

Reprinted from

ANATOLIAN STUDIES

Journal of the British Institute of Archaeology at Ankara

VOL. XXXVIII

1988

THE BRITISH INSTITUTE OF ARCHAEOLOGY AT ANKARA
c/o The British Academy, 20-21 Cornwall Terrace, London NW1 4QD

"THORN" AND "MINUS" IN HIEROGLYPHIC LUVIAN ORTHOGRAPHY*

By H. CRAIG MELCHERT

University of North Carolina

1. "THORN" (sign 383)

It has long been known that HLuvian sign 383, an oblique stroke (\diagdown), when added to another sign, indicates the presence of a postvocalic *r*: see the references cited by Laroche, *HH* 205. The "thorn", as it is often called, may indicate /*r*/ alone, or a sequence /*ra*/ or /*ri*/. The now standard transliteration *ra/i* is thus a cover symbol for all three possibilities. The actual reading in any particular case may be determined only on comparative grounds, internal or external. As examples of /*r*/, /*ra*/, and /*ri*/ I may cite respectively dat.-loc. pl. ("FINES")*i+ra/i-ha-za* = /*irhanza*/ "boundaries" (cf. Hitt. *irha-* "idem"), pret. 3rd sg. *i+ra/i* = /*ira*/ "went", and pres. 3rd sg. *i+ra/i* = /*iri*/ "goes".¹

Hawkins, Morpurgo-Davies and Neumann, *HHL* 171 f, have argued that in internal and final position the combination 209+383 (\diagdown), in addition to *i+ra/i*, may also indicate *ri+i* = /*ri*/. That is, in combination with a vowel sign V, the "thorn" may indicate the sequence /*rV*/ instead of /*Vra*/i/. Note that the HLuvian syllabary has no CV sign for /*ri*/, while sign 412 (and less often sign 103) spells /*ru*/. Evidence for the reading *ri+i* comes from alternations such as abl./inst. *DEUS-na-ri+i* beside *DEUS-na-ti-(i)* "by/from the god(s)" or *tu-pi-ri+i* beside *tu-pi-ti-i* "strikes".

Hawkins and Morpurgo-Davies, *AnSt* 28 (1978) 104 f, have also suggested that sign 178, *la*+thorn+double stroke (\diagdown), should be read as /*lara*/, i.e. as *la+ra/i+à*, where the double stroke at the bottom of the sign indicates *a*-vocalism, as in sign 210 *ya* (\diagdown) and 377 *za* (\diagdown). They also argue, following an idea of Gelb, that the double stroke in such cases marks *a*-vocalism because it is in origin a cursive form of sign 450, *à* (\diagdown).

I wish to propose that in similar fashion the combination 450+383 (\diagdown) in internal and final position may indicate instead of *à+ra/i* rather *ra+à* = /*ra*/. Note that the HLuvian syllabary also has no CV sign for /*ra*/. The proposed reading of (\diagdown) as *ra+à* is exactly parallel to that of (\diagdown) as *ri+i*.

The crucial case supporting *ra+à* has already been cited by Hawkins, *KZ* 94 (1980) 117, although he makes no comment on this aspect of the orthography. In ASSUR f,1 we find the phrase (*476.*311)*hi-ru-à+ra/i-ti-i* |ARHA |*wa/i-la-u-ta* "they (have) died through/from a curse". The sense "die" for (ARHA) *wala-* is assured by the other evidence presented by Hawkins. Although its origin is obscure, a pret. 3rd pl. ending *-unta* is well attested in CLuvian. The equation of *hi-ru-à+ra/i-ti-i* with CLuv. *hiru(n)t-* "curse" (abl.-inst. *hi-i-ru-ù-ta-ti*) with rhotacism of the stem-final

*Bibliographical abbreviations are those of *The Hittite Dictionary of the Oriental Institute of the University of Chicago*, Chicago, 1980 ff., (henceforth *CHD*). 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. I am grateful to D. Hawkins for his having read a draft of this paper and offered many useful suggestions and criticisms. Responsibility for the views expressed here remains mine, of course.

¹On the appearance of *r* for expected dental stop in these and other HLuvian forms see Morpurgo-Davies, *KZ* 96 (1982) 245 ff.

dental stop also seems certain. Note, however, that the current transliteration $\hat{a} + ra/i$ here produces an anomalous reading /hiru(w)arati/. The putative stem /hiru(w)ar-/ has little chance of being real. A sequence /-ruwar-/ would by the rules of HLuvian orthography be spelled *-ru-wa/i + ra/i-*. A sequence /-ruar-/ with hiatus is hardly credible. The answer to this problem is that the stem /hiru(w)ar-/ is a fiction, a mere creation of our transliteration, which is false. The real HLuv. stem is /hirur-/, rhotacized from /hirut-/ attested in CLuvian. We should read *hi-ru-ra + \hat{a}-ti-i = /hirurati/*, where the \hat{a} -sign marks the vowel following the *r* unambiguously as /a/, just as the *i*-sign indicates *i*-vocalism in *DEUS-na-ri + i = /DEUS-nari/*.

I call the above case crucial because in this example we have independent evidence from CLuvian to tell us what the phonological shape of the stem is. However, the proposed reading $ra + \hat{a} = /-ra-/$ can also resolve difficulties in the reading of the HLuvian noun for "writing; letter", traditionally read as *hatuar(a/i)-*. The accusative of this word is spelled consistently *ha-tu + ra/i-na*, which implies a stem /hatura-/ or /haturi-/. The apparent dative-locative² is spelled once (ASSUR e, 1) as *ha-tu + ra/i-*, again pointing to /hatura-/ or /haturi-/. However, the same form is usually spelled *ha-tu-\hat{a} + ra/i⁽⁻ⁱ⁾*, and the nominative is attested as *ha-tu-\hat{a} + ra/i-sa*. The current transliteration implies that these spellings reflect an allomorph /hatu(w)ara/i-/ beside /hatura/i-/. The reality of the form /hatu(w)ara/i-/ is very dubious, for the same reasons cited for /hiru(w)ar-/ above. Once again I suggest that the allomorphy does not exist. We should read dat.-loc. *ha-tu-ra + \hat{a}⁽⁻ⁱ⁾ = /hatura/³* and nom. sg. *ha-tu-ra + \hat{a}-sa = /haturas/*. The spelling *ha-tu + ra/i-* may of course also be read as /hatura-/. We thus have a perfectly regular animate *a*-stem *hatura-*.

Since the closest comparandum for this noun is the Hittite verb *ḫatrā(i)-* "write, I cannot show independent evidence for the reading /hatura-/ as I could for /hirur-/. However, the regular animate stem /hatura-/ is at least amenable to morphological analysis, unlike the bizarre /hatu(w)ara/i-/. The animate noun *hatura-* may be taken as a hypostasized genitive of a verbal noun **hatur-* "writing", of the type of Hitt. *ḫenkur* "offering, present" < *ḫenk-* "offer, present". For the derivation compare Hitt. ¹⁰*ḫinkula-* "server" < **“(the one) of serving”* < **ḫinkul* "serving" from the same verb. For the base **hat-* (< **h₂et-*) as "write, inscribe" (< "strike") compare Hitt. *ḫazziya-* = HLuv. *hazi(ya)-* "inscribe" < **h₂et-ye-*: see Oettinger, *MSS* 34 (1976) 125 and *Stamm-bildung* (1979) 343.

It is no accident that the two examples cited above for the reading $ra + \hat{a} = /ra/$ both involve the sequence /-ura-/. We might in principle also expect to find spellings of the sort *Ci-(ḫ)* to spell unambiguously $Ci-ra + \hat{a} = /-Cira-/$. I am not aware of any, but note that those in *Cu-ra + \hat{a}* are hardly numerous (both in the Assur letters). While mere addition of the "thorn" to a *Ci* or *Cu* sign is ambiguous (/Cira/i/ and /Cura/i-), it is a quite adequate spelling of /Cira/ and /Cura/ respectively. The lack of any spellings in *-Ci-ra + \hat{a}-* is thus hardly disturbing.

As for a sequence /-Cara-/, it is in principle impossible to prove a reading *-Ca-ra + \hat{a}-* for these cases, since the transliteration *-Ca-\hat{a} + ra/i-* also implies /-Cara-/ as one reading. However, it is striking that in all cases of the spelling *-Ca- ḫ* known to me, one either must or can read the second vowel as /a/. I know of no examples of such a spelling where one must read the second vowel as /i/. This fact suggests

²For the difficult syntax of this form see Morpurgo-Davies, *KZ* 94 (1980) 91, and compare the Appendix below.

³The final *-i* of this word is a mere space-filler, as elsewhere in the Assur letters, and tells us nothing about the vocalism of the final syllable.

strongly that we should indeed interpret these spellings too as *-Ca-ra+â-*, where the *â*-sign is marking the *a*-vocalism of the syllable following the /r/, not functioning as “scriptio plena” of the preceding /a/ syllable.

As examples where we must read /-Cari-/, I may cite the following: *â-ra+â = /ara/* “did” (MARAŞ 2,2), *wa/i-ra+â = /wara/*, i.e. *wa-* (quotative particle) + *-ara* for *-ata* (3rd pl. enclitic pronoun “they, them” or 3rd sg. nt. “it”). This sequence is attested in CARCHEMISH A 24a 2,4, KARABURUN 1, ASSUR b,2 and ASSUR g,4 and g,1 (in the last two instances followed by ⁱ as a space filler). Compare also twice attested *wa/i-ma-ra+â = /wamara/*, i.e. *wa-+m-* “me” + *-ara* (ASSUR b,2 and g,4). In ASSUR e,1 we find AUDIRE + *MI-ta-ra+â-nu = /tummantaranu/* “may you (pl.) hear”: for the ending *-ranu* see Morpurgo-Davies, KZ 94 (1980) 92. The noun (“PANIS.*402”) *tu-ni-ka-ra+â-sa* (ASSUR g,1) is confirmed as an *a*-stem by the alternate spelling (*402) *tu-ni-ka-la-sa* (CARCHEMISH A 3,2).

The dative-locative plural of *i*-stem nouns regularly has *a*-vocalism: e.g. REX-*ti-* “king”, dat.-loc. pl. REX-*ta-za/REX-tâ-za*. We should therefore also read in CEKKE 5 *ta-ra+â-za = /taranza/* “fathers” and in ASSUR e,4 “*198”(-) *ki+ra/i-ra+â-za = /kira/iranza/* beside nom./acc. pl. *198(-) *ki+ra/i-ti-zi = /kira/itinzi/*. Since the ablative ending is overwhelmingly (though not exclusively) *-ati*, we should also probably read *â-la-wa/i-ra+â-ti*(URBS) = /Alawa/irati/ “from Alawa/ira” in ASSUR g,3.

In a few examples there is no basis for deciding the vocalism of the syllable following the /r/, but *a*-vocalism is quite possible: “LOQUI”(-) *ma-ra+â-ti-na* (ASSUR b,1), “*317.*286-”(-) *wa/i-ra+â-ma* (ASSUR b,2 and similarly c,3 beside ambiguous *wa/i+ra/i-ma* elsewhere), *ka-pâ+ra/i-ra+â-na* (ASSUR g,3) beside *ka-pâ+ra/i-zi* (ibid.) with an unexplained loss of a syllable.⁴

I know of only one instance where a reading /-Cari-/ has been proposed for a spelling *-Ca-â+ra/i-*. In ASSUR g,1 we find the following:

- (i) |*â-pa-wa/i-â+ra/i*ⁱ 11 (“*78”) *â-ru-ti-sâ*
- (ii) |*ni-pa-wa/i+ra/i*ⁱ |NEG₂-ⁱ |*wa/i-mi+LITUUS-si*
- (iii) |*â-wa/i*ⁱ LITUUS + *na-ti-sa* |REL-*ta-ha* 10 (“*78”) *â-ru-ti-na*
- (iv) |*wa/i-mu-u* |VIA-*wa/i-ni-i*

Morpurgo-Davies, KZ 94.105, interprets the above as: “To you (there are) eleven ARUTI’s. Or do you not find them? Wherever you see ten ARUTI’s, send (them) to me”. The sequence *-wa/i-â+ra/i* in the first sentence is taken as /-wari-/, with *-ri* being the rhotacized form of enclitic *-ti*, here functioning as 2nd person dative singular instead of *-tu*.

This interpretation is contextually possible, but by no means necessary. In the sentences immediately preceding this passage (on which see Morpurgo-Davies, KZ 94.98), the writer asks the addressee to collect and send some kind of supplies which the writer lacks. Sentence (i) above can therefore equally well be interpreted as: “They (the missing supplies) are eleven ARUTI’s (in quantity). Or should you not find them . . .”. The term *aruti-* appears to be a measure of some sort. We may thus read *-wa/i-ra+âⁱ = /-wara/*, with *-ara* for *-ata* as elsewhere. An additional argument against *-ri = -ti* “tibi” here is that there is no other good evidence for such a form: see Appendix below.

In summary, then, the forms for “curse” and “letter” in HLuvian (/hirur-/ and /hatura-/) argue that we should read the combination 450+383 (𐎎𐎗) as *ra+â = /ra/* in internal and final position. This reading also makes fine sense for all known

⁴Since the “thorn” may indicate *r* alone, we should perhaps read *ka-pâ+ra/i-ra+â-na* as /kapa(r)an/, permitting direct equation with *ka-pâ-ra/i-zi* /kapanzi/. If this interpretation is correct, it would be an additional argument for reading *ra+â* instead of *â+ra/i*.

examples of *-Ca-* 𐎠, which should likewise be taken as *-Ca-ra + â-* = */-Cara-*. The proposed reading of 𐎠 as *ra + â* in this position is entirely parallel to the well-established value *ri + i* for 𐎠 in the same position.

2. "MINUS" (sign 381)

Sign 245 consists of sign 244 AEDIFICIUM "building" plus a vertical stroke: 𐎠. Purely on the strength of the component "building", the nominal and verbal stem determined by sign 245, *tanata-*, has been interpreted as either "wall; enclose by walls" (Meriggi, *HhGl* 118) or "edifice; build" (Laroche, *HH* 130). This interpretation has persisted despite the fact that it is patently unsuitable for the contexts in which the word appears.

Hawkins and Morpurgo-Davies, in *Kaniššuwār*, a Tribute to H. G. Güterbock (1986) 74 f., have argued for readoption of an earlier proposal of Laroche, *RHA* 11 (1950) 51: HLUvian (*245)*tanata-* means "devastate, ravage" and is cognate with Hitt. *dannattaḥḥ-* or *dannattā(i)-* in the same meaning.⁵ The HLUvian stem could be *tanata-*, matching *dannattaḥḥ-*, with the same loss of stem-final **h*₂ seen in Palaic: see my discussion in *KZ* 97 (1984) 38, note 24, and that of Oettinger, *Stammbildung* 559, 152 ff., and 547–8. However, the HLUvian stem could also be *tanatā(i)-*, matching exactly Hitt. *dannattā(i)-*.⁶

The Hittite verb *dannattaḥḥ-/dannattā(i)-* is denominative from the adjective *dannatta-* "empty, desolate". We would expect to find the same base in HLUvian, perhaps in the form of an *i*-stem *tanati-* (cf. twice attested *dannatti-* in Hittite). The base adjective *tanati-* does appear in HLUvian, again marked by sign 245 as a determinative, which I now propose to read as VASTUS. For the nom.-acc. plural (VASTUS)*tanata* see MARAŞ 1,4 and CARCHEMISH A 31/32,6 cited by Hawkins and Morpurgo-Davies. The neuter nom.-acc. plural *tanata* is ambiguous as to stem-class, but an *i*-stem *tanati-* is assured by other occurrences.

CARCHEMISH A 11b,2 has the following sentence:

wa/i-sa' VASTUS-*ti-i-sa/ARHA* ("LONGUS")*ya + ra/i-ya-ta*
 "It (my paternal, ancestral city) stretched out empty/desolate."⁷

At first glance, such a characterization of one's own city may seem unlikely. However, what we have here is merely another example of the self-serving device by which the authors of royal inscriptions built up their own exploits by contrasting their success with the failures of their predecessors. This technique is well-known from Hittite sources (such as the "historical" introduction to the Edict of Telipinu). For other examples in HLUvian inscriptions see the passages discussed by Hawkins, *AnSt* 25.122 and 136 ff., especially citation 32*a* which occurs

⁵The hostile sense of the HLUvian verb is undeniable. D. Hawkins (personal communication) has kindly provided me with an additional example of (*245)*tanata-* parallel to *ARHA* *248-*nu-* "destroy" (on the latter verb see below). In BOROWSKI 1, §§3–4 he reads: *pa-sa-pa-wa/i'* LÖCUS(-)*x-x-za / â-mi-i-s[â'] / x[. . .//. . .]. . . (*245')ta²-na-tâ-tu* *{wa/i-tu-}'* ("MALLEUS")*â-hu²-li-na ARHA* *248-*nu-wa/i-tu*. Despite the badly broken context, the gist is clear: "May my . . . [the god X⁷] devastate his place and destroy his ———."

⁶Oettinger *Stammbildung* 240, claims that the hapax *dannattauwanzi* is an error, not evidence for a stem *dannattā(i)-*, but this is unlikely in view of such pairs as *kutruwahḥ-/kutruwā(i)-* "call to witness" and *armahḥ-/armā(i)-* "be pregnant".

⁷For the verb (LONGUS)*yariya-* "stretch out, extend" (transitive and intransitive) compare SULTANHAN 6: *tara/i-sa-zi-pa-wa/i / ya + ra/i-ti-i* "It (a grapevine) will extend/put forth shoots". HLUvian *tarsa-* is cognate with Hitt. ⁶¹⁸*tarša* "shoots" at *KUB* XII 58 IV 18. I cannot follow the reading and interpretation of CARCHEMISH A 11b,2 offered by Hawkins and Morpurgo-Davies in *Kaniššuwār* 75.

in the same text, CARCHEMISH A 11b. The description is undoubtedly calculated hyperbole and should not be taken at face value.

The adjective *tanati-* also occurs without the determinative VASTUS in KARAHÖYÜK 3:

à-wa/i URBS + *MI-ni ta-na-ti wa/i-mi-OCULUS* + *ra/i*
 “He found the city (area) desolate.”

For the reading and interpretation of the entire sentence see Nowicki, *KZ* 95 (1981) 255 f., who correctly takes *tanati* as “desolate”, following already Laroche. Also important is Nowicki’s interpretation of the following sentence as referring to the settlement of the empty area. It is clear that here we have the same sequence of events expressed in two sentences which we found in a single sentence in MARAŞ 1,4–5 cited above. Although Nowicki surprisingly keeps *tanati-* separate from (*245)*tanati-*, the parallel contexts show that they are the same word.⁸

Thus the usage of the adjective (VASTUS)*tanati-* also points to a meaning “empty, desolate”, agreeing with the meaning “devastate” arrived at independently for the verb (VASTUS)*tanata-*. My interpretation of sign 245 as a logogram VASTUS “desolate, empty” is based on the meaning of the words which it determines and needs no further justification. However, the proposed meaning inevitably raises the question of how the shape of the sign expresses such a sense. My pursuit of this question has led me to some surprising and far-reaching results.

As stated earlier, sign 245 appears to consist of sign 244 plus a vertical stroke. Since the sense of sign 244 AEDIFICIUM “building” is beyond doubt, the explanation for the unexpected meaning VASTUS “empty, desolate” of sign 245 must lie in the other component, the appended vertical stroke. Laroche, *HH* 131, tentatively identifies this element as “l’épine”, i.e. the “thorn” which marks the presence of *r* (sign 383 discussed in section 1 above). However, the quotation marks betray some uncertainty, and Laroche states explicitly that the function of the “thorn” in this case is unknown. Meriggi, *HhGl* 118, is even more cautious, directly representing the vertical stroke in sign 245 (as elsewhere) by a vertical line in his transcriptions.⁹ Hawkins, *AnSt* 31.155 and elsewhere, transliterates AEDIFICIUM + *RA/I*, implying that the vertical stroke is “thorn”.

A reexamination of the usage of this vertical stroke shows that Meriggi’s caution is justified and that the identification with the “thorn” is false. As defined above, the “thorn”, sign 383, is properly an *oblique* stroke, slanting from upper left to lower right in signs read left to right and in the opposite direction in signs read right to left. It is true that occasionally the “thorn” occurs as a vertical or even horizontal line: see the shape of CRUS + *RA/I* in CARCHEMISH A 11a,2 (middle of line) and the third and fourth variants of SUPER + *RA/I* listed by Laroche, *HH* 43 (sign 70). However, if one surveys the overall use of “thorn”, it is clear that these examples are mere variants of what is essentially an oblique stroke (for CRUS + *RA/I* with an oblique stroke see TOPADA 6). I know of no combination involving “thorn” which does not show some variants with the expected oblique form.

On the contrary, sign 245 shows a vertical stroke in all cases. Six examples may not seem enough to be significant, but sign 248, which will be discussed immedi-

⁸D. Hawkins has furnished a further example of the *i*-stem adjective in a similar context (MARAŞ 8, §3): *ta²-pa-wa/i* || *ku + ra/i-ku-ma-na*(URBS) |FLUMEN.REGIO-*ti-na* (“*245”) *ta-na-ti-i²-na wa/i-mi-LITUUS-ha* “And . . . I found the river valley (of) Gurgum desolate.” The reading URBS + *MI-ni* in the above quotation results from a recent collation of KARAHÖYÜK by Mr. Hawkins.

⁹Unfortunately, however, Meriggi lists together under *tanata-* occurrences of AEDIFICIUM alone and of AEDIFICIUM plus vertical stroke. Only the latter properly belong here.

ately below, is attested at least eleven times, always with a vertical stroke. If these signs contained a form of "thorn", it is simply not credible that there would be no attested examples of the normal oblique shape.

Epigraphically, then, we are justified in separating the vertical stroke of sign 245 and other combinations from the oblique stroke or "thorn" which marks the presence of *r*. In fact, present evidence argues that we should do so. The vertical stroke may be conveniently identified with Laroche's sign 381 (|).

Since sign 381 is a distinct element, we are free to attribute to it whatever value seems demanded by the usage of the combinations in which it occurs. If we return to sign 245, now analysable as 244 + 381, the meaning which we must assign to sign 381 is evident. The only reasonable way to derive VASTUS "empty, desolate" from AEDIFICIUM + x is to assign a privative meaning to x (= sign 381): "lack/absence of buildings" = "empty, desolate". The vertical stroke, sign 381, has in effect the same sense as the modern minus sign: VASTUS = - AEDIFICIUM.

The privative value (MINUS) which we have been led to attribute to sign 381 due to its use in sign 245 is supported by several other examples. While some of these must be regarded as tentative for various reasons, at least two are tolerably certain.

The first of these is sign 248 (E³), already referred to above. This sign obviously consists of sign 247 DOMUS "house" plus sign 381, the vertical stroke. Laroche, *HH* 133, views the vertical stroke here as the "thorn". Since the HLuvian word for "house" is *parn(a)-*, he further proposes that *248-(*nu*)- be read as **par(nu)-* and compares the phrase ARHA **par(nu)-*, which he interprets as "chase away, banish", with Hitt. *arḫ parḫ(nu)-* "chase, drive away". Meriggi, *HhGl* 95, while still representing the vertical stroke as such, cites Laroche's analysis with apparent approval. Hawkins consistently transliterates DOMUS + RA/I-(*nu*)-, implying that the vertical stroke is "thorn" functioning as a phonetic indicator, and in his most recent discussion of the subject, *AnSt* 33 (1984) 135, n15, he explicitly suggests a reading **par(a)nu-*, citing the apparent occurrence DOMUS + RA/I(-) *pá + ra/i-nu-w[a/i-. . .]* in CARCHEMISH A 28g,2 (cf. Hawkins, *AnSt* 20 (1970) 105). Neither the interpretation of the vertical stroke as "thorn", the equation with Hittite *arḫa parḫ(nu)-*, nor the meaning "chase, banish" can be upheld.

As already indicated, in eleven occurrences of sign 248 the appended stroke is always a vertical, never oblique. In addition to the examples which will be cited below, note also the following examples in broken contexts: CARCHEMISH A 4b,6; A 16c,1; and A 28g,2 (in the last instance contrast the vertical stroke of sign 248 with the oblique thorn of the immediately following *pá + ra/i*). Epigraphically there is simply no basis for the identification of the vertical stroke of sign 248 with the oblique stroke which marks *r*.

As for the comparison with Hitt. *arḫa parḫ(nu)-*, the latter does mean "chase, drive away", as given by Friedrich, *HW* 159: "fortjagen, vertreiben, verbannen". The stem *parḫnu-* is rare, being used only with "horse" and "goat". The stem *parḫ-* is also used principally with "horse" as object but occasionally of persons. An intransitive use of *parḫ-* as "attack, charge" is obviously derived from the sense "drive (horses)". On a handful of occasions, *arḫa parḫ-* is used to refer to driving away ills from the body: *KBo* X 37 II 19 ("evil tongue"), *KUB* XXIV 14 I 23 ("dog excrement", i.e. sweat or urine), *FHG* 2 III 22 ("rage, anger, sin, resentment").

This is also the usage of the only contextually clear example of the CLuvian cognate *par(a)-/papra-*, at *KUB* XXXV 43 II 12 (see now Starke, *StBoT* 30.143 ff.). The overall context of this Luvian example also shows how the use with bodily ills arose. The subject of the verb here is the sacrificial sheep, which, having been

ritually burdened with the ills of the patient, is then driven away (*parā penna-*). The expression to “chase, drive away” ills is thus based on the fact that in Hittite ritual practice removing ills from the body was often accomplished by driving away a sacrificial sheep or goat. Aside from this special use, which is clearly derivative, *arḫa parḫ(nu)-* is used only of animate beings, people and animals, which are capable of self-locomotion and may therefore reasonably be said to be “driven, chased away”.

If we look at the usage of the HLuvian verb *ARHA* *248-(*nu*)-, we find the following objects: a city (CARCHEMISH A 1a, 2), a person’s head (CARCHEMISH A 4a, 3), a stele (EMIRGAZI B, 2-4), a person’s name (ALEPPO 2, 5 & ADIYAMAN 1, 4), and a person (BOLKARMADEN 5). The objects in BABYLON STELE 7 and MEHARDE C, 2 are unclear. It is evident that one cannot in any real sense “chase, drive away” stelae or a person’s head. For that matter, “chasing, driving away” a name or a city requires a figurative use “banish” for which Hittite offers no evidence. In view of this disagreement, the single occurrence with “person” is hardly significant. The usage of Hitt. *arḫa parḫ(nu)-* and HLuvian *ARHA* *248-(*nu*)- simply has nothing in common, and there is no more basis for their equation than for the reading of sign 248 as DOMUS + RA/I with thorn.

The unsuitability of the proposed meaning “chase, drive away” is reflected in the variety of translations offered by Hawkins for the individual occurrences of the verb: “eliminate” (*Florilegium Anatolicum* 150), “make to vanish” (*AnSt* 20.104), “drive away” (*AnSt* 22.89), “dispose of” (*AnSt* 25.142), “displace” (*AnSt* 25.129), “get rid of” (*AnSt* 30.152), “remove” (*AnSt* 31.162), and “exterminate” (*AnSt* 31.169). His discomfiture with the assigned meaning “chase away” is shown by the fact that many of these translations are marked by italics as uncertain. The common denominator here is not “chase away”, but “destroy, obliterate”, a sense appropriate for all examples. The preverb *ARHA* here does not mean “away”, but has the perfectivizing sense “utterly (destroy)”, as elsewhere: cf. *ARHA ad-/az-* “devour”. I therefore propose to read sign 248 as a logogram DELERE “destroy, obliterate”.

The identity of the HLuvian stem (or stems) represented by 248 = DELERE is an independent question to which we can give only a tentative answer. The stem is normally written DELERE-*nu(wa)-*, pointing to a causative in *-nu-*. In EMIRGAZI B, 3 we find a pres. 3rd sg. DELERE-*i/ia*, which seems to argue for a *hi*-verb. Hawkins, *AnSt* 30 (1984) 154, suggests that “DELERE”-*tú* in ALEPPO 2,5 represents the same stem, which he takes to be the base verb of the well-attested *nu*-causative. However, neither the interpretation of “simple” DELERE as a *hi*-verb nor the assumption that it is the base of DELERE-*nu-* is by any means assured.

As to the first point, in KARATEPE LXVI,355 there is attested a pres. 3rd sg. *à-ta* AEDIFICARE + *MI-i* followed shortly in LXXI,373 and LXXII,379 by *à-ta* AEDIFICARE + *MI-ri* + *i(-i)*. The latter can hardly be anything but a rhotacized form of a pres. 3rd sg. *-ti*. While an alternation of *hi-* and *mi-* endings in a single verb is hardly unheard of in Anatolian, it would be striking to find such an alternation within five lines of a single text. It also seems possible to suppose that logogram + *-i* is on occasion a spelling variant of logogram + *-ti-i/-ri* + *i-i* with scriptio plena.¹⁰ This means that an isolated spelling logogram + *i* is not by itself compelling evidence for a *hi*-verb.

Furthermore, HLuvian, like Hittite, uses a single logogram to represent more

¹⁰Morpurgo-Davies, *Fs Szemerényi* (1979) 590, also interprets AEDIFICARE-*MI-i* beside AEDIFICARE-*MI-ri* + *i(-i)* as standing for **tamari* or **tamati*.

than one lexical item: cf. among many examples INFANS-*ni-* and (INFANS)*nimuwiza-* both “child, son”: There is thus no way to exclude the possibility that DELERE-*i/ia* (and perhaps “DELERE”-*tú*) stand for an entirely different verb from DELERE-*nu-*. Finally, however, there is also no rule which requires that a causative in *-nu-* be spelled with *-nu-* as a phonetic complement (cf. SOLIUM-*wa/i-ha* = /isanuwaha/ “I settled” in IZGIN 5–6). Thus DELERE-*i/ia* and “DELERE”-*tú* could also represent forms of DELERE-*nu-*. In sum, there is no compelling reason to assume with Hawkins a base verb “destroy” and a corresponding *nu-*verb built on the same stem. We are also free to assume a *nu-*causative “destroy” alone or a *nu-*causative beside an unrelated verb “destroy” (the latter perhaps indeed a *hi-*verb). In the latter case we have no clue as to the phonetic shape of the simple verb DELERE-*i/ia*.¹¹

As for the *nu-*verb, the fragment CARCHMISH A 28g,2 has DELERE(-)*462 + *ra/i-nu-w[a/i..]*. Laroche, *HH* 238, very tentatively reads sign 462 as *pá*, but as Hawkins stresses, *AnSt* 33.135, n15, the only evidence on which this reading was based (two city names) has been shown to be false. Hawkins indeed cites DELERE(-) *pá* + *ra/i-nu-w[a/i..]* itself as one of two remaining pieces of evidence for the value *pá*. We have seen, however, that sign 248 does not contain “thorn” as a phonetic indicator, but a vertical stroke as part of a logogram. Furthermore, the comparison with Hitt. *parhnu-* is without foundation. Therefore the reading of the verb as **parnu-* and phonetic connection with *parn(a)-* “house” have no firm basis.

Hawkins’ other evidence for the reading 462 = *pá*, the equation of HLuvian (LOQUI)*pá* + *ra/i-ta* and CLuvian *paratta* “curses” is also very dubious. The CLuv. word appears in stereotyped lists of evils which give little clue as to its precise meaning. However, *KUB* VII 14 I 1 ff. (*StBoT* 30.60), where the Storm-god *parattaššiš* is invoked when “impurity” occurs (Hitt. *paprātar*), supports Laroche’s interpretation, *DLL* 78, that *paratta-* means “impurity”.¹² There is no positive evidence that CLuv. *paratta-* means “curse”. The phonetic value of HLuvian sign 462 (usually with “thorn” as *462 + *ra/i*) thus remains undetermined.

Irrefutable evidence, i.e. alternation of sign 462 with a known syllabic sign in assuredly the same word, is lacking. However, I believe that there is more evidence for a reading *ma_x* than for *pá*. First of all, we may indeed have an alternation of sign 462 with *ma* in the same word. It is quite possible to equate the frequent (LOQUI)*462 + *ra/i-ta* (in the expression “whoever erases these *462 + *ra/i-ta*”) and the hapax (“LOQUI”) *ma-ra* + *à-ti-na* of Assur b,1 (for the reading *ma-ra* + *à-* see

¹¹It is possible, however, that we do have a *hi-*verb meaning roughly “destroy” attested in TOPADA 8: [...]*REL-i ARHA ha + ra/i-ri + i ... wa/i-ta à-pa-sa-na VAS-tara/i-i-na à-pa-sa-[ha] TERRA-REL<-ra/i->na (DEUS)TONITR[US]-h[u-sa] (DEUS)SARMA-ma-sa ... ARHA ha + ra/i-tú-u* “If/As [someone] smashes [this inscription/these words], ... let the Storm-god and Sarruma ... smash his form and his land.” We should probably restore the same verb in BOLKARMADEN 5: *za-pa-wa/i-ta-’ / CAPERE-ma-z[a RE]L-sa ARHA-’ / [ha + ra/i]-ri + i* “Whoever smashes this document(?) ...”. Due to the lack of *ARHA* and particle *-ta*, it is hard to say whether we have the same verb later in the same line: (DEUS)LUNA-*MI-pa-wa/i-na ha + ra/i-tu* “Let the Moon-god smash(?) him.” HLuvian *ARHA har(ra)-* could equate directly to Hitt. *arha harra-* “crush, smash”, which significantly is the term commonly applied to damaged cuneiform tablets: *KUB* XIII 7 IV 3 *kī TUPPU arha harra ēš [ta]* “This tablet was broken/smashed.” As noted by Oettinger, *Stamm-bildung* 505 f., the earliest attestations of Hitt. *harra-* are middles with a fientive or passive sense. The later attested active *h-*verb *harrai* could thus be old. One difficulty with the equation is that the only way to read HLuvian *ha + ra/i-ri + i* as a *hi-*verb is to read /har(r)i/. To my knowledge there are no other certain examples of a pres. 3rd sg. ending *-i* in Luvian (instead of usual *-ai*), and it would be an unexpected archaism.

¹²On the form of the Hittite word (reduplicated *pa-pr-*) and a possible etymology see Melchert, *Studies in Hittite Historical Phonology (SHHP)* (1984) 33, n68.

section 1 of this article). Morpurgo-Davies, KZ 94.98, translates *maratin* from context as “bidding”. The peremptory tone of the Assur letters, which consist largely of commands, supports the meaning “bidding” or something even stronger: “injunction, order”. This sense also fits the use of (LOQUI)*462 + *ra/i-ta*, which typically occurs between various proscribed acts and the curse which is to apply if those acts are committed. In view of the shift in English “enjoin” from “command” to “forbid, proscribe”, the phrase of KULULU 1,5 *á-pa-si-na |ha-sa-mi-na |*462 + ra/i-ta-mi-i-na* may just as well mean “his proscribed/forbidden clan” as “his accursed clan”. For the supposed collective plural *marata* beside animate acc. sg. *maratin* compare HLuv. acc. pl. *ta-wa/i* “eyes” (KARABURUN 2&3) beside acc. sg. (“LITUUS”) *ta-wá/i-na-* “eye” (KAYSERI 2). The readings *tawa* and *tawin* are assured by the CLuv. cognates *dāwa* and *dāwīš*. Compare further CLuv. coll. pl. *pūnata* beside anim. acc. pl. *pūnatinza* and nom. sg. *punateš* (DLL 82). I therefore tentatively read (LOQUI)*ma_x + ra/i-ta* beside (LOQUI)*ma-ra + à-ti-na*, both “injunction, order”.¹³

Second, we have the divine name (DEUS)BONUS(-)*ku-*462 + ra/i-ma-sa₅* in TELL AHMAR 1,2. As discussed by Hawkins, *AnSt* 31.166, it is hard not to identify this first-millennium name of a grain-god in Hurrian context with that of Kumarbi, who fulfils a similar function in documents of the later second millennium. It is quite true that one must assume some alteration in the name no matter how one reads the second syllable, and a metathesis of Kumarbi to Kuparma cannot be excluded. Nevertheless, a reading of the HLuvian as *Ku-ma_x + ra/i-ma-sa₅* = /Kumarmas/ clearly brings the name closer to the Kumarbi of the cuneiform texts and supports the value *ma_x* for sign 462 suggested by *marati-* = *marata*.

Third, the new reading (*349)*sà-pá + ra/i-ka-wa/i-ni*-(URBS) for CARCHEMISH A 1a, 1 & 6 has not yet led to any identification of this place-name. On the other hand, a reading *sà-ma_x + ra/i-ka-wa/i-ni* would permit an interpretation /Smarika/ and equation with the place-name Išmerika of Hittite cuneiform texts. The latter has been identified with modern Turkish Siverek: see now del Monte and Tischler, *Die Orts- und Gewässernamen der hethitischen Texte* (1978) 149, with references. This identification would place the city a hundred miles northeast of Carchemish, but the references in Hittite texts to the KUR^{URU} *Išmerika* “land of Ismerika” indicate that the city’s influence, like that of Carchemish, extended at some period for a considerable distance. The equation *S(a)marika* = (*Išmerika*) thus does not seem far-fetched.

Finally, D. Hawkins has called my attention to the striking parallel between HLuvian (DEUS)*sà-ta-si-i-zi* / (DEUS)*ma_x + ra/i-wa/i-i-zi-i* in KULULU 2, §6 and CLuvian *ŠA^dIyarri* DINGIR.MEŠ *marwāinzi* in *Bo* 1582 II 11 (see *CHD* 3/2.201). While the meaning of the adjective *marwāi-* remains uncertain, it is very likely that we are dealing with the same epithet: “the *marwāinzi* gods of Santa/Iyarri”.

Other examples of sign 462 as a phonetic sign are of little use, although it is worth pointing out that a reading “CASTRUM”(-) *tara/i-pa-ma_x-za* (ÇALAPVERDI 1, 2 and 2, 2) instead of *tara/i-pa-pá-za* produces a more plausible morphological

¹³The interpretation of (LOQUI)*marati-* as “injunction, order” is now strongly supported by the existence of Lyc. *mar-* “order, command”, *mara* “law” and related forms: see Laroche, *Fouilles de Xanthos* 6 (1979) 73 f. However, the proposal that (LOQUI)*ma_x + ra/i-ta* is the collective plural of the animate stem (LOQUI)*marati-* is brought into question by the existence of “LOQUI”-*tà-zà-* (KAYSERI 6), brought to my attention by D. Hawkins. While this example is singular and follows the curse formulas, one’s first inclination would certainly be to take it as the neuter singular */m/paratan-za/ of the attested plural (LOQUI)*462 + *ra/i-ta*.

shape. One may take /tarpama(n)za/ as nt. nom.-acc. singular of the participle to a verb *tarpā(i)-/tarpī-*. The meaning, however, remains unclear.¹⁴

There is thus some evidence for sign 462 = ma_x . If we apply this value to our verb “destroy”, we obtain in CARCHEMISH A 28g,2 DELERE(-) ma_x + *ra/i-nu-w[a/i-]*, i.e. a verb stem *marnu-*. This result is attractive, since a HLuv. *marnu-* may be directly equated to Hitt. *mernu-/marnu-* “cause to disappear”. This verb is very rare in Hittite, and the referents in the two occurrences available to me are unfortunately indeterminate. However, the base verb *mer-* “disappear; perish” is well-attested, and its usage is suggestive. First of all, it frequently occurs with perfectivizing *arḫa* in the sense “totally, utterly”, like HLuv. (DELERE) *marnu-*. It appears with persons as subject in the meaning “disappear, vanish” (*KBo* XXII 2 Vs 13, *IBoT* I 36 I 53). In *VBoT* 24 III 22.30 *ḫašduer merranda* “dead twigs” are used in sympathetic magic to eliminate the anger of a god, which is to “perish” (ibid. III 45 *arḫa mertu*). Other intangibles, such as an “evil word”, are also consigned to oblivion (*KUB* XLI 23 II 5). While it is true that Hitt. *mer-* does not occur in curses involving people (perhaps due to competition from *ḫark-* “perish” and *ḫarnink-* “destroy”), it remains noteworthy that eight of twenty-one examples I have collected appear in the third person imperative: cf. five imperatives out of eleven instances of HLuv. DELERE-*nu-*. While further evidence for 462 = ma_x is needed, this reading does yield a plausible stem shape *marnu-* for DELERE-*nu-* “destroy, obliterate”.¹⁵

Whether or not *marnu-* is the correct reading for DELERE-*nu-*, the sense “destroy, obliterate” for the verb stem seems to me assured. This meaning for sign 248, consisting of 247 (DOMUS) plus 381 (MINUS), may be accounted for in the same way as 245 = VASTUS. “Loss of houses” = “destruction”: schematically, -DOMUS = DELERE. Once again sign 381, the vertical stroke, has a privative value.

A third example of sign 381 as MINUS is found in the logogram MORI “die”, which marks the HLuvian verb *wala-/wara-*. For the identification of this verb see Hawkins, *KZ* 94 (1980) 109 ff. He analyses the logogram he transcribes as MORI as sign 386 (“crampon”) plus 381 (the vertical stroke)¹⁶ The meaning “die” for the verb *wala-/wara-* and its accompanying logogram MORI is indisputable, but

¹⁴The reading ma_x instead of $pá$ for sign 462 might also give a clue to understanding the phrase (ANNUS)*u-si* (ANNUS)*462 + *ra/i-i* in KARATEPE XLVIII 266-7 (the reading is that of Ho). It is clear from following references to “(the time of) plowing” and “(the time of) harvesting” (see Meriggi, *Manuale* II/1.83) that we are dealing with regularly scheduled sacrifices to a god. The sense of (ANNUS)*usi* “annual(ly)” is clear enough, but the function of the further specification (ANNUS)*462 + *ra/i-i* is obscure. However, the sequence of time specifications here recalls that of Hittite in *KUB* XXIV 1 II 3 ff.: EZEN.ḪI.A MU *meanaš gimmantaš ḫamišḫandaš zenantaš* “festivals of the year —, of winter, of spring, of autumn” (likewise XXIV 3 I 16 f., with a different sequence of seasons). Whether or not MU *me(a)ni/a-* means “new year” (see Friedrich, *HW* 139 w/refs.), it is suggestive that in both Hittite and HLuvian we have a specification of the word “year” followed by various seasons. If we read (ANNUS) *462 + *ra/i-i* as ma_x + *ra/i-i* (= /*mari*/), an equation of Hitt. *me(a)ni-* and HLuv. *mari-* is possible: for rhotacism of *n* compare *maruha* (SULTANHAN 7) with *manuha* elsewhere. Obviously, however, there are too many uncertainties involved to give the equation much weight.

¹⁵The reading of the verb stem as *marnu-* is incompatible with the possible spelling “DELERE-*ḫa*l'-*nu-tu* in CARCHEMISH A 4a, 3, for which see Hawkins, *AnSt* 20 (1970) 105, and *AnSt* 31 (1981) 163. D. Hawkins informs me that he unfortunately has not yet been able to collate this passage, so the question remains unresolved.

¹⁶In his table, *AnSt* 31.148, Hawkins lists MORI as 386 + 381-2, but he now informs me that he takes the form of MORI with a vertical bar as merely the relief form of the sign, not as a combination with sign 382, which he and I both read as “wood”, following an old suggestion of Gelb, *HH* 3 (1942) 47, note 8. The logogram MORI thus consists only of 386 + 381.

Hawkins makes no comment on how the meaning “die” is expressed by the above combination of elements in MORI.

The privative value I have claimed for the vertical stroke does not at first glance appear to explain the meaning of MORI. The value of the “crampon” has been shown to be “male; virility” (VIR₂): see Hawkins, KZ 92.112, following Güterbock. An analysis “lack/loss of virility” hardly seems an appropriate expression for “die”. However, the Indo-European concept of “virility, maleness” is grounded in the more general idea of “vigor, vital force”. Latin *uis* “power” is from the same root as *uir* “male”: see the other reflexes of the root **weih_x*- listed by Pokorny, IEW 1124, and also the discussion of the nearly synonymous root **h₂ner-* by Beekes, *Development of the PIE Laryngeals in Greek* (1969) 75. In fact, the root **h₂ner-* appears in Anatolian in the guise of Hitt. *innara-* = CLuv. *annari-* “force(ful)”: see my discussion in SHHP 103 f., and for the semantics especially Puhvel, *Hittite Etymological Dictionary* (1984) 366 ff. We may thus plausibly interpret 386 + 381 = –VIR₂ not as “lack/loss of virility” but as “loss of vital force”. This seems to me a quite apt expression for “die”, a concept for which a pictorial representation would be exceedingly difficult.

In addition to VASTUS = –AEDIFICIUM, DELERE = –DOMUS, and MORI = –VIR₂, there are several other plausible cases of a privative value for 381, the vertical stroke. For various reasons, however, the evidence is less than compelling. Sign 62 = LONGUS “long” clearly consists of sign 59 = MANUS “hand” plus a vertical stroke. It is possible to derive the meaning “long” via a privative value for the vertical stroke, though in a less direct way than for the cases above. The idea would be that long objects are “un-hand-able”, i.e. too large to be held or measured by the human hand (or arm). Compare the rare but easily analysable German adjective *unumfassbar* “unencompassable”, used as a synonym for *unmässiglich* “immeasurable, immense”. Such a privative analysis of 62 = LONGUS is possible, given the other certain examples of sign 381 with this function, but it is hard to assert it with any confidence. One could equally well suppose that the vertical element in LONGUS is not sign 381, but a representation of a measuring rod or stick. A choice between these interpretations might be possible if we could determine the meaning of the combination of sign 39 = PUGNUS “fist” plus vertical stroke. This combination occurs as a logogram in SHEIZAR 2, where it appears to be an adjective modifying “children”: see Hawkins, *Florilegium Anatolicum* 151 and 154 f., who transcribes MANUS instead of PUGNUS. If one could demonstrate that the vertical stroke in combination with PUGNUS did or did not have a privative value, one could probably also decide on its function in 62 = LONGUS. At this point both cases must be regarded as uncertain examples of 381 = MINUS.

Additional examples of sign 381 = MINUS are also questionable. Sign 428 (𐎠) occurs only three times. It is used to spell the name of the city Taita in IZGIN B 5: *428-*tá-wa/i*(URBS) (acc. sg.). Compare the dative-locative (*428)*Ta-i-ti*(URBS) in GÜRÜN B 3. The remaining occurrence is found in CARCHEMISH A 24a 2,4: *428(-)*taya-x*[]. It is unlikely that this example refers to the city, which appears to be localized in the area of Gürün and Izgin. The context, the phonetic shape of the stem, and the shape of the hieroglyphic sign are all consistent with an interpretation of *taya-* as a verb stem “steal”, identical to Hitt. *taya-* “idem”. The top part of the sign would represent a storeroom. The addition of sign 381 = MINUS would indicate loss of the contents of the storeroom, i.e. theft. However, since the putative verb stem is hapax, and incomplete at that, this example of 381 = MINUS is anything but assured.

A final possible example of 381 = MINUS may appear in sign 460 (𐎠), attested in ASSUR e,2: |(VAS)*na-hu-ti-zi-wa/i-mu* |*za-zi* |INFANS-*ni-zi* |REL-*i* |(*“460”)á-*sa-ta-*

ri + i | (“VAS”) *ta-wa/i-sà-ta-ti-ha* | *su-ti-ri + i-ti* | *ha + ra/i-ta-ti-ha* | *PRAE-na* | *ARHA-* | (MORI) *wa/i-wa/i-ri + i-ta-ti* “These NAHUTI children of mine are nearly (lit. as it were/like) dying of AS(A)TA-, and TAWASA(N)TI- SUTIRI and HAR(A/I)TA-.”¹⁷ Since the ablatives express the potential cause of death, I have suggested in a paper to appear elsewhere that the stem *as(a)ta-* may represent the regular Luvian reflex of the noun **go/est-* “hunger” attested in Hitt. *kašt-* (with regular loss of voiced velar in Luvian). I did so purely from the context and phonetic shape of the word, leaving unidentified the sign which determines *as(a)ta-* (𐎗). Meriggi, *Manuale* II/1.137, analyses the sign as his number 128 (= Laroche 462) plus the vertical stroke. Hawkins (personal communication) has suggested to me that the entire combination is rather to be equated to Laroche’s number 460, which recurs in TELL TAYINAT VII frag. 2,1: *460-*ti-zi*. The latter word could be taken as the accusative plural of the same stem *as(a)ti-* seen in (*460)*á-sa-ta-ri + i*. However, these two interpretations are not necessarily mutually exclusive. Laroche, *HH* 238, considers the possibility that his number 461 (i.e. sign 460 without the vertical stroke) is identical to sign 462. Thus sign 460 may indeed be sign 462 + 381. Furthermore, since **go/est-* is an animate noun, there is no difficulty in supposing that the example *460-*ti-zi* is an anim. acc. plural **as(a)tinzi* “famines”.

The only clear use of sign 462 as a logogram is as the determinative to *muwaita-* “potency, vigour”: see Hawkins, *AnSt* 25.143 f., on CARCHEMISH A 11c, 4–5. A representation of “hunger” as “loss of potency, vigour” would not be inappropriate. However, neither the interpretation of (*460)*as(a)ti-* as “hunger, famine” nor the analysis of sign 460 as 462 + 381 is by any means certain.

The last few examples cited for a privative value of the vertical stroke are mere possibilities. I emphasize again, however, the three solid cases of VASTUS, DELERE and MORI. Furthermore, I know of no cases in the HLuvian syllabary where a privative value for the vertical stroke can be shown to be inappropriate.¹⁸ Nor do I know of any examples of a consistently vertical stroke which can be demonstrated to be functioning as “thorn”. We are therefore justified in distinguishing the vertical stroke 381 as a separate element of the HLuvian syllabary with a consistently privative value which we may represent as MINUS.

I have argued for the privative value of the vertical stroke based solely on the usage of the combinations in which it occurs. One may legitimately speculate,

¹⁷Compare Hawkins, *KZ* 94.117. For *REL-i* “as (it were)” = “nearly” compare ASSUR a.3: *ARHA-wa/i-mu-u* | *REL-ri + i* | *MORI-ha-na* “We died as it were/nearly died” (for the verb ending see Morpurgo-Davies, *KZ* 94.99).

Hawkins finds the verb ending *-tati* problematic, but a solution is suggested by the derivational chain in CLuvian *kuwaya-* “be afraid” > *kuwayata-* “fear” > *kuwa(ya)tā(i)-* “be afraid”. This set shows that Luvian formed verbal nouns in *-ta-* which served as the base for denominative verbs in *-tā(i)-* whose meaning was nearly identical to that of the original base verbs. We may therefore suppose that beside a reduplicated stem *wawari(ya)-* “die” there existed a virtually synonymous *wawaritā(i)-*. Once such a pattern became productive, it is not even necessary to suppose that the intervening verbal noun actually existed in all cases. Compare the similar situation of Palaic verbs in *-nā(i)-* which I have discussed in *KZ* 97 (1984) 37 f. Other examples of extended verb stems in *-ta(i)-* are attested in HLuvian: cf. *PUGNUS-ri + i-ta₅-wa/i* “I seize”(?) in CARCHEMISH A 6,7, beside the usual *PUGNUS-ri(ya)-*. The alternate reading by Hawkins, *AnSt* 31.152, is by his own admission forced. Likewise, it is hard to avoid connecting *á-ru-wa/i + ra/i-tu* of *ŠIRZI* 3 with Hitt. *aruwā(i)-* “bow down”. We may account for the extra syllable in HLuvian by assuming a stem */aruwarā(i)-/*, rhotacized from **aruwatā(i)-*, formed as per above.

¹⁸Except where the vertical stroke is used to indicate the number “one”. This use of the vertical stroke is already properly distinguished by Laroche as sign 380. Like the oblique “thorn” 383, the vertical stroke 381 as a privative marker occurs only in combination with other signs, never by itself.

however, on why or how this element came to have such a value. While no definitive answer is possible, I believe that its resemblance to our modern minus sign is more than accidental. According to the most popular explanation, our minus sign is derived from the Ancient Greek *obelos*, a horizontal line used in ancient manuscripts to mark spurious or superfluous passages: see the *OED* sub obelisk. The Greek term means “dagger, spit”, but we need not accept the analysis implied by this appellation as the correct explanation for the origin of the sign. This may well be a folk etymology. The difference in orientation between the vertical stroke of HLuvian and the horizontal line in Greek is no obstacle to assuming that they have a similar origin. We know that in the shift from writing vertically to writing left to right cuneiform signs were rotated ninety degrees: see Jensen, *Sign, Symbol and Script* (1969) 88. In the adoption of the Semitic aleph as Greek alpha the sign was also turned ninety degrees. It is therefore quite possible that the Greek obelos originated as a vertical stroke like that of HLuvian. I emphasize that I am proposing only a similar origin: to suggest a common origin would be exceedingly hazardous.

Whatever its origin, if we assign a privative value to the vertical stroke 381 we are able to give a consistent account of its function in the combinations in which it occurs. It can, indeed must, be distinguished from the oblique stroke 383 which marks the presence of *r*.

ADDITIONAL LOGOGRAMS TRANSLITERATED INTO LATIN

- 𐎧 245 = VASTUS (= 244 AEDIFICIUM + 381 MINUS) “desolate, empty”
 𐎧𐎫 248 = DELERE (= 247 DOMUS + 381 MINUS) “destroy, obliterate”
 | 381 = MINUS

APPENDIX

1st & 2nd Person Reflexives *-mi/-ti*

Morpurgo-Davies, *KZ* 94 (1980) 89, lists *-mu/-mi* and *-tu/-ti* as HLuvian enclitic forms of the first and second singular personal pronouns respectively. Her description implies that the forms with *u* and *i* vocalism are mere variants, although she does suggest that *tu* beside *ti* may reflect earlier case distinctions. In her analysis Morpurgo-Davies ignores or implicitly rejects the suggestion of Hawkins, *AnSt* 22 (1969) 105 f., that *-mi* is a reflexive pronoun of the first person singular, distinct from dative-accusative *-mu*.

I will not repeat here Hawkins’ arguments for *-mi* as a reflexive, which are cogent. He himself sees two problems with his analysis. First, he cannot fully account for the use of the reflexive in nominal sentences of the common type: EGO-(*wa/i*)-*mi* PN “I am so-and-so”. In fact, this construction confirms his analysis, since the required use of the reflexive in nominal sentences of the first and second person is exactly parallel to the usage of Neo-Hittite reflexive *-za*, as shown by Hoffner, *JNES* 28 (1969) 225 ff. Hawkins’ second reason for doubt, that *-mu* also appears as a reflexive in competition with *-mi*, is also groundless. The fact that *-mu* can occasionally serve as a reflexive (e.g. CARCHEMISH A. 1a,2) does not alter the fact that *-mi* is used *exclusively* in this function. As discussed by Hoffner, enclitic personal pronouns may also be used in place of reflexive *-za* in Hittite. The existence of first-person reflexive *-mi* in HLuvian is unquestionable.

Identification of enclitic *-ti* as “tibi” goes back to Mittelberger, *Sprache* 9

(1963) 93 f., who based his interpretation on the parallel of ASSUR e,1 *sa-pi-su + ra/i-wa/i-à-ti* and ASSUR f., 1 *sa-pi-su + ra/i'-wa/i-ma-za* which he translated respectively as "Heil (auch) dir!" and "Heil (auch) euch!". The parallelism is undeniable, and the proposed interpretation natural, but it is not the only possibility. Having seen the clear evidence for reflexive *-mi* in nominal sentences, we may equally well interpret the examples above as "You(sg./pl.) (shall be) in health". The form *sapisura/i* may easily be taken as dat.-loc. singular in either *-a* or *-i*. That *-ma(n)za* functions in the second plural as both reflexive and dative-accusative is not surprising. Hittite first plural *-nnaš* and second plural *-šmaš* also fulfil both functions. For use of the present indicative (implied by a nominal sentence) in a wish, compare the sequence in ASSUR d,1: / *sa-na-wa/i + ra/i* / PUGNUS.PUGNUS-*si* / *sa-pi-su + ra/i-ha-wa/i-ri + i* "You shall stay(?) well, and you (shall) also (be) in health". In this example, we find rhotacized *-ri + i* for *-ti*.

The interpretation of sentences with *-ti/-ri + i* as nominal sentences marked by a reflexive is confirmed by an example from ASSUR f,2: / *wa/i-ri + i'* / *ku-ma-na / ha-tu-ra + à* "When you (are) to write". For the interpretation as a nominal sentence with dative of *hatura-* "writing" see Hawkins, *KZ* 94.115, and especially Morpurgo-Davies, *KZ* 94.91 ff., with further examples of this construction. As Hawkins notes, the above sentence is entirely parallel to that of ASSUR e,1, cited by Morpurgo-Davies: / *wa/i-ma-za* / *u-zu'-za ha-tu-ra + à* / *à-sa-ta-ni* "You are to write!". The overt verb form and orthotonic pronoun are for emphasis, but we still have a nominal sentence with obligatory reflexive *-ma(n)za*. See also ASSUR c,1-2, cited by Morpurgo-Davies, *KZ* 94.104 f.

To my knowledge, evidence for a second-person enclitic *-ti/-ri* consists only of the examples cited above, which we have seen are all best taken as reflexive, parallel to first-person *-mi*. The second-person reflexive *-ti* was probably created after the third-person reflexive *-ti* just like *-mi*: 3rd sg. dat. *-tu*: refl. *-ti*: 2nd sg. dat. *-tu*: x (→ *-ti*): 1st sg. dat. *-mu*: x (→ *-mi*). It is conceivable, however, that the second person reflexive *-ti* is an archaism, reflecting an original wider use of the reflexive particle *-ti* for all persons and numbers. Such a general use of *-ti* is suggested by the use of the Hittite cognate *-z(a)* for all persons and numbers.

Aside from reflexive *-ti*, HLuvian shows orthotonic nominative *ti*, orthotonic dative-accusative *tu* and enclitic dative-accusative *-tu* for the second singular personal pronoun. All of these forms are directly comparable to those of other Anatolian languages, and HLuvian shows no more evidence for a confusion of *tu* and *ti* than does Hittite or Palaic: see my discussion in *MSS* 42 (1983) 151 ff., especially note 6, which now may be revised as per above. [Addendum: Eichner, *Untersuchungen zur hethitischen Deklination* (1974) 68, n. 16, independently made the correct comparison of HLuvian *-mi* in nominal sentences to Neo-Hittite *-za*. However, his derivation of *-mi* from an ethical dative **mei* fails to account for the strictly reflexive use of *-mi* in other than nominal sentences.]