been created using known Sumerian elements to describe some part of material culture, such as the drinking arms, which are specifically Anatolian, to logograms apparently created on the basis of Hittite phrases, such as ^{MUNUS}AMA DINGIR^{LIM}, although the base-tongue here appears to be Akkadian.

The group of inscribed signs represents an uncertain quantity. The occurrence of KAxU at MS 1806 obv. 3, in a late OB tablet of birth omens, displaying sign-forms very similar to the so-called Tigunanum tablets, means that KAxU at least cannot have been a Hittite invention. Whether the further inscribed signs for parts of the face were added by the Hittites on the analogy of KAxU is unclear. Certainly, whoever created these signs was using semantic values of the Sumerian, BÙR, GAG, that were quite different to those attested at Hattusa. This inclines one to think that they will have been created somewhere else in the periphery and then transported to Hattusa as well as to the other peripheral areas.

By contrast, it is possible that some logograms were created at Hattusa with inscribed signs. We saw in the introduction the fragment of a lexical list that appeared to be marking the phonetic value of ŠÈ by means of a sign LAGABxŠI. This, of course, does not have to have been a Hittite creation either, as it refers solely to the Sumerian pronunciation and could well have been imported with the school tradition.

[1120] Peripheral distribution documented by Hawkins in Dalley et al. 1976: 43

Under one interpretation, however, EZEN$_4$ (= EZENxŠE) would have to be a Hittite creation. Either the inscribed ŠE refers to "barley", with reference to a semantic complex that we are unaware of, or it is a phonetic indicator for the Hittite word *siyamana-* "festival"[1121].

Thus it is that the only logograms that can be said with any security to be Hittite creations are those that can be demonstrated to have been formed on the basis of Hittite linguistic or material phenomena. On the one level this expresses itself through such writings as ^{MUNUS}AMA DINGIR^{LIM} or É NA$_4$, which have both been created to capture Hittite linguistic realities, although we have seen the medium for that creation to have been Akkadian in both cases.

2) Logograms which are only otherwise attested in second millennium Lexical lists: MUŠ.MUŠEN.

a) Usages derived through misunderstanding or manipulation of lexical lists or aberrant traditions thereof. GI.DUR$_5$; ^{LÚ}ALAN.GU$_7$; AMAR.MAḪ?; ^{UZU}NÍG.GIG; BAḪAR$_5$/EDIN.NA, GUR = (*tamai-*).

b) Usages corresponding to First Millennium writing and lexical tradition: Ì.GAB; LÍL. It is quite clear that a number of logograms can only have reached Hattusa via lexical lists, being already out of use in Mesopotamia for hundreds of years, and that the ability to use them correctly shows that the educational tradition was still very much alive. In some cases the use of logograms even suggests the presence of lexical traditions more commonly associated with the Southern Mesopotamian lexical tradition (e.g. Ea in the case of GUR = *tamai-*) The hypothetical lexical material from Hattusa as reflected in the use of logograms frequently appears to occupy a position that can only be explained by reference to the lexical material of the first millennium. This provides further evidence for lively contact with Kassite period lexical traditions which formed the basis for those of the first millennium. The Kassite re-organisation of the great corpora of Babylonian learning will, if the extant lexical and logographic material from Hattusa is anything to go by, have been significantly advanced by the late Middle Hittite period at the latest.

3a) Those which had gone out of usage in the 3rd millennium:
ŠU.ŠÈ.LÁ, ^{TÚG}BÁR, ^{DUG}ḪAB.ḪAB(/GUR$_4$.GUR$_4$); MÁ.URU.URU$_6$; MUG; NINDA.GÚG

[1121] EZEN$_4$ = *siyamana-* see Singer 1978: 51ff.

b) Those which may preserve otherwise unattested Sumerian usage:

GEŠTIN.ḪÁD.RÁ.A;

4) Those which can be explained as re-interpretations of Mesopotamian logograms by means of re-analysis of the Sumerian

a) by back-formation: AŠGAB; GUD.GAZ; ḪUB$^{ḪI.A}$?; NINDA.Ì?; ^{GIŠ}ŠU.I;

b) by similarity to Hittite words: $^{(UZU)}$GÚ.ḪAL?

c) by otherwise reconstruing the Sumerian: GI É.DUB.BA(.A) for gi.dub.ba; GUD APIN.LAL; GA.KIN.AG for ga.kín?

5) Phonetic writings of Sumerian words: BA.UŠ; ^{TÚG}BAR.T[U]?; $^{UR]U}$NE.MA^{KI} etc.

6) Those which appear to be adaptations to fit Hittite/Anatolian material, social and religious phenomena. PAD; ^{D}ŠUR (AN.ŠUR); ^{TÚG}E.ÍB GÍR; ^{TÚG}E.ÍB KUN; É + function series; EN ^{GIŠ}KUN$_4$; EN KUR; GÍR LÍL; GIŠ.MAḪ; ^{GIŠ}GUB.ŠEN; KAŠ.LÀL; LÚ É.ŠÀ; ^{NA4}MUL; NAM.RA;

7) Misunderstanding of Sumerian constructions: AL.GAZ; GUD.GAZ; BAL "translate";

8) Misreading of Sumerian signs: BAR.TE.E; E$^!$.KISIM$_5$ series; E$^!$.URUDU; ^{DUG}KAB.KA.DÙ?; EDIN = DUG$^?$.SÌLA.BUR.NA;

9) Pseudo-Sumerograms based on Akkadian: IR; ^{GIŠ}GAN.KAL?

10) Extispicy context: KA.GÌR; NE

11) Those which remain obscure: GA KALAG.GA; GIŠ.KIN.TI$^{ḪI.A}$; GIŠ $^{(D)}$INANNA; ^{TÚG}KA.BAL$^{ḪI.A}$; ^{TÚG}KA.BAR.ZU; ^{GIŠ}MU.AN; ŠU.AN;

The number of question marks above is very disconcerting. For most of the logograms handled in this section only partial and very speculative explanations have been found if at all.

The above attempt at a typological classification of differences between Mesopotamian and Hittite cuneiform needs some comment. Throughout one should be careful to distinguish between i) simple error ii) error that has become systemic and iii) conscious innovation.

At one level we have the mistakes confusing one sign for another that Chr. Rüster has begun to catalogue and categorise[1122].

The second level is best exemplified, if the account provided here be correct, by ^{UZU}NÍG.GIG. In this case an error would appear to have occurred quite some way back

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[1122] Rüster 1988: 295-306.

in the process of transmission, and have become standardised as the correct writing. In this case I believe there is evidence that the error is in evidence in Northern Syria.

The third case is exemplified by ^{MUNUS}AMA.DINGIR*LIM*, or to a lesser extent any of the prima facie ad hoc creations that appear to have been created to describe objects and institutions of Hittite material culture that were not covered by the Mesopotamian sign repertory (GÍR LÍL).

Restrictions in use in the semantic fields in which certain Sumerograms can be used might even be called unconscious innovations. If C. Watkin's explanation of the difference between Hitt. NAM.RA GUD UDU and Akk. *šallatu* "booty" is correct, it would have been impossible for a Hittite speaker to categorise animals or goods as NAM.RA (*arnuwala-*), whereas this presented no problem for the Akkadian speaker using *šallatu*[1123]. Similarly there appear to have been problems with the application of PAD to units of food. These issues have to do with the socio-linguistic environment in which cuneiform culture was received.

At present it is not possible to create any more categories for the processes involved in the creation of these "pseudo-sumerograms" are too obscured by the poor lexicographical understanding of the elements themselves. It is hoped that some progress has been made in the lexicography of a number of these elements in this work.

IV.3. Hittite Cuneiform

The Hittite cuneiform system was inherited some time before Hattusili I, possibly within Anatolia itself. When it was inherited it was designed to write Akkadian[1124]. The Akkadian from which it borrowed must already have had significant Sumerographic elements, in contradistinction to the normally syllabically written Akkadian of Old Babylonian. This explains the fact that a number of word classes appear to be written exclusively Sumerographically from the beginning of the script even in Old Hittite. It could also be influenced by the kind of educational structure that the Hittites inherited with the script.

Alongside the Akkadian use of the script Hittite cuneiform was quickly developed into a means of writing the Hittite language.

[1123] Watkins argues that Hittite society will have inherited an Indo-European "folk-taxonomy of wealth" that divides property into "men and chattels", archetypally expressed in the Iranian compound *pasu-vīra-* "cattle (and) men". According to this, Akkadian *šallatu* (NAM.RA) "booty in goods" in the phrase NAM.RA GUD UDU will have been re-interpreted as "human booty" (*arnuwala-*) next to the cattle, GUD UDU. Watkins 1979: 269-289.

[1124] Thus with the essential point of Popko 2007, that the script was originally designed to write Akkadian.

Either in the form it was inherited, or as part of the process of adaptation for writing Hittite, it was adapted into an extremely economical and stable form. The polyvalence of Mesopotamian syllabic signs was reduced.

Changes happening throughout the history of the script can be understood as adaptations in a similar basic direction towards expressing the Hittite language as economically as possible. The archives as we find them are already fully developed to be able to write the Hittite language with an extremely regular script and orthographic system. A consciousness seems to have remained, however, that the basic purpose of this script was the writing of Akkadian. Thus it is that so many logographic innovations are made through the medium of Akkadian, even if Hittite be the underlying language. The story of the Hittite engagement with the script is partially the story of the attempt to express the Hittite language most economically.

To insist that this could simply have been done by writing phonetically, as scribes were obviously capable of doing for foreign languages such as Hurrian, is to forget that logography is inherent in the process of learning the script in the first place. It is the lack of logograms in the foreign-language texts from Hattusa which mark them as peculiar. Even the rather more phonetically written older Hittite texts have a significant layer of logograms, as do the earlier Akkadian texts from Hattusa.

As such, Hittite cuneiform was at first burdened with a layer of Akkadograms which could not flexibly represent Hittite words. Paradoxically it was the extension of the domain of the Sumerian words that allowed the Hittite language to be expressed more freely but still use logograms. This, in conjunction with the other items of evidence we have mentioned, indicates that the Akkadian words were most probably pronounced in Akkadian, while the Sumerian ones were really logographic. It is a point of change when the Sumerian words are no longer logographic masks for Akkadian words, but for Hittite ones.

Through the analysis of logographic writings, both as inherited from Mesopotamia and as innovated among the Hittites or their immediate neighbours, we have reached the unsurprising conclusion that the primary languages of Hittite scholarship were Akkadian and Hittite. Sumerian does appear to have been partly understood by some scribes at least. The frequency of phonetic Sumerian spellings, while not enormous, is enough to realise that school texts were probably recited.

The nature of the lexical lists preserved at Hattusa demonstrates an apparently much higher level of scholastic endeavour than that used in writing texts. The care taken to write and find the correct sound and sign representation for elements of the Sumerian

columns of the lexical lists is far in excess of what is normally expected from "learner tablets". Given the necessarily brief nature of the investigation in Part I, such conclusions must remain provisional. This provisional conclusion is that the lexical material at Hattusa mostly, with the exception of the few obvious practice tablets, forms part of a "scholar's" library rather than the litter of school production. One might further speculate that it was such scholars who were responsible for the careful planning of the development of orthography in Hittite cuneiform. Such cases as the choice of GUR for kúr = *tamai-* show an extremely pragmatic but also controlled and philological approach. Indeed the kind of regular, deliberate and gradual changes that separate Hittite cuneiform from Mesopotamian in its antipathy to polyvalence in the signary are not the kind to develop at random through convention.

One very noticable thing about Hittite cuneiform, as we have remarked, is the fact that, especially in its earlier stages, it is static for so long. One might guess that this is consonant with a small group of scribes under the tight control of one master.

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