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**Title:** The transmissional and functional context of the lexical lists from Hattusha and from the contemporaneous traditions in Late-Bronze-Age Syria

**Issue Date:** 2012-10-18

## Chapter 9: The writing systems and languages in use

The present chapter presents a description and evaluation of a number of graphemic, orthographic and linguistic aspects of the languages and writing systems used in the Ḫattuša corpus and in its parallel corpora. The languages predominantly discussed are Hittite and Akkadian. Hurrian and the local West-Semitic idioms from Ugarit and Emar as they occur in the lists of the parallel corpora from these sites are not a part of the investigation.

Manuscripts with a Hittite column solely occur in the Ḫattuša corpus. With the study's focus on the functional and transmissional aspects of the texts, the primary subject of the linguistic evaluation of the Hittite language of the lists concerns its relation to the Hittite language of the contemporaneous literary texts and to the Hittite vernacular that was supposedly spoken by the contemporaneous scribes (sect. 1.). In contrast, Akkadian is also used in the lists from Emar and Ugarit, and thus the evaluation of the Akkadian column (sect. 2.) is based on all three major corpora. A comparison enables the reconstruction of the long-distance spread of graphemic and orthographic features, which then can be contrasted with the long-distance spread of epigraphic, paleographic, textual, and curricular features.

Due to the nature of the lists the linguistic description of the Hittite as well as of the Akkadian column (which virtually lack any semantically coherent text) generally deal with isolated words, (mostly nouns) and substantives and nominal forms of verbs, which moreover appear in morphologically unmarked forms. Thus, morpho-syntactic, syntactic, or stylistic aspects are virtually excluded from the evaluation. Only the analysis of the syllabaries and of specific orthographic features can build on an adequate and balanced basis of data.

The Sumerian as it appears in the lists cannot actually be dealt with as regular language. The evaluation undertaken in this chapter (sect. 5.) mainly seeks to establish a basis on which errors in the textual transmission (as for which see chapter 10) can be effectively distinguished from the regular transformations that Sumerian underwent since its disappearance as a spoken language in the OB period. The investigation of Sumerian has been limited to the Ḫattuša lists. Also limited to this corpus is the investigation of the sign names (sect. 3) of the Syllabic Sumerian column (sect. 4.) as well as that of the various meta-linguistic terms (sect. 6.); in the parallel corpora, items attested in these categories are rare (Emar) or even nil (Ugarit and the smaller corpora). Their investigation is worthwhile since they presumably represent original meta-textual elements (see chapter 3, sect. 4.1.) that have become a part of the (core) text.

**1.1.1.** [Hittite – syllabary – CV/VC-signs] The syllabary of CV/VC-signs used in the Hittite column of the lexical lists does not show any remarkable differences from the syllabary used in contemporaneous manuscripts of other genres of Hittite texts. As is well known, Hittite scribes

use a syllabary which in many respects follows the conventions also known from Mittani/Hurrian writing: Contrasts in consonant voice are not expressed by the opposition between graphemes, but by the orthographic opposition between *scriptio geminata* and *scriptio simplex*. The usual voice contrast displayed by the individual CV-sign series, e.g., among the signs <KA>-<GA>-<QA> then is redundant and, consequently, the members of the individual dyads/triads can be used interchangeably or can be reduced to a single member with the other member(s) completely discarded.<sup>1</sup> The Hittite syllabary makes use of both strategies, as can be seen from the following table of CV-sign series:<sup>2</sup>

|      | Hatt-IIIb | Hatt-IIIc | total |
|------|-----------|-----------|-------|
| <PA> | -         | -         | 36    |
| <BA> | -         | -         | 0     |
| <TA> | 4         | 38        | 43    |
| <DA> | 9/9       | 32/51     | 43/63 |
| <TI> | 4         | 19        | 24    |
| <DI> | 0         | 1         | 1     |
| <TU> | 2         | 2         | 4     |
| <DU> | 4         | 10        | 19    |
| <KA> | 2         | 18        | 21    |
| <GA> | 3         | 13        | 18    |
| <QA> | 1         | 1         | 3     |
| <KU> | -         | -         | 61    |
| <GU> | -         | -         | 0     |
| <QU> | -         | -         | 0     |

The oppositions between <KI> and <GI> and between <ZI> and <ZÉ> are excluded as they are very likely, as in the Mittani letter, phonemic (differentiating between /i/ and /e/). Similarly, <U> and <Ú> show a clear tendency to be position-bound: The majority of attestations of <Ú> are found in the word-initial position, preceding /e/ or /i/ and are very likely spelling syllabic /we/i/ as compensation for the lack of an adequate CV-sign; in word-internal position, its usage is conventionally restricted to a number of individual words that frequently appear to be spelled with it;<sup>3</sup> otherwise

1 As for a summarizing overview, cf. Kloekhorst 2008: 21f.

2 The total numbers given also include those attestations which cannot be clearly assigned to the periods Hatt-IIIb and Hatt-IIIc. As for <DA>, the second figure given refers to the total amount, whereas the first figure refers to the amount as reduced by those attestations which occur in Hitt. *an-da* “in” and which, because of the exceptionally high frequency of this word, may blur the results.

3 Hitt. *pu-ú-ul* (Erim Bo. Aa = KBo. 1,44+ 152f.), *iš-ḫi-ú-ul* (Erim Bo. Ab = KBo. 1,35+ 261 and Erim Bo. B = KBo. 1,36 l. 5'), which appear consistently written with <Ú>, also in the other attestations. In Hitt. *ḫa-ra-a-ú* (Izi Bo. A = KBo. 1,42 ii 9'), <Ú> may also spell /w/. Hitt. *ši-nu-ú-r[a-aš]*? (Izi Bo. B = KBo. 1,32 rev. 14') is hapax legomenon.

<U> is the preferred sign. Regardless of whether <U> and <Ú> mark a phonetic contrast or their use is principally interchangeable,<sup>4</sup> the position-bound distribution of both signs is remarkable, since it is generally not pursued with such strictness in other texts. This strictness bespeaks the high regularity and conformity in which most of the lexical lists were (re-)produced.

The origins of the Hittite syllabary are obscure. As noted above, the syllabary displayed by Hurrian texts – which appears in its most consequent version in the Mittani King Tušratta's letter to the Pharaoh (Wegner 2007: 45) – must eventually trace back to the same source. In the specific formations of the CV-dyads; however, there are a number of differences (as for which cf. sect. 2.1.1.2.). The exact relations between both syllabaries remain unclear.<sup>5</sup>

**1.1.2. [Hittite – syllabary – CVC-signs]** CVC-signs form an important factor within the diachronic analysis. From manuscripts of other genres, the proportions of CVC signs as opposed to CV/VC-signs is expected to increase in the course of the 13<sup>th</sup> century, i.e., from the periods Hatt-IIIa over Hatt-IIIb to Hatt-IIIc. Statistical evaluation of the datable material seems to prove this presumption, the differences however, are not very significant (in IIIa manuscripts, the CVC-sign rate is 3,6%, in IIIb manuscripts 4,5%, and in IIIc manuscripts 5,1%; however, the quantitative basis for IIIa manuscripts is slim).<sup>6</sup>

The inventory of CVC-signs used also does not show any notable deviations from the standard inventory. As it is of special importance in comparison with the inventory used in the Akkadian column, a table with the complete inventory is given in the section treating the CVC-signs of the Akkadian syllabary (see sect. 2.1.6.).

**1.2.1. [Hittite – orthography – logographic spellings]** The share of logographic spellings within the Hittite column is considerable. Among the 748 Hittite entries fully preserved or reliably restorable, 179 make use of logographic spellings, which is almost every fourth entry (24 %). 112 (17 %)

4 Melchert 1985: 13 with n22. The hypothesis that <U> may represent [o] and that <Ú> denoted [u], both in specific positions, has recently been put forward again in Kloekhorst 2008: 35-60.

5 As for a summarizing discussion, see Kloekhorst 2008: 22f.

6 In absolute figures the proportions are as follows:

|       | total no. signs | no. CVC-signs | Rate  |
|-------|-----------------|---------------|-------|
| III a | 56              | 2             | 3,6%  |
| III b | 580             | 26            | 4,5 % |
| III c | 2724            | 140           | 5,1 % |

A number of signs were excluded from the evaluation when denoting certain morphemes, because these morphemes are consistently written with the respective CVC-sign throughout all periods and, when occurring frequently in a specific text, would blur the statistical outcomes. This group involves <GÁN> and <BAD> for the particles Hitt. =*kan* and =*pat*, as well as <TAR>, <MAR>, <ŠAR>, which mark the abstract endings Hitt. -*ātar*, -*eššar*, and -*mar* (the allomorph variant of -*war*).

of these entries solely consist of one or more logogram(s), (plus their phonetic complements), while the remaining entries involve another syllabically written sequence (e.g., Hitt. MUNUS-*aš dāuwar* “to take/marry a woman“, SaV Bo. L = KBo. 1,53 10').<sup>7</sup> Not taken account of within these calculations are logographic spellings for numbers and for particles, which, for their frequent use in Hittite writing, gain an almost pseudo-syllabographic status, as e.g., EGIR in Hitt. EGIR-*pa* „back“, which one might spell *ap<sub>x</sub>-pa*, as well.<sup>8</sup>

The use of logograms is by no means tied to the occurrence of corresponding units in the Akkadian or in the Sumerian column. The number of logographic spellings employed in the Akkadian column is at any rate considerably lower (3,6 %, cf. sect. 3.2.); if an Akkadian entry is spelled logographically this usually entails a logographic spelling in the Hittite column – but not vice versa. Only in a very limited number of cases (40 of 165 = 24%), the logogram used in the Hittite column is (partially) identical with the respective Sumerian item. These cases are predominantly found in the series SaV, in which many of the listed simple signs are identical with Hittite logograms, and – within some less frequent attestations – in the acrographic series *Izi*, which also contains some 'exploitable' sign-list type materials in this respect.<sup>9</sup> All logograms used as direct translations to identical Sumerian simple signs belong to the standard inventory of Hittite writing; thus logographic translations are never just mechanical repetitions of the Sumerian item, but form real translations.<sup>10</sup>

7 The proportions thereby fluctuate with regard to the respective series. Among those series which provide sufficient evidence of a Hittite subcolumn, are as follows:

|              | no. of entries | fully log. spell's | partly log. spell's | total    |
|--------------|----------------|--------------------|---------------------|----------|
| SaV          | 125            | 30% (37)           | 3% (4)              | 33% (41) |
| <i>Diri</i>  | 46             | 6% (3)             | 9% (4)              | 15% (7)  |
| <i>Izi</i>   | 207            | 17% (36)           | 8% (16)             | 25% (52) |
| OB <i>Lu</i> | 22             | 0% (0)             | 18% (4)             | 18% (4)  |
| <i>Erim</i>  | 198            | 9% (17)            | 13% (26)            | 22% (43) |

The series which lists the simplest vocabulary is clearly SaV, and quite obviously contains the highest rate of vocabulary which can be written out in logograms; it simultaneously contains the lowest rate of complex translations. The rate of logograms involved in complex translations increases the more the vocabulary becomes specialized, which is the case in <sup>lú</sup>azlág = *ašlaqu*, *Erimhuš* and *Diri*. The latter has the altogether lowest attestation of logograms, while *Izi* apparently takes an intermediate position between SaV and the rest.

8 Other logographic spellings of this sort are Hitt. IGI-*an-da* for *menahhanda* “opposite to”, GAM-*an* for *kattan* “down”, GIM-*an* for *mahhan* “when”, and Ú-UL for *natta* “not”. Altogether, there are more than twenty entries which employ such spellings.

9 Also cf. note 7.

10 The logograms with the highest rates of attestation are Hitt. LUGAL, MUNUS, ZAG, PAP, A.ŠÀ, GÌR, GÚ (all with four to six attestations). Typically Hittite logograms are NÍ.TE (4x), SÈD (2x), EGIR.U<sub>4</sub>.KAM (2x), TUKU.TUKU (1x). Among the less frequently attested logograms to be mentioned are; Hitt. <sup>GIŠ</sup>GISSU (*Erim* Bo. Ab = KBo. 1,35: 274), GÚ.KHAL (*Izi* Bo. A = KBo. 1,42 iii 14), IM (Unid Bo. 4-4 = KUB 3,93: 8'), and the peculiar sequence in Hitt. MUŠEN ŠÚ MUŠEN *tiyauar* (SaV Bo. C = HT 42 obv. 5)

Also note that the frequency of logographic spellings seems to be independent from the paleographic period, at least with regard to the two statistically evaluable subperiods Hatt-IIIb and Hatt-IIIc. The differences are marginal (with 20% of all entries spelled logographically in IIIb and 24% in IIIc; in fact one would expect the rate of logographic writings to increase by leaps in period IIIc).<sup>11</sup>

**1.2.2.** [Hittite – orthography – scriptio plena] Concerning scriptio plena vs. brevis in Hittite, two general rules can be formulated: (1) scriptio plena is never used in absolute consistency in any of the three main periods (OS-MS-NS), and (2) the frequency of scriptio plena generally decreases in progress from OS to MS and from MS to NS.<sup>12</sup> As pointed out by S.E. Kimball (1999: 55), studies on scriptio plena have mainly focused on manuscripts in OS and MS, so there is unfortunately no comparative basis for a respective analysis of the present corpus. In continuation of this general tendency, one may presume that scriptio brevis also becomes more and more dominant during the course of the NH period, especially in the LNH phase (Hatt-IIIc). However, regarding the present corpus, it is not possible to detect any discontinuities between those manuscripts that were written down in Hatt-IIIb and those of period Hatt-IIIc.

**1.2.3.** [Hittite – orthography – gemination of consonants] Gemination of consonants in Hittite writing may have various sources; orthographic ones ('Sturtevant's rule') as well as phonetic ones ('real' gemination). According to Melchert 1994, the contrast between simple and geminate spellings is principally regarded as phonemic in the proceeding (concerning stops as well as liquids, with the possible exception of nasals).<sup>13</sup> 'Simplified spellings', as H.C. Melchert (1994: 14f.) styles the phenomenon of simple spellings of supposedly geminate consonants, are already a frequent occurrence in OS texts. They are mostly conventional and best to be explained as due to scribal economy.<sup>14</sup>

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11 This situation may again be explained by the fact that all occurring logograms belong to the most basic inventory, which is consistently used throughout the 13<sup>th</sup> century BCE.

12 As for a summarizing overview, cf. Kimball 1999: 54-57.

13 Undeniably, there is some variation between geminate and simple spellings with regard to specific words; however, there are several 'minimal pairs' which leave no doubt that the contrast is (morpho-)phonemic; cf. Melchert 1994: 14, 21f., 23f., and regarding the nasals, p. 24. Also see Kimball 1999: 95f.

14 Cf. the often quoted particle chain Hitt. *nu-kán* (*nu=kan*), which, contrasting with *nu-ut-ták-kán* (*nu=tta=kkán*) must substitute for *nu-uk-kán*; for the latter, complete spellings there are in fact only two or three attestations, opposed to hundreds (or rather: thousands) with simplified spellings, and most likely this is because of the relative complexity of <UG>.

However, coming somewhat simultaneously with the rising frequency of CVC-signs (see sect. 1.1.2.) and of glide-less spellings (see sect 1.2.4.), i.e., with the beginning of the 13<sup>th</sup> century; non-conventional simplified spellings apparently become more and more customary – be this an orthographic or a phonetic phenomenon. In the present corpus; however, they are quite exceptional: The observer is provided with a staggering five assured instances, and all of them are found in manuscripts written down in the very final period Hatt-IIIc.<sup>15</sup>

**1.2.4. [Hittite – orthography – the representation of glides]** The realization of glides in intervocalic position is pursued with relative consistency until the 13<sup>th</sup> century, by the beginning of which glide-less spellings become more and more frequent.<sup>16</sup> In the present corpus, the contrast is peculiarly evident in the spelling of the numerous verbal abstracts ending in Hitt. *-war*. On principle, the following spelling variants are evidenced:

| Roots ending with <i>-a-</i> , <i>-e-</i> or <i>-i-</i> |           |           | Roots ending with consonant |           |           |
|---------------------------------------------------------|-----------|-----------|-----------------------------|-----------|-----------|
| Spelling                                                | Hatt-IIIb | Hatt-IIIc | Spelling                    | Hatt-IIIb | Hatt-IIIc |
| <i>-Ca/e/i-u-wa-ar</i>                                  | 18 (95%)  | 51 (75%)  | <i>-Cu-u-wa-ar</i>          | 1 (33%)   | 13 (52%)  |
| <i>-Ca/e/i-wa-ar</i>                                    | 0 (0%)    | 11 (16%)  | <i>-Cu-wa-ar</i>            | 2 (67%)   | 5 (20%)   |
| <i>-Ca/e/i-u-ar</i>                                     | 1 (5%)    | 6 (9%)    | <i>-Cu-u-ar</i>             | 0 (0%)    | 1 (4%)    |
|                                                         |           |           | <i>-Cu-ar</i>               | 0 (0%)    | 6 (24%)   |

The aforementioned diachronic tendency expresses itself quite well; *wa*-less spellings are more numerous in manuscripts that were written down in Hatt-IIIc than in manuscripts of Hatt-IIIb. Yet, one would actually expect them to occur more often in Hatt-IIIb, but in fact, there is only a single attestation stemming from this period.

The same phenomenon is also valid for /w/ in other morphological environments as well as for /y/; the quantitative basis however being less representative.<sup>17</sup> Also note that the different spellings do not exclude each other in one and the same manuscript. There are very few manuscripts – mostly short ones – that exclusively preserve the later, glide-less spellings; usually these occur side-by-side with the earlier variants.

15 Hitt. *ḫa-te-ša-an-za* (for *ḫateššanza*; Diri Bo. Ac = KBo. 26,10 iv 9'), *kar-tim-iš-ki-za*<sup>1</sup> (for *kartimmiškizzi*, ibid. iv 4'), *ne-wa-la-an-ta-aš* (for *newallantaš*, Erim Bo. Ab = KBo. 1,35: 266), *ša-ra-zi* (for *šarazzi* SSg L D = KUB 3,113 i 14'), *pu-kán-za* (for *pukkanza*, Unid Bo. 2-2 = KBo. 36,4: 5').

16 The insertion of *-u-* in front of *-wa-* apparently comes into use after the OH period. Whether or not this insertion is merely a redundant orthographic variant must be questioned, as put forward by S.E. Kimball (1999: 102). Regarding the *Cu-u-wa-ar* spellings, it seems quite uneconomic to employ three signs only to indicate a simple [w]; in this respect also note the peculiar spelling in Hitt. *im-pa-ḫu-wa-ar* (for *im-pa-a-u-wa-ar*; Diri Bo. Ac = KBo. 26,10 iv 11'f.).

17 E.g., Hitt. *ta-aš-ša-nu-an-za* (Erim Bo. Ab = KBo. 1,35 235) or *ta-ri-aš-ḫa-aš* (SaV Bo. C = HT 42 obv. 9'); according to paleography, both texts date to Hatt-IIIc

**1.2.5.** [Hittite – orthography – scriptio defectiva] 'Real' defective spellings (as exemplified by the prominent Hitt. *kiš-an*) are a typical feature for LNH orthography; whereas they are virtually absent in earlier periods. Notably, it is only possible to detect a single example of defective spelling (Hitt. *kar-tim-iš-ki-za-kán ku-it*, Diri Bo. Ac = KBo. 26,10 iv 4'), in a manuscript which clearly dates to Hatt-IIIc and which shows other defective features such as real spelling errors. All other manuscripts, also those of Hatt-IIIc, plainly avoid (C)VC - VC combinations.

**1.3.1.** [Hittite – aspects of morphology and morphosyntax – possessive pronouns] Examples of possessive pronouns are preserved in no more than four texts, but the attestations include all of the three known variants: the 'old', enclitic pronouns (Hitt. =*mi*-, =*ti*-, =*ši*-, ...), the independent pronouns (Hitt. *amēl*, *tuēl*, ...), i.e., the genitive forms of the personal pronoun, and notably, the sentence particle Hitt. =*mu*. The last of the aforementioned originally denotes the dative, and although it seems to be successively taking over the additional function of the possessive pronoun in the course of the 13<sup>th</sup> century, scholars hesitate to translate it simply as “my”. In this respect, the paleographic date (Hatt-IIIc) of the manuscript Unid Bo. 1-1 = KBo. 26,29: 11'f. (*addaš=mu* “my father”, *šEš-aš=mu* “my brother”), which provides the attestation for this particle in possessive pronominal use, is fully compatible with the linguistic age of the latter.

The opposite is true for the attestations of the 'real' enclitic pronoun, Hitt. =*mi*-. It is unanimously claimed that it fell out of use with the beginning of the NH period, so one would not expect it to be preserved in the texts of the present corpus. Strikingly, it is during the final period Hatt-IIIc in which the two manuscripts attesting it (Izi Bo. A = KBo. 1,42 i 23'-25', Unid Bo. 4-1 = KBo. 13,2: passim) must have been written down. Moreover, there are no grammatical deformations detectable with regard to these clitics and no deviations in case or gender; although these would be quite typical for texts of the later periods: In copying earlier texts scribes tend to reinterpret older, less easily understood structures and thereby frequently make mistakes.

Independent pronouns only occur in their plural forms, in a paradigm that uses the enclitic variants in the singular (Izi Bo. A = KBo. 1,42 i 23'-28'):<sup>18</sup>

|                           |                     |                         |                 |
|---------------------------|---------------------|-------------------------|-----------------|
| [á]-ġu <sub>10</sub> -šè  | <i>ana idi=ya</i>   | <i>kuššani=mi</i>       | “for my wage”   |
| ʾá¹-zu-šè                 | <i>ana idi=ka</i>   | <i>kuššani=ti</i>       | “for your wage” |
| á-bi-šè                   | <i>ana idi=šu</i>   | <i>kuššani=šši</i>      | “for his wage”  |
| á-zu-šè-ne-ne             | <i>ana idi=kunu</i> | <i>šummenzan kuššan</i> | “your wage”     |
| á-bi-šè-MIN               | <i>ana idi=šunu</i> | <i>apenzan kuššan</i>   | “their wage”    |
| á-ġu <sub>10</sub> -ME-EN | <i>ana idi=ni</i>   | <i>anzel kuššan</i>     | “our wage”      |

18 The translations refer to the Hittite parts only.



In the processes of updating and reinterpreting, the outdated enclitic pronouns of the plural paradigm seem to have been replaced by their corresponding independent forms – however, with dative case erroneously replaced by nominative case. The singular clitics were apparently still considered customary enough and therefore remained unchanged.

**1.3.2.** [Hittite – aspects of morphology and morphosyntax – sentence particles] Sentence particles – and this term herein exclusively refers to the so-called 'local particles' – are interesting in the same respect that possessive pronouns are interesting. They were also subjected to notable diachronic changes which lead to the situation at the beginning of the NH period wherein only three of them were still in use: Hitt. =*kan*, =*šan*, and =*ašta*. The last of these three was almost entirely restricted to certain formulas, also =*šan* was about to disappear from use; finally, by the beginning of period Hatt-IIIb they were no longer produced in speech and in new literary compositions.<sup>19</sup>

Yet, apart from several attestations of the still productive usage of Hitt. =*kan*, there are also four entries containing the particle =*šan* within the corpus, three of them in manuscripts in LNS (Hatt-IIIc).<sup>20</sup> Together with the attestation of the enclitic pronouns, this forms a clear indication that the Hittite language of the respective texts is not identical with the contemporaneous spoken language – or at least, with the language used to create new compositions – at the point in time when the respective manuscripts were written down.

**1.3.3.** [Hittite – aspects of morphology and morphosyntax – plural nominative forms ending in -*uš*] According to L. McIntyre (apud Melchert 1995: 270), NH starts to generalize the accusative-plural ending -*uš* to both accusative and nominative plural forms, with the exception of ablauting *u*-stem adjectives, nouns with -*tt*- and -*ant*- stems, and the pronominal stem *kui*-. This process is completed in the middle of the 13<sup>th</sup> century (i.e., in the transition from Hatt-IIIb to Hatt-IIIc) and it very probably needs to be ascribed to the interference with the contemporaneous Luvian adstratum.<sup>21</sup>

The altogether twelve nominative/accusative-plural forms of the Hattuša corpus largely agree with these presets, the only exceptions being the two *i*-stem adjectives Hitt. *mekkaeš* “many” (SaV Bo. B = KBo. 1,45: 17'), which occurs in a IIIa manuscript, and *šallaeš* “big ones” (OBLu Bo. A = KBo. 1,30 ii 10'; Hatt-IIIc), which may be influenced by the subsequent entry *kallaratteš* “monstrous ones”.<sup>22</sup>

19 As for =*šan*, cf. *CHD* sub =*šan* comm.sect.

20 Hitt. *anda=ššan tiyauwar* (Izi Bo. A = KBo. 1,42 ii 2'), *aranza=ššan* (Diri Bo. E = KUB 3,103 rev. 13'), *katta=ššan arnumar* (Erim Bo. Aa = KBo. 1,44+ 13). The fourth attestation dates to period IIIa: *nu=ššan* <sup>GiŠ</sup>UR<sup>HI.A</sup>-*uš* *huitya[n ]* (Diri Bo. B = KBo. 1,48 l. 5').

21 Cf. Rieken 2006: 273-275.

22 The other attestations are:

(definitely nominative; all IIIc) Hitt. *NÍ.TE*<sup>HI.A</sup>-*uš* “limbs” (Izi Bo. A = KBo. 1,42 i 32'), *šal-li-[i]ʷ-uš* “big ones;

**1.4.1.** [Hittite – the vocabulary used – evidence of vernacular language] The questions repeatedly posed with regard to the grammatical features in the preceding sections, i.e., as to what chronological state of Hittite the texts reflect and how this corresponds to the actual (paleographic) age of the manuscripts, are of course also relevant for an analysis of the vocabulary in use. Such an analysis suffers from the fact that many words occurring in the lists are not as of yet treated by one of the bigger dictionary projects, so there is no reliable information about the periods in which they are attested or about changes in stem formation or meaning. Generally, one has to state that the Hittite vocabulary used is in large parts quite interpretable. Hapax legomena do not occur very often (around 5% of all interpretable entries), and in many cases they are due to the highly specialized semantic fields that the respective lexical sections expose.

An indicative measure for the grade of linguistic up-to-datedness then is certainly the share Luvian expressions take within the vocabulary. In fact, it is possible to detect several 'Luvianisms', particularly among the hapax legomena. Either they can be linked through etymology with Luvian cognates, or they display morphological features that are characteristic of this language.<sup>23</sup> However, the share is again low, even if it is assumed that a certain amount of Luvianisms have gone unrecognized. Issues of dispute still exist regarding the relation between Luvian and Hittite in the 13<sup>th</sup> century, namely: the question as to when Luvian superseded Hittite as a spoken language, until when the latter survived as a spoken language, and who were the speakers. At any rate, if the vocabulary of the lexical texts – especially those of the very late manuscripts – were close to the contemporaneous spoken language one would probably expect the number of Luvianisms to be higher.

**1.4.2.** [Hittite – the vocabulary used – evidence of literary language] One is given the impression that the vocabulary used in the Hittite column predominantly adheres to the 'classical', written stratum of Hittite, and this is largely confirmed by grammatical findings (see previous sections). An interesting example of 'intertextuality' gives further support to this hypothesis: As shown by V. Haas (1988: 344f.; 2007: 126ff.)<sup>24</sup> some specific Hittite translations in Izi Bo. A = KBo. 1,42 i apparently derive from the language that is used in ritual descriptions:

parents?" (SaV Bo. D = KBo. 1,34 obv. 10), *nakkiuš* "important ones" (SSgL Bo. E = KUB 3,94 i 28'), *maklanteš* "thin ones" (Unid 4-1 = KBo. 13,2 rev. 7');

(accusative or nominative) Hitt. *hurtauš* "curses" (Erim Bo. B = KBo. 1,36+1. 8'; III c), *ŠUMES-uš* "hands" (Unid Bo. 1-2 = KUB 3,110 iv 3'; III b);

(probably accusative) Hitt. *GiŠUR<sup>HLA</sup>-uš* "beams" (Diri Bo. B = KBo. 1,48 l. 5'; III a), *KÚ.BABBAR-uš* "silver bars"? (Diri Bo. I = KBo. 1,54 l. 13'; III b(+)).

23 E.g., the formative Luv. *-mmi-*, deriving nomina auctoris, in the hapax legomena Hitt. *pal-la-aš-šu-ri-mi-iš* (Izi Bo. A = KBo. 1,42 ii 32') and *ar-pal-li-im-mi-[iš]* (Izi Bo. B = KBo. 1,31 obv. 7').

24 Also cf. Miller 2005: 37-140.

|    |                         |               |                                       |                |                                        |
|----|-------------------------|---------------|---------------------------------------|----------------|----------------------------------------|
| 33 | [á-s]ù <sup>?</sup> -sù | <i>šaḫātu</i> | <i>kutti piran</i>                    | “house corner” | „in front of the wall“                 |
| 37 | [á-úr]                  | <i>puzru</i>  | <i>ḫarwaši pedan</i>                  | “secret”       | „hidden place“                         |
| 39 | [á-x ]                  | []            | UMMEDA-za kuiš<br>TUR-an karpan ḫarzi | -              | „a nurse who<br>has picked up a child“ |

This is particularly true for Hitt. *kutti piran*, which is invariably attested to in a standard formula within house rituals and for *ḫarwaši pedan*, a phrase that is mainly confined to specific resolution rituals.<sup>25</sup> The translator who added the Hittite terms to the Sumero-Akkadian equations obviously did not choose the vernacular to do so – there are certainly simpler and more conventional Hittite translations available for Akk. *šaḫātu* “house corner” (Hitt. *ḫalḫaltumari*) or *puzru* “secret” (e.g., simple Hitt. *ḫarwaši*). Instead, he took up – consciously or not – the formulaic style of the ritualistic vocabulary he presumably knew through his daily scribal work.

**1.5. [Hittite – some conclusions]** To summarize, there are two striking features characterizing the Hittite language of the lexical lists:

(1) As is evidenced by the syllabary, the orthography, and by specific grammatical phenomena, the linguistic age of many items is not in agreement with the paleographic dates of most of the manuscripts, i.e., of those written down in Hatt-IIIc, but also for those of Hatt-IIIb. Orthographic renovations/deformations, i.e., the increasing use of CVC-signs or of simplified and defective spellings, spread into the texts later than expected or are even totally absent. Many morphological and morphosyntactic features which were outdated with a high degree of certainty, like the enclitic pronouns or the sentence particle =*šan*, still persist in the texts. Language and orthography appear as conservative, in parts even as outdated.

(2) As a consequence of the preceding, but as can also be understood from the vocabulary used, the language of the Hittite column is – at least in parts – a literary language. There are principally no notable features that would distinguish the Hittite of the lexical texts from the Hittite of the contemporaneous literary texts. With regard to the grammatical paradigm discussed in sect. 1.4.1., it even seems likely that the Hittite column of the lexical texts was integrated into the usual transmissional processes, which also characterize the literary texts. It is probable that scribes continually reworked the material and more or less successfully replaced antiquated items with more current ones.

There are two significant consequences arising from these characteristics: First, the Hittite translations were not formulated when a specific tablet was written – i.e., as a part of an orally provided meta-textual layer (cf. chapter 3, sect. 4.1.) –, but were instead an integral part of the (core) text. Second, scribes using the lists had to be familiar with the 'classical' language of Hittite

25 Thus according to Haas 2008: 345.

literature and, judging from the orthographic regularity and the many logographic spellings, were well-trained in (re)producing standard Hittite texts.

**2.1.1.1.** [Akkadian – syllabary – preconsiderations – methodological problems] Investigating the Akkadian syllabaries of the manuscripts of the Ḫattuša corpus and its parallel corpora from Ugarit and Emar involves addressing the issue that – in contrast to paleographic evaluation – many manuscripts are too small in scale to determine the details of the syllabary used, i.e., the number of relevant signs which they contain is statistically insignificant. The syllabaries are therefore investigated for whole groups of manuscripts, i.e., according to the paleographic tradition that they are a part of.

The simple adding-up of manuscripts presumes the coherence and homogeneity of the respective groups, which cannot be proven in every case; however, it remains the only viable strategy for providing statistically significant data. As demonstrated by van Soldt 1989 and van Soldt 1992, a summarizing treatment of whole groups of manuscripts according to specific uniting criteria (here: the archival provenance) can lead to significant results.

**2.1.1.2.** [Akkadian – syllabary – preconsiderations – the basic strata] Following van Soldt 1992 and Huehnergard 1989, one must differentiate a number of strata to form the basis of the syllabaries as used in the LBA western scribal traditions. The present study distinguishes the following five basic strata:

(1) An OB-Syrian substratum, reflecting Late/North-OB syllabary conventions as they are found in the texts of Alalah layer VII. Distinct features are the absence of signs for emphatic consonants with the exception of <QA = SĪLA>, which is already known from OB Mari, the absence of a specific series that distinguishes /p/ and /b/ (except with <PA> and <BA>) as well as /s/ and /z/, and the frequent use of CVm-signs in word-final position, which contrasts with a general and relative infrequency of CVC-signs. The stratum is presumed to have been established (some centuries) before the corpora investigated were produced.

(2) A Mittanian (sub)stratum, as it is reflected in the Mittani King Tušratta's Akkadian letters to the Pharaoh (van Soldt 1989, van Soldt 1992 375-381). The syllabary is clearly related to Hurrian writing as used in the Mittani sphere of power, which transfers the distinction of voice from the level of the syllabary (distinct signs) to the orthographic level (*scriptio simplex* vs. *scriptio geminata*), and thus makes the opposition between voice-specific graphemes dispensable. In its most elaborate variant as represented by the Hurrian 'Mittani letter', the (Hurrian) syllabary totally lacks the signs <BA>, <DA>, <GA>, <DI>, and <TU> (Wegner 2007: 45); other traditions, like the Hurrian texts of the Ḫattuša archives show random or privative use of both members (Wegner 2007: 43f.;

Giorgieri / Wilhelm 1995, van Soldt 1992). Instead of representing consonant voice, the dyads <KU>-<GU>, <KI>-<GI>, and <Ú>-<U> are regularly used to represent vowel quality in the Mittani letter (less regularly in the other traditions), spelling /Ko/, /Ku/, /Ki/, /Ke/, /o/, /u/ respectively.

The Akkadian syllabary of Tušratta's Akkadian letters conforms to these conventions in expressing voice by privative use within the CV-dyads <PA>-<BA>, <TA>-<DA>, <TI>-<DI>, <DU>-<TU>, <KI>-<GI>, <GU>-<KU> (the unmarked members listed first), and exclusive use of <KA> with <GA> discarded. It thus appears as a mixture of the OB-Syrian stratum transformed by the conventions of Hurrian writing. Accordingly, CV-signs that specifically represent emphatic consonants are rarely used (<QA>, <QU>) if at all (<QI>), and CVC-signs are relatively infrequent (except with word-final CV*m*-signs).

This stratum is presumed to have been established and to have interfered with the earlier OB-Syrian stratum before the corpora of the present study were produced. Perhaps, it was still in diffusion when the 14<sup>th</sup>-century manuscripts of the corpora (manuscripts of Hatt-II/cIIIa and Em-Syr) were produced.

(3) The Hittite (ad)stratum is actually not an Akkadian syllabary. It is the syllabary used for writing Hittite, but it must be presumed to have exerted some influence on the Hittite writing of Akkadian. Also, showing orthographic and not graphemic distinction of voice, it basically appears as a side-branch of Hurrian writing conventions, yet has developed further peculiarities (for details, see sect. 1.1.1.): Within the CV-dyads it almost completely excludes <BA>, <DI>, <GI>, and <GU>, shows a strong preference for <DU> as opposed to <TU>, and in correlating with the OB-Syrian substratum, also makes use of <QA>. As with the Mittanian stratum, CVC-signs are relatively infrequent. The stratum is presumed to have still been in interference with the earlier substrata when the corpora investigated were produced.

(4) An MB (ad)stratum is marked by the introduction of CV-signs for emphatic consonants <ṬU=ÁGA>, <QU=KUM>, and <ṢU=ZUM>, of the sign <PI>, the *s*-series <SA>-<SI>-<SU>, as well as of the allographic variants <ŠÁ>, <ŠÚ>, <ÁŠ>, and <U>. CV*m*-signs in word-final position start to give way for *m*-less variants, while the use of CVC-signs generally increases (von Soden / Röllig 1967: xxxi f.).

(5) The MA (ad)stratum is in many respects hard to distinguish from the MB stratum. Apart from the features which are characteristic for the MB stratum, it is marked by the additional introduction of the emphatic CV-signs <QI=KIM> and <ṬÍ=DIN> (von Soden / Röllig 1967: xxxiii) and by the stronger reduction of CV*m*-signs. Both the MB and MA stratum are presumed to have successively superimposed themselves upon the earlier strata since the early 13<sup>th</sup> century, i.e., after the downfall of the Mittanian empire.

**2.1.1.3.** [Akkadian – syllabary – preconsiderations – the criteria used] According to the descriptions of the individual strata in the previous section, one can outline the following distinctive features as a basis for the investigation:

- (a) The modes of representation of voiceless and voiced consonants through CV-signs
- (b) The relative frequency of the signs <ṬÍ>, <ṬÚ>, <QÍ>, <QU>, <ṢÚ> (specifically for emphatic voice) and of the series <ŠA>-<SI>-<SU> (specifically for voiceless /s/)
- (c) The relative frequency of CV<sub>m</sub> signs in auslaut position
- (d) The relative frequency of the allographic variants <ŠÁ>, <ŠÚ>, <ÁŠ>, and <U>. as opposed to their (standard) counterparts <ŠA>, <ŠU>, <AŠ>, and <Ú>.

To be sure, there are additional features which are of importance in this respect, such as the representation of the sibilant triad [s], [š], and [t<sup>s</sup>], the representation of /i/ as opposed to /e/, or the relative frequency of CVC-signs, phenomena which however have not been investigated at the phonological level as yet (the sibilants and the /i/-/e/ opposition), or which are hard to measure (CVC-signs). In this respect, they have been excluded from the evaluation. In order to further scrutinize the relationship between the Akkadian syllabary of the Ḫattuša lists with the Hittite syllabary that is used beside it, the investigation instead includes a detailed comparison of the CVC-sign inventories of both of these syllabaries.

**2.1.2.1.** [Akkadian – syllabary – CV-signs according to voice – details] Contrasts of consonant voice are represented by graphemic oppositions for a number of CV-combinations; the only exception is the contrast between /pu/ vs. /bu/, which cannot be expressed by graphemic oppositions in cuneiform. The quantitative details are as follows:

|      | Ḫattuša |    |   |       |   |   |       |    |   | Emar |    |   |     |    |    |     |    |    | Ugarit |    |   |    |    |   |   |   |   |
|------|---------|----|---|-------|---|---|-------|----|---|------|----|---|-----|----|----|-----|----|----|--------|----|---|----|----|---|---|---|---|
|      | III a   |    |   | III b |   |   | III c |    |   | Syr  |    |   | SH  |    |    | Loc |    |    | Bab    |    |   | NS |    |   | T | M | E |
|      | T       | M  | E | T     | M | E | T     | M  | E | T    | M  | E | T   | M  | E  | T   | M  | E  | T      | M  | E | T  | M  | E |   |   |   |
| <PA> | 2       | 0  | - | 2     | 2 | - | 8     | 16 | - | 7    | 0  | - | 89  | 7  | -  | 20  | 4  | -  | 3      | 0  | - | 0  | 2  | - |   |   |   |
| <BA> | 0       | 1  | - | 1     | 3 | - | 0     | 1  | - | 1    | 16 | - | 15  | 77 | -  | 2   | 28 | -  | 0      | 11 | - | 0  | 7  | - |   |   |   |
| <PI> | 0       | 0  | - | 0     | 0 | - | 0     | 0  | - | 0    | 0  | - | 6   | 2  | -  | 2   | 0  | -  | 12     | 0  | - | 0  | 0  | - |   |   |   |
| <BI> | 6       | 27 | - | 3     | 2 | - | 11    | 11 | - | 13   | 20 | - | 38  | 73 | -  | 25  | 43 | -  | 1      | 6  | - | 1  | 7  | - |   |   |   |
| <TA> | 6       | 0  | 0 | 4     | 0 | 0 | 10    | 5  | 2 | 14   | 0  | 1 | 64  | 1  | 13 | 31  | 1  | 4  | 8      | 0  | 0 | 9  | 0  | 0 |   |   |   |
| <DA> | 1       | 0  | 1 | 1     | 0 | 2 | 2     | 3  | 2 | 0    | 8  | 0 | 7   | 43 | 5  | 3   | 17 | 4  | 0      | 5  | 1 | 1  | 2  | 0 |   |   |   |
| <TI> | 6       | 1  | 0 | 0     | 0 | 0 | 22    | 12 | 0 | 7    | 2  | 0 | 135 | 10 | 16 | 23  | 4  | 0  | 3      | 0  | 0 | 1  | 1  | 0 |   |   |   |
| <DI> | 0       | 2  | 0 | 0     | 0 | 0 | 0     | 4  | 1 | 0    | 3  | 0 | 1   | 26 | 0  | 1   | 15 | 1  | 0      | 2  | 0 | 0  | 2  | 0 |   |   |   |
| <ṬÍ> | 0       | 0  | 0 | 0     | 0 | 0 | 0     | 0  | 0 | 0    | 0  | 0 | 1   | 0  | 3  | 0   | 0  | 1  | 0      | 0  | 0 | 0  | 0  | 0 |   |   |   |
| <ṬÚ> | 2       | 0  | 0 | 1     | 1 | 0 | 0     | 0  | 1 | 2    | 1  | 0 | 61  | 2  | 3  | 47  | 4  | 1  | 0      | 0  | 0 | 3  | 0  | 0 |   |   |   |
| <DU> | 3       | 3  | 0 | 1     | 3 | 0 | 6     | 8  | 1 | 8    | 11 | 1 | 10  | 66 | 1  | 11  | 25 | 3  | 0      | 17 | 0 | 2  | 10 | 0 |   |   |   |
| <ṬÚ> | 0       | 0  | 0 | 0     | 0 | 0 | 0     | 0  | 1 | 0    | 0  | 0 | 0   | 0  | 26 | 2   | 0  | 12 | 0      | 0  | 1 | 1  | 0  | 1 |   |   |   |

|      | Ḫattuša |   |   |       |   |   |       |    |    | Emar |   |    |    |    |    | Ugarit |    |    |     |   |   |    |   |   |
|------|---------|---|---|-------|---|---|-------|----|----|------|---|----|----|----|----|--------|----|----|-----|---|---|----|---|---|
|      | III a   |   |   | III b |   |   | III c |    |    | Syr  |   |    | SH |    |    | Loc    |    |    | Bab |   |   | NS |   |   |
|      | T       | M | E | T     | M | E | T     | M  | E  | T    | M | E  | T  | M  | E  | T      | M  | E  | T   | M | E | T  | M | E |
| <KA> | 2       | 0 | 0 | 0     | 0 | 0 | 4     | 0  | 0  | 29   | 2 | 2  | 86 | 1  | 1  | 42     | 0  | 3  | 4   | 0 | 2 | 1  | 0 | 0 |
| <GA> | 3       | 0 | 2 | 2     | 3 | 3 | 4     | 1  | 1  | 0    | 3 | 0  | 7  | 21 | 0  | 9      | 9  | 1  | 0   | 1 | 0 | 0  | 0 | 0 |
| <QA> | 1       | 0 | 2 | 0     | 0 | 1 | 7     | 2  | 6  | 1    | 0 | 17 | 1  | 0  | 73 | 1      | 0  | 28 | 0   | 0 | 2 | 1  | 0 | 1 |
| <KI> | 19      | 1 | 0 | 2     | 4 | 0 | 11    | 4  | 6  | 25   | 0 | 3  | 78 | 10 | 20 | 24     | 1  | 3  | 1   | 0 | 0 | 2  | 0 | 1 |
| <GI> | 0       | 0 | 0 | 0     | 0 | 0 | 0     | 0  | 0  | 0    | 1 | 0  | 4  | 18 | 9  | 7      | 4  | 0  | 0   | 0 | 0 | 0  | 1 | 0 |
| <QI> | 0       | 0 | 0 | 0     | 0 | 0 | 0     | 0  | 0  | 0    | 0 | 0  | 0  | 0  | 3  | 1      | 0  | 13 | 0   | 0 | 0 | 0  | 0 | 0 |
| <KU> | 6       | 1 | 9 | 6     | 1 | 3 | 21    | 1  | 14 | 20   | 0 | 10 | 88 | 1  | 6  | 45     | 1  | 9  | 6   | 0 | 1 | 7  | 1 | 0 |
| <GU> | 0       | 0 | 0 | 0     | 0 | 0 | 0     | 1  | 0  | 1    | 6 | 0  | 5  | 20 | 0  | 0      | 6  | 1  | 0   | 0 | 0 | 0  | 0 | 0 |
| <QU> | 0       | 0 | 0 | 0     | 0 | 0 | 0     | 0  | 1  | 2    | 0 | 3  | 3  | 0  | 52 | 1      | 2  | 28 | 0   | 0 | 8 | 0  | 0 | 4 |
| <SA> | 0       | 0 | 0 | 0     | 0 | 0 | 0     | 0  | 0  | 0    | 0 | 0  | 32 | 0  | 0  | 2      | 0  | 0  | 10  | 0 | 0 | 2  | 0 | 0 |
| <ZA> | 0       | 1 | 0 | 0     | 0 | 3 | 3     | 9  | 9  | 2    | 5 | 7  | 19 | 24 | 31 | 18     | 14 | 17 | 0   | 1 | 1 | 2  | 0 | 1 |
| <SI> | 0       | 0 | 0 | 0     | 0 | 0 | 2     | 0  | 0  | 5    | 0 | 0  | 46 | 0  | 0  | 0      | 0  | 1  | 1   | 0 | 0 | 0  | 0 | 0 |
| <ZI> | 0       | 4 | 2 | 1     | 1 | 1 | 1     | 7  | 3  | 2    | 9 | 2  | 4  | 30 | 0  | 14     | 16 | 10 | 0   | 1 | 2 | 0  | 1 | 0 |
| <ṢI> | 0       | 0 | 1 | 0     | 0 | 1 | 0     | 1  | 2  | 0    | 0 | 3  | 2  | 2  | 48 | 3      | 0  | 16 | 1   | 0 | 6 | 0  | 0 | 2 |
| <SU> | 0       | 0 | 0 | 0     | 0 | 0 | 0     | 0  | 0  | 2    | 0 | 0  | 66 | 0  | 4  | 2      | 0  | 0  | 2   | 0 | 0 | 2  | 0 | 0 |
| <ZU> | 12      | 3 | 4 | 1     | 4 | 5 | 14    | 11 | 24 | 1    | 7 | 13 | 3  | 13 | 1  | 23     | 17 | 28 | 2   | 3 | 0 | 0  | 1 | 0 |
| <ṢU> | 0       | 0 | 0 | 0     | 0 | 0 | 0     | 0  | 3  | 0    | 0 | 4  | 1  | 2  | 50 | 0      | 0  | 7  | 0   | 0 | 3 | 0  | 0 | 3 |

Further note the virtual restriction of the sign <TU> to the pseudo-logogram Akk. *iš-tu* (Hitt. *IŠ-TU*) in the Ḫattuša lists.<sup>26</sup> One Ḫattuša manuscript involves the single attestation of <TÚ = UD>; attested indirectly through an error, the spelling demonstrated that the sign value was known, but not actively used by the scribes.<sup>27</sup>

**2.1.2.2.** [Akkadian – syllabary – CV-signs according to voice – summary] Summarizing the quantitative proportions given in the previous section, one can distinguish four principal modes of relation within the individual dyads and triads: (1) exclusive use of one member, (2) privative use of one member (i.e., the unmarked member representing both voices and the marked member(s) only representing the voiced or the voiceless member respectively), (3) equal use (each member representing a single voice quality), and (4) random use.

26 Exceptions are Akk. *ḫa-TU-u-tu* (Sag Bo. E = KBo. 1,49 15', III b), and *du(TU)-tu* (Erim Bo. Aa = KBo. 1,44+ 228, III c), both notably with double use, as well as Akk. *du-u-tu* (Erim Bo. Ab = KBo. 1,35+ 228, III c), which duplicates the previous attestation.

27 Akk. *ar-ka-à-UD* (Erim Bo. Aaf = KBo. 26,23 208), which must be synchronically interpreted as *arkâ ūmi* regarding the parallel entry *ar-kà UD-mi* (Erim Bo. Aa = KBo. 1,44+ 208). According to the canonical version; however, and also due to the plene writing, it must originally have represented Akk. *arkātu*.

|      | Ḫattuša                |                        |                          | Emar                    |                            | Ugarit                     |                       |                                |
|------|------------------------|------------------------|--------------------------|-------------------------|----------------------------|----------------------------|-----------------------|--------------------------------|
|      | IIIa                   | IIIb                   | IIIc                     | Syr                     | SH                         | Loc                        | Bab                   | NS                             |
| <Pa> | equal <sup>?</sup>     | random                 | privative<br><PA>        | equal<br>(deviations)   | equal<br>(deviations)      | equal<br>(deviations)      | equal                 | unclear                        |
| <Pi> | exclusively<br><BI>    | exclusively<br><BI>    | exclusively<br><BI>      | exclusively<br><BI>     | mostly<br><BI>             | mostly<br><BI>             | equal                 | unclear                        |
| <Ta> | unclear                | unclear                | random                   | equal                   | equal                      | equal                      | equal                 | equal <sup>?</sup>             |
| <Ti> | privative<br><TI>      | unclear                | privative<br><TI>        | privative<br><TI>       | equal (dev.)<br>priv. <TI> | equal (dev.)<br>priv. <TI> | equal                 | privative<br><TI> <sup>?</sup> |
| <Tu> | privative<br><DU>      | random                 | privative<br><DU>        | privative<br><DU>       | equal (dev.)<br>priv. <DU> | equal (dev.)<br>priv. <DU> | unclear               | privative<br><DU>              |
| <Ka> | random                 | random                 | random                   | equal<br>(deviations)   | equal / dev.<br>priv. <KA> | equal / dev.<br>priv. <KA> | equal                 | unclear                        |
| <Ki> | exclusively<br><KI>    | exclusively<br><KI>    | exclusively<br><KI>      | equal<br>(deviations)   | equal<br>(deviations)      | equal<br>(deviations)      | unclear               | unclear                        |
| <Ku> | exclusively<br><KI>    | exclusively<br><KU>    | mostly<br><KU>           | equal<br>(deviations)   | equal<br>(deviations)      | equal<br>(deviations)      | unclear               | unclear                        |
| <Sa> | exclusively<br><ZA>    | exclusively<br><ZA>    | exclusively<br><ZA>      | exclusively<br><ZA>     | privative<br><ZA>-<SA>     | privative<br><ZA>-<SA>     | equal                 | privative<br><ZA>-<SA>         |
| <Si> | privative<br><ZI>-<ŠI> | privative<br><ZI>-<ŠI> | priv. <ZI>-<br><ŠI>-<SI> | priv <ZI>-<br><ŠI>-<SI> | equal<br>(deviations)      | priv <ZI>-<br><ŠI>-<SI>    | unclear               | unclear                        |
| <Su> | exclusively<br><ZU>    | exclusively<br><ZU>    | priv <ZU>-<br><ŠU>       | priv. <ZU>-<br>- SU/ŠU  | equal<br>(deviations)      | priv. <ZU>-<br>- SU/ŠU     | equal<br>(deviations) | equal <sup>?</sup>             |

Exclusive use of a single member within the dyads/triads as well as random use are only attested to in Hatt (with the exception of the exclusive use of <BI> against <PI> in Em-Syr); also privative use is mostly concentrated in this tradition. Equal use throughout the greater part of the dyads/triads can only be found in Ug-Bab. Em-SH and Ug-loc apparently take an intermediate position, combining equal and privative use. Em-Syr, in turn, appears to be situated in an intermediate position between Hatt on the one hand and Em-SH / Ug-loc on the other. The position of Em-NS is unclear, as it shares features with Em-Syr, Em-SH, and Ug-loc.

As remarked in sect. 2.1.1.2., the MB and MA strata are characterized by equal use, as is the case with the exception of exclusively used <BI>, the OB-Syrian stratum. The Mittani syllabary and the Hittite syllabary show exclusive or privative use of one member. Ug-Bab, fully congruent with the MB/MA strata, thus is the most innovative tradition. Em-SH and Ug-loc (and probably also Ug-NS) apparently represent a mixture of older Mittanian with innovative MB/MA strata. Seemingly, the same MB/MA innovations are to a lower degree also obtainable for Em-Syr; for chronological reasons, the equal distribution in some dyads are rather to be interpreted as the rudiments of the early OB-Syrian stratum – which is in accordance with the observations made for other features (see the following sections). Hatt in contrast retains the older exclusive-use and privative-use



patterns of the Mittanian stratum in all three paleographic stages. The random use attested to for some dyads must be interpreted as interference with the local Hittite stratum, in which the CV-sign members are used interchangeably and irrespective of voice.

**2.1.3.** [Akkadian – syllabary – signs specifically spelling emphaticae] The attestation of distinct CV-signs for emphatic consonants is already a part of the table in section 2.1.2.1. It demonstrates that emphatic signs – as expected – largely represent emphatic consonants. Exceptions can, at least with regard to <QI>, <QU>, and <ṢU>, be traced to the original use of these signs as CV $m$ -signs.

The following table contrasts the number of spellings of emphatic consonants which use the specific signs for emphatics with the number of older spellings, in which emphatic consonants are represented by signs for voiceless and voiced consonants.

|            | Ḫattuša |      |      | Emar |    | Ugarit |     |    |
|------------|---------|------|------|------|----|--------|-----|----|
|            | IIIa    | IIIb | IIIc | Syr  | SH | Loc    | Bab | NS |
| <TI>/<DI>  | 0       | 0    | 1    | 0    | 16 | 1      | 0   | 0  |
| <ṬÍ>       | 0       | 0    | 0    | 0    | 3  | 1      | 0   | 0  |
| <TU>/<DU>  | 0       | 0    | 2    | 1    | 4  | 4      | 0   | 0  |
| <ṬU>       | 0       | 0    | 1    | 0    | 26 | 12     | 1   | 1  |
| <KI>/<GI>  | 0       | 0    | 6    | 3    | 29 | 3      | 0   | 1  |
| <QI>       | 0       | 0    | 0    | 0    | 3  | 13     | 0   | 0  |
| <KU>/<GU>  | 9       | 3    | 14   | 10   | 6  | 10     | 1   | 0  |
| <QU>       | 0       | 0    | 1    | 3    | 52 | 28     | 8   | 4  |
| <ZU>(<SU>) | 4       | 5    | 24   | 13   | 5  | 28     | 0   | 0  |
| <ṢU>       | 0       | 0    | 3    | 4    | 50 | 7      | 3   | 3  |

The relative frequency of spellings with specifically emphatic CV-signs can be summarized as follows for the individual paleographic traditions:<sup>28</sup>

|      | Ḫattuša |                  |                   | Emar             |      | Ugarit            |                    |                    |
|------|---------|------------------|-------------------|------------------|------|-------------------|--------------------|--------------------|
|      | IIIa    | IIIb             | IIIc              | Syr              | SH   | Loc               | Bab                | NS                 |
| <ṬÍ> | unclear | unclear          | unclear           | unclear          | 15,8 | 50.0 <sup>?</sup> | unclear            | unclear            |
| <ṬU> | unclear | unclear          | 33.3 <sup>?</sup> | 0.0 <sup>?</sup> | 86.7 | 75.0              | 100.0 <sup>?</sup> | 100.0 <sup>?</sup> |
| <QI> | unclear | unclear          | 0.0               | 0.0 <sup>?</sup> | 9.4  | 81.3              | unclear            | 0.0 <sup>?</sup>   |
| <QU> | 0.0     | 0.0 <sup>?</sup> | 6.7               | 23.1             | 89.7 | 73.7              | 88.9               | 100.0              |
| <ṢU> | 0.0     | 0.0              | 11.1              | 23.5             | 90.9 | 25.0              | 100.0 <sup>?</sup> | 100.0 <sup>?</sup> |

<sup>28</sup> As for the categories represented by the gray shading, see the following note.

Category (3), involving 38-62% relative frequency is represented once only. Traditions either strongly prefer (Ug-Bab, Em-SH, Ug-loc, probably also Ug-NS) or strongly disfavor (Hatt, Em-Syr) the emphatic-sign series (with Ug-loc and Em-Syr showing slightly more balanced proportions). A remarkable exception is formed by <QI> and <ṬÍ>, which are specific to the MA syllabary and which generally show few attestations except within Ug-loc (strong use) and Em-SH (moderate use).

Altogether, thus, Ug-Bab appears fully congruent with the MB stratum. Em-SH and Ug-loc show (strong) influence of common MB/MA, but also of specifically MA innovations. MB/MA innovations are less pronounced in Em-Syr and Hatt-IIIc. The exact position of Hatt-IIIc, Hatt-IIlb, and Ug-NS is hard to determine due to the slim quantitative basis.

**2.1.4. [Akkadian – syllabary – CV<sub>m</sub>-signs in word-final position]** In the corpora investigated, relevant CV<sub>m</sub>-signs in word-final position only involve <TUM>, <KUM>, <RUM>, and <LUM>. Signs of the corresponding *a*-series and *i*-series are not attested to in sufficient numbers, since the nouns in the lists are mostly in the nominative case. Also, the signs <ŠUM> and <ZUM> are scarcely attested to only and therefore excluded from the investigation. The following table contrasts *Cum*-signs with *Cu*-signs regardless of the voice that they represent:

|           | Ḫattuša |      |      | Emar |     | Ugarit |     |    |
|-----------|---------|------|------|------|-----|--------|-----|----|
|           | IIIa    | IIIb | IIIc | Syr  | SH  | Loc    | Bab | NS |
| <TU>/<DU> | 25      | 16   | 77   | 12   | 48  | 59     | 1   | 5  |
| <TUM>     | 2       | 24   | 22   | 122  | 291 | 106    | 34  | 19 |
| <KU>/<GU> | 3       | 5    | 14   | 13   | 36  | 23     | 4   | 3  |
| <KUM>     | 0       | 0    | 0    | 3    | 28  | 21     | 8   | 1  |
| <RU>      | 8       | 9    | 37   | 22   | 108 | 95     | 16  | 11 |
| <RUM>     | 1       | 4    | 4    | 42   | 97  | 58     | 12  | 2  |
| <LU>      | 4       | 0    | 31   | 15   | 106 | 50     | 4   | 9  |
| <LUM>     | 0       | 5    | 8    | 26   | 18  | 21     | 8   | 5  |

Note that the high number *Cum*-signs in Hatt-IIIb as opposed to Hatt-IIIa and Hatt-IIIc traces back to a single manuscript, Izi Bo. B = KBo. 1,31 (IIIb), which, showing almost exclusive use of *Cum*-signs, is responsible for almost 80% of the total attestations; the quantitative relations given for Hatt-IIIb, are perhaps therefore not representative.

The relative frequency of the *Cum*-signs as opposed to their corresponding *Cu*-signs can be summarized as follows for the individual paleographic traditions:<sup>29</sup>

<sup>29</sup> The five categories represented by the gray shadings correspond to the following percentages: (1) 0-15%, (2) 15-38%, (3) 38-62%, (4) 62-85%, (5) 85-100%

|       | Ḫattuša          |                    |      | Emar |      | Ugarit |      |                   |
|-------|------------------|--------------------|------|------|------|--------|------|-------------------|
|       | IIIa             | IIIb               | IIIc | Syr  | SH   | Loc    | Bab  | NS                |
| <TUM> | 7.4              | 60.0               | 22.2 | 91.0 | 85.8 | 64.2   | 97.1 | 79.2              |
| <KUM> | 0.0 <sup>?</sup> | 0.0 <sup>?</sup>   | 0.0  | 18.8 | 43.6 | 47.7   | 66.7 | 25.0 <sup>?</sup> |
| <RUM> | 11.1             | 30.8               | 9.8  | 63.6 | 47.3 | 37.9   | 42.9 | 15.4              |
| <LUM> | 0.0 <sup>?</sup> | 100.0 <sup>?</sup> | 20.5 | 63.4 | 14.5 | 29.6   | 66.7 | 35.7              |

The distribution, thus, is not the same for all signs: <TUM> appears integrated better into the standard repertory than the other signs investigated. The proportions are notable in that Ug-Bab, the supposedly most innovative tradition, and Em-Syr, the supposedly least innovative tradition, both show the highest share of *Cum*-signs. It is suggestive, thus, that the high share in Em-Syr must be linked to the original OB/Syrian stratum. The chronologically intermediate traditions, Em-SH, Ug-loc, and Ug-NS show medium proportions of *Cum*-signs, which can perhaps be explained by MA influence. The low share of *Cum*-signs throughout Hatt (as for the deviations in Hatt-IIIb, see above), in turn, appears as the result of interference with the local Hittite syllabary, which for the most part avoids the use of these signs.

**2.1.5.** [Akkadian – syllabary – some allographic oppositions] The share the newly-introduced signs <U>, <ŠÚ>, <ŠÁ>, and <ÁŠ> show in contrast to their earlier counterparts <Ú>, <ŠU>, <ŠA>, and <AŠ> are as follows within the individual paleographic traditions:

|      | Ḫattuša |      |      | Emar |     | Ugarit |     |    |
|------|---------|------|------|------|-----|--------|-----|----|
|      | IIIa    | IIIb | IIIc | Syr  | SH  | Loc    | Bab | NS |
| <Ú>  | 13      | 14   | 41   | 51   | 49  | 125    | 26  | 19 |
| <U>  | 23      | 28   | 42   | 0    | 106 | 8      | 8   | 7  |
| <ŠU> | 16      | 10   | 42   | 48   | 135 | 75     | 9   | 10 |
| <ŠÚ> | 0       | 0    | 11   | 0    | 5   | 2      | 0   | 0  |
| <ŠA> | 7       | 11   | 38   | 43   | 171 | 51     | 28  | 9  |
| <ŠÁ> | 0       | 1    | 1    | 0    | 23  | 3      | 0   | 2  |
| <AŠ> | 0       | 4    | 9    | 8    | 38  | 12     | 0   | 2  |
| <ÁŠ> | 0       | 0    | 0    | 0    | 1   | 3      | 1   | 1  |

The relative frequency of the respectively later members (<U>, <ŠÚ>, <ŠÁ>, <ÁŠ>) within the oppositions can be summarized as follows:<sup>30</sup>

30 The five categories as represented by the gray shadings correspond to different percentages than in the previous tables: (1) 0%, (2) 0-15%, (3) 15-38%, (4) 38-62%, (5) 62-85%

|      | Ḫattuša          |                  |                  | Emar             |      | Ugarit |                  |                   |
|------|------------------|------------------|------------------|------------------|------|--------|------------------|-------------------|
|      | IIIa             | IIIb             | IIIc             | Syr              | SH   | Loc    | Bab              | NS                |
| <U>  | 63.9             | 66.7             | 50.6             | 0.0              | 68.4 | 6.0    | 23.5             | 26.9              |
| <ŠÚ> | 0.0              | 0.0 <sup>?</sup> | 20.8             | 0.0              | 3.6  | 2.6    | 0.0 <sup>?</sup> | 0.0 <sup>?</sup>  |
| <ŠÁ> | 0.0 <sup>?</sup> | 8.3              | 2.6              | 0.0              | 11.9 | 5.6    | 0.0              | 18.2              |
| <ÁŠ> | unclear          | 0.0 <sup>?</sup> | 0.0 <sup>?</sup> | 0.0 <sup>?</sup> | 2.6  | 20.0   | unclear          | 33.3 <sup>?</sup> |

The relative proportions of <U> are remarkable, since they are higher in Hatt and Em-SH than in Ug-Bab, which is presumed to be the tradition with the highest grade of innovation. Yet, note that Hittite writing, i.e., the so-called Hittite stratum, also makes frequent use of <U>, probably as a result of the Hurrian writing convention to contrast /u/ and /o/ by the opposition of <U> and <Ú>. In the Mittanian stratum, i.e., in Tušratta's letters to the Pharaoh, it is virtually absent. Its frequency in Hatt probably has to be explained as due to interference with the Hittite stratum. Also for Em-SH, interference with the Hittite stratum seems to be the only reasonable explanation. The other three signs apparently spread into Hatt from period IIIb onwards, and they are also present in Em-SH, Ug-loc, and Ug-NS. Since they show higher proportions than in contemporaneous Ug-Bab, it is logical to trace them back to MA influence. The new variants (including <U>) are totally absent in Em-Syr, which came to an end before the main spread of MB/MA innovations.

**2.1.6.** [Akkadian – syllabary – CVC-sign inventory of the Ḫattuša lists] As in the Hittite column of the lists (cf. sect. 1.2.2.), Hittite scribes also make regular use of CVC-signs in the Akkadian column, with the average proportions opposed to CV/VC-signs being approximately 3.0%. A comparison of the CVC-sign inventories of both syllabaries, as given in the following table, helps elucidate their interrelations:

|     | Akk. | Hitt. |
|-----|------|-------|
| BAL | 2    | 8     |
| BAR | 3    | 14    |
| BAD | 2    | 5     |
| PIŠ | 1    | -     |
| BUR | 8    | -     |
| ḪAL | -    | 2     |
| ḪUR | 3    | 22    |
| GAL | 4    | 3     |
| KAL | 2    | 2     |
| GAM | 1    | -     |
| KAM | 1    | 6     |

|            | Akk. | Hitt. |
|------------|------|-------|
| GÁN        | 1    | 7     |
| KAB        | 6    | 1     |
| KAR        | 5    | 6     |
| KAT        | 1    | 11    |
| KIB        | 2    | -     |
| <b>GIL</b> | 2    | -     |
| KIŠ        | -    | 5     |
| GUL        | 6    | 5     |
| GUR        | 1    | 1     |
| LAM        | 1    | 1     |
| <b>LÍL</b> | 1    | -     |

|            | Akk. | Hitt. |
|------------|------|-------|
| LIŠ        | -    | 5     |
| MAR        | 2    | 7     |
| <b>MUŠ</b> | 2    | 1     |
| NAB        | 4    | 4     |
| NAM        | 5    | 2     |
| ŠAL        | -    | 6     |
| ŠAB        | 4    | 1     |
| ŠAR        | 2    | 11    |
| ŠUM        | 3    | -     |
| <b>ŠÚM</b> | 1    | -     |
| TAB        | 3    | 1     |

|     | Akk. | Hitt. |
|-----|------|-------|
| TAḪ | 1    | -     |
| TÁK | 1    | 5     |
| TAL | 3    | 15    |
| DAM | 5    | 4     |

|     | Akk. | Hitt. |
|-----|------|-------|
| DAN | -    | 2     |
| TAR | 6    | 18    |
| TIM | -    | 4     |
| TIN | 1    | -     |

|     | Akk. | Hitt. |
|-----|------|-------|
| TÚL | 1    | 1     |
| ZAP | 1    | -     |
| ZAR | 1    | -     |

The Akkadian syllabary, thus, shows preferred use of CVC-signs which are also very common in the Hittite syllabary, such as of <GUL>, <KAR>, <NAM>, or <TAR>; yet, these signs are common also in other contemporaneous Akkadian syllabaries. Instead, the Akkadian syllabary also includes CVC-signs which are quite atypical for Hittite texts, such as <GIL>, <LÍL>, <MUŠ>, <ŠÚM>, <ZAP>, or <ZAR>. The usage of these signs clearly demonstrates that the Akkadian syllabary as used in the lists very likely does not trace back solely to the Hittite syllabary, but must involve at least one additional source.

**2.1.7.1.** [Akkadian – syllabary – summary and conclusions - long-distance transmissional context] The individual paleographic traditions can be summarized as follows:

Hatt: Only rudiments of the OB-Syrian stratum (specific CVC-signs), basically appearing as Mittanian stratum (privative or exclusive use of CV-signs) strongly superimposed by the Hittite stratum (random use of CV-signs, frequent attestation of <U>, very low attestation of *Cum*-signs), and with moderate influence of the MB/MA stratum since period Hatt-IIIb (increasing number of specifically emphatic CV-signs, of <SI>, and of the allographic variants <ŠÁ> and <ŠÚ>).

Em-Syr: Strong OB-Syrian basis (equal use of CV-dyads, highly frequent use of *Cum*-signs), with moderate Mittanian influence (tendency to privative use of CV-dyads), and with MB/MA features absent (almost no specifically emphatic signs, total absence of allographic variants <U>, <ŠÚ>, <ŠÁ>, and <ÁŠ>, and of signs of the *s*-series).

Em-SH: OB-Syrian / Mittanian basis (mixed equal and privative use of CV-dyads, still frequent use of *Cum*-signs), showing strong superimposition by the MB/MA (allographic variants <ŠÚ>, <ŠÁ>, <ÁŠ>, signs of the *s*-series, as well as specifically emphatic CV-signs), particularly by the MA (signs <ṬÍ> and <QÍ>) stratum. The high frequency of <U> might be due to a further and slight influence of the Hittite stratum.

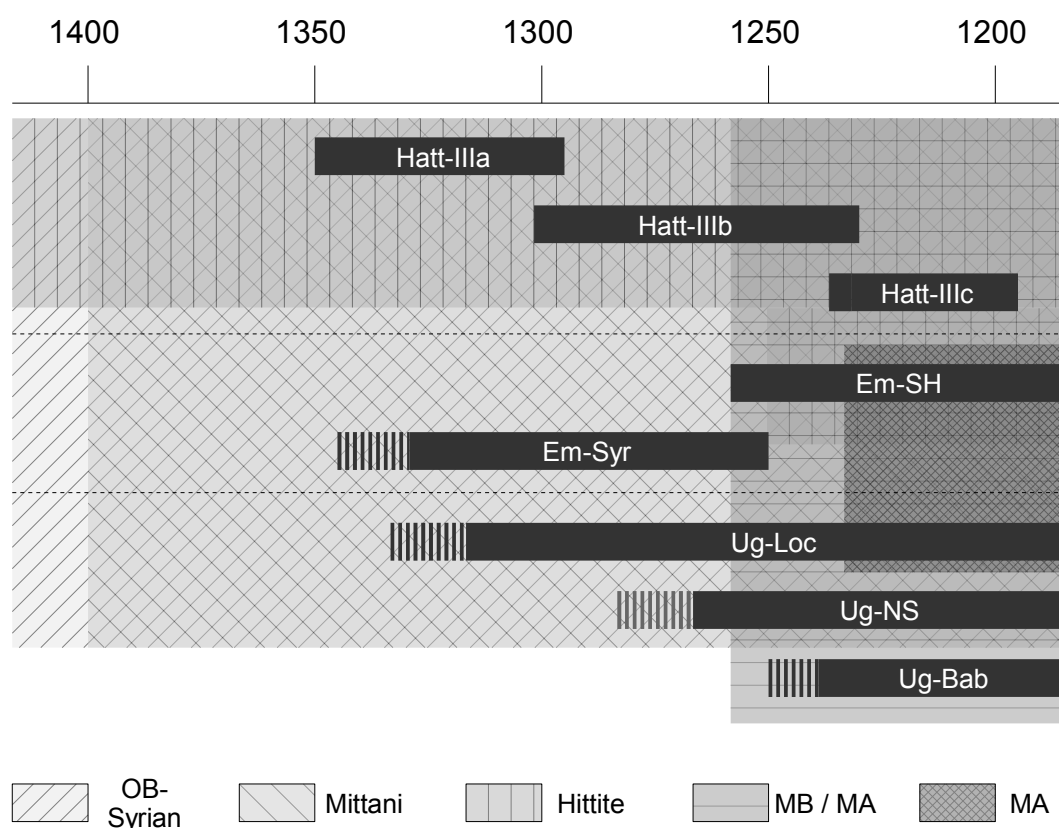
Ug-loc: Mostly identical with Em-SH, but lacking any features of interference with the Hittite stratum (low share of <U> as against <Ú>), and showing a slightly lower extent of MB/MA superimposition (preservation of privative use in some dyads).

Ug-Bab: Without obtainable traces of distinctly Mittanian elements (no privative use of CV-signs), and thus, in accordance with the paleographic evidence (cf. chapter 5, sect. 5.2. & 5.3.),

probably a direct import from Babylonia. As a consequence, lacking distinctly MA features (<ṬI> and <QI>), yet in contrast to the contemporaneous MB tradition it is rather conservative in appearance (very low frequency of allographic variants <ŠÚ> and particularly <ŠÁ>).

Ug-NS: Similar to Ug-loc and Em-SH, within parts showing a higher share of MB/MA innovations.

The data as summarized can be integrated into the following rough chronological schema:



**2.1.7.2. [Akkadian – syllabary - summary and conclusions – short-distance transmissional and functional context]** Apart from the instructive insights into the interrelation between the individual graphemic and orthographic traditions, which is of relevance for the reconstruction of the long-distance transmission of the texts (see previous section), the analysis of the individual traditions of syllabaries also raises an important point concerning the short-distance transmission of the texts and their functional context:

Akkadian syllabaries and orthographies throughout all textual tradition investigated, exhibit a certain degree of ambiguity with regard to voice (particularly the VC-signs), vowel quality (contrast between /e/ and /i/), and vowel quantity. These ambiguities certainly did not form any notable problems for experienced native-speaking scribes. Yet, for scribes who were not proficient in cuneiform writing and/or in Akkadian, they may have posed considerable difficulties. The exclusive, privative, or random use of CV-signs within voice-contrasting dyads/triads, as shown by the syllabaries

of the Ḫattuša tradition (Hatt) or of the Syrian tradition from Emar (Em-Syr), certainly must have increased these difficulties. It is in this respect remarkable that the Ḫattuša scribes did not resort to less ambiguous syllabaries with equal use of CV-dyads, although these were obviously known in the local scriptoria from other genres of text. (cf. Schwemer 1998: 39-47).

The ambiguities make the manuscripts impractical as reference works within scribal education and/or philological exegesis without a profound knowledge of (written and/or spoken) Akkadian or without at least some accompanying (oral) commentaries. In case these two preconditions are not taken into consideration, the manuscripts can only be sensibly interpreted as the results of assignments or of exercises, which both may tolerate a higher degree of ambiguity.

**2.2. [Akkadian – orthography]** Orthographic features of the Akkadian column, such as the representation of vocalic or consonantal length are of less relevance for the present study, since the individual known traditions of Akkadian writing are in themselves inconsistent in this respect. It is difficult to identify clear orthographic traditions and areal patterns of diffusion are hard to assess.<sup>31</sup> An interesting point; however, concerns the logographic spellings, since there is a notable contrast in this respect between the Ḫattuša corpus and its parallel corpora.

While logographic spellings are practically absent in the latter except with a single Akk. DINGIR-*li* found in SaV Em. 537A+ iii 26 and some logographic semantical restrictions appearing in the *Diri* manuscripts *Diri* Ug. 1A = RS 25.434+<sup>32</sup> and 1B = RS 20.122,<sup>33</sup> they occur in altogether 3.6% of total Akkadian entries in the Ḫattuša lists. Although their frequency is much lower than in the Hittite column, which shows logogram use in approximately 24% of all entries, the 3.6% still form a notable amount when compared to the nearly total absence of logographic spellings in the lists from Ugarit and Emar. In more than one half of all instances the scribes use logograms to attribute syllabographically written terms (e.g., Akk. *utullu ša* UDU, *Diri* Bo. Ha = KBo. 26,15: 9'), and for the most part the logograms employed belong to the very basic inventory.<sup>34</sup>

31 As for the representation of vowel and consonant length, note that the use of plene and geminate spellings in the Ḫattuša-corpus manuscripts apparently does not only depend on the linguistic origin of the length (morphographemic motivation), with length more regularly indicated for long vowels that originate from contraction and for long consonants that result from juxtaposition of morphemes than for natural length (van Soldt 1992: 291). Scribal-economic motivations play a considerable role as well; thus, vocalic and consonantal length is less often rendered explicit (1) if words are comparably long, i.e., counting more than three or four signs, (2) if the use of CVC-CV patterns is impossible due to vacancies in the syllabary (only consonantal length), and (3) if the length had to be expressed by graphically-complex syllabograms (such as <AZ>, <UL>, <IN>, or <I>).

32 Akk. *izuzzu ša* GIMESŠ “to stand (said of) reed” (i 19) and Akk. *qāpu ša* IZ.ZI “to collapse (said of) wall(s)” (i 20).

33 Akk. *zaqāru ša* LÚ “to be tall/excel (said of) men” (i 9').

34 The most frequently used logograms involve Akk. ŠÀ (5 instances), U<sub>4</sub> (3x), SAG (2x), DINGIR (2x). The only instances betraying a more specialized inventory are Akk. GISSU (*Izi* Bo. A = KBo. 1,42 ii 5'), MUŠ and GÍR.TAB (*Sag*

Their occurrence is moreover bound to the presence of a corresponding logographic spelling in the respective Hittite translation.

From the high share of logographic spellings in the Hittite column, it is clear that the scribes producing the manuscripts were proficient in Hittite logogram use. Whether they were also proficient in Akkadian logogram use – and thus in Akkadian writing in general – or if they just copied the logograms from the Hittite column cannot be said with certainty.

The orthographic phenomena of hyper-plene writing, hyper-gemination, and hyper-dissimilation are dealt with as orthographic deviations/errors in chapter 10, sect. 2.Type.III.2.

**2.3.1.** [Akkadian – aspects of West Semitic influence – general notes] The embedding of the lexical corpora from Ugarit and Emar in a West Semitic linguistic environment is explicitly evident in the addition of respective glosses (Ugarit and Emar) or of whole columns with translations into the local idiom (Ugarit; see chapter 11, sect. 2.9.6.).

The linguistic environment of the Ḫattuša lists, in turn, is a Non-Semitic one. Traces of West Semitic linguistic adstrata, thus, can be very revealing with regard to the long-distance transmission of the texts, then pointing to mediation through West Semitic scribes. And in fact, West Semitic influence proves to be manifest at the morphological as well as at the lexical level in a number of manuscripts. One can in this respect distinguish between primary influence, characterized by the complete replacement of Akkadian words or forms by corresponding West Semitic words or forms, and secondary influence, manifest as the transformation of extant Akkadian terms through West Semitic structures. Secondary influence often leads to erroneous structures (as for which see chapter 10, sect. 3.2.).

A large selection of the manuscripts showing West Semitic influence was written down in period Hatt-IIIc, involving the two bulky manuscripts Izi Bo. A = KBo. 1,42 and Erim Bo. Aa = KBo. 1,44+, which contribute to more than one half of all cases. Still only a few cases are attested to in periods Hatt-IIIb or IIIa – which is yet a mere reflection of the generally unbalanced chronological distribution of manuscripts.

**2.3.2.** [Akkadian – aspects of West Semitic influence – primary lexical influence] Primary influence manifests itself exclusively at the lexical level, i.e., through the inclusion of words with West Semitic origin. Therefore West Semitic words replace former Akkadian terms, thus are not insertions of completely new entries. In the latter case, one would expect the insertion to complement (earlier) Akkadian translations of the same Sumerian item, i.e., to be a part of a larger section of polysemic translations – which, however, is mostly not the case (Nos. 003-008 in the list below).

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Bo. E = KBo. 1,49: 8f.), possibly also UZU (Unid Bo. 5-1 = KBo. 26,54: 6').



Listed below are ten attestations, with seven being sure (for additional comments, see the respective notes in the text edition):

|           |                                 |                                     |                       |                                 |
|-----------|---------------------------------|-------------------------------------|-----------------------|---------------------------------|
| (001)     | Diri Bo. E = KUB 3,103 obv. 8'  | Akk. <i>me-el-a-ku</i>              | WSem. <i>ml'k</i>     | “messenger” <sup>35</sup>       |
| (002)     | Izi Bo. B = KBo. 1,31 rev. 7'   | Akk. <i>ni-dì-it-tu<sub>4</sub></i> | WSem. <i>ndd</i>      | “to flee” <sup>36</sup>         |
| (003)     | Erim Bo. Aa = KBo. 1,44+ 36     | Akk. <i>qá-na-a-u</i>               | WSem. <i>qn'</i>      | “jealous” <sup>37</sup>         |
| (004)     | Erim Bo. Aa = KBo. 1,44+ 37     | Akk. <i>re-e-ú</i>                  | WSem. <i>hry / r'</i> | “angry” <sup>38</sup>           |
| (005) ?   | Erim Bo. Aa = KBo. 1,44+ 47     | Akk. <i>Kat-ti-lu</i>               | WSem. <i>qtl</i>      | “killing” <sup>39</sup>         |
| (006)     | Erim Bo. Aa = KBo. 1,44+ 124    | Akk. <i>ši-ib-bu</i>                | WSem. <i>šby</i>      | “captivity” <sup>40</sup>       |
| (007) ?   | Erim Bo. Aa = KBo. 1,44+ 216    | Akk. <i>KU-UD-DU-u</i>              | WSem. <i>hd</i>       | “to deny” <sup>41</sup>         |
| (008)     | Erim Bo. B. = KBo. 1,36+ r. 6'  | Akk. <i>ha-da-šu</i>                | WSem. <i>hdš</i>      | “bridegroom” <sup>42</sup>      |
| (009) ??? | Kagal Bo. C = KBo. 16,87+ i 19' | Akk. <i>táq-ri-tù</i>               | WSem. <i>qry</i>      | “crying” <sup>43</sup>          |
| (010)     | SaV Bo. G = KBo. 13,5 i 7'      | Akk. <i>du-da-a-tù</i>              | WSem. <i>dwdt</i>     | “father's sister” <sup>44</sup> |

**2.3.3.** [Akkadian – aspects of West Semitic influence – secondary lexical influence] As noted above, secondary influence mostly involves structures that are to a certain degree erroneous. At the lexical level, this implies the re-interpretation of an Akkadian root according to a West Semitic homo(io)nymous root (as for an exact description, cf. chapter 10, sect.3.Type.III.5a/b.). The following 6 instances (3 are sure) have been identified:

|           |                        |                    |                    |                  |                          |
|-----------|------------------------|--------------------|--------------------|------------------|--------------------------|
| (011)     | Izi Bo. A ii 7'        | Akk. <i>addû</i>   | “daily work quota” | WSem. <i>aḥd</i> | “one” <sup>45</sup>      |
| (012=17)? | Erim Bo. Aa 45         | Akk. <i>kārīru</i> | “discarding”       | WSem. <i>grr</i> | “dripping” <sup>46</sup> |
| (013)     | Erim Bo. A a118f. (2x) | Akk. <i>amû</i>    | “to speak”         | WSem. <i>hmy</i> | “to bark” <sup>47</sup>  |
| (014)     | Erim Bo. Aa 207        | Akk. <i>bušû</i>   | “property”         | WSem. <i>bsm</i> | “pleasant” <sup>48</sup> |

35 Cf. Ug. *mlak*; Hebr. *ml'k*; OldAr. *ml'k* “messenger”.

36 Cf. Hebr. *ndd* “to flee”, Ug. *nd'* “to frighten away”.

37 Cf. Hebr. *qn'* “to be jealous”.

38 Cf. Hebr. *hry* “to be angry” / Hebr. *r'* “evil”.

39 Cf. Hebr. *qtl* “to kill”, OldAr. *qtl* “to kill”

40 Cf. Ug. *šby* “captive”; Hebr. *šbh* “to lead into captivity”; OffAr. “to make captive”.

41 Cf. Hebr. *khd* “to deny”; possibly also Ug. *khd* D “to hide”.

42 Or “escort of the bride”; according to attestation in the series Malku (I 172f.; Hřuša 2010: 42), which treats West Semitic-Akkadian synonyms and possibly to be linked to WSem. *hdš* “to be new”.

43 Cf. Ug. *qr'* “to call, shout”; Hebr. *qr'* “to cry”; OldAr. *qr'* “to call”.

44 Cf. Hebr. *dwdh* “father's sister”; OffAr. *dd* “uncle”; Syr. *ddt'* “father's sister”.

45 Cf. Ug. *aḥd* “one”; Hebr. *ḥd* “single, one”; OldAr. *ḥd* “one”.

46 Cf. Syr. *gr* “to leak, trickle”.

47 Cf. Hebr. “to make noise (animals)”.

48 Cf. Hebr. *bšm* “pleasant odor” OffAr. *bšm* “perfumed”.

|           |                 |                     |                    |                   |                                 |
|-----------|-----------------|---------------------|--------------------|-------------------|---------------------------------|
| (015) ??? | Erim Bo. Aa 227 | Akk. <i>bunnānū</i> | “face, appearance” | WSem. <i>bnyn</i> | “building” <sup>49</sup>        |
| (016) ??? | SaV Bo. I 12'   | Akk. <i>raqqu</i>   | “turtle”           | WSem. <i>rqḥ</i>  | “to mix (spices)” <sup>50</sup> |

Note that these cases – for the obvious lexical discrepancies they exhibit – can be detected rather easily. The situation is more complicated with regard to real root cognates, i.e., to etymologically-related Akkadian and West Semitic roots. These are quite often close in meaning, but not fully matching. Cases in which the West Semitic expression is in fact closer to the Hittite translation than the Akkadian one are not inconceivable, yet not easily detectable. Modern Akkadian and West Semitic lexicography still face difficulties in differentiating more sublime lexical nuances, so the original amount of secondary West Semitic influence at the lexical level may be far higher than expressed by the seven cases registered above.

A potential case of a West Semitic word being reinterpreted as a homonymous Akkadian one is

|       |                                            |                    |                            |
|-------|--------------------------------------------|--------------------|----------------------------|
| (017) | Izi Bo. A = KBo. 1,42 ii 43 et passim (7x) | Akk. <i>kanāšu</i> | “to bow down”              |
|       |                                            | WSem. <i>knš</i>   | “to pile up” <sup>51</sup> |

#### 2.3.4. [Akkadian – aspects of West Semitic influence – secondary morphological influence]

Regarding West Semitic influence on word formation, one can distinguish two groups of cases, both involving the erroneous interpretation of an original Akkadian item. The first group consists of verba mediae geminatae that eventually came out as verba mediae or tertiae infirmae and vice versa:

|         |                  |                    |                    |                     |                                |
|---------|------------------|--------------------|--------------------|---------------------|--------------------------------|
| (018)   | Erim Bo. A 142   | Akk. <i>kadādu</i> | “to bow down”      | as <i>quttū</i>     | “to bring to an end”           |
| (019)   | Erim Bo. A 262-4 | Akk. <i>ḥatātu</i> | “to vibrate, roar” | as <i>ḥuddū</i>     | “to make enjoy”                |
| (020)   | Izi Bo. A v 3'   | Akk. <i>šeṭū</i>   | “to spread out”    | as <i>šadādu</i>    | “to pull”                      |
| (021) ? | SaV Bo. B obv. 4 | Akk. <i>ṣerru</i>  | “hostile”          | as * <i>ṣarāru</i>  | “to be hostile”                |
| (022) ? | SaV Bo. I 12'    | Akk. <i>raqqu</i>  | “turtle”           | as WSem. <i>rqḥ</i> | “to mix, mingle” <sup>52</sup> |

All five errors require the infinitive pattern /C<sub>1</sub>aC<sub>2</sub>aaC<sub>2</sub>/ to have been reduced to /C<sub>1</sub>aC<sub>2</sub>(C<sub>2</sub>)/ or /C<sub>1</sub>uC<sub>2</sub>(C<sub>2</sub>)/, i.e., they require the 'weak' formation of the infinitive, which is quite common in West Semitic but absent in Akkadian,<sup>53</sup> and which therefore makes it likely that the errors are conveyed by a West Semitic adstratum.

49 Cf. Ug. *bnwn*, Hebr. *bnyn*, OffAr. *bnyn* “building”.

50 Cf. Ug. *rqḥ* “perfumer” (only attested as nominal root); Hebr. *rqḥ* “to mix ointment”; Phoen. *rqḥ* “to prepare perfume”.

51 Hebr. *kns* “to gather, collect”; OffAr. *knš* “to assemble, be assembled”.

52 See note to (016).

53 Cf. Hebr. *soḥ* < \**subb*, Syr. *mekkan* < \**mikann*; weak formation also seems to be regular in Ugaritic.

The same is true for the following instances, which make up the second group and which share the translation of *m*-prefixed forms (/mapras(t)/ or /muparris/) as infinitives:

|       |                      |                      |                               |
|-------|----------------------|----------------------|-------------------------------|
| (023) | Izi Bo. A ii 29'     | Akk. <i>mundaḥṣu</i> | Hitt. <i>ḫulḫuliyawar</i>     |
| (024) | Izi Bo. A ii 30'     | Akk. <i>mudekkû</i>  | Hitt. <i>anda ḫapatiyawar</i> |
| (025) | Izi Bo. A iv 44'     | Akk. <i>maqqu</i>    | Hitt. <i>šipanduwar</i>       |
| (026) | Izi Bo. A v 4'f.(2x) | Akk. <i>mešṭû</i>    | Hitt. <i>išpariyauwar</i>     |
| (027) | SaV Bo. C rev. 14'   | Akk. <i>mašḫaṭu</i>  | Hitt. <i>wekuwar</i>          |

Verbal-abstract meanings are beyond the semantic field of Akkadian *m*-prefixed nominal patterns, as is the case for most other (Old) Semitic languages – with the exception of Aramaic, which regularly has *m*-prefixed forms in infinitive use,<sup>54</sup> and which may thus have been the source of the misinterpretations.

**3.1.** [Sign names – general attestation] 'Sign names' are the labels assigned to the cuneiform signs by the cuneiform scribes. Formally, they appear as Sumerian loan words in Akkadian: The main element of an individual sign name is usually one of its Sumerian pronunciations or, in case it is a compound sign, the pronunciations of its components combined with some Sumerian standard phrases that describe the graphical relation of the components (such as Sum. šà--ì-gub “inscribed”); the term concludes with an Akkadian nominal ending.

Sign names are known since the 3<sup>rd</sup>-millennium texts from Ebla, i.e., when Sumerian was still a spoken language. In OB manuscripts, they occur rarely and never systematically. For the second half of the 2<sup>nd</sup> millennium, sign names are only known from the western peripheral lexical lists from Ḫattuša, Emar, and from Assur; also in these manuscripts, their inclusion is rather occasional than systematical. The bulk of known sign names stems from the canonical versions of the sign lists S<sup>a</sup>, S<sup>b</sup>, *Ea/Aa*, and *Diri*, which have sign names as an integral part of every entry and mostly within a separate column.

Y. Gong (2000) provides an extensive list of all signs names, which also includes a large part of the attestations of the LBA peripheral lexical lists – with the exception of those instances that occur in the Ḫattuša manuscripts of the series SaV as well as in an unlabeled simple-sign list from the same site (SSgL Bo. E = KUB 3,94). In order to complete Gong's inventory, the following offers a list of the missing attestations:

|       |                        |                             |                                                     |                                 |
|-------|------------------------|-----------------------------|-----------------------------------------------------|---------------------------------|
| (001) | SSgL Bo. E ii 14       | E-KISIM <sub>5</sub> xA-MAŠ | <i>ša-ki-ši-ma-ak-ku-a-maš-i-gub</i>                | <i>ša kisim-akku-a-maš-igub</i> |
| (002) | SSgL Bo. E ii 16       | E-KISIM <sub>5</sub> xLA    | <i>ša-ki-ši-ma-ak-ku-la-i-gub</i>                   | <i>ša kisim-akku-la-igub</i>    |
| (003) | SaV Bo. A ii 9'f. (2x) | GIR                         | <i>kiš-ki-qa-nu</i>                                 | <i>kiški-gunû</i>               |
| (004) | SaV Bo. A ii 1'f.      | GIŠ-ŠUB                     | <i>na-aš-<sup>1</sup>šu<sup>1</sup>-ul-pa-ak-ku</i> | <i>geš-šub<sup>2</sup>-akku</i> |

<sup>54</sup> This situation is at least evident with regard to Syriac and the later dialects of Old Aramaic; the earlier dialects of Old Aramaic; however, do not seem to provide (as of yet) attestations for /miqta/ patterns in infinitive use.

|       |                      |                   |                                   |                              |
|-------|----------------------|-------------------|-----------------------------------|------------------------------|
| (005) | SaV Bo. A ii 3'f.    | IGI-ŠUB (PÀD)     | <i>i-ki-iš-pa-ak-ku</i>           | <i>igi-šub-akku</i>          |
| (006) | SSgL Bo. E ii 2      | ḪU- <i>tenû</i> ? | <i>mu-še<sub>20</sub>-en-nu</i>   | <i>mušennû</i>               |
| (007) | SSgL Bo. E ii 8f.    | KI/UD-LUGAL-DU    | <i>a-la-al-lu-gal-ku-pa-ak-ku</i> | <i>ala(l)-lugal-gub-akku</i> |
| (008) | SaV Bo. B rev. 10'   | KUxIGI?           | [ ]- <i>ku</i>                    | [ ]- <i>akku</i>             |
| (009) | SaV Bo. B rev. 9'    | KUxLÁL?           | [ ]- <i>du-gul-la-ag-ga</i>       | [ ]- <i>tukul-(la)?-akku</i> |
| (010) | SaV Bo. A ii 13'-15' | LUM               | <i>lu-mu</i>                      | <i>lummu</i>                 |

Some (unintelligible) traces of sign names can further be found in Diri Bo. Ab = KBo. 26,9+ iv 2'f. and in Diri Bo. F = KBo. 26,12 rev. 14' and 16'.

**3.2.** [Sign names – graphemic and orthographic interpretation] A linguistic analysis of the LBA western-peripheral signs names as shown by the lexical lists from Ḫattuša and Emar is of very limited use for the aims of the present study, as their attestation is too scarce for outlining individual scribal traditions. Yet, aspects of the syllabary and of the orthography they used sheds some light on the functional and the short-distance transmissional context of the lists:

(1) As already noted by Y. Gong (2000: 8), the syllabaries used to render the sign names, in Emar as well as in Ḫattuša, often disregard voice contrasts; they appear to roughly conform to the syllabaries used in the Akkadian column.<sup>55</sup>

(2) The scribes of the Ḫattuša and Emar lists rarely make use of broken spellings in order to set apart the morpheme boundaries in sign names – which is contrary to the 1<sup>st</sup>-millennium practice: Cf. 1<sup>st</sup>-millennium Akk. *giš-tar-ú-ra-áš-šá-ku* (CT 11 31), which describes <PA-IB = ŠAB>, and in which the elements *gištar* (<PA>) and *uraš* (<IB>) are clearly marked off, or Akk. *geš-pu-ú-tu-ki-ta-ku* (Diri I 195) for <U (*gešpu*)- UD (*utu*)- KID (*kid*) = NIGIN<sub>3</sub>>. Instead the sign names appear as homogeneous, syllabical chains (e.g., Nos. 3, 24, and 28) often marked by contractions,<sup>56</sup> which in some instances cause strong difficulties in segmenting the chain, such as in Akk. [*n*]a-aš-ta-<sup>r</sup>ru<sup>1</sup>-ša-ku spelling *gešta-uruš-akku* and describing <PA-IB = ŠAB> (Diri Bo. Ab = KBo. 26,9+ iv 6'-9') or as with No. (005) of the list in the previous section.

Altogether the syllabary and orthography used for the sign names does, as with regard to the Akkadian column, apparently not fit the requirements of a totally literate tradition, in that it

55 E.g., note the avoidance of <GI> in Akk. *ra-an-ku-ub-bu-li-mu-ub-bi* spelling *rangubbu-limmu-bi* and describing the compound <DU:DU-DU:DU> (Diri Bo. B r. 6'-9') or of <GU> in Akk. *na-aš-ši-ki-nu-na-ak-ku* spelling *geš-sig-nun-akku* and describing <GIŠ-SÍGxNUN> (Diri Bo. Ca 4'-6'), or the absence of an *s*-series as exemplified by Akk. *na-aš-ši-ki-lam-ak-ku* spelling *geš-sig-lam-akku* and describing <GIŠ-SÍGxLAM> (Diri Bo. Ca 7'f.) or by Akk. *gaz-ra-ku-nu-me-en-na-bi* spelling *kasra-gunu-menna-bi* and describing <DU-šessig-DU-šessig> (Diri Bo. B r. 11'-14').

56 These differences between the Ḫattuša and the 1<sup>st</sup>-millennium spellings do not concern the genitive element Sum. *-akku*-, as for which an alternation between defective and continuous spellings in both corpora can be found, (whereby the continuous spelling appears altogether as the preferred mode; cf. Nos. 8-10).

complicates the identification of consonant voice as well as of the structural components of the signs. In terms of the functional context, this implies that the manuscripts were of limited use as reference works – be it as a part of scribal training or as a part of philological exegesis – if the users did not have further (orally-transmitted) meta-textual commentary available or did not possess a profound textual knowledge (here: in Sumerian). As the results of exercises or assignments, which both permit a certain degree of implicitness, they are properly interpretable without these prerequisites. As for further structural implications of the sign names cf. chapter 11, sect. 2.5.

**4.1. [Syllabic Sumerian – general attestation]** The evidence for syllabically written Sumerian manuscripts is not very extensive. They apparently come into existence during the Early-OB period. J. Krecher (1967) counts about 200 manuscripts that contain Syllabic Sumerian.<sup>57</sup> Their provenance as well as the text genres that they represent vary widely, with school texts making up only one group among others. Unfortunately, investigations of the syllabary and orthographic conventions of these texts has as of yet not been undertaken, so it is also impossible at the moment to identify potential contrasting traditions.

Among the three larger corpora investigated, Syllabic-Sumerian items are mostly preserved from Hattuša, which includes quite a number of manuscripts with a fixed Syllabic-Sumerian column (also see chapter 11, sect. 2.5.). In the lists from Emar and Ugarit, they occur only occasionally in the shape of glosses. In principle, what has been said concerning the sign names in the previous sections is also valid for the analysis of the Syllabic Sumerian: The amount of material preserved is too little to identify specific scribal traditions; and still as with regard to the sign names, the orthographic representation of the Syllabic-Sumerian items has some impact on their meta-textual functionality:

**4.2. [Syllabic-Sumerian - graphemic and orthographic interpretation]** An investigation of the graphemic and orthographic aspects of the Syllabic-Sumerian is only possible for the Hattuša corpus, since it provides the bulk of the material. Note the following aspects:

(1) Consonantal voice is but incompletely rendered through appropriate graphemes, as e.g., in SyllSum. e-gur instead of expected e-ku-ur, spelling OrthSum. é-kur (Kagal Bo B = KUB 30,6+ ii 11'f.); this is also the case for the vocalic contrast between /i/ and /e/, as in SyllSum Vš-ši spelling the OrthSum. postposition -šè, (Erim Bo. Ab = KBo. 1,35: 238 and 241).

(2) The Syllabic-Sumerian column of the manuscripts Kagal Bo. B = KUB 30,6+ and C = KBo. 16,87+ are marked by a good many comparable plene writings and geminate spellings. Whether the scribes, in accordance with the conventions of Hittite orthography, really used these spellings in

<sup>57</sup> As for treatment of a good deal of the extant material, cf. Krecher 1967, 1968, Bergmann 1964, 1965, as well as Cooper 1971, 1972.

order to differentiate vocalic quality and quantity as well as consonantal voice is as of yet unclear. The number of attestations within the manuscripts is simply far too slim for a broader investigation of the phenomenon.<sup>58</sup>

(3) The specifically Sumerian phoneme /ĝ/ (with a likely pronunciation of [ŋ]) is rendered inconsistently, with scribes mixing (i) regular transcription SyllSum Vn-KV, (ii) reduction to [n] or to [g], (iii) insertion of a (virtual) anaptyctic vowel (*i* or *a*), and (iv) complete elision. In intervocalic position and in anteposition to a velar stop, scribes usually use (i), but also (ii) and (iv); in contact with consonants, in word-initial or in word-final position, /ĝ/ is predominantly treated according to (iii), but there are also cases which follow (ii) or (iv).<sup>59</sup> A special case evolves when two /ĝ/ phonemes stand in direct sequential contact. In this case, scribes get by with anaptyctic (pseudo-) vowels, sometimes with additional phonetic reduction.<sup>60</sup> Also, the phoneme /s/ is rendered ambiguously, mostly by <Š>, but also by <Z>.<sup>61</sup>

Thus, what has been pointed out with regard to the sign names and the syllabary used in the Akkadian column, also applies to the Syllabic Sumerian: In a totally literate environment, the syllabary used is deficient. Identifying the exact Sumerian phonemes and their pronunciation appears impossible without the help of further (orally-provided) meta-textual instruction or of a profound con-textual knowledge of Sumerian. Without these devices the manuscripts must have been of limited usability as reference works – in scribal training as well as in scholarly contexts.

58 A further impediment concerns the insufficiently reconstructed phonology of Sumerian. One may in this respect adduce Sumerian loan words in Akkadian: Cf. Sum. *du<sub>11</sub>-ga*, which is rendered with gemination in SyllSum. *du-ug-ga* (Kagal Bo. C = KBo. 16,87+ iv 16'), according to Sturtevant's rule indicating tenuis [k], thus, and corresponding well to the Akkadian loan words *tukku* (Sum. *du<sub>4</sub>*) "rumor" and *unetukku* "letter" (Sum. *ù-ne-du<sub>4</sub>*) or OrthSum./SyllSum. *šu-gi-na* = *šu-gi-na* (Kagal Bo. B = KUB 30,6+ sect. B 5'), which corresponds to media [g] in Akk. *šuginû*. Still, the complications ensue: the stop in the genitive suffix Sum. *-ak-*, which always appears as tenuis [k] in Akkadian loan, is rendered by a single *-k-* in Syllabic Sumerian (as e.g., in SyllSum *a-pa-a-ka* rendering OrthSum. *a-ba-kam*, Kagal Bo. C = KBo. 16,87+ iii 5').

In this respect, also note the conspicuous use of geminate and plene spellings in obviously uneconomic contexts, such as in SyllSum. *e-u-uz-zu* for Sum. *é-uzu* in Kagal Bo. B = KUB 30,6+ sect. D 4' or SyllSum. *du-ug-ga* for Sum. *du<sub>11</sub>-ga* in Kagal Bo. C = KBo. 16,87+ iv 16', which employ the comparably complex and laborious signs <UZ> and <UG>.

59 (ii): OrthSum./SyllSum. *ĝá-e* = *ga-e* (Erim Bo. D = KBo. 1,41 a 7'), *ka-ḥul-ĝál* = *qa-a-ḥu-ul-gal* (Sag Bo. D = KBo. 1,38 rev. 14'); also note the sign names which render <GIŠ> and <PA> (= *ĝeštaru*) as *na-aš* and *na-aš-ta-ru* (cf. 3.5., Nos. 008-012 and 023-026).

(iii): OrthSum./SyllSum. *ùĝ* = *un-ki* (Izi Bo. D = KBo. 1,40 1'-4'), *saĝ-dul* = *ša-an-ga-túl*, *saĝ-dul-saĝ-(na)* = *sag-túl-ša-an-ga(-na)* (Erim Bo. B = KBo. 1,36+ r. 5'-7') *saĝ-saĝ* = *ša-an-ga-ša-an-ga* (Sag Bo. A = KBo. 26,46 14'f.);

(iv): OrthSum./SyllSum. *níĝ-ḥul* = *ni-ḥu-ul* (OBLu Bo. A = KBo. 1,30 ii 14'-24').

60 Cf. OrthSum./SyllSum. *saĝ-ĝá* = *ša-an-ga-an-ga* (Sag Bo. B = KBo. 26,45 2'), *saĝ-ĝeš* = *ša-an-ga-na-aš* (ibid 3'f., 6').

61 OrthSum./SyllSum. *su* = *zu-u* (Erim Bo. Aa = KBo. 1,44+ 143), *sá-sá* = *za-ša* (Erim Bo. B = KBo. 1,36 r. 13'-15'), *sig-ga* = *za-aq-qa* (Kagal Bo. B sect. D 6'f.).

**5.1.** [Orthographic Sumerian – overview] Sumerian as it is preserved in the lexical lists from the MB period has undergone considerable changes since it disappeared as a spoken language some centuries before.

Here is not the place to discuss the general status of the items preserved in the Sumerian column of the lists, i.e., whether they are still to be considered as representing language or – rather – as combinations of logograms or even just as a combination of cuneiform signs. In any case, quite a number of these items somehow deviate from the form one would expect from 3<sup>rd</sup> or early 2<sup>nd</sup>-millennium sources. The following is an attempt to differentiate these deviations according to three categories: (1) real errors, (2) unorthographical spellings, or (3) deliberate derivations. Real errors are accidental and result from an incorrect transmission of the texts, as e.g., the spelling <NÍG-AL> for Sum. *igi-kal* (Erim Bo. Aa = KBo. 1,44+ 221). Unorthographical spellings are more or less naturalized alternative spellings, mostly in the shape of syllabifications/phonetizations of originally logographic items, as can be found in <Á-SAL> spelling Sum. *asal* “poplar” (Izi Bo. A = KBo. 1,42 ii 9’); that the spelling is not a mere error is clear from its integration into the Á-section in *Izi*. Unorthographical spellings are already common in late 3<sup>rd</sup>-millennium and OB Sumerian. Derivative spellings, finally, are more or less deliberate systematizations of the phonological and semantic ambiguities of cuneiform writing; they most prominently appear in 1<sup>st</sup>-millennium sign lists such as *Ea/Aa.*, when the lexical lists have turned from a tool of scribal education into more or less speculative philological instruments (cf. chapter 2, sect. 4.3.2.). Yet, there are already numerous instances in the lists from Hattuša, e.g., <LU> for Sum. *lú* “man” (SaV Bo. B = KBo. 1,45 rev. 18’).

It is evident that not all cases can be clearly assigned to one of the three groups; thus the collections of unorthographical spellings and derivative entries given in the following sections are of provisional character. A list of spellings considered as errors can be found in chapter 10, sect. 4.Type.II.1.

**5.2.** [Orthographic Sumerian – unorthographical spellings] Within the Hattuša lists, the presumed group of unorthographical spellings involves the following cases:

|       | Reference       | Unorthographical spell. | 'Correct' spell. | Akkadian translation         |
|-------|-----------------|-------------------------|------------------|------------------------------|
| (001) | Erim Bo. A 4    | NUN (in NUN-NUN)        | nún              | unclear (accord. to context) |
| (002) | Erim Bo. A 126  | ŠÚ (in níĝ-ŠÚ)          | šu               | unclear (accord. to context) |
| (003) | Erim Bo. A 214  | ša-ĝar-ra               | a-ša(-an)-gār    | Akk. <i>ākil karši</i>       |
| (004) | Erim Bo. A 233  | TUKU (in lú-kúr-T.-T.)  | dug <sub>4</sub> | Akk. <i>qāb šanītu</i>       |
| (005) | Izi Bo. A i 19' | á-GÚ-ŠU                 | á-kúš-ù          | Akk. <i>mānaḥtu</i>          |
| (006) | Izi Bo. A i 21  | TA (in á-zi-TA)         | da               | Akk. <i>ištu</i>             |
| (007) | Izi Bo. A ii 9' | Á-SAL                   | asal             | Akk. <i>šarbatu</i>          |

|        |                                        |                                     |                        |                     |
|--------|----------------------------------------|-------------------------------------|------------------------|---------------------|
| (008a) | Izi Bo. A iv 24'                       | ZAG (in ZAG-x)                      | saĝ                    | Akk. <i>rabātu</i>  |
| (008b) | Izi Bo. A iv 27'                       | ZAG (in ZAG-dili)                   | saĝ                    | Akk. <i>edēn=ku</i> |
| (008c) | Izi Bo. A iv 28'                       | ZAG (in ZAG-íl-la)                  | saĝ                    | Akk. <i>dīnānu</i>  |
| (009)  | Izi Bo. B obv. 17                      | BAD (in BAD.BAD)                    | bad <sub>x</sub> (IGI) | Akk. <i>dabdû</i>   |
| (010)  | OB Lu Bo. B r. 9'f. DAB (in in šà-dib) |                                     | dab <sub>5</sub>       | Akk. <i>zenû</i>    |
| (011)  | Sag Bo. D rev. 10'                     | DÙ (in ka-DÙ.DÙ)                    | du <sub>7</sub>        | Akk. <i>pû altu</i> |
| (012)  | Urra 1A B i 34'                        | TAL (in ĝešTAL-bu-um)               | dili                   | unilingual entry    |
| (013)  | Urra 1A B ii 7'                        | TAR (in ĝešmáš-TAR)                 | dàra                   | unilingual entry    |
| (014)  | Urra 1A B ii 20'                       | GÌR (in ĝešGÌR-šu-du <sub>7</sub> ) | ešgiri (ŠIBIR)         | unilingual entry    |

**5.3.** [Orthographic Sumerian – derivative spellings] The various types of derivative spellings as established by A. Cavigneaux (1976), have been outlined in chapter 2, sect. 3.3.5.2. & 3.3.5.3. In the following are a list of all instances from the Hattuša lists according to the individual types (with Akkadian terms reconstructed from the Hittite translations marked by 'h'):

#### Paralexis based on phonetic analogy

|         | Reference             | Paralectic read. | Original read.    | Akkadian translation            |
|---------|-----------------------|------------------|-------------------|---------------------------------|
| (001)   | Izi Bo. A ii 14'      | GÚ               | KU                | Akk. <i>šubtu</i>               |
| (002)   | Izi Bo. A iii 52      | SI               | še                | Akk. <i>šemû</i>                |
| (003)   | Izi Bo. A iii 59      | SI               | sì                | Akk. <i>šapāku</i>              |
| (004)   | Izi Bo. A iv 34'      | DA               | ta                | Akk. <i>ištu</i>                |
| (005) ? | SaV Bo. A i 3'        | PAD              | pàd               | Akk. <i>nabû</i> h              |
| (006) ? | SaV Bo. B obv. 10'    | AḪ               | úḫ                | Akk. <i>ru'tu</i> h             |
| (007)   | SaV Bo. B rev. 4'     | KU               | kù                | Akk. <i>ellu</i> also see (017) |
| (008)   | SaV Bo. B rev 18'-20' | LU               | lú                | Akk. <i>awīlu, nišû, tenēšû</i> |
| (009)   | SaV Bo. C rev. 9'     | DÚR              | dur <sub>11</sub> | Akk. <i>muṣṣu</i>               |
| (010)   | SaV Bo. K 19'         | ZAG (zà)         | sá                | Akk. <i>šanānu</i>              |

#### Paralexis based on graphical analogy

|         | Reference          | Paralectic read. | Original read. | Akkadian translation             |
|---------|--------------------|------------------|----------------|----------------------------------|
| (011)   | Diri Bo. Ab i 3'   | <TUKU>           | <ŠÁR>          | <sup>D</sup> <i>Ea</i> (ŠÁR.ŠÁR) |
| (012) ? | SaV Bo. C rev. 21' | <UDU>            | <NIGIN>        | Akk. <i>tāru</i>                 |

#### Paralexis based on semantic analogy

| Reference | Paralectic read.   | Original read.                  |                                 |
|-----------|--------------------|---------------------------------|---------------------------------|
| (013)     | Izi Bo. A ii 11'   | gú = <i>rēšu</i>                | saĝ = <i>rēšu</i>               |
| (014) ?   | Izi Bo. A iii 55f. | SI = <i>arāmu, uḫḫuzu</i>       | SI = <i>šapāku</i>              |
| (015)     | Izi Bo. B obv. 18' | BAD = <i>zumru</i>              | BAD = <i>šalamtu</i>            |
| (016) ?   | SaV Bo. B obv. 9'  | AḪ = <i>kišpu</i>               | AḪ = <i>ru'tu</i>               |
| (017) ?   | SaV Bo. B rev 4'   | KU = <i>ellu</i>                | KU = <i>rubû</i> also see (007) |
| (018) ?   | SaV Bo. D obv. 2'  | UD = <i>šarru, rubû, rabû</i> h | UD = <i>ellu</i>                |
| (019)     | SaV Bo. D obv. 11' | ad = <i>šarru</i> h             | ad = <i>abu</i>                 |
| (020) ?   | SaV Bo. F 3'       | priĝ = <i>rīmu</i>              | piriĝ = <i>nešu</i>             |



|       |                 |                        |                         |
|-------|-----------------|------------------------|-------------------------|
| (021) | SaV Bo. G 6"    | PAB = <i>šaqû</i>      | pab = <i>aḥu, rêštu</i> |
| (022) | SaV Bo. K 15'f. | ZAG = <i>ištu, adi</i> | zag = <i>mišru</i>      |

### Taxilexis

| Reference                    | Taxilectic read. | Complete read.       | Akkadian translation       |
|------------------------------|------------------|----------------------|----------------------------|
| (023) ? Diri Bo. Ab i 13'    | TAK <sub>4</sub> | tak <sub>4</sub> -lá | Akk. <i>petû</i>           |
| (024) Erim Bo. A 145         | ŠÁR              | ul <sub>4</sub> -šár | Akk. <i>rāšu</i>           |
| (025) Izi Bo. A iii 48f.     | SI               | gú-si                | Akk. <i>kanāšu, paḥāru</i> |
| (026) Izi Bo. A iii 53       | SI               | diriġ (SI.A)         | Akk. <i>ašāšu</i>          |
| (027) Izi Bo. A v 9'         | TUŠ              | ki-tuš               | Akk. <i>šubtu</i>          |
| (028) Izi Bo. A v 14'        | MÁŠ              | máš-ġe <sub>6</sub>  | Akk. <i>šuttu</i>          |
| (029) ? SaV Bo. A i 6'       | ḤUR              | ḥur-saġ              | Akk. <i>šadû</i> h         |
| (030) SaV Bo. A iv 4         | AN               | an-ta(-ġál)          | Akk. <i>šaqû</i>           |
| (031) ? SaV Bo. K rev. 20'f. | ZAG              | zag-ġar-ra           | Akk. <i>sukkû, išertu</i>  |
| (032) SaV Bo. L 8'           | TUKU             | ġeš--tuku            | Akk. <i>šemû</i>           |

### Metalexis

| Reference                | Taxilectic read.        | Explanation                                         |
|--------------------------|-------------------------|-----------------------------------------------------|
| (033) SaV Bo. H l. 9'f.  | AL = <i>anāku, atta</i> | conjugation prefix Sum. al-                         |
| (034) ? SaV Bo. H l. 12' | IL = <i>šû</i>          | allomorph variant of conjug. prefix Sum. al- or i-? |

**6.1.** [Traces of meta-language – general definition and attestation] Meta-language is defined as the specific language variety that is employed for the description of language, the latter is labeled object language; in language description both meta-language and object language often – if not mostly – derive from the same natural language.

When dealing with meta-language in the cuneiform tradition, the observer is primarily referred to the Neo-Babylonian Grammatical Texts (NBGT). Listing grammatical morphemes that are mostly abstracted from their syntagmatic context, these series display a highly specialized – and still not fully understood – set of meta-linguistic terms, which give information about the position of morphemes, about specific verbal moods or specifically formed verbal stems.<sup>62</sup> To a far less degree and by far less systematically, the lexical texts of the Ḥattuša corpus and its parallel corpora also show elements of meta-language. The series *Erimḥuš* in this respect attracts particular interest. In the Ḥattuša version, the use of meta-linguistic terms even appears more pronounced than in the later, 1<sup>st</sup>-millennium version(s).

Regarding the terminology developed in chapter 8, sect. 3.4.1., meta-language as it appears in the lists can be conceived of as an element of the meta-text, i.e., as a part of the interpretations

<sup>62</sup> The Mesopotamian grammatical tradition and the meta-linguistic terminology developed by it is dealt with extensively by J. Black (1984).

necessary to understand and use the text. Presuming that the meta-text was originally handed down by oral means, the meta-linguistic elements may moreover be regarded as a kind of clod oral discourse.

**6.2.1.** [Traces of meta language – Sumerian column – overview] Meta-linguistic terms occur in all three columns, with the highest variety found in the Sumerian column. Sumerian meta-linguistic terms; however, are limited to the series *Erimḫuš*. The reliable identification and description of meta-linguistic items in this composition suffers from two points: (1) the vocabulary listed in *Erimḫuš* apparently reflects poetic language as it is found in Sumerian epics and narratives; many of those terms listed are otherwise not attested and lack a conclusive interpretation. And (2), compared to the parallel 1<sup>st</sup>-millennium version, the Sumerian as it appears transmitted in the Ḫattuša version is often deficient. Elements considered meta-linguistic may also represent as yet unknown expressions or may represent corruptions.

It is however possible to establish a couple of criteria which would be expected to apply to meta-linguistic terms, hence by means of which one can detect them more easily and more reliably. Thus, a given item is more likely to possess a meta-linguistic function, (i) when it occurs more than once in the text, (ii) when it occurs in the Ḫattuša version and in the canonical version, and (iii) when its core lexical meaning suits the requirements of meta-language.

Applying these criteria, the following elements come into consideration:

|         | Crit. (i) | Crit. (ii) | Crit. (iii)             |
|---------|-----------|------------|-------------------------|
| -ri-a   | 11x       | yes        | “distant, remote”       |
| -kúr    | 1x        | no         | “different”             |
| -tab    | 1x        | no         | “equal, double”         |
| -ĝá/ĝar | 1x        | no         | “to put”                |
| -sá     | 3x        | no         | “to be/set in order”    |
| -ta/da  | 2x        | no         | <<ablative/comitative>> |

**6.2.2.** [Traces of meta-language – Sumerian column – Sum. -(a)-ri-a] The formative Sum. -ri-a, which occurs as -a-ri-a in the canonical version, has been extensively discussed by Ch. Woods (2001). In the lexical context of *Erimḫuš*, according to Woods' observations, “a-ri-a appears to be roughly translated as, 'secondary meaning', or, more broadly, 'marked meaning or form', as interpreted by the scribes compiling the lexical list.” (107) Although his attempt to subsume all of the preserved instances coherently under this main function does not appear compelling in every single case, it seems to be the most proper explanation of the term. The proposed function is evident in cases where a form marked by -ri-a is contrasted with an unmarked form. This contrast mostly appears in a group of three entries, which follow the pattern [simple root]-[reduplicated root]-[root

+ ri-a]. The Akkadian translation set against the term which is marked by -ri-a is always more specialized, as to its meaning or simply as to its frequency in use, than the one(s) corresponding to the unmarked term.<sup>63</sup>

More difficult are those attestations in which the form extended by -ri-a is not opposed to an unextended form, but contrasts with expressions that are based on alternative roots. The entries of such groups are either synonymous or closely related hyponyms. Woods suggests that in such cases, the -ri-a terms “are distinguished from them [the unmarked terms] either morphologically or graphically.” (2001: 109) Another, possibly more convincing solution implies that -ri-a has a restrictive function, i.e., indicating that the respectively marked term forms a synonym only if used with a secondary meaning. Unfortunately, the extant examples are not very sound, since the Sumerian expressions – the marked ones as well as the unmarked ones – are scarcely attested otherwise and their exact meaning is indeterminable.<sup>64</sup> There is, thus, no final conclusion possible about the function of Sum. -ri-a.

**6.2.3.** [Traces of meta-language – Sumerian column – Sum. -kúr and -tab] As for Sum. -ri-a, there can be no doubt that it belongs to the meta-linguistic level due to its rich attestation and its parallels in the canonical version. The situation with regard to the other supposed elements, yet, is far more uncertain. So is the case with Sum. -kúr and -tab. They each occur once and only in the Ḫattuša version. However, they occur in contexts similar to those of -ri-a, i.e., as third distinctive elements in the typical [R]-[R-R]-[R-x] sections, or as the second in an [R]-[R-x] type section.

Assuming that the meaning of -kúr is a meta-linguistic one, this element could indicate what may be termed 'semantic inversion', i.e., the negation of the opposite: The Akkadian translation of unmarked Sum. *igi-lib* is Akk. *dalāpu* “to be/stay awake”, that of Sum. *igi-lib-kúr* Akk. *lā šalālu* “not to sleep” (Erim Bo. A 41f.). This meaning would roughly suit the lexical meaning of Sum. *kúr* “(to be/make) different”. Accordingly, the element Sum. -tab lit. “(to be) equal/double” would indicate that the given translation is of equal relevance to that of the unmarked term.

63 Cf. Sum./Akk. *èn-tar* = *ša'ālu* “to ask” vs. *èn-tar-ri-a* = *uṣṣuṣu* „to inquire“ (Erim Bo. A 11/13) or *lib-ĝar* = *puqu* “to pay attention” vs. *lib-ĝar-ri-a* = *kādu* “to watch, guard” (Erim Bo. A 135/137; Akk. *kādu* is only attested in lexical lists), or *erín-nir-ra* = *bēl nārāri* “commander of the auxiliary troops” vs. *erín-nir-ri-a* = *nīru* denoting a kind of not further specifiable troops (Erim Bo. A 148f.). Similar attestations are Erim Bo. A 8/10, 106f., 112/114, 189f., possibly also 27f. opposing Sum./Akk. *gur<sub>4</sub>-ra* = *gitmālu* “noble” and *ĝir-ri-ra* = *kapkappu* “strong” (if Sum *ĝir* is taken as a phonetical variant or as a mistake for *gur<sub>4</sub>*).

64 Both examples may be interpreted in this way. Erim Bo. A 4-7 lists the terms Sum. *nun-nun*, *šu-ZAG-ZAG*, *šu-si-sá* and *nam-nir-ri-a*, which are set against approximately synonymous Akkadian verbs with -*t(an)*- infix. The Akkadian equivalents In Erim Bo. A 105-108 are equally synonymous according to the Akkadian translations. The Sumerian roots are *šu-gíd-da*, *šu-sù-ud-da* (additionally contrasted with *šu-sù-ud-da-ri-a*) and *šu-bar-zí-ri-a*. While the first and the second one are quasi synonyms (lit. “long arm” vs “stretched-out arm”), the third one seems to be unknown as of yet in that meaning.

In fact, the respectively marked and unmarked translations of Sum. *šu-ḫi* and *šu-ḫi-tab*, Akk. *šutamḫuru* “to equate, make equal” and *šutātenu* (<*tm*) “to bring against each other, mix” (Erim Bo. A 102-104), are quasi-synonymous.

**6.2.4.** [Traces of meta-language – Sumerian column – Sum. -*ĝá* and -*sá*] In the type of paradigm in which Sum. -*kúr* and -*tab* can be isolated as distinctive elements, one can also find the elements Sum. -*ĝá* and -*sá*. Both of these verbal roots frequently serve as bases for compound verbs (with *sá* read *dī* in this case) and therefore, they are not necessarily to be regarded as meta-linguistic elements, although the specific combinations they form in the present attestations are not known as compounds from other sources. The meanings of both terms fit the requirements of meta-language. Unfortunately, the Akkadian translations of the terms marked with -*ĝá* or -*sá*, are broken or hard to translate, so a suggestion regarding the possible meanings of the two terms cannot be offered.<sup>65</sup>

**6.2.5.** [Traces of meta-language – Sumerian column – Sum. -*ta*/*-da*] Equally uncertain as in the case of Sum. -*ĝá* and -*sá*, is the meta-linguistic character of the element Sum -*ta*. This morpheme is not known as a compound formative; infinite verbal forms with -*ta* added are quite unusual, especially in lexical lists. There are two attestations (once written -*ta*, once -*ta-a*). In the first, the marked verbal form corresponds to a *t*-infix Akkadian form, whereas the unmarked does not; one may conclude therefore that -*ta* marks reciprocity, possibly referring to the comitative morpheme -*da*, which usually appears as an infix in finite forms, and may here in the case of an infinite form, be postponed to the end of the expression.

Unfortunately this interpretation is not confirmed by the second attestation, where there is no reciprocity explicitly expressed in the Akkadian translation: Sum./Akk. *kúr-du<sub>11</sub>-ga-ta* = *erretu* “curse” (Erim Bo. A 217).

**6.3.** [Traces of meta-language - Akkadian column] Meta-language in the Akkadian column mainly involves the term Akk. *šanīš* “secondly, again”. The expression is well known from the commentary literature of the 1<sup>st</sup> millennium, where it introduces secondary explanations. It is apparently not attested to in lexical lists with the exception of *Erimḫuš*. In the canonical version, where it is attested four times,<sup>66</sup> it appears with the same grammatical construction as is used in the

65 The attestations are Sum./Akk. *šu-du<sub>10</sub>-ĝá(-ĝá)* = *našlulu* “to slither” (Erim Bo. A 101), *áš-daḫ-sá* = *karriru* “a criminal” (Erim Bo. A 45), and *zu<sub>9</sub>-è-a-sá* = *tar-ra-ZU* (meaning uncertain, Erim Bo. A 123); a word-final element -*DI* also occurs in the broken entry Erim Bo. A 64.

66 Cf. Erim can. I 214, II 179, 199, 246 (Cavigneaux 1985)

commentaries, i.e., in anteposition to the term that it refers to. Its syntactical position in the Hattuša version (two attestations) is entirely different. There it is the second attributing member of a bound-state construction: Akk. *tīb šanīš* as opposed to simple Akk. *tību* “arousal, attack” (twice in Erim Bo. A 34, 113). Whether this simply reflects 2<sup>nd</sup>-millennium practice as opposed to 1<sup>st</sup>-millennium practice, or is due to the partially corrupt Hittite tradition is impossible to state.

That *šanīš* is not merely the phonetically written variant of the meta-textual mark MIN<sup>67</sup>, is demonstrated by the construction *šanīš* MIN, as it is preserved in all four 1<sup>st</sup>-millennium attestations. The construction, as in the examples given, is always set in contrast with the simple, unmarked item. The Sumerian terms set against the marked form appear to be less commonly used, i.e., to be secondary in use, compared to the terms that are respectively set against the unmarked form.<sup>68</sup> The function of Akk. *šanīš* therefore roughly corresponds to that of Sum. -ri-a (cf. sect. 6.2.1.), with the exact differences in use – if there were any – unknown.<sup>69</sup>

A second Akkadian element possibly possessing a meta-linguistic function is the clitic Akk. =*ma*, meaning “also” in this case. At least, it appears that the Hittite translating scribes interpreted it as such, since they translate it by Hitt. =*pat* “also” and *nu*= “and”.<sup>70</sup> The fact that the forms extended by =*ma* always contrast with identical but unextended items, as is the case with Akk. *šanīš* or Sum. -ri-a, in fact suggests a meta-linguistic usage on first sight. However, the contrasts can also be regarded as object-language paradigms, with =*ma* having an emphasizing meaning, such as Akk. *inanna*=*ma* “right now” as opposed to *inanna* “now” (Erim Bo. A 14f.) or *mati*=*ma* “whenever” against *mati* “when” (ibid. 239f.);<sup>71</sup> in this case the Hittite interpretations would be deviant.

**6.4.** [Traces of meta-language – Hittite column] Hittite meta-linguistic items in the first place concern the clitic =*pat*, the particle *nu*=, as well as the expressions Hitt. 2-*anki*, and *iwar*. One additionally has to keep apart translations of (supposed) Akkadian meta-linguistic items from meta-linguistic items that solely concern the Hittite column.

Hitt. 2-*anki* occurs three times. Once, it translates Akk. *šanīš*, which is itself used meta-linguistically (Akk./Hitt. *tīb šanīš* = 2-*anki tar*-MA/KU-*war*; Erim Bo. A 113, with the meaning of the

67 As for which, see chapter 8, sect. 3.4.1.

68 Unfortunately this is only evident from the attestations in the canonical version. The corresponding Sumerian terms of the Hattuša attestations are broken or not fully interpretable.

69 In Erim can. I 214 (Cavigneaux 1985), Sum. a-ri-a and Akk. *šanīš* are set against each other within the same entry.

70 Cf. Akk./Hitt. *inanna*=*ma* = *kinun*=*pat* “also now” (Erim Bo. A 15), *mati*=*ma* = *nu kuit*[*man*] “and while” (ibid. 240), *immati*=*ma* = *nu kuššan* “and when”.

71 Yet note Akk. *umma* against *umma*=*ma* (Syn Bo. A = KBo. 26,28 13f.).

Hittite unclear; also see sect. 6.3.), in the second case (Hitt. 2-*anki=kan kuieš memiškanzi* “who talk together twice”); with Akkadian broken *ibid.* 215), the particle *=kan* suggests that it is a part of the object language; the third attestation (*ibid.* 202) is fragmentary and unclear.

Hitt. *iwar* only occurs once (Erim Bo. A 119). Its function is apparently identical with that of the meta-textual note (KI.)MIN; (also see chapter 8, sect. 3.4.) and probably represents the phonetic variant of the latter.<sup>72</sup> The scribe possibly followed the dictation of the text too faithfully or mixed in the phonetic representation when he was pronouncing (silently or aloud) what he was copying.

Hitt. *=pat* and *nu=* as meta-linguistic marks seem to be interchangeable in use. As explained in the previous section, they are often used in order to translate Akk. *=ma*, but not exclusively, as they also occur independent of the Akkadian. Their function is to express identity between two or more successive translations. In contrast to KI.MIN/*iwar*, they seem to put particular emphasis on the semantic identity. In groups of two identical subsequent translations, either *nu=* or *=pat* mark the second item.<sup>73</sup> In a series of three entries, the second and the third item are preceded by *nu=*, while the third one additionally takes *=pat*: i.e., [R]-[nu R]-[nu R-pat].<sup>74</sup> In the series *Izi* and in an unlabeled simple-sign list, there are instances in which Hitt. *=pat* apparently does not link two immediately subsequent entries, but two entries within subsequent symmetrically designed sections.<sup>75</sup>

Hitt. *memmuwar* “to speak”, found once in SaV Bo H = KUB 3,105 l. 11' (with the Sumerian and Akkadian broken) is perhaps the Hittite equivalent to Sum./Akk. KA.KA.SIG.GA = *ša tēlti*, which is used in bilingual sign-lists as an indicator that a given sign is only used as a syllabogram and without any logographic meaning.

72 Erim Bo. A 119, as opposed to *ibid.* 101, 123, 126, 166 and Erim Bo C r. 14'.

73 As to *=pat*, cf. Erim Bo. A 14f., as to *nu* *ibid.* 22f. and 236/238.

74 Cf. Erim Bo. A 239-241 and 242-244.

75 Cf. *Izi* Bo. A iii 30-35 and SSgL D i 4'-8'.

