

Enfin, l'emploi de ces formations, de génitifs-adjectifs dans les flexions dépourvues de génitif, de dérivés d'appartenance en concurrence avec un génitif existant, dans le cadre de la concurrence entre génitif et adjectif, conserve un archaïsme syntaxique: la dérivation syntaxique qui fait d'un substantif employé prädicativement au génitif un adjectif déterminé.

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Luvian Lexical Notes*)

The revised readings of several key HLuvian signs presented by Hawkins, Morpurgo-Davies, and Neumann, *HHL* (1974), have revolutionized our understanding of the language, and now a complete up-to-date edition of the first-millennium HLuvian texts by Hawkins is about to appear.¹⁾ F. Starke has recently given us a splendid new edition of the CLuvian corpus.²⁾ Despite the limitations imposed by the relatively small corpora, these languages can now contribute significantly to our understanding of the development of the Indo-European languages in Anatolia. The following remarks are meant as one contribution to the on-going process of elucidating the rich material these languages offer us.

1. CLuv. *am(ma)šša/i-*

The only occurrence of this stem in a CLuv. context, pret. 3rd sg. *am-ma-ša-t[a]* in *KBo* XXIX 34, 3 (*StBoT* 30.377), is too fragmentary to be of any use. Likewise the pres. 3rd sg. *am-ma-aš-ši-ti* in a Hittite context in *KBo* IV 6 Rs 2. Fortunately, the remaining example tells us all we need to know:

(1) *KUB* XII 26 II 5 ff.:

nu-wa-kan šuppin ÁŠ.SAL.GÀR-an kiššir nu-war-an piššir nu-war-an-kan arrir nu-war-an *am-ma-aš-ša-an-da*

'They combed the sacralized ewe; they rubbed her; they washed her, and they__ed her.'

*) Bibliographical abbreviations employed here are those of *The Hittite Dictionary of the Oriental Institute of the University of Chicago*, Chicago: 1980ff. In the numbering of HLuvian signs I follow the system of Laroche, *Les hiéroglyphes hittites*, Paris: 1960. I transliterate HLuvian signs according to the revised system of Hawkins, Morpurgo-Davies, and Neumann, *HHL* (1974). See also the summary by Hawkins, *AnSt* 25 (1975) 153 ff., and further additions, *AnSt* 31 (1981) 148.

¹⁾ J.D. Hawkins, *The Hieroglyphic Luwian Inscriptions of the Iron Age*, de Gruyter, Berlin: 1989 ss.

²⁾ F. Starke, *Die keilschrift-luwischen Texte in Umschrift* (= *StBoT* 30), Harrassowitz, Wiesbaden: 1985.

In view of the canonical sequence *arra-* 'wash', *anšš-* 'wipe (dry)' of Hittite rituals, the sense of CLuv. *am(ma)šš(a/i)-* can hardly be anything but 'wipe', and the equation Hitt. *anšš-* = CLuv. *ammšš-* imposes itself.

We can now finally solve the mystery of why only *anšš-* in all of Hittite shows *-nšš-*, while elsewhere **-ns-* assimilates to *-šš-*: while Luvian preserves the relatively rare sequence **-ms-* as such, in Hittite it is assimilated to *-nš-*, but only after the change of original **-ns-* to *-šš-*. Hitt. *anš-/anašš-* (for */anss-/*) shows the usual gemination of **s* next to a sonant (cf. *gulš-/gulašš-*, *karš-/karašš-* etc.). CLuv. *am-ma-aš-ša/i-* (for */ammss-/*) shows the same gemination of **s* next to a sonant as well as the gemination of **m* before another consonant: cf. for the latter CLuv. *im(ma)rašši-* cognate with Hitt. *gim(ma)ra-* 'open field'.³⁾

Actually, *anšš-* 'wipe' probably is not the only example of Hittite *-nšš-* from **-ms-*. The sure example given above strongly supports Puhvel's derivation, *Hittite Etymological Dictionary* (1984) 63, of Hitt. *anašša-* (part of the back) from PIE **omso-* 'shoulder'. Puhvel assumes an anaptyctic vowel, but the evidence of *anš-/anašš-* suggests rather a reading */anssa-/*, with the phonological developments sketched above. Since the word appears but once, the lack of an alternate spelling *an-ša-* is insignificant.

The realization that PIE **ms* is preserved in Luvian but becomes *nš(š)* in Hittite has important consequences for our understanding of the source of Hitt. *hašš-* 'beget; give birth' and its large set of derivatives. Although no one has refuted my arguments, *RHA* 31 (1973) 57 ff., for Hitt. *hašša-* as 'child, son, offspring', the meaning

³⁾ The most plausible comparanda for an Anat. **am-s-* 'wipe' appear to be the group of Grk. *ἀμῶν* 'reap' and the Germanic words for 'mow' (OHG *māen* etc.), but the connection faces both semantic and formal uncertainties. One would have to assume that the original meaning was 'wipe, pass the hand over' whence 'pluck, harvest': cf. Hitt. *warš-* 'pluck, harvest' beside Lat. *uerō* 'drag (across a surface), sweep' < **wers-*. The fact that 'mow, reap' comes to mean 'cut' would have to be a secondary result of changes in the mode of harvesting. The Germanic forms point to **meh₁-*, and the equation with Gr. *ἀμῶν* requires that the second *a* of the latter be secondary: for a possible explanation see Peters, *Unters. z. Vertretung d. idg. Laryngale im Gr.* (1980) 90–91. The loss of **h₁* between consonants in an enlarged stem **amh₁-s-* would be expected, but it is questionable whether this would have happened soon enough to prevent assimilation of the **m* to the following velar or glottal sound represented by **h₁*. The assumption of an alternation **am-h₁-: m-eh₁-* in a root with inherent **a* also does not seem to me trivial. The assumption of PIE **a-* instead of **h₂e-* is of course required by Anatolian initial *a-* instead of *ha-*.

'grandchild' and equation with CLuv./HLuv. *hamša-/hamsa-* have persisted: see e.g. Tischler, *IEG* 195, and Oettinger, *Stammbildung* 439, among others. It is now clear that the equation *hašša-* = *hamsa-* 'grandchild' not only contradicts the usage of Hitt. *hašša-* but also is phonologically impossible.⁴⁾ This is confirmed by the equation of Hitt. *hašš-* and HLuv. *hasa-* 'beget' (also in *hasami-* 'family, clan, progeny'). This verb can only continue **h₂e/ons-* with assimilation to *-šš-* in both languages, while Luv. *hamsa-*, whatever its source, shows preserved *-ms-*.⁵⁾

Now that we know that Luv. *hamsa-* 'grandchild' can have nothing to do with *hašš-* 'beget' or its derivatives, we may legitimately wonder if it can be equated in some way to Hitt. *hanzašša-* 'grandchild' (sic!), its true functional equivalent.⁶⁾ We would expect the Hittite cognate of *hams-* to be **hanšša-*, with the same treatment as in *ammšš-* = *anšš-* 'wipe'. In the attested *hanzašša-* we find *-nz-* instead of *-nšš-* and an additional syllable *-šša-*. As to the latter, Eichner, *Heth. u. Idg.* (1979) 49 ff., has shown that Hitt. *genušša/i-*, originally the relational adjective to *genu-* 'knee', is secondarily substantivized and used as a virtual equivalent of *genu-* itself. It therefore seems possible to suppose that a relational adjective in *-šša-* meaning 'of/pertaining to the grandson' likewise came to be used as 'grandson'. A possible motivation for this happening in this particular word would be that it then formed a rhyme-pair with *hašša-* 'child, son': the two occur ninety per cent of the time collocated as *hašša- hanzašša-*. As

⁴⁾ Also impossible is my account of *hašš-*, *hašša-* and *haššu-* 'king' *Sprache* 29 (1983) 7. These forms can only continue **h₂e/ons-*, not **h₂e/oms-*. If my suggested derivation of *hašš-*, etc. in footnote 5 below is correct, then Hitt. *haššu-* 'king', Av. *ahū* 'lord' and Gmc. **ansu-* < **h₂onsu-* are probably unrelated to the group of **hašš-*. For a possible alternate source of **h₂onsu-* see Polomé, *Études Germ.* 8 (1953) 36 ff.

⁵⁾ The isolated gen. sg. *ha-am-ma-ša-aš* of *KBo* X 10 IV 9 is merely a Hittitized form of the Luvian word: cf. Hittite gen. sg. *ikkumattaš* and *šarlattaš* in *KUB* XXXV 18 I 10–11 from clearly Luvian stems.

I can suggest no PIE etymon for Anatolian **hamsa-* 'grandchild', but this is hardly surprising for this kind of vocabulary item. A possible explanation for *hašš-* 'beget; give birth' is provided by the relationship between Lith. *sémti* 'draw liquid' and OIr. *do-essim* 'pour out' and *do-fuissem* 'beget; give birth'. I suggest that *hašš-* may represent **h₂o/en-s-*, an extension of **h₂en-* 'draw water' seen in Hitt. *han-* 'idem' and perhaps in Grk. *ἄντρος* 'bilge-water' (Benveniste, *BSL* 50 (1954) 39).

⁶⁾ My derivation of *hanzašša-*, *RHA* 31.64, faces both semantic and phonological difficulties, while that of Laroche, *ibid.* 65 note, and that of Oettinger, *KZ* 94 (1980) 45, are phonologically impossible.

for *-nz-* instead of expected **-nšš-*, I have argued, *Sprache* 29/1.7f. (following a suggestion of J. Schindler), that Hitt. *-nz-* continues secondary clusters of *-ns-*, notably from **-ns-* (e.g. *anzāš* 'us' < **ns-*). I already suggested there that Hitt. *hanzana-* 'black' may reflect **h₂ms-(o)nó-*: cf. Germ. *Amsel* 'blackbird', Skt. *ásita-* 'black' and Grk. *ἄσις* 'mud' (the root etymology is due to Čop, *Linguistica* 10 (1970) 95f.). Since Hittite eventually assimilates **-Vms-* to *-Vnšš-*, it does not seem unreasonable that **-ms-* might lead to *-anz-* like **-ns-*. On the other hand, in Luvian, which preserves **-Vms-* as such (with gemination), we might expect that **-ms-* also produce *-ams-*. I therefore tentatively propose that Luv. *hamsa-* and Hitt. *hanza(šša)-* continue **h₂ms-*.)

The preservation of *-ms-* in Luvian is apparently attested in one other place: *KBo* XIII 260 II 1 ff. and III 12 (*StBoT* 30.260 ff.). Here we find *hattaram-šan* etc. and *pariyam-ša* (vs. *pariyan* two lines later). It is clear from the following context that *hattaram-* etc. are acc. sg. animate, which leaves little alternative but to consider *-šan* an enclitic possessive adjective 'his' matching Hitt. *-ššin*.⁸⁾ The *-ša* of *pariyam-ša* must be the *-ša/-za* particle appended regularly to nom.-acc. sg. neuters in Luvian. In both Luvian and Hittite *-m* in absolute final position appears as *-n*, and the rule is presumably Common Anatolian. The nt. nom.-acc. singular of *a*-stems thus ends in *-an*, and by regular rule the postposed particle *-ša* in Luvian becomes *-za* after *-n* (also usually after *-l* and *-r*: *paršul-za* 'crumb', *zār-za* 'heart'). However, in *KBo* XIII 260 we have the original final *-m* preserved by the presence of the following enclitics beginning with *s-*, both in *pariyam-ša* and in the archaic construction with the possessive adjective in *°-am-šan*. The contrast between archaic *pariyam-ša* and usual *°-an-za* is comparable to the difference in Hittite between archaic *n-aš-šan* for *nu=an-šan* with assimilation and later *n-an-šan* where *-an* is maintained before *s* on the basis of *n-an#* and other combinations.⁹⁾

⁸⁾ When I propose a change **ms* to Luv. *ams*, I mean in the first instance in root syllables. I do not exclude a different development of syllabic **m* in final syllables or absolute final position.

⁹⁾ The equation of Hitt. *-ššin* and CLuv. *-šan* supports my derivation of the *i*-stem forms of the enclitic possessive adjective in Hittite from *e*-grade: see Melchert, *Phon.* 122 ff. Of course, generalization of the *o*-grade in Luvian cannot be entirely excluded.

⁹⁾ I cannot agree with the suggestion of H. Eichner (personal communication) that Luvian and Palaic have dissimilated **-ns-* to *-ms-* (see also Oettinger,

2. CLuv. *malhu-/malwa-* and *mammalhu-/mammalwa-*

The identification of these two verb stems has only become possible with the new evidence presented by Starke, *StBoT* 30. It is the forms of the reduplicated stem which permit us to determine the meaning:

(2) *KBo* XXII 254 Vs 4 ff. (*StBoT* 30.195):

[*nam*]ma ^{SAI}ŠU.GI iš[n]aš ŠU-an EME-ya arha [*duw*]arnizzi [*udd*]ār-ma-kan anda ki[ššan mema]i mammaluwai [*a*]dduwalin Š[U-in addu]alin EME-e[n] ...

'The "old Woman" breaks the hand and tongue of dough and inserts the words as follows: "He shall break the evil hand, the evil tongue ...".'

The subject of the Luvian sentence is the "lord of ritual", as confirmed by the parallel:

(3) *KUB* XXXV 45 III 17 (*StBoT* 30.154):¹⁰⁾

[*mam*]malwai-an EN SISKUR.SISKUR-iš adduwalin EME-in...

'The "lord of the sacrifice" shall break it, the evil tongue ...'.

The meaning 'break' suggested by the parallel with Hitt. *arha duwar-nizzi* is confirmed by another example of the reduplicated stem:

(4) *KBo* XXIX 16 II 3 ff. (*StBoT* 30.196):

[... *wan*]atiyatiya šarri mammalhunni (repeated) ... [*nam*]ma NIN-DA.KUR₄.RA paršiya

'"We shall break [] for the *wanatiyati*..." one breaks a loaf of leavened bread.'

Stamm-bildung 439). We know that the nominal endings originally ended in **-m*. We know further that Luvian preserves original **ms*, as shown by *ammšš-* 'wipe'. We must assume original **ms* in this word because original **ns* would have led to Hittite **šš* as elsewhere. Nor can one escape this conclusion by appealing to a laryngeal between the **n* and the **s*: if the loss were early, **ns* should still become *šš*; if it were late, a secondary sequence **ns* created by laryngeal loss should lead to Hittite *nz*. Since Hittite *nšš* in *anšš-* cannot continue **ns*, it seems only reasonable to suppose that it reflects the **ms* shown by CLuv. *ammšš-*, with a trivial assimilation. Under these circumstances it is entirely gratuitous to assume that final nominal *-n* was first generalized in Luvian to all positions, and then dissimilated back to *-m* before *s*. I see no reason not to take the *-m* forms of *KBo* XIII 260 as archaisms preserved before *s*. The very presence of the enclitic possessive adjective in *-ša-* (only here in all of Luvian!) argues that the text (though not the manuscript) is old.

¹⁰⁾ This parallel, overlooked by Starke, suggests that we should read ...iš]-*naš-a* ki-iš-š[a]-ru-uš' [*arha d*]urwarn[išk]iurw[a]n dāi 'begins to break the hands of dough' in *KUB* XXXV 45 III 13-14 (cf. Starke, *StBoT* 30.154).

Here CLuv. *mammalḫunni* equates to Hitt. *parš(iya)-* ‘break’ (used primarily of bread). The examples of the simple verb give no further evidence for the meaning, but they surely belong to the same base: ptc. *malwammiš* (*KUB XXXV 70 II 21* = *KBo XXIX 63 II 4*) and pret. 3rd sg. *ma-a-la-ḫu-u-ta*, i.e. *mālḫūta* (*KUB XXXV 107 III 2*).

The basic stem is *malḫu-*, reduplicated *mammalḫu-*. Before endings beginning with an unlike vowel, the *-u-* regularly becomes *-w-*: *malḫu-ai*, *malḫu-ammiš* → **malḫwai*, **malḫwammiš*. By a rule observed elsewhere in CLuvian, the *-ḫ-* tends to be deleted between a sonant and following *w*: cf. *mannahuwanni-/mannawanni-*, *erḫuwa-/erwa-*, *šehwa-/šewa-*, *šehuwāl-/šiwāl-*, etc. Thus we find attested *mammalwai*, *malwammiš* beside *mālḫūta* and *mammalḫunni*.

There can be little doubt as to the source of a CLuv. stem *malḫu-* meaning ‘break’. We are facing a *u*-extension of the root **melh₂-* ‘crush; grind’. Traces of the verbal stem in *-u-* (all pointing to ‘crush, break’, not ‘grind’!) are found elsewhere, suggesting that it is probably old: Goth. *gamalwjan* ‘crush’ may be directly equated to Toch AB *malyw-/mely-* ‘crush’ (Class II present) as an iterative **molh₂wéye/o-*. Compare also Av. *mruta-* ‘weak’ continuing an old verbal adjective ‘crushed, worn down’. The existence of a stem **melh₂u-* ‘crush, break’ beside **melh₂-*, whose meaning was specialized to ‘grind’ (grain) at an early date (Hitt. *mall-*, Lat. *molere*, etc.) is of considerable interest for the problem of “*u*-presents” in PIE. Unfortunately, since we do not have attested the pres. 3rd singular of the simple verb, we cannot determine whether **melh₂u-* should be compared with the type of Hitt. *tarḫuzzi/tarḫzi* ‘is able, strong’ or with that of Hitt. *lāḫwi* ‘pours’ (see also the next section).¹¹⁾

¹¹⁾ The existence of CLuv. *malḫu-* with preserved *-ḫ-* virtually assures that the laryngeal in **melh₂-* is **h₂*. **h₁* is entirely ruled out, since this phoneme never appears in Anatolian as *ḫ*: see Eichner, *MSS* 31 (1973) 54f. The second *e* of Myc. *me-re-ti-ri-ja* /*meletria*/ ‘corn-grinders’ and *me-re-u-ro* /*meleuron*/ ‘meal, flour’ (Ventris & Chadwick, *Doc.* 158.560) must be explained by some means other than **h₁*. There are to my knowledge also no solid examples of *-ḫ- < *h₂*, either between consonants or between consonant and vowel. The preserved sequence *malḫu- < *melh₂u-* would seem to present a problem for the Common Luvo-Hittite rule **VRh₂V > VRRV* (see Oettinger, *Stammbildung* 548 f., revised by Melchert, *Phon.* 44). However, whether it was a *mi-* or *hi-* verb, **melh₂u-* would have had some forms with an allomorph [malhw-V-], where the *-ḫ-* would have been regularly preserved in Common Luvo-Hittite. This could have led to its maintenance in *malḫu-*. The loss of *-ḫ-* before *w* in *malwammi-* and *mammalwai* is of course a much later specifically Luvian change. The preserva-

3. CLuv. *liluwa-* and *luwa-*

We find the stem *liluwa-* in only one text:

- (5) *KUB XXV 39 I 26 f.* (*StBoT* 30.329):

lilūwa tāin mimien(-)tūwā[] lilūwa lilūwa iyā nannā l[i...]

As often in the “Istanuvian Songs”, this line contains mostly unanalyzable vocabulary. However, the immediate presence of *tāin* ‘oil’ and the repetition of *lilūwa* make it likely that we should interpret *lilūwa* as second singular imperative of a stem *liluwa-* ‘pour’: ‘Pour oil ... pour, pour ...’. The CLuv. stem *liluwa-* ‘pour’ is an exact match for Hitt. *lilḫu(wa)-* ‘pour’, with the same loss of *-ḫ-* between sonant and *w* cited in Section 2 above. The equation *liluwa-* = *lilḫu(w)-* confirms that the reduplicating vowel in this type is *i* (PIE **ē* would of course give CLuv. *a*). It also shows that this type of reduplicated stem in *-i-* is at least as old as Common Luvo-Hittite, probably Common Anatolian. On this type in Hittite see my discussion, *Phon.* 98 ff., with comparison to the type of Grk. *ῥοιμι*.

Hitt. *lilḫu(wa)-* is a reduplicated iterative stem to *lāḫu-* ‘pour’. We might expect to find the equivalent of *lāḫu-* in Luvian, and I believe that it does indeed exist, in the form of CLuv. *lūwa-*. The sense ‘pour’ for this stem is suggested by the following passage:

- (6) *KUB XXXV 107 III 18 ff.* (*StBoT* 30.238 f.):

a-wa DUMU.I.Ú. UI.Ú¹¹⁾-in SAG.DU-in¹²⁾ U¹³⁾ÚI.-i[n dūr]anda a-wa-tta IGI.ḪI.A-wa ānda (u)war-ša lūwanda [a-wa-tt]a¹⁴⁾ manna-wannin ānda tamma kūšāinta ...

‘They placed a pot (as) a human head. They poured in water (as) the eyes. They ed in *tamma* as the nose(?) ...’.¹²⁾

For CLuvian *wār* ‘water’ (plus usual postposed particle *-ša*) see Watkins, *Fs Hoenigswald* (1987) 401–404.

The word ‘water’ as object virtually forces the meaning ‘pour in’ for *ānda lūwanda*. The broken context makes it impossible to deter-

tion of *-ḫ-* in Hitt. *tarḫuzzi* (for expected **tarruzzi*) reflects the same conditioning.

¹²⁾ The noun *mannah(u)nni-/mannawanni-* is part of the head and always occurs in the singular: I therefore tentatively suggest ‘nose’. Whether this is correct or not, a likely analysis of the stem is **mannah-* ‘face’ (= Hitt. *mena- < *mēneh₂-*) + *-wanni-* (the same as the “gentilic” suffix): thus ‘(that which is) of/located on the face’. As per Meriggi, *WZKM* 53.216 ff., we must separate *mannah(u)nni-*, the body part, from the adjective *mannakuni-* ‘short’, not only because of the contrast *-ḫ-* vs. *-k-*, but also that of *-u(wa)nni-* with geminate *-nn-* vs. *-uni-*.

mine whether the pret. 3rd plural *lu-ú-un-ta* of *KUB XXXV 124 II 2* & 5 is a contracted form of the same stem,¹³⁾ but a stem *lūwa-* 'pour' seems reasonably sure.

The CLuv. stem *lūwa-* versus Hitt. *lāhu-* can be accounted for as follows. The existence of spellings of the weak stem in Hittite with scriptio plena of the ending (*lahurwānzi*, *lahurwāndu*, ptc. *lahūwān*) suggests that this verb originally had quantitative ablaut like *hi*-verbs in final *-i-* (see Jasanoff, *Heth. u. Idg.* 88). By the strict rules of syllabification in PIE, we would expect the plural to be realized as *[lhwenti], but this would have led to Anat. *lahwi*, **alhwanti*, a very strange allomorphy. It seems reasonable to me to suppose that the initial *l* of the weak stem remained non-syllabic under the pressure of the singular. This would have left a sequence **lhw-*, which led with loss of *h* between sonant and *w* (see above) to attested CLuv. *-(u)wa-*. Although only the plural is attested, it is likely that *lūwa-* was generalized: cf. CLuv./HLuv. *tuwa-* 'place'. We may assume that in Hittite it was the singular stem which was generalized instead: hence constant *lāhu-*. The set of Hitt. *lahu-/lilhu(wa)-* and CLuv. *lūwa-/liluwa-* thus points to a Common Anatolian **léh₂u-*, **lh₂w-* 'pour' beside an iterative **lí-lh₂u-*.¹⁴⁾

4. CLuv. *mimma-*

In *Phon.* 169 I argued that the form *mi-im-ma-me-iš-ša* (*KUB VI 45 III 74*; dupl. *me-em-ma-mi-iš-š[a]*) must be read as /mimmam-mis/, anim. nom. sg. of a Luvian participle in *-ammi-*. I was unable to

¹³⁾ The first plural *lu-ú-un-ni* of *VBoT 60 I 12* can hardly belong to this stem, since it takes an infinitive *karšuna* 'to cut'. The assignment of *lu-un-ni*, *KUB XXXV 128 III 9*, is impossible to determine.

¹⁴⁾ The strong stem *lahu-* may be preserved in Luvian in an extended form. Meriggi, *WZKM* 53.204, suggests a meaning 'pour' for *lahuni-/launai-*, attested at *KUB XXXV 54 III 32* & 34. While 'pour' is impossible, a sense 'wash' would be appropriate (applied to both the object washed clean and to the impurity removed, which is also possible in English). An original stem **lahwanā(i)-* would have had a doublet **lawanā(i)-* by the *-h-* deletion rule cited above. Syncope of the following *-a-* (which has Hittite parallels; see *Phon.* 52 f.) would lead respectively to the attested *lahun(ā)i-* and *launai-*. The suffix *-nā(i)-* (with single *-n-* and *mi*-inflection!) has nothing to do with the "durative" suffix *-anni/a-* of Hittite and Luvian (with geminate *-nn-* and *hi*-inflection). It is surely in origin a denominative suffix to stems in *-n(a)-*, but in both Hittite and Palaic it appears to have become productive as a deverbative suffix: see my discussion, *KZ* 97.37 f. It would not be surprising to find the type in Luvian as well.

give any other evidence for a Luvian stem *mimma-* or to establish the precise meaning. The existence of such a verb stem in CLuvian is now confirmed by *mi-im-ma-an-du* (*HT* 78,7; *StBoT* 30.338). Although the context is badly broken, the parallel with other texts of the same type assures the interpretation as a Luvian word, as given by Starke, loc. cit.

The form *mimmandu* gives us no clue as to the meaning of *mimma-*, but other evidence is available from related words in Luvian. Recall first of all that the context of *mimmammišš-a* is the following:

(7) *KUB VI 45 III 74* = *VI 46 IV 44*

IŠTU ⁴U *piḥaššašši-wa-za kanišš[(anza šalla)]nuwan[(za)] mimma-mišš-a*

'I am/have been recognized, raised and *mimma*-ed by the Storm-god *pihassassi-*.'

The verb *kanešš-* is being used here in the special sense of 'give special recognition to, show favor to above others': cf. the Apology of Hattusili passim.

Hawkins, *Kadmos* 19 (1980) 123 ff., has shown that the HLuv. verb LITUUS + *na-* means 'see, look upon', and Starke, *ibid.* 142 ff., has demonstrated that the equivalent verb in CLuv. is *manā-* 'idem'. There is also a reduplicated by-form *mammanna-* (HLuv. LITUUS.-LITUUS-*na-*). This stem also means basically 'look upon, experience, see', but in the Hittite incantation *KUB XXIV 12 II 28* ff., the inv. 2nd plural *ma-ma-an-na-ta/en* has the special sense of 'look with favor upon, have regard for, accept': see *CHD* 3/2.138. It is clear that 'favored, well-regarded' would also fit perfectly as the meaning of *mimmammišš-a* in the passage cited above. In effect, Luvian *mimmammiš* is the functional equivalent of Hitt. *kaniššanza* and reinforces the latter.

There is no difficulty in formally relating CLuv. *mimma-* 'regard, favor' and *manā-* 'see, look upon'. As Starke indicates, *Kadmos* 19.147, *manā-* surely continues **mneh₂-*, an extension of the PIE root **men-* 'think, consider' (cf. Doric *μνᾶμα* 'remembrance'). The stem *mimma-* may be taken as another example of a present with *i*-reduplication (see the references in Section 3 above): **mi-mn-*. As I have argued, *Sprache* 29/1.3, in Hittite the immediate result of an old **-mn-* cluster is *-mmn-*, with gemination of the **m* before another consonant: cf. also Hitt. *gim(ma)ra-*, CLuv. *im(ma)rašši-* and *am(ma)šša/i-* cited in Section 1 above. There is a strong tendency to

simplify the cluster *-mmn-* to *-mm-*. In ablauting paradigms where forms with *-mVn-* coexist, the oblique stem shows both *-mmn-* and *-mm-*. However, where the cluster **-mn-* is constant throughout the paradigm, one finds only the final result *-mm-*: cf. Hitt. *mimma-* ‘refuse’ < **mi-mn-* (= Grk. *μῖνω* ‘stay, tarry’; see *Phon.* 100 with refs.). CLuv. *mimma-* ‘regard, favor’ would be identical, but to the root **men-* ‘think, consider’. The fact that Luvian shares the same phonological developments regarding **-mn-* as Hittite is confirmed by the forms of CLuv. *tatariyam(m)an-* ‘curse’ for which see Laroche, *DLL* 95.

Beside *manā-* < **mn-eh₂-* we thus have *mimma-* < **mi-mn-*. Starke (following Oettinger, *Stammbildung* 486) interprets the third stem, *mammanna-*, as a direct continuation of an old reduplicated perfect **me-mon-* (cf. Grk. *μέμνα*, Lat. *meminī*). This derivation can account for the shape of the first syllable (Luv. *mamma-* < **mémo-* by “Čop’s Law”), but it leaves unexplained the consistent double *-nn-* of *mammanna-*. It is also worth noting that no sure instances of old reduplicated perfects have been demonstrated for Anatolian. While the present type with *i*-reduplication is likely old (cf. Grk. *ἵστημι* etc.), and those with *e*-reduplication (Hitt. *we-wakk-* ‘demand’) may be as well, Hittite verbs with *a*-reduplication such as *lalukk-* ‘shine’ must be an innovation. We may assume that at least some of the Luvian stems with *a*-reduplication are of this type. The Luvian stem *mamma-* may thus reflect Anatolian **ma-mn-* with the phonological developments sketched above. The attested *mammanna-* is the “durative” of this stem. For “durative” *-anna-* in Luvian compare CLuv. *uppannandu* ‘let them bring’ (*KBo* XIII 260 III 15.18) to *uppa-* ‘bring’. It may seem surprising to find both *mimma-* and *mamma(nna)-* beside *manā-*, but note the Hittite hapax *lalhuwa-* (*CHD* 3/1.27) next to *lilhu(wa)-* and *lāhu-*.

5. HLuvian (*VINUM*)*hari-* and (*69)*har(a/i)za-*

In KARATEPE XLVIII, 271 Hu has (“VINUM”) *ha + ra/i-ha* and Ho (“VINUM”) *ha + ra/i-wa/i*. The appearance of *-wa* in Ho in place of *-ha* “and, also” in Hu is merely another example of the occasional use of the quotative particle in conjoining parts of a sentence: compare *ibid.* LI, 295 for another example. The noun stem is thus simply *hara/i-*. The Phoenician equivalent tells us that the word means ‘harvest’, and the syntax of the rest of the sentence shows that the form is dative-locative singular: *hara/hari*.

HLuvian orthography and phonology permit several interpretations of a stem *hara-/hari-* ‘harvest’, but the most immediate plausible comparandum is Hitt. *ḫalki-* ‘grain’, especially ‘barley’, along with *ḫalkueššar* ‘first fruits’.¹⁵ The noun *ḫalki-* is also used to mean ‘crop’: in the plural this is the standard meaning. See Hoffner, *Alim. heth.* 60ff., for a thorough discussion of *ḫalki-*. Hitt. *ḫalki-* and HLuvian *hari-* may be equated by assuming a common preform **h₂/₃(e)lg(h)i-* which meant ‘harvest’ and the result of harvesting, namely ‘crop’. The use in Hittite as both ‘harvest, crop’ and ‘grain’ is not unusual: cf. Lat. *messis* ‘harvest, crop’ but also ‘grain’ (standing or reaped) or Skt. *sasya-* ‘grain’ but also ‘crop, harvest’. The use of the generic term *ḫalki-* ‘grain’ as a specific term ‘barley’ also reflects a common practice: cf. American English ‘corn’ for ‘maize’ and see Buck, *Selected Indo-European Synonyms* 513.

In HLuvian the **l* has undergone rhotacism, for which compare *wala-/wara-* ‘die’ or (MALUS₁) *á-tu-wa/i-ri + i-zi* ‘evil’ for **addu-walinzi* (KARATEPE XX, 102). The loss of a voiced velar stop would also be regular: cf. CLuv. *parri-* ‘high’ < **bh(e)rghi-*. The putative **h₂/₃(e)lg(h)i-* ‘harvest’ has the appearance of a primary action/result noun, for which compare Hitt. *urki-* ‘trail’ < **wrg-i-* to the root of Skt. *vraj-* ‘walk’ (Eichner, *MSS* 31 (1973) 73, following Duchèsne-Guillemin).

The sense ‘harvest’ (crops) may easily be specialized from the more general meaning ‘gather, collect’: cf. for example Lat. *colligere* ‘gather’ and specifically ‘harvest’ (whence ultimately Sp. *cosecha* ‘harvest, crop’). This suggests a possible explanation for the verb (*69)*hara/iza* (imv. 2nd sg.) which occurs three times in the Assur letters. Two of the instances refer to supplies which the addressee is to procure:

(8) ASSUR g, 4 (properly g, 2)

i) | *wa/i-ra + á-ḫ* | (“69”) *ha + ra/i-za*

ii) | *wa/i-ma-ra + á* | ‘ARHA-’ | VIA-*wa/i-ni*

‘Find/collect them and send them off to me.’

See ASSUR b,2 for a virtually identical passage. Morpurgo-Davies, *KZ* 94 (1980) 98, translates *hara/iza* here according to context as ‘get’.

¹⁵ Hoffner, *Alim. heth.* 25f., is undoubtedly correct in rejecting the equation of *ḫalkueššar* with BURU_x-*a(nt)* ‘harvest (time)’. However, *ḫalkueššar* does seem to refer to the ‘first fruits’ of the harvest reserved for ritual use, so a basic meaning ‘that which is of the harvest’ and etymological connection with *ḫalki-* remain very likely.

The remaining instance of (“*69”) *hara/iza* has as its object a missing *tunikara*-official, whom the addressee is likewise asked to find and return:

(9) ASSUR g, 1–2 (properly g, 3–4)

- i) | *á-pi-ha-wa/i + ra/i-ta* | *ha + ra/i-na-wa/i + ra/i-sa* (“PANIS. *402”) *tu-ni-ka-ra + á-sa* | *ARHA-’* | (OCCIDENS)-*lá/i-si-ta*
 - ii) | *wa/i-na-’* (“*69”) *ha + ra/i-za*
 - iii) | *wa/i-za-na* | *ARHA-’* || | *VIA-wa/i-ni-i*
 - iv) | *á-wa/i-wa/i-za* | PANIS-*ni-na* | NEG₂-’ | *á-sa-ti*
- i) ‘Furthermore, the *hara/inawali*- *tunink*-server has removed himself (?).
 ii) ‘Get hold of him
 iii) ‘and send him off to us.
 iv) ‘Look here, we have no __bread.’

In all three examples the required sense is basically ‘get hold of’. This is supported by the presence of sign 69 as a determinative, which is a variant of sign 39 PUGNUS ‘fist’ or some other kind of hand. In the cases where the object is goods or supplies, the sense ‘gather, collect’ is precisely what is called for. In the case of the missing official, ‘lay hands on’ or ‘find’ would be more appropriate, but the step from ‘gather, collect’ to ‘find, get hold of’ is a short one: cf. the uses of Lat. *colligere* ‘gather’ cited in the *Oxford Latin Dictionary* 351 under section 3.

Formally, *hara/iza*- may be analyzed as an iterative in *-za-* to a base verb *har(a)-* or *hari(ya)-*: for *-za-* as an iterative suffix see Hawkins, Morpurgo-Davies, and Neumann, *HHL* 184 ff. The attested HLuvian orthography leaves the base stem indeterminate. We could suppose **har-* < **h_{2/3}elg(h)-* ‘gather, collect’, the base of the noun **h_{2/3}(e)lg(h)i-* ‘gathering’ > ‘harvest’. Such an athematic stem might or might not have been “thematized” to **hara-* in HLuvian. On the other hand, a denominative stem **h_{2/3}(e)lg(h)i-yé-* formed when the base noun **h_{2/3}(e)lg(h)i-* still meant ‘gathering’ would lead to a HLuvian **hari(ya)-* ‘gather, find’. What seems excluded is a denominative stem **hari(ya)-* meaning ‘gather, find’ derived from the noun *hari-* after it had come to mean specifically ‘harvest’.

Whether the HLuvian verbal base is **har(a)-* or **hari(ya)-*, we are led to a verbal root **h_{2/3}elg(h)-* meaning ‘gather, collect’. With an eye toward the labial in *halkueššar*, Čop, *Indogermanica minora* I (1971) 31 f., has suggested that the PIE source of *halki-* is **alg*h-*

‘gain, earn’ (Grk. *ἀλγή* ‘gain’, Lith. *algà* ‘wages’, Skt. *árhati* ‘earns, merits’). This derivation is phonologically impossible. There is simply no evidence in Hittite or Luvian for delabialization of a labio-velar in such an environment. In particular there is no way to motivate the loss of labial articulation in *halki-* versus its preservation in *halkueššar*. As noted by Tischler, *HEG* 134, positing a denominative verb **halkuwa(i)-* as the source of *halkueššar* does nothing to solve the difficulty of the missing *-w-* in *halki-*.

On the other hand, if we start from a base **h_{2/3}elg(h)-*, an inner-Hittite explanation of the *-w-* in *halkueššar* is possible. The verbal noun of an athematic verb **h_{2/3}elg(h)-* ‘gather; harvest’ would have been **halkuwar*, **halkuwaš*. Through hypostasis of the genitive **halkuwaš* we could obtain an animate *a*-stem **halkuwa-* ‘(that) of harvesting’: cf. *išpandūwa-* ‘libation vessel’ < ‘(that) of libating’ (see Tischler, *HEG* 415 with refs.). The attested *halkueššar* ‘first fruits’ may appropriately be taken as a collective in *-eššar* from the nominal stem **halkuwa-*: cf. *hapušeššar* ‘shafts, arrows’ < *hapuš(a)-* ‘shaft’ or *lala(k)weššar* ‘ant-colony’ < *lala(k)weša-* ‘ant’ (via **lala(k)wešeššar* with haplology).

Obviously, the intermediate stem **halkuwa-* is purely hypothetical, and I would certainly not insist on this derivation. However, all the steps I have assumed have solid parallels in Hittite, while there are none for the delabialization of a **halkui-* to *halki-*. I therefore derive the Anatolian family of Hitt. *halki-* ‘crop; grain; barley’, *halkueššar* ‘first fruits’ and HLuvian (VINUM) *hari-* ‘harvest’, *har(a/i)-za-* ‘gather, get’ from a base **h_{2/3}elg(h)-* ‘gather, collect’. I know of no evidence outside Anatolian for a root of this shape with the requisite meaning. This may be due simply to gaps in our documentation.

On the other hand, the partial resemblance of the posited Anatolian **h_{2/3}elg(h)-* to the well-established PIE root **leǵ-* ‘gather’ is suggestive. I have proposed elsewhere, *Phon.* 168, that Hitt. *hamank-* ‘intertwine, knot together’ (sic!) and *hatak-* ‘close, shut’ contain a preverb **h₂o-* (seen also in Grk. *ókellō* ‘drive (a ship to land)’).¹⁶ This preverb is functionally equivalent to the German prefix *zu-*, indicat-

¹⁶ The derivation of *hatak-* and the isolation of a preverb *ha-* go back to Sturtevant, *Lg* 6 (1930) 218. I likewise relate Hitt. *hašduēr* ‘brush, twigs’ with Grk. *ὄζος* ‘branch’ etc., following Sturtevant. However, I find unconvincing any of the other etymologies proposed by Sturtevant involving *ha-* or those of Wittmann (see the references in Tischler, *HEG* 120).

ing that one object is brought up against another. Such a preverb would also be quite appropriate in a word 'gather, collect'. It is therefore conceivable that **h₂/elg(h)-* should be analyzed as **h₂o-lġ-* 'gather together' (to **leġ-*), just as Hitt. *ḫatk-* 'shut' is **h₂o-tg-* (to **teg-* 'cover').¹⁷⁾

For a reconstructed Proto-Luvian **hali-* 'harvest' see also Neumann, *FsLaroche* (1979) 270, who tentatively compares the Lycian divine name *qeli-* with Hittite *ḫalki-*. The loss of voiced **g(h)* is common to Luvian and Lycian: cf. CLuvian *iš(ša)ri-*, HLuvian *istri-* and Lycian *izri-* 'hand' < **ġhesr-*.

6. HLuv. (*78)aruti-, CLuv. aruti-

HLuv. (*78)aruti- occurs four times in the Assur letters, always in conjunction with the *tapasali-warama*, which are some kind of supplies or goods: see especially ASSUR g,4-1 (properly g,2-3), and compare also ASSUR a,4 and c,4.¹⁸⁾ The contexts suggest that *aruti-*

¹⁷⁾ In the reference cited, I reconstructed the preverb as **h₃e-* based on the equation of Hitt. *ḫa-* and Grk. *o-*. However, an *o-* grade in a preverb cannot be excluded, so one could equally well assume **h₂o-* or **h₃o-*. I now assume **h₂o-* on the following basis. First, I am now convinced that the Anatolian conjunction represented by CLuvian/HLuvian *-ḫa/-ha*, Palaic *-ḫa*, and Hittite geminating *-a* 'also, and' continues this same preverb functioning originally as an adverb. For the semantics compare English 'too' beside 'to', and for a preverb/adverb becoming a conjunction see Arm. *ev* 'and' < **epi* 'upon; also'. Second, as I will soon argue elsewhere, there is now good evidence that **h₃* is lost intervocally in Hittite and between obstruent and vowel, while it assimilates to a preceding sonant consonant. At least the last rule is also shared by Palaic. Therefore, if one reconstructs the conjunction (and thus the preverb) with **h₃*, one must assume that **h₃* is preserved in Palaic and Luvian in positions where it is lost in Hittite: intervocally and between obstruent and vowel. I find this very implausible. I find it preferable to assume **h₂o* with a special treatment of **h₂* in enclisis: for the details of the form of the conjunction under this assumption see *Phon.* 165. Furthermore, G. Dunkel, in this journal p. 53 ff., has argued that Vedic *átha* is to be analyzed as **at-h₂o*. The aspiration of the preceding stop would of course also require **h₂*. Finally, both the consonantism and vocalism of Lyc./Mil. *-ke* 'and, also', which is surely cognate with *-ḫa*, require specifically **-h₂o*. For the argumentation I must refer the reader to my paper to appear in the proceedings of the VIII. Fachtagung of the Indogermanische Gesellschaft.

¹⁸⁾ In ASSUR a,4, where *aruti-* precedes *tapasali-warama*, one could understand *aruti-* as a measure of **472(-)masrizi* which precedes it. However, since elsewhere *aruti-* always accompanies *tapasali-warama*, I assume the same for ASSUR a,4. An additional argument for this assumption is the likelihood that **472(-)masrizi* is to be read as **472-masrizi* and equated with (FEMINA.FEM-

is a measure of some kind. I propose the meaning 'basket', based on the following considerations.

First, the shape of the determinative, sign 78, looks like a wing. Second, the basic meaning 'wing' for *aruti-* is confirmed by CLuv. abl.-inst. *arut/dati*, which occurs in *KBo XII 100 Vs 9. Rs 1.5 (StBoT 30.244 f.)*, once next to *Á^{MUSEN}HI.A-zi* 'eagles' and once next to Hitt. *ḫamenkantat* 'were knotted together'.¹⁹⁾ We are dealing once again with the myth in which various animals were bound together and then released. 'Wing' is certainly the body part by which eagles are most likely to be knotted together, and this meaning is assured by the shape of the determinative sign 78 of HLuv. *aruti-*. Finally, the attested use of *aruti-* 'wing' as a measure in HLuvian may be accounted for if we assume that the word was also applied to 'basket', based on the shape. For the equivalence of 'wing' and 'basket' compare of course Hitt. *(GI/GIŠ)pattar* 'basket', a special use of *pattar* 'wing'.

A possible analysis of a Luvian stem *aruti-* 'wing' is that of an action noun in **-u-ti-* (cf. Hitt. *-u-zzi-*) to the root **ar-* 'fit' (Grk. *ἀραρίσκω* 'fit together, join', Hitt. *āra* 'what is fitting', etc.). For **ar-u-ti-* 'fitting, joint' as 'wing' compare Lat. *āla* 'wing' < **aks-lā-* with Germ. *Achsel* 'shoulder-(joint)'.

7. IILuv. tunikala-/tunikara-

The noun *tunikala-* appears in CARCHEMISH A 3,2 in a list of religious functionaries, marked by sign 402 as a determinative. The noun ("PANIS.*402")*tunikara-*, which is certainly a rhotacized variant of the same stem, occurs in a more revealing context (ASSUR g,1-2, properly 3-4). See citation (9) above, sentence i).

The precise meaning of the verb (OCCIDENS)-*lā/i-si-ta* still eludes us, but in any case the following direct commands to find the *tunikara*-official and to send him to the letter writer make it clear

INA)anamasri- 'harlot, concubine' of TELL AHMAR 2, C8. For the latter see Hawkins, *Kadmos* 19.138. The reading of sign L 472 as PAELEX 'harlot, concubine' is compatible with the shape of the sign, particularly that in ASSUR d,2, which may plausibly be taken as the profile of a female breast and abdomen, with the genitalia prominently displayed (cf. sign L 79 = FEMINA). If the identification of **472-masri-* and *anamasri-* is correct, it is obvious that the measure *aruti-* can hardly apply.

¹⁹⁾ For the comparison of CLuv. *aruti-* 'wing' with HLuv. *aruti-* see already Starke apud Hawkins, *Kadmos* 19.133.

that the *tunikara*'s presence is required. Note furthermore that the determinative of *tunikara*- contains the logogram PANIS 'bread', while the final sentence of citation (9) implies that the need for the *tunikara*- is somehow tied to a lack of bread. These two facts plus the phonetic shape of the word argue that the *tunikala*- (rhotacized *tunikara*-) is 'server/caretaker of the *tuni(n)k*-bread'. For the base compare the ^{NINDA}*tuni(n)k*- which appears in Hittite rituals: see Neu, *StBoT* 12 (1970) 57, n 37. The noun *tunikala*- may be analyzed as a denominative adjective in *-ala*- which has been substantivized as the name of a functionary. Compare the many so-called "agent" nouns in *-ala*- in Hittite: e.g. *walḫiyala*- 'server of the *walḫi*-drink'. Since the corresponding Luvian suffix is *-alli*- (e.g. CLuv. *targaš-nalli*- 'muleteer' or similar to HLuv. *targasni*- 'ass' or 'mule'), the *a*-stem in HLuvian *tunikala*- is surprising. Perhaps the word is a borrowing from Hittite.

The Hittite word sometimes shows a nasal in oblique forms: gen. sg. *tuningaš* vs. nom.-acc. *tunik*. It is of course impossible to tell whether we should read [tuningkala-] or [tunikala-] in HLuvian. However, the form in sentence iv) above, PANIS-*ni-na*, must be neuter nom.-acc. plural and cannot be the usual HLuvian word for bread (PANIS)*turpi*-, which is animate. I therefore raise the possibility that PANIS-*ni-na* is a spelling for **tuninga*, i.e. [tuninga]. It is true that we would expect rather **PANIS-ni-ka*, with non-indication of the nasal, but it seems possible that there was more than one way to solve the problem of writing a cluster [ng] or [ŋk]. Whatever the precise meaning of PANIS-*ni-na*, the clear association of *tunikala*-/*tunikara*- with bread makes derivation from ^{NINDA}*tuni(n)k*- and the interpretation 'server of *tuni(n)k*- bread' a virtual certainty. On the function of sign 402 as a determinative of *tunikala*-/*tunikara*- see the next section.

8. HLuv. (*422)*musanuwanti*-

This word occurs but once (MARAŞ 1,4) as a title or epithet of the king in his very lengthy titlature. I read (*422)*mu-sa-nu-wa/i-ti-sá* with Meriggi, *Manuale* II/1.130, instead of *mu-hi*-° with Hawkins, *AnSt* 30 (1980) 142, for reasons which will become obvious. In many texts it is virtually impossible to distinguish *sa* and *hi* epigraphically. Laroche's sign 422 consists of PANIS 'bread' over a diamond or 'lozenge'. I will discuss the diamond-shaped element momentarily, but the presence of PANIS 'bread' is sufficient to put the meaning of *musanuwanti*- in the general area of food or nourishment.

Formally, *musanuwanti*- is most easily analyzed as a frozen participle in *-ant(i)*-. The productive participial suffix in Luivan is *-a(i)mmi*-, but several lexicalized examples of *-ant*- (in the extended form *-anti*-) are attested: cf. CLuv. *u(wa)lanti*- 'dead' to the HLuv. verb *wala*- 'die' and also HLuv. **kwisanti*- 'feared' (or more likely 'fearful') to **kwisa*- 'be afraid', attested in KARATEPE XXXIII, 174 as REL₂-*sā-ta* (nt. nom.-acc. plural). I therefore read *mus(a)nuwanti*-, originally a participle to a causative stem *mus(a)nu*-.

This causative stem may be plausibly related to the Palaic verb *muš*- 'eat one's fill, be satiated', which was previously without cognates within Anatolian. Eichner, *Flexion und Wortbildung* 86, makes an illuminating comparison with Grk. *μύω* 'close' (the lips), especially *ἄ-μυστί* 'in one gulp, without closing the lips'. For the sense 'be satiated' compare English 'smack the lips' (with satisfaction). The causative *mus(a)nu*- would have meant 'sate, cause to eat one's fill'. A passive reading of the participle *mus(a)nuwanti*- would lead to 'satiated, well-fed'. This is not impossible as a royal epithet. In many cultures and eras physical well-being, even to the point of corpulence, has been a mark of high status. However, such an epithet seems rather weak for the high-flown verbosity of MARAŞ 1 (the titlature takes half the inscription!). Since verbal adjectives in Anatolian can be active as well as passive (cf. hitt. *šekkant*- 'knowing' or HLuvian EDERE-*tamisa* 'having eaten'), I find it more likely that *mus(a)nuwanti*- means 'causing to eat one's fill', i.e. 'lavishly providing'. Halparuntiyas is boasting that he causes his subjects to be well-fed.

The idea of 'causing to eat one's fill' implies the serving of food. I believe that this accounts for the other element in the sign 422. The diamond or lozenge under PANIS 'bread' represents the tray on which bread or other food was served.²⁰) As elsewhere in HLuvian hieroglyphs, the elements of the picture have been distracted and represented in a fixed orientation. In this case both the round loaf of bread and the square tray have been drawn from above, individually. However, 'serve food' is still directly represented by 'bread' upon a 'tray'. I therefore propose to read sign 422 as MINISTRARE 'serve food'.

²⁰) This object is probably represented in Hittite by *peran pedumaš/pedunaš* '(object) of carrying before' > 'serving tray'. See Košak, *THeth* 10 (1982) 37, with references. The alternate form *p. pedunaš* with what appears to be a Luvian verbal noun is noteworthy.

Hawkins, *AnSt* 25 (1975) 135, transliterates the example cited in section 7 above from ASSUR g, 1 as (*422)*tunikara-*. However, Meriggi's drawing, *Manuale* II/1, Tav. 40, clearly shows PANIS 'bread' not over a diamond, but over sign 402, a circle with a small circle within it. Nevertheless, I believe that Hawkins is ultimately correct in viewing this combination as a mere variant of sign 422 = MINISTRARE. Obviously, the sense 'serve food' is precisely what we would expect for *tunikala-/tunikara-* 'server of *tuni(n)k*-bread'. How do we account for the difference in sign shape?

I would start by identifying sign 402 (a circle within a circle) with the upper element of sign 336 = ANNUS 'year'. The lower element of ANNUS 'year' is clearly a large jar or pithos, and Laroche, *HH* 179, tentatively suggests that it represents a year's worth of provisions. This is on the right track, but it leaves the upper element unexplained. A more precise account of the ANNUS sign is provided by the following Hittite passage (*KBo* II 7 Rs 16): GIM-*an* *ḫamešḫanza* DÜ-*ri* *tetḫai* ^{DUG}*ḫarši-kan ginuanzi* 'When it becomes spring (and) it thunders, they open the pithoi.' This formula, which recurs elsewhere, appears to refer to an annual ritual in which the coming of spring (the passage of another year) is marked by the ceremonial opening of pithoi which were filled and sealed the preceding fall (cf. *KBo* II 7 Vs 6 ff.). This suggests that the HLuvian sign for 'year' represents a just opened pithos, showing the jar itself and its round lid above it. Sign 402 is certainly a reasonable representation of a round lid with a small knob in the middle (again viewed from above).

While the interpretation of sign 402 as the lid of a jar accounts for its use in sign 336 = ANNUS, this does not seem to explain its appearance before *tunikala-* 'server of *tuni(n)k*-bread' or in the combination with PANIS 'bread' in sign 422 = MINISTRARE 'serve food'. However, there is evidence from Hittite that lids were indeed used as serving trays. See *KBo* XI 12 I 13-14: *nu* ^{SALŠU}.GI 1 ^{DUG}*NAKTAMA QADU* ALAM.ḪIA ^{DUG}UTU-*i* [*parā*] *ēpzi* 'The "old woman" holds out one lid with figurines to the Sun-god.' Compare also *KUB* XXXVI 38, 4&6: [] ^{DUG}ANA ^{DUG}NAKDAMMI *tianzi* ... [^{DUG}N] AKDAMMU ANA EN SISKUR *genuwaš tianzi* 'They place [] on a lid ... and place the lid on the celebrant's knees.' While the object is missing in the second example, the function of *naktammu* 'lid' as a serving tray is clear.²¹) This means that the substitution of

²¹) For jar lids with round knobs which would appear from above as a circle within a circle see Bittel, *Boğazköy: Die Kleinfunde der Grabungen* 1906-1912,

sign 402 for the diamond representing a tray in sign 422 can reflect actual variation in serving practice. The spelling (*402)*tunikala-* represents a simplification, intentional or accidental, of the combination PANIS + 402 = 422 MINISTRARE 'serve food'.²²)

The logogram 422 = MINISTRARE occurs also in CARCHEMISH A 30b + 32, 5: *wa/i-ti-tá* MINISTRARE-*na pi-ha* []. The sign here again shows the variant with sign 402, the round lid, as the lower element. Since the context is broken, it is impossible to tell whether MINISTRARE-*na* is the infinitive of a verb or accusative singular of a noun, perhaps the general word for 'server'.

9. HLuv. (*382)*huhurpal(i)-* and *huhurpa-*

The noun (*382)*huhurpal(i)-* occurs but once:

(10) CARCHEMISH A 11 b, 4:

- i) *wa/i-ma-tá-* ("*382") *hu-hú + ra/i-pa-li* | (SOLIUM) *á-sa-tá*
- ii) *wa/i-ma-tá-* | PRAE-*na* (PES₂) REL₂-*ya-ta*

Kalaç, *KZ* 92 (1978) 124, to whom we owe the reading *huhurpali*, translates the first sentence as 'Und mir setzten sie ein Szepter'. However, it is quite unlikely that the unreduplicated HLuvian stem *as(a)-* has the transitive meaning 'set'. Even if it did, it would surely

WDOG 60 (1937) [1967] 49-50, with plates. Note especially the large item in Tafel 28, 8, whose round knob has a flat top, which Bittel emphasizes is designed either for lifting the lid or for using the object as a plate. He cites the use of lids as serving dishes as a still current Near Eastern practice.

²²) Since to my knowledge sign L 402 does not occur by itself in the meaning 'lid', it seems superfluous to assign it a separate Latin transliteration. One should note simply that sign 422 = MINISTRARE has two variants. It is also uncertain at this point whether the diamond representing a tray as part of sign 422 is the same as the diamond alone (Laroche's signs 419/420). The latter determines the word *washa(i)-sa/za*, apparently a nt. nom.-acc. sg. noun, in CARCHEMISH A 4 a, 2, ASSUR f, 4 and BABYLON CUP 1, 2. The word strongly resembles CLuv. *washa(ya)-* 'pure, sacralized', for which see *KBo* VII 68 passim and my discussion to appear in *Studies in Memory of Warren Cowgill*.

In the Babylon Cup inscription the object *washai-(za)* is offered to the Storm-god. One could therefore suppose a meaning such as 'ritual offering' and assume that the HLuvian noun is a substantivization of the adjective seen in CLuvian. In that case, the diamond as 'serving tray' would be a highly appropriate determinative. I am unable to assert the above interpretation with confidence, however, so long as the context of the other two occurrences remains obscure. I have therefore also refrained from assigning the diamond an individual Latin transliteration.

mean only 'cause to sit' (of people), not 'place' (an object in the hand). Kalaç's interpretation of sign 382 as 'scepter' is also dubious, since this sign occurs as the determinative of a wide variety of objects and apparently some abstracts (see also note 25 below). If we limit ourselves to the HLuvian evidence, we can only follow Hawkins, *AnSt* 31 (1981) 150 f., who translates: 'For me they sat on (dwelt in?) the *huhurpali*' ('they' = 'the gods').

Fortunately, Hittite furnishes us further information in the form of the word *GIŠhuhupal(i)-*, which is spelled once [*GIŠhu-*]-*u-wa-hur-pa-al* (*KBo* XII 123,10).²³ Both the alternation *huwa-/hu-* in the first syllable and the loss of preconsonantal *r* in the second are well attested elsewhere in Hittite.²⁴ That HLuv. (*382)*huhurpali-* and Hitt. *GIŠhu(wa)hu(r)pal(li)-* are the same word can hardly be doubted.²⁵

It has long been known that *GIŠhuhupal-* is a musical instrument which is played by being struck, but its precise meaning has not been established ('lute', Tischler, *HEG* 263, is a mere guess). However, one remarkable text, *KUB* XXV 37 (a Luvian festival!), tells us a good deal more about the nature of the instrument. In lines I 11–12 the *huhupal*-instruments are struck, as often, while a song is sung. In I 25–28 we find the following:

- (11) *KUB* XXV 37 I 25–28 (*StBoT* 30.343):²⁶
n-ašta mān šarāzziyaz [*GIŠhuhupa*]*laz arha-ya lahūwāri n-at-kan*
katta a[pēdani kat]terri *GIŠhuhupali lahūwāri n-at-kan* ^dU[^{TU}-
i] *apiz ekuzi*
 'And when it is poured out of the upper *huhupal*, it is poured down into the lower *huhupal*, and from that he drinks it to the Sun-god.'

²³ The restoration is virtually assured, since there is no other attested Hittite noun ending in *-uwahurpal(li)-* or in *-uhupal(li)-*.

²⁴ For the first compare *hu(wa)rt-* 'curse', *hu(wa)lliš-* 'pinecone', *hu(wa)n-huwan-* 'wave', *hu(wa)ltarama-* '?', *hu(wa)lpanza(n)-* '?', etc. For the loss of preconsonantal *r* note *pašša-* for *parša-*, *waggant-* for *wargant-*, *šetappila-* for *šetarpila-*, *kukkur(ia)-/kurkur(ia)-*, *GIŠlahhuwannuzzi-/lahhu(wa)nnuzzi-*, among others.

²⁵ This equation, along with the use of the logogram 382 as a building material in *CARCHEMISH* A 11c,5 and A 11a,5, supports the suggestion of Gelb, *HH* 3.47, that sign 382 means 'wood'.

²⁶ I take the reading ^dUTU from Starke, *StBoT* 30.343, who fails, however, to understand the overall context and reads incorrectly []*x-ni-ri* in line 26.

The 'it' clearly refers to a drink, probably *marnuan* (see I 22 []-*nu-an*). If there is any doubt that the *huhupal*-instruments are being used as vessels, this is put to rest by the following:

- (12) *KUB* XXV 37 I 34 (*StBoT* 30.344):
 [*m*] *aḥhan-ma-kan* *GIŠhuhupal* *IŠTU GEŠTIN šunnanz[i]*
 'When they fill the *huhupal* with wine.'

The drink-server (^LSILÀ.ŠU.DU₈.A) then drinks the contents of the *huhupal*. The fact that we are still dealing with the musical instrument in these passages is made clear from what follows:

- (13) *KUB* XXV 37 II 11–14 (*StBoT* 30.345):
nu ^LSILÀ.ŠU.DU₈.A *namma QATAMMA* *GIŠhu[hupal]* *war-šūli ekuzi mahhan-ma x[...]* *nu* ^LSILÀ.ŠU.DU₈.A *GIŠhuhupal* *šarā [dāi]* *n-at ḥazikiwan dāi*
 'The drink-server again drinks the *huhupal* thus for refreshment(?). When [he is finished?], the drink-server picks up the *huhupal* and begins to strike it.'²⁷

We thus have a musical instrument played by being struck which is also capable of being used as a drinking vessel. While the latter fact eliminates either stringed instruments or drums built on a frame, it still permits several possibilities: a lyre or similar stringed instrument using a vessel as a sounding-board, a cylindrical or kettle-shaped drum, or a cymbal, which may have the shape of a hollow dish (cf. Germ. *Becken* 'basin' and 'cymbal').

Several facts argue for a cymbal or similar instrument. The meaning 'drum' is made unlikely by the sequence of events described above in which the drink-server drinks from the *huhupal* and then immediately plays it. In order to be played, the drum would have to be covered with its skin membrane securely in place, but the latter would make it impossible to pour liquid into or to drink from the drum. It is not plausible that the skin was laboriously removed and replaced with each ritual repetition. Further support for the meaning 'cymbal' (or similar) is found in the references to a pair of *huhupal* (*KBo* XIII 235 I 2: 1 *TAPAL* *GIŠhuhupa[l]*) and a 'set' of *huhupal* (*KUB* XXIX 4 I 24–25: 1 *NUTIM* *GIŠhuhupal mān* *GIŠTUG mān* KA₈UD

²⁷ Starke, *StBoT* 30.345, reads *a-zi-ki-wa-an* in line 14, but notes that the entire word is written over an erasure. The first sign is damaged, and I read *ḥa-*. The reading is assured by the parallel of III 24–25: *GIŠhuhupal danzi n-at ḥazikiwan tianzi*.

AMŠI).²⁸⁾ The latter example, where the set of *huhupal* may be 'either (of) boxwood or (of) ivory' pretty much settles the issue, since neither a drum nor a lyre could have a body of ivory.²⁹⁾

I therefore conclude that the ^{GIŠ}*huhupal(li)*- refers to a concussive musical instrument consisting of a pair of shallow vessels which are struck together. For an ancient representation of such an instrument see H. Hartmann, *Die Musik der sumerischen Kultur* (1960) 43 (with Abb. 41). Hartmann labels the instrument a cymbal, but in fact there is no way to determine the material used. The *huhupal* in any case appears to have been what is properly termed a 'clapper', a pair of hollow objects made of wood, ivory, nutshells or other materials which when struck together produce a characteristic dull, hollow sound: see C. Sachs, *Real-Lexikon der Musikinstrumente* (1964) sub *Klapper*.

The above interpretation is further supported by the shape of the word, which is undoubtedly imitative (as already guessed by Kronsasser, *EHS* 121, 324). The *huhu(r)pal*- is the instrument that makes the sound *hu(r)p*. The stem *huhu(r)pal*- may be formally analyzed as a deverbative "instrumental" noun in *-al*-. cf. Hitt. *išhiy-al*- 'sash, belt' < *išhi*- 'bind'.³⁰⁾ We have attested the corresponding Hittite verb, although it has previously been overlooked. *KBo* VIII 74 + III 74 (see now *StBoT* 30.41) reads: *nu-za ūg* ^{GIŠ}*huhupalli dāh[h]e nu* *huppiemi* 'I take the *huhupalli* and go *hupp*.' The verb *huppiya*- 'make the sound *hupp*' is directly comparable to *wappiya*- 'bark' (make the sound *wapp*) and must be separated from *hu(wa)pp*- 'do evil' (mi-

²⁸⁾ Since the neuter nom.-acc. form *huhupal* (and likewise *huhupalli*) is ambiguous as to number, it is possible that all references to the musical instrument are collective plural. Note also that the use of an 'upper' and 'lower' *huhupal* as vessels requires a pair of objects.

²⁹⁾ Any attempt to solve this problem by supposing that the ivory is merely used as decoration falls victim to the Hittite phrasing of *KUB* XXIX 4. We know from the constant determinative ^{GIŠ} that the *huhupal* is normally made of wood. The phrase '(of) boxwood' thus surely refers to the basic constituent material of the instrument. Since 'or (of) ivory' puts ivory on a par with boxwood, the former must also refer to the basic material, not mere filagree. An ivory clapper instead of the more common wooden variety is quite possible, as indicated below.

³⁰⁾ Since the class of Hittite nouns in *-al*- is small, *huhupal*- is occasionally remade as *huhupalli*- after the large and productive class of neuter nouns in *-alli*-. Because the only HLuvian example is a dative-locative, we cannot tell whether the noun there is still an *l*-stem or has been remade to an *i*-stem *huhurpalli*-.

verb) and (*katta*) *hu(wa)pp*- 'cast (down)' (*hi*-verb).³¹⁾ The only other occurrence of the *ya*-stem *huppiya*- known to me is in a broken context (*KBo* XIX 163 IV 17: []*huppiyanzi*), but the appearance of *hattili* ŠI[R^{RU}] 'they sing in Hattic' in line IV 14 is consistent with the interpretation 'they make the sound *hupp*' and connection with the *huhupal*-instrument, which often accompanies singing. For the HLuvian verb *huhurp(a)*-, showing the reduplicated base of *huhu(r)pal*-, see below.

The Hittite evidence thus points to a meaning 'clapper' for ^{GIŠ}*huhu(r)pal(li)*-. This seems to produce utter nonsense in our HLuvian example, which would then read: 'They (the gods) sat on my clapper.' The following sentence in this passage means 'they (the gods) ran before me', which is directly equivalent to Hittite *nu-mu pēran* *hūyēr*, the standard formula for expressing divine favor in battle. We may expect the preceding sentence to have a similar meaning. Given the contrast 'sat' versus 'ran', a likely pendant for 'they ran before me' would be 'they sat on my war-chariot'.

It is clear that the Hittite meaning '(vessel-shaped) clapper' cannot be equated to 'war-chariot', but what about a similarly shaped part of a chariot? In fact, several reliefs precisely from the 'Long Wall of Sculpture' at Carchemish show chariots which are enclosed in back by a gently convex curve with a knob or boss in the center: see Woolley, *Carchemish* III, plates B41 a, 42 a-b, and 43 a. A very clear photo of B 42 a is also available in Vieyra, *Hittite Art* (1955) plate 48. M. G. Amadasi, *L'Iconografia del carro da guerra in Siria e Palestina* (1965) 73, reasonably interprets this object as a shield hung on the back of the chariot, but it also has precisely the shape of a cymbal or clapper as described above. In view of this Luvian evidence it is also worth noting the context of the Hittite occurrence [^{GIŠ}*h*] *ūwahurpal* (*KBo* XII 123, 9-10): [*p*] *iran* ^{GIŠ}MAR.GÍD.DA *unuwanda* [*n*... ^{GIŠ}*hū*] *wahurpal* GUŠKIN GAR.RA ANA GUD.ĪIA-*ya*[...] 'in front a decorated wagon ... *huhurpal* covered with gold, and on/for

³¹⁾ Oettinger, *Stammbildung* 502 f., recognizes only *hu(wa)pp*- 'do evil, mistreat' (ignoring *huppiya*- entirely). However, as his own discussion shows, *StBoT* 22 (1976) 47 ff., the phrase *šakuwa katta hu(wa)pp*- means 'hurl face down' (of humans and by extension of things). As Oettinger already correctly concludes, *šakuwa* is an "accusative of respect", well attested in Hittite with body parts: 'hurl down with respect to the face/eyes'. This *huwapp*- 'hurl, throw' is related to Skt. *vāpati* 'throw, strew' (cf. especially *nī vap*- 'cast down' (enemies) already in the R̥gveda). This **h₂wep*- 'throw' must be kept separate from **h₂wep*- (or **h₂ewp*-) 'evil' seen in Goth. *ubil* 'evil' etc. < **h₂up-é-lo*- (for the latter see Watkins, *Idg. Gram.* III/1.30).

cattle ...'. Nothing here points to a musical instrument, but the gilded *huhurpal* could easily be part of the decorated wagon.

I therefore suggest that the term ^{GIS}*huhu(r)pal-* was used to refer not only to the musical instrument defined above (which accounts for the formation of the word), but also to a round shield of similar shape which was mounted on the war-chariot. The HLuvian passage A 11b,4 'they sat on my *huhurpal-*' does in effect mean 'they (the gods) sat on my war-chariot', a sign of divine favor in battle. The general HLuvian word for 'shield' is (SCUTUM)*har(a/i)li-*, but we can be reasonably sure that the Hittites and Luvians used shields of various sizes, shapes and materials. The term *huhu(r)pal-* designated one of these which resembled the musical instrument. It also cannot be excluded that the larger shields were actually banged together to make noise like the two halves of the smaller clapper. Direct evidence for the use of noise-makers in battle by the Hittites is lacking, but such a practice would not be surprising.

I have already analyzed ^{GIS}*huhu(r)pal-* as a deverbative noun in *-al-*, but the corresponding Hittite verb is simple *huppiya-*. As Kalaç, KZ 92.124, has already seen, the expected reduplicated verb stem **huhurp(a)-* is attested in HLuvian:

(14) ALEPPO 2,2:

- i) *wal-i-mu-* | REL-*ta₄'-ya* | (BESTIA)REL-*sà-ra/i-sa*
- ii) *wal-i-ta* | PRAE-*na ARHA* | (PUGNUS + PUGNUS)*hu-hu + ra/i-pa-ti-i*

Kalaç translates PRAE-*na ARHA huhurpati* as 'schlägt (er) weg voran'. The third singular subject 'he' makes no sense in the context. We must assume with Hawkins, *AnSt* 30 (1980) 152 f., either: (1) the subject is 'the gods' from a preceding sentence ('They (the gods) shall *parran arha huhurpa-* them (*-ata*, the wild beasts); or (2) the subject is *-ata* (the wild beasts) and the verb is intransitive ('They (the wild beasts) shall *parran arha huhurpa-*').

The interpretation of the sentence with *huhurp(a)-* depends crucially on that of the preceding sentence. Hawkins reads *wal-i-mu-' x-x-ya*, but already suggests that the second word is best taken as a present third singular verb in *-ya*, agreeing with the neuter singular (with collective sense) **hwisar-sa* 'wild beasts'. I read the verb tentatively as REL-*ta₄-ya*, which seems compatible with the traces in Hawkins' drawing, *AnSt* 30.145.³²⁾ HLuvian REL-*taya* would match

³²⁾ The first sign has the basic spade-like shape of the REL sign, though it is necessarily smaller than the examples in line 4 of the same text. The second sign

exactly CLuvian *kuwatai* 'fears, is afraid'.³³⁾ Sentence i) thus reads: 'The wild beasts (shall) fear me.' This reading and interpretation are supported by the preverb sequence of the following sentence. HLuv. *parran arha* (= Hitt. *pēran arha*) indicates motion away from in front of. Sentence ii) is then 'and they shall *huhurpa-* away before (me).'³⁴⁾ We thus arrive at a coherent and appropriately stirring image: even the wild beasts are to fear Arpas and flee at his approach. Such imagery seems especially plausible in view of the well-attested hunting activities of the Hittite and Luvian kings.

This interpretation seems to require that *huhurp(a)-* be an intransitive motion verb, which fits neither the determinative PUGNUS + PUGNUS nor the apparent connection with *huhu(r)pal-* 'clapper'. However, it is possible in more than one language for a verb which inherently does not imply motion to gain such a sense with the addition of preverbs (cf. English 'roar off, splash away', etc.). If we look for a common denominator between fleeing animals and a clapper, it is not hard to find one: the sound made by both. In English, horses' hooves go 'clap', and the sound of hooves is commonly imitated in radio and movies with wooden devices not too unlike the clapper described above. Just like Hitt. *huppiya-*, HLuvian *huhurp(a)-* means nothing more than 'make the sound *huhurp*', which is the sound made by the musical instrument and by pounding hooves. As Kalaç has already suggested, the determinative PUGNUS + PUGNUS should probably be read as VERBERARE 'beat, strike', referring to

is only partially preserved. In Hawkins' drawing it appears to be the bottom of a vertical shaft with two vertical lines within it. This basically agrees with the form of *ta₄*, which is attested, e.g., in line 6 of the same text (in MALUS₁-*ta₄-ā-ti*). We must assume only that the pointed top is missing. I admit that the vertical sides of the *ta₄* sign usually flare outward, but this is not always the case. Note the shape of *ta₄* in CARCHEMISH A 11c,2 (in MALUS₁-*ta₄-ti-i* and LOCUS-*ta₄-za*). The use of *ta₄* to spell **kuwataya* would be in order, since the signs *ta₄* and *ta₃* regularly correspond to a single dental stop in cuneiform.


³³⁾ The verb stem *kuwa(ya)tā(i)-* 'fear' is denominative from the noun *kuwayata-* 'fear', derived in turn from the verb *kuwaya-* 'fear' (for the CLuvian evidence see Laroche, *DLL* 58f.). One would expect a denominative verb in *-ā(i)-* to inflect as a *mi*-verb, but third singulars in *-āi* after the "thematic" *hi*-conjugation are also attested in Hittite: cf. *handāi* for *handāizzi* 'arranges, determines'. In any case, HLuvian REL-*taya* (**kuwataya*) would match directly CLuvian *kuwatai*.

³⁴⁾ It is impossible to determine whether we should take *-ata* as 'it', agreeing strictly with its neuter singular antecedent **hwisar-sa*, or as 'they' according to sense. The verb may be accordingly either third singular *huhurpati* or third plural *huhurpanti*. The meaning is the same in either case.

how the noise is typically made.³⁵) Since the entire family of Hittite *huppiya-*, HLuvian *huhurp(a)-* and Hittite ^{GIŠ}*hu(wa)hu(r)pal(li)-*/HLuvian (*382)*huhurpal(i)-* is imitative in origin, a search for a PIE etymon is pointless.

10. CLuvian **hapanzu-*, HLuvian (VAS)*hapa(n)zu-*,
CLuvian *hapā(i)-*

CLuvian **hapanzu-* is indirectly attested in *KBo* I 42 I 13 in the extended form *hapanzuwant-*: Akk. *lā taklu* = Hitt. *ŪL ha-pa-an-zu-[w]a-a[n-z]a* 'disloyal, untrustworthy'.³⁶) As often in Hittite, the basic adjective has been enlarged by *-ant-*: cf. *daššu-*, *daššuwant-* 'mighty'. For the form of the adjective **hapanzu-* compare CLuvian *kuwanzu-* 'heavy; important': see Weitenberg, *Die hethitischen u-Stämme* (1984) 292.

The stem **hapanzu-* also occurs in the hapax *hapazuwalanni* at *KUB* XXIV 7 IV 51, which is marked by a Glossenkeil, suggesting that the word is Luvian in origin. The context points to a meaning '(state of) obedience, subordination': SAL-*aš-ma*  *hapazuwalanni aranza nu-kan LÚ-aš [memi]yan ŪL wahnuzzi* 'But (if) a woman has reached a state of obedience, she does not contradict the word of her husband.' The speaker of these lines is the fisherman, who is trying to persuade his wife to join him in a deception. He therefore recites his version of the behavior of a dutiful wife, which of course includes obedience to her husband: see for the entire passage Friedrich, *ZA* 49 (1949) 232 f.

³⁵) The crossed arms here would thus have a different meaning from that in (*31)*hi-sā-hi-mi-na* 'we bind' (CEKKE rev.5), although epigraphically they may be difficult to distinguish. Note once again that the interpretation 'clapper' as suggested above does require the use of both hands.

³⁶) The previous reading *ha-pa-an-zu-a[r]* (Laroche, *DLL* 41, and Weitenberg, *Die heth. u. Stämme* 185) not only produces a morphological monstrosity, but also fails to take into account the epigraphic and orthographic features of the manuscript. The sign following *ha-pa-an-zu-* is a *wa* with the lower Winkelhaken missing. This is followed by the head of a horizontal stroke which we may read as *a[n]*. Only traces of the final *-za* are visible, but it is certain, since the lexical texts consistently cite Hittite adjectives in the anim. nom. singular: cf. the immediately preceding *šekkanza* and *turiyanza*! The reading *ar* is not possible, because in this manuscript the initial Winkelhaken of *ar* is consistently large and spreads across the first vertical: cf. I 7 & 8 *e-eš-šu-u-wa-ar* and I 20 *ka-ri-wa-ri-wa-ar*. The spelling *e-eš-šu-u-wa-ar* with *-wa-* also argues against a spelling *ha-pa-an-zu-a[r]*. I therefore read *ha-pa-an-zu-[w]a-a[n-z]a*.

We may account for the usage of both *hapanzuwant-* and *hapa(n)zuwalatar* by assuming a base adjective **hapanzu-* 'obedient, loyal'. Both the sense of the adjective and its status as Luvian are confirmed by a cognate in HLuvian:

(15) KÖRKÜN 1-2:

wa/i-mu-ta á-mi-ti "VAS"-*na-ti* ("VAS")*ha-pa-zú-wa/i-ti* DOMINUS-*na-sa ha-ti-sá* | NEG₂ | *ma-nu-ha zi-la* | "PES"-*hi-nu-ha* (DEUS)*Ku-AVIS-pa-pa-sa-ti* LEPUS + *RA/I-ya-ti* TONITRUS-*hu-ta-sa-ti-ha*

'With my loyal person I never in any way transgressed the command/pronouncement of my lord, by the authority of Kubaba and the Storm-god.'

Hawkins, *AnSt* 25.136, reads *ha-pa-sù + ra/i-wa/i-ti*, following Kalaç, who first edited the text. However, Kalaç himself, *Athenaeum* 47 (1969) 166, stresses that the presence of the 'thorn' in the third sign is quite dubious, and the photograph he presents (ibid. Tav. IV) shows clearly that the mark he reads as 'thorn' is far removed and in an odd position. I therefore ignore it as a stray mark. Kalaç himself already cites the resemblance of the HLuvian word to *hapazuwalanni*. For the reading of sign L 448 as *zú* instead of *sù* see my article to appear in *Studies in Memory of Warren Cowgill*, where I cite the equation of HLuv. (DEUS)*Á-la-zú-wa/i-sa* (ÇİFTLIK 4) with cuneiform ^d*Allanzu-*. The equation of CLuv. **hapanzu-* and HLuv. (VAS)*ha-pa-zú-* 'obedient, loyal' adds further support for the reading *zú*, in this case in a genuine Luvian word, not merely a name.

Hawkins and Kalaç interpret DOMINUS-*na-sa ha-ti-sá* as an apposition to the subject, but the word order would be quite peculiar, and this analysis leaves the otherwise transitive verb PES-*hinu-* without a direct object. Since the sense of the verb is 'cross' or 'cause to cross', I assume here the meaning 'transgress': literally 'I caused myself (-mu) to cross' = 'transgressed' (cf. Hitt. *šarra-* both 'cross' and 'transgress'). The form *hati-sa* is neuter accusative singular (with usual postposed *-sa*) meaning 'injunction, command, solemn pronouncement' or the like. This neuter *i*-stem noun *hati-* is the base of the HLuvian verb *hatiya-/hariya-* 'solemnly declare, pronounce' (see section 11 below).

We thus have a Luvian adjective *hapanzu-* 'obedient, loyal'. This recalls the Hittite univerbation *hapa(-)tiya-* 'obey', attested in *KBo* I 42 II 30: Akk. *muteqqu* = Hitt. *anda hapatiyawar*. The above interpretation, that of Götze, *Madd.* 105, following Holma, has recently

been challenged: see Tischler, *HEG* 163 ff. However, the fact that the noun *hapati-* now has been shown to mean 'river valley' means merely that it must be separated from *hapa(-)tiya-* and says nothing about the meaning of the latter, as Tischler points out.

Riemschneider, *StBoT* 9 (1970) 65 f., proposed an entirely different explanation for *hapatiya-*, reading the Akkadian of the lexical entry as *mudīku* 'killing, slaying', and taking the Hittite as meaning 'harm, strike'. He was influenced in this analysis by the occurrence of the participle *ha-pa-a-ti-an-te-eš* in the omen text *KBo* XIII 3 Rs 3, where it refers to some body part (see *StBoT* 9.62 f.). It is obvious that 'obedient, loyal' cannot be applied to a body part.

As to the Akkadian equivalent, which is hapax, it is clear that its interpretation must depend on the Hittite, not vice-versa: see both the *CAD* and von Soden, *AHW*, sub *mudekkū*. In the Hittite context Riemschneider's interpretation 'harm, strike' is possible but by no means assured, and this assigned meaning leaves *hapa(-)tiya-* morphologically and lexically obscure.

The morphological analysis as a univerbation of *hapā tiya-* (e.g. Neu apud Otten, *StBoT* 11 (1969) 14) remains attractive. Compare the OH hapax *arga(-)tiya-* 'zum Kampfe treten': thus Friedrich-Kammenhuber, *HW*² 1.306, following Rosenkranz. One may likewise interpret *hapā tiya-* as 'zu X treten'. This analysis further suggests a source for both Luvian *hapanzu-* and Hitt. *hapā tiya-*: Hitt. *happ-* 'subject oneself to, submit'. The original meaning of *happ-* was 'fit, fasten (oneself to)', reflected in *happ-eššar* 'limb, member' < *'joint': cf. German *sich fügen* 'submit, comply' < *Fuge* 'joint'. The concrete meaning would still be reflected in the occurrence of the participial phrase *hapā(-)tiantēš* 'fastened to' (of a body part). The lexical entry *hapa(-)tiyawar* may be taken with Götze in the derived sense of 'submission, obedience'. Obviously, Luvian *hapanzu-* 'obedient, loyal' continues the derived meaning as well, with a suffix *-(a)nzū-* whose source is unclear.

The first element of the phrase *hapā tiya-* is most easily interpreted as a frozen allative in *-a* of a root noun *hap-* 'joint, *Fuge*' beside the attested verb root *happ-* 'fit, fasten'. The consistent single *-p-* in *hapa(-)tiya-* and *hapanzu-* is not an obstacle to deriving these forms from the root of *happ-*. Whereas the root-present *happ-* surely continues **h_{2/3}ep-* in the strong stem, the allative of the root noun and the derived *hapanzu-* may reflect a zero-grade **h_{2/3}p-*: note the spelling *ha-pa-a-ti-an-te-eš* with scriptio plena of the noun ending. For the regular Hittite spelling of an initial cluster **h_{2/3}T-* as *haT-* with

a single stop see Watkins, *Fs Neumann* (1982) 455 ff., who compares the regular spelling *šī-pa-an-dV-* for */spand-/* 'libate'.

It is likely that the root noun seen in *hapā* and *hapanzu-* is also the base of the CLuvian verb *hapā(i)-* 'fasten (oneself) to'.³⁷⁾ While several examples of this verb are in incomplete contexts, at least two establish its meaning:

- (16) *KUB* XXXII 9 + Vs 7 ff. (*StBoT* 30.87):³⁸⁾

nīš-an hapiti ma[ħhaššāššin] EN-an a[(ddurwāliš] EME-iš[addurwāliš iš[šariš taparuwāššiš dātariyamnaššiš] ħirutašš[i]š EME-iš...

'May the evil tongue, the evil hand, the tongue of the *taparu-*, of the curses, of the oaths not attach itself to him, the lord of the sacrifice.'

- (17) *KUB* XXXV 48 III 10-11 (*StBoT* 30.156):³⁹⁾

[...d]u-r DINGIR.MEŠ-inzi zamman taparu [tat]ariya[mm]a ħirun wāššini niš ħ[apai(nti)]

'May the gods not attach/fasten the *zamman*, the *taparu*, the curses (and) the oath to his body.'

The first passage would also permit several other possibilities, such as 'strike, harm' or the like, but the second, with 'gods' as subject, dative-locative of 'body', and accusative of the evils narrows the range for *hapā(i)-* considerably, calling for a meaning 'bind' or 'fasten'. This sense is also suggested by the sequence *hapita ... šatta* in *KUB* XXXV 105 I 1 ff.: 'fastened ... released' (cf. Hitt. *hamikta ...*

³⁷⁾ I tentatively assume a stem *hapā(i)-*, contra Oettinger, *Stammbildung* 563, who supposes *hapi(ya)-*. I do so based on the pres. 3rd singular *hapiti* and pret. 3rd singular *hapita*. As shown by Morpurgo-Davies, *KZ* 96.265 ff., Luvian stems in *-ā(i)-* show consistently *-iti* with lenition in the third singular, while stems in *-i(ya)-* have unlenited *-itti*. The Luvian stem *hapā(i)-* 'attach, fasten' must be distinguished from Hitt. *hapā(i)-* 'wash', Lyc. *ħbai-* 'irrigate, flood', for which see Laroche, *Fs Otten* (1973) 182 ff., and Fouilles de Xanthos 6 (1979) 68. It cannot be excluded that some instances of Luvian *hapā(i)-* in incomplete contexts belong to the latter verb rather than to *hapā(i)-* 'attach, fasten'.

³⁸⁾ Likewise *KBo* XXIX 7, 2 ff. and *KBo* XIII 262, 5 ff., which are part of the basis for the restorations, in which I follow Starke.

³⁹⁾ My restoration of the verb is based on the parallel passage *KUB* XXXV 45 III 9-10. Starke, *StBoT* 30.145, reads in line 10 [...i]r-ti, but a disyllabic Luvian verb stem ending in *-ir-* is quite improbable. More importantly, the plural subject 'gods' demands a plural verb. We must therefore read the visible element *ir* as the end of an *in*. The first sign of the verb is provided by XXXV 48 III 11. Given the context, I believe the restoration of *ħ[a-x-i(n-ti)]* as *ha-pa-in-ti* is tolerably certain.

lattat in *KUB* VII 1 + III 1 ff.).⁴⁰) CLuvian *hapā(i)-* 'fasten, attach to' is thus a denominative in *-ā(i)-* to the root noun seen in Hitt. *hapā tiya-* 'fasten oneself to, submit'. The denominative verb, derived from the oblique stem of the root noun likewise reflects **h₂ap-*, spelled *hap(V)-*.

11. HLuv. (LOQUI)*hari(ya)-/hati(ya)-* and *hati-(sa)*

The verb stem (LOQUI)*hari(ya)-* occurs only in the Assur letters, as part of the standard opening:

(18) ASSUR c, 1:

| á-sa₃-za-wa/i | Ka-ka-ya | REL-si-si-ti-mi-ha Ta-ka-sa-la-sa-wa/i | ("LOQUI")*ha-ri* + *i-ti*

'Say to Kaka and *K/Hwisitimi: "Taksala declares:"!'

Although Laroche, *HH* 17, and Meriggi, *HhGl* 183, translate (LOQUI)*hari-* as 'say, speak', the sense is certainly much stronger. The simple meaning 'say, speak' belongs to *asaza-*: see Hawkins and Morpurgo-Davies, *JRAS* (1975) 132 f. In view of the tone of the Assur letters, which consist mostly of impatient criticism of the addressee and a series of direct commands, a meaning 'declare' or 'solemnly pronounce' seems more apt. This meaning is also suitable for the single occurrence of the causative (LOQUI)*harinu-* in ASSUR 6,7, where the speech is addressed to the goddess Kubaba (see Morpurgo-Davies, *KZ* 94.90).

The stem (LOQUI)*hari-* occurs once in ASSUR f, 1 as *hati-*. While it is conceivable that this represents a false "reverse-spelling", it is more likely that *hati-* shows the original form of the stem, which is usually rhotacized to *hari-*: for the process of rhotacism see especially Morpurgo-Davies, *KZ* 96 (1982) 245 ff. We may thus interpret (LOQUI)*hari(ya)-* 'declare, solemnly pronounce' as *hati(ya)-*, a denominative verb in **-ye/o-* from the noun *hati-* which occurs in citation (15) above. As we have seen, the context there suggests independently a meaning such as 'command, solemn pronouncement' or the like for *ha-ti-sá*.

The rhotacism of *hati-* to *hari-* points to an underlying stem with voiced stop /hadi-/: see Morpurgo-Davies, *KZ* 96.250. A Luvian stem /hadi-/ meaning 'solemn declaration/pronouncement' may be

⁴⁰) I will soon justify in detail elsewhere the equation of CLuv. *ša-*, HLuv. (**69*)*sa-* and Lyc. *ha-* as 'release, let go' < **seh₁-*.

compared to OIr. *ad* 'law', both from a root **h₂ed-* meaning 'solemnly declare'. For the semantic development of the Old Irish word compare Lat. *fās* '(divine) law' to *fārī* 'speak' and see Benveniste, *Le vocabulaire des institutions indo-européennes* 2.133 ff.⁴¹)

12. CLuv. *-zalma-*

The element *-zalma-* occurs as the second member of several proper names, alternating with the logogram PAP: cf. *m^dU-za-al-ma-an* (*KBo* V 6 III 2 and *KUB* XXXI 121 a II 8) with *m^dU.PAP* (*KUB* XL 95 II 15) and likewise *m^uYarrazalma-* (*KUB* XIII 35 III 15.21.IV 50) beside *m^uYarra-PAP-aš* (ibid. III 18). See also *m^uÉ.GAL.PAP-ma* in *KUB* VI 41 III 48 and *m^uHūhazalma-* in *KBo* XVI 47 passim and *KBo* V 7 Vs 6. The same element may occur alone or as a first member in *m^uZa-al-ma-[]* in *KUB* XXXI 64 II 44. For all of these examples see Laroche, *NII* (1966). The equation *-zalma-* = PAP 'protect' gives a basic idea of the meaning, but with no instances of the word as an appellative Laroche, *NH* 327, found no basis for deciding the language or the precise sense of *zalma-*.

In an article to appear in *Studies in Memory of Warren Cowgill* I have shown that PIE palatal **k̑* becomes Luvian *z*, although not as part of a "satem" treatment as sometimes previously claimed. If we make the likely assumption that *zalma-* is Luvian (like the other second members of compound names such as *-ziiti-*, *-muwa-* and *-piya-*),

⁴¹) A. Lehrman, *Simple Thematic Imperfectives in Anatolian and Indo-European* (unpub. Ph.D. diss., Yale University, 1985) 205 f., interprets (LOQUI)*hari-/hati-* as 'write', a specialization of 'strike' also appearing in HLuvian *ARHA hara/i-* (i.e. /hari(ya)-/). He equates this **ye/o-* stem with Hitt. *hazziya-* 'strike; play' < *hatt-* 'strike'. This derivation is impossible. The sequence **ty* also assimilates in Luvian, and indeed we have the HLuvian equivalent of Hitt. *hazziya-* in *ha-zi-mi-na* 'we shall inscribe' in CEKKE B5. Furthermore, all proven cases of rhotacism in HLuvian involve voiced or lenited stops: see Morpurgo-Davies, *KZ* 96.245 ff. Thus neither (LOQUI)*hari-/hati-* nor *ARHA hara/i-* can have anything to do with Hitt. *hatta-* 'strike'.

On the other hand, his suggested connection of the verb (LOQUI) *hatti-/hari-* and the HLuvian noun *hatura-* seems attractive. The latter is conventionally translated as 'to write; writing; letter' and compared with Hitt. *hatrā(i)-* 'write'. However, the latter never means 'inscribe', but only 'communicate, send a message' (see Tischler, *HEG* 226). The constant spelling with *-at-ra-* also leaves the quality of the stop indeterminate. We should therefore consider also separating *hatura-* 'message, communication' and *hatrā(i)-* 'send a message' from *hatt-* 'strike' (against the references in Tischler) and deriving them rather from the root **h₂ed-* 'declare'.

then we have an immediate explanation for the sense and origin of this morpheme. We may interpret *zalma-* as 'shield, protection' < PIE **kel-mo(n)-*: cf. Skt. *śarman-* 'protection; cover; refuge', OE. *helm* 'protector; helmet' and other related Germanic forms. Note that we have here not merely a common root, but a word equation with a **-mo-* or **-men-* suffix.

It is quite likely that we also have a Hittite cognate, previously unrecognized. There is a poorly attested Hittite noun *GIŠgalam(m)a*, which is part of a door: see Tischler, *HEG* 463, with references. The precise meaning of the term is difficult to determine, but it is possible to suppose that it refers to a long wooden beam used to block a door or gate.⁴²⁾ Such a specialization from 'protection, shield' seems reasonable.

The Hittite, Luvian and Germanic reflexes could continue **kelmo-*,⁴³⁾ but the Hittite word is probably a collective plurale tantum and could just as easily match exactly Skt. *śarman-* < **kelmṇ-*.⁴⁴⁾ Likewise CLuv. *-zalma-* as the second member of a compound could reflect **kelmo(n)-*: cf. Grk. *ἀ-πῆμων* beside *πῆμα* etc. The Germanic stem **kelma-* could just as well be from **kel-mno-*. For **-mno-* beside **-men-* see my discussion in *Sprache* 29 (1983) 1 ff. Thus we could derive the entire set starting from a *men-* stem **kel-mṇ-*.

⁴²⁾ It is true that *GIŠhattalwaš GIŠ-ru-* 'door-holt' seems to already fill this functional slot, but the 'door-bolt' could easily belong to the localized apparatus by which the two halves of the door were locked together. The *GIŠgalamma* would be instead a long wooden beam (or beams) placed across the closed doors for added security (presumably held in place in a manner similar to more modern versions of this device). Although Haas-Thiel, *AOAT* 31.125, are undoubtedly correct in rejecting Rost's meaning '(paint-)brush' for *galamma*, their translation of *arḫa warši* in *IBoTI* 36 I 69 as 'throws open' is entirely ad hoc and impossible. The sentence must mean 'wipes off the gate', however we are to account for this. I do not find it impossible that in a ritual context the "barber" scrapes the door with the same wooden beam normally used to blockade it.

⁴³⁾ The spelling *ga-la-am-ma* would reflect the gemination of **m* next to another consonant also seen in *gi-im-(ma)-ra-* 'open field' < **ghēmro-*. While the spelling *ga-la-a-ma* certainly raises doubts about the interpretation */galmma-/* < **kelmo-*, it is not a compelling counterargument: cf. *pār-aš-na-* 'hip, thigh' beside *pār-še-na-* and even *pār-še-e-nV-*, or occasional *ka-a-ra-pV-* beside usual *k/ga-ra-pV-* and once *gi-ri-pV-* 'devour'.

⁴⁴⁾ The nom.-acc. plural of neuter *n-* stems in Hittite is regularly *-a*: cf. NINDA *šarāma* to *šaraman-* 'top-bread' or nom.-acc. plural *GIŠkarza* beside dative-locative *karzanaš* (collective plurale tantum).

The names with *-zalma-* as second member could be taken as "Satznamen" of the type: 'X (is my) protection/shield'. However, parallels with other names of this structure argue for Laroche's analysis, *NH* 285 f., as determinative compounds: 'shield of X'. This interpretation certainly seems more likely for É.GAL.PAP 'shield of the palace'.

While the interpretation of Hitt. *GIŠgalamma-* must remain tentative, CLuv. *zalma-* 'shield, protection' may definitely be added to the list of examples of Luvian *z* < PIE **k*.

Neumann, *KZ* 90 (1976) 141, presents evidence for a rhotacized variant *-zarma-* beside *-zalma-* and argues both for the interpretation of *-zalma-* as Luvian and for the names as "Satznamen".

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