CHAPTER FIVE

# LANGUAGE

H. CRAIG MELCHERT

## A. FORMS OF LUWIAN

### 1. *Cuneiform and Hieroglyphic Luwian*

Already Forrer (1919 and 1922 215-223) and Hrozný (1920 39) recognized Luwian as a language distinct from but related to Hittite, attested in passages in the cuneiform texts from Hattusa. The identification as Luwian was assured by the use of the adverb *luwili* 'in Luwian' to introduce some passages. By the early thirties it was also understood that the language of the so-called 'Hittite' hieroglyphs was more closely related to the Luwian of the cuneiform texts than to Hittite (Meriggi 1932 10 & 42ff; Hrozný 1933 77ff).

Forrer (1922 215) had also already identified individual Luwian words appearing in Hittite context, often but not always marked with the so-called 'Glossenkeil' (𒍽 or 𒍾). Sommer (1932 58, 108 and passim) also took for granted that such words were to be assigned to the same language as that of the extended Luwian passages in cuneiform. Bossert (1944 107ff) challenged this claim, insisting that such words might instead belong to the language of the hieroglyphs or even to another third language. The opposing view prevailed, and Rosenkranz (1978 6) could declare the issue settled: with vanishingly rare exceptions the 'Glossenkeilwörter' and similar forms in Hittite context were Luwian (see also Rosenkranz 1952 18-26).

However, as described in Chapter Four above, new discoveries and further research following the Second World War showed that the language of the hieroglyphs is a form of Luwian that differs from that in cuneiform in only a few features. This fact allows a unified description of the language (what follows may be taken to apply to all forms of Luwian unless stated otherwise), but it renews the

question of the status of the Luwianisms in Hittite context and of the nature of the Luwian texts in cuneiform themselves.

It has become common practice to refer to Cuneiform and Hieroglyphic Luwian as two 'dialects' of Luwian. However, the precise relationship of the forms of the language attested in the respective writing systems remains very much an open question. There are several aspects to this complex problem. First, are there enough significant differences in the various forms of Luwian to justify the notion of distinct 'dialects'? Second, if dialects exist, just how many? Third, what is the spatial and temporal relationship between the putative different dialects?

Carruba (1998 270) has challenged the notion that there is sufficient evidence to justify referring to Cuneiform and Hieroglyphic Luwian as distinct dialects. While the differences between the two are relatively few, there are in fact enough to uphold the distinction. One significant phonological difference is that only HLuwian shows 'rhotacism' of voiced dental stops, as described in section B.2.1 (on the famous exception *tiwariya-* see immediately below).

Other distinctive features are found in nominal, pronominal, and verbal inflection. CLuwian has lost the genitive case,[1] employing only an inflected 'relational' adjective in *-aššа/ī-* in its place: *tiyammaššiš* $^{d}$UTU-*za* 'earthly Sun-deity' vs. Hittite *taknaš* $^{d}$UTU-*uš* 'Sun-deity of earth' (see Laroche 1959 136). HLuwian also makes heavy use of the adjectival construction, but it still retains the genitive case of the noun, sometimes combining the two in a remarkable fashion (see section D.3). Confirmation that loss of the genitive is a genuine innovation of CLuwian comes from a further development. Use of the relational adjective does not permit indication of the number of the possessor. To remedy this situation, CLuwian created special forms of the relational adjective in ~~*-anzaššа-*~~ that do mark plural of the underlying possessive noun (see section C.1.4 and Melchert 2000a 173-179). The appearance of these forms *only* in CLuwian and the absence of the nominal genitive there cannot be coincidental. The second difference in nominal inflection is that HLuwian has merged the animate nominative and accusative plural, using the nominative ending /-ntsi/ for both. CLuwian retains the contrast.

[1] Our CLuwian texts are too extensive for the absence of an inflected genitive to be due merely to chance.

In CLuwian the first and second plural personal pronouns are *ānza(š)* and *ūnza(š)* respectively, while the corresponding HLuwian forms *á-zu-za* (/antsunts/) and *u-zu-za* (/untsunts/) show a different ending. In the third person enclitic pronouns CLuwian distinguishes animate accusative plural *-aš* from animate nominative plural *-ata*, while HLuwian has generalized the latter (Melchert 2000a 179-182). The third plural dative pronoun is *-mmaš* in CLuwian but /-mmants/ in HLuwian. CLuwian shows only *-ḫ(ḫ)a* for the preterite first singular verbal ending, but HLuwian has /-han/ competing with /-ha/ (see section C.3.1 with references). There are also differences in the use of conjunctions. Only CLuwian has sentence-initial *pā* (see D.10 on its use).

The differences just cited are truly minimal, but they cannot be ignored or brushed aside. Note that most of the innovations lie in HLuwian, but at least two occur in CLuwian. The latter fact precludes an account of the differences purely in chronological terms: CLuwian cannot be merely an older stage of the same dialect reflected in HLuwian.

Current evidence provides no basis for any geographical or chronological sub-divisions within Hieroglyphic Luwian, although its attestation spans more than five hundred years and extends from western Asia Minor to northern Syria. Morpurgo Davies (1982/3 247f) tentatively viewed rhotacism as a late feature in HLuwian, but the occurrence of *tu-pi+ra/i* /tubiri/ 'shall strike' in BURUNKAYA, §2 and *á-sa-tu-⌜wa/i⌝+ra/i-ma-za-* /Astuwaramantsa-/ in MARAŞ 8, §1 now shows that the development began quite early (cf. Hawkins 1995 104ff and 2000 253). Nor are later texts consistent in their use of rhotacized forms: KULULU 1 shows no examples, while the contemporary KULULU 4 and ÇİFTLİK from the same site do. The use of the ambiguous sign *zi/a* in second-millenium hieroglyphic texts makes it impossible to prove that the merger of animate nominative and accusative plural as /-ntsi/ had taken place, but nothing suggests that it had not. We must, of course, bear in mind the very limited nature of our corpus and the likelihood that our inscriptions reflect a formal written standard that masks differences in local speech.

The commonly presumed unity of 'Cuneiform Luwian' is far more dubious. Starke (1985) has shown that, aside from two fragmentary letters, the cuneiform texts containing whole sentences and extended passages in Luwian consist of only a handful of distinct ritual and festival compositions. Furthermore, all of these date from the

16th and 15th centuries, whereas the massive appearance of Luwianisms in Hittite context is a phenomenon of the 14th and 13th (Starke 1985 30). Starke suggests a chronological division between 'Old and Middle Luwian' of the ritual and festival texts and 'Neo-Luwian' of the later Luwianisms. This is not the only possibility.

We know that the last Hittite kings (Tudhaliya IV and Suppiluliuma II) were composing texts in Hieroglyphic Luwian by the late 13th century, including in Hattusa. Available evidence suggests that this language had the characteristic features of HLuwian as defined above (note e.g. genitive singular NEPOS-*sa* 'grandson's' in EMİR-GAZİ altars, §4). When we find in Hittite context *tiwariya* '(flower) of the Sun-god' with *rhotacism* (see Popko 1984), we may wonder whether the Glossenkeilwörter and other Luwianisms should not be assigned to the same dialect as HLuwian.[2] We may also consider the possibility that the error of animate nominative plural $^{LÚ}$KÚR-*inzi* [(*kattawatna*)]*llinzi ūtnaššinzi ḫišḫišaššinzi* (KUB 35.48 ii 11-12) for accusative plural is not a mere accident, but an intrusion from the contemporary Luwian known to the 13th-century scribe (that reflected in HLuwian) into the original Luwian of the ritual. The general Hittite context of all of our Luwian cuneiform material bids caution, and the suggested association of the Luwianisms of later Hittite texts with HLuwian must at present be regarded as a hypothesis, not an established fact.

If this hypothesis should prove to be correct, it would pose the question: what then is the language of the cuneiform Luwian ritual and festival texts? Starke (1997a 458f) argues that the geographic extent of CLuwian is virtually identical to that of HLuwian and that their relationship is that of 'sociolects'. There is no basis for either of these claims. Fragmentary as they are, the two letters in CLuwian (NB the use of *pā*!) suffice to show that this dialect was used for everyday purposes as well as for more formal compositions, just like HLuwian and Hittite. We cannot view CLuwian as a special dialect used only for rituals. In the absence of any indications to the contrary, we must infer it represents a regional or local dialect.

As to the location of this dialect, there is no positive evidence that any of the texts containing passages in Luwian have any connections

[2] Starke's attribution (1990 147) of the change *d* > *r* just in the case of *tiwariya* to dissimilation to the initial dental stop is purely ad hoc. Starke (1999b 530) does allow for the possibility of HLuwian features in Luwianisms in Hittite texts.

to Arzawa or western Anatolia.[3] In the few cases where a determination can be made, the Luwian rituals found in Hattusa are imported from the southern region of Kizzuwatna. The festival for the Storm-god and the Sun-goddess of Arinna is surely a composition of Hattusa (see Starke 1985 270f), but its language may have been modeled on that of the ritual imports. Our present evidence thus permits, though obviously it by no means proves, the view that the language of cuneiform Luwian ritual texts represents an archaic (16th-15th century) dialect of Kizzuwatna. That we thus far have found no traces of its distinctive features in the much later HLuwian inscriptions from this region is hardly surprising. Only further new data can confirm or refute this proposal.

One last complication in the corpus of Luwian texts in cuneiform is presented by the 'Istanuwian songs'. That these texts stand apart has long been recognized, and several scholars have proposed to see in them a Luwian dialect distinct from both the language of Luwian ritual texts and HLuwian: see Kammenhuber (1969 122), Rosenkranz (1978 6), and Carruba (1981 136). However, Laroche (1959 12) and Starke (1985 31) have voiced serious reservations. Laroche is certainly correct in arguing that the apparently divergent vocabulary of the Istanuwian texts carries little weight. This may easily be due to different subject matter. It is also undeniable that the quality of the text copies available to us is poor, as Starke emphasizes, and the obscure vocabulary seriously limits our overall understanding and hence ability to distinguish aberrancies due to the copyists from any possible genuine dialect features.

Nonetheless, the possibility of a distinct local dialect remains. For example, the context of the sentence *duššaniyallaš-mi āyatra pāiu* (KUB 35.135 iv 22) seems to favor an analysis: 'Let the *dussaniyalla p__ ayatra* to/for me.' Since the verb *pāiu* is transitive and takes an indirect object or beneficiary, it is hard to avoid a sense 'give'. However, in both HLuwian and the Luwian of cuneiform rituals the verb 'give' has generalized the stem *pīya-*, and the third person singular

[3] The fact that the ritual of Zarpiya, who is from Kizzuwatna, is attested on the same tablet as that of Uhhamuwa of Arzawa and Ashella of Hapalla proves nothing. It is clear that these rituals are grouped together due to their common theme of being directed against an epidemic. Neither of the latter two rituals shows any linguistic archaisms or a *single* Luwianism in the entirely Hittite text. They therefore tell us nothing about the status or origin of CLuwian.

imperative ending is always *-t(t)u*, even for verbs reflecting the '*ḫi*-conjugation'. Acceptance of *pāiu* as 'let give' thus presupposes a doubly archaic dialect form.[4] More evidence is sorely needed to decide the question of an 'Istanuwian dialect'.

### 2. *Lycian, Carian, Pisidian and Sidetic*

It is common practice to refer to the first-millennium language Lycian of southwestern Anatolia as a 'Luwian' language, and one even finds the claim that Lycian is a direct descendant of Luwian as attested in the second-millennium (e.g. Bryce 1998 57 and this volume p. 102, Cau 1999-2000 183). Carian, Pisidian, and Sidetic, other first-millennium Indo-European languages of Anatolia, are also typically labeled 'Luwian dialects' or 'Luwian languages'.

Derivation of Lycian from attested Luwian is quite impossible. First, the four-vowel system of Lycian with /a/, /e/, /i/ and /u/ cannot have developed from the three-vowel system of Luwian with only /a/, /i/, and /u/: see independently Melchert (1992a) and Rasmussen (1992) and the detailed affirmation of Hajnal (1995 90-99).[5] Second, Lycian preserves a genitive plural in *-ẽ* < **-ōm* (= Old Hittite *-an* and Lydian dative-locative plural *-av*) and a dative-locative in *-e* < **-os* (= Hittite *-aš*). See on the latter ending Neu (1991 14) and Melchert (1994 182). Luwian has already lost the genitive plural and renewed the dative-locative plural. Third, one of the two principal conjunctions of Lycian is *me* (cognate with Hittite enclitic conjunction *-ma*), which is completely unattested in Luwian. In the face of these insuperable discrepancies the shared patterns in the formation of personal names carry no weight.

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[4] The use of *-mi* instead of *-mu* in the function of an indirect object (vs. /-mi/ only as a *reflexive* in HLuwian) would likewise be a special feature of the Istanuwian dialect. It is worth noting that *-mi* occurs nowhere in the CLuwian ritual texts. It *is* attested in the above-mentioned festival for the Storm-god and Sun-goddess in a very unclear context (KBo 17.36+ iv 14) and in a letter fragment (KBo 8.17,7). Whether this single feature is enough to associate these other texts with Istanuwa seems doubtful. On the history of *-mi* cf. section D.5 below.

[5] A conditioned split by which Luwian short /a/ becomes Lycian /e/ while long /a:/ becomes Lycian /a/ (Starke 1997a 476[108]) is refuted by the example of preterite first singular *-xa/ga* < **-$h_2$e* with short vowel. The general first-millennium change of *a* > *e* in Luwian, Lydian, and Carian claimed by Starke (1997a 472[58] and 1999b 531) does not exist! The non-Indo-European place-names *Lazpa* = Λέσβος (NB the sequence *-zp-*!) and *Apasa* = Ἔφεσος are in any case worthless as evidence.

That Luwian and Lycian are closely related dialects is not in question. They share a number of significant common innovations vis-à-vis Hittite and the other Indo-European Anatolian languages (see Melchert 2002b for a recent survey). It is an open question whether their relationship is best described in terms of dialect geography with areal diffusion of innovations (Melchert 2002b) or through assumption of a unified prehistoric language from which the attested languages then developed by divergence (Oettinger 1978 and 2002 52, Starke 1997a 468, et al.). The latter model also does not preclude some instances of later areal diffusion of features. In either case the use of the term 'Luwian' to refer to Lycian (as well as Carian and the poorly attested Pisidian and Sidetic) is highly misleading and should be abandoned. Such a usage seriously confuses the important and already complex issue of the geographic extent of Luwian in the narrow and proper sense.[6]

While neither the presence of HLuwian inscriptions nor personal names *guarantee* that given areas had significant numbers of Luwian speakers, it remains likely that Luwian *as attested* was spoken over wide areas of west central, southern, and southeastern Anatolia in the second and first millennia. On the other hand, several scholars have argued that different patterns of living and social structures developed in the mountainous regions of southwestern Anatolia (see e.g Carruba 1996 29 with references, Starke 1997a 469, n. 14, and Bryce in this volume p. 41). Direct evidence for a nomadic or semi-nomadic lifestyle remains sparse, and the campaign of Tudhaliya IV against cities of the Xanthos valley as described in the YALBURT inscription shows that some settlements existed already in the second millennium. Nevertheless, it seems significant that the Hittite texts make no reference to any kings of the Lukka lands. Moreover, Tudhaliya

[6] Certainly to be rejected is the notion of Lycian as a 'Luwian *dialect*', as proposed by Starke (1997a 457 with notes 107 & 108). This usage totally obscures the problem of dialectal differences *within* Lycian and Luwian. Also false is the claim of Starke (1982 424 and 1999b 531) and Carruba (1996 34f) that Milyan (Lycian B) is closer to Luwian than it is to Lycian. This is based on a single alleged isogloss, which is itself false. Lycian (A) does share the innovation of the animate nominative plural ending **-nsi* (see correctly Eichner 1974 20), as shown by the animate plurals *epewētlm̃mēi* and *ladâi* (contra Starke 1982 419ff et al.). Milyan and Lycian are closely related dialects that share significant common innovations (pace Starke), including the change of original **o* > *e* and two 'umlaut' rules (see Hajnal 1995 79ff).

in his Lycian campaign is not even opposed by a 'prince' or ruler of the individual cities he attacks. There does thus appear to be some basis for assuming that the southwest of Anatolia was culturally distinct already in the second millennium. It is thus hardly surprising that Lycian retains features that distinguish it from Luwian. Our knowledge of Carian, Pisidian, and Sidetic is too limited to determine whether they are late forms of Luwian or reflect distinct dialects like Lycian, but prudence dictates that we not prejudge the issue by labeling them Luwian either.[7] The following description applies only to Luwian as defined earlier in this section. The orientation is synchronic, with limited references to historical developments where these help illuminate the attested state of affairs.

## B. PHONOLOGY

### 1. *Phonemic Inventory*

All forms of Luwian share the same inventory of sounds: stops /p/, /b/, /t/, /d/, /k/, /g/, an affricate /ts/, fricatives /s/, /H/, /h/, sonorants /m/, /n/, /r/, /l/, /w/, /y/, vowels /a/, /i/, /u/, /a:/, /i:/, /u:/. As discussed at length in Melchert (1994 13ff), the true nature of the contrast between the respective pairs of stops is difficult to determine. Use of the symbols /p/, /b/ and so on is not intended to claim that the only or principal difference was necessarily that of voiceless versus voiced, though this interpretation is not excluded. All that can be asserted with confidence is that in cuneiform orthography Luwian contrasts geminate stops versus simple stops in intervocalic position: *a-at-ta* /a-ta/ (conjunction + particle) vs. *a-a-ta~a-a-da* /ada/ 'he/she made'. Hieroglyphic Luwian orthography cannot show this contrast directly, but only equivalents of simple *-t-* in Cuneiform Luwian undergo 'rhotacism' (see in detail section B.2.1): HLuwian *á-ra+a* /ara/ 'he/she made' beside *á-tà* confirms that the latter is /ada/ as in CLuwian.

The list of stops given above is the simplest compatible with available evidence. It assumes that an original voiceless labiovelar stop ***k*$^{w}$ as in the CLuwian interrogative-relative pronoun *ku-i-* has

[7] As a cover term for all of these dialects one may propose 'Luwic'. Compare Turkic vs. Turkish. 'Southern Anatolian' (Ivanov 2001) or 'Southwestern Anatolian' (Melchert 2002b) would also be viable alternatives, despite the likely extension of Luwian towards the northwest.

been reanalyzed as a sequence /kw/. Weak positive support for this analysis is found in the confusion of the sequence /Hwi/ with the interrogative-relative in late HLuwian (for which see Hawkins and Morpurgo Davies 1993). Nothing, however, precludes preservation of the unitary labiovelar /$k^w$/ at an earlier stage of the language: cf. the situation for Hittite (Melchert 1994 92, following Lindeman 1965). There would not have been a corresponding voiced /$g^w$/ in Luwian in any case, since inherited *$g^w$ had become /w/ unconditionally (Melchert 1994 239 with references).

Some cases of Luwian orthographic *z* represent a voiceless affricate that has a variety of sources: some instances stand for a sequence /t+s/ or /d+s/: CLuwian *Ti-wa-az* 'Sun-god' (nom. sg.) = /tiwad+s/. Others reflect the result of a prehistoric sequence **ty*: HLuwian *ha-zi-(ya)-* 'to incise, inscribe' < **h₂atye/o-* *'to strike' (cf. Hittite *ḫazziye-* 'to strike, play a musical instrument'). Still others are the result of a Proto-Indo-European voiceless palatal stop **ḱ*: CLuwian *zī-* 'to lie' < PIE **ḱei-* (see Morpurgo Davies and Hawkins 1988 and Melchert 1987). Since there is no evidence to suggest a contrast, we may assign all of these to a single phoneme defined as a voiceless dental affricate. Given their prehistory, however, some realizations of this phoneme may well have been phonetically palatal or palatalized. For another possible value of Luwian orthographic *z* see the next paragraph.

CLuwian contrasts simple and geminate *s* in intervocalic position: $^{NA_4}$*a-aš-šu-* 'pillar, column' versus *wa-a-šu-* 'good'. We may assume the same contrast for HLuwian. Contra Melchert (1994 274) there is no principled reason to deny that /s/ may appear in Luwian as a voiced fricative [z] next to sonorants.[8] For sequences of nasal or liquid plus **s* one may assume *either* epenthesis and [ts] *or* voicing to [z] (thus correctly Laroche 1959 133 contra Melchert 1994 233f): e.g. anim. acc. pl. *-nza* < **-ns* or $^{GIŠ.ḪUR}$*gulzattar* 'wooden tablet' < **$g^w$ls-*.[9]

[8] My objections to two values [ts] and [z] for orthographic *z* in the respective writing systems were unfounded. For cuneiform (both Luwian and Hittite) and the Anatolian hieroglyphs a model would have been present in the use of the same signs in Akkadian for [z] and 'emphatic' *ṣ*. For Lycian compare the use of zeta for both [dz] and [zd] in Greek.

[9] It is very doubtful, however, that one may interpret the personal name *Mi-zi/a+ra/i-mu-wa-* as containing a HLuwian */mizra-/ 'shining, resplendent' < **misro-* (cf. Hittite *mišriwant-* 'shining'), as per Carruba (1990 248f). David Hawkins (pers.

CLuwian shows a contrast between geminate and simple *-ḫ-* in intervocalic position parallel to that seen in the stops: *a-aḫ-ḫa* 'when, as, like' versus *a-ḫa* 'I made'. Both the nature of these fricatives (dorsal or pharyngeal) and the nature of the contrast between them (voicing, length, and/or something else) are indeterminate. The symbols /H/ and /h/ are merely conventional. Once again HLuwian orthography cannot show this contrast, but there is no reason to doubt that it exists.

Among the sonorants there is a contrast between simple and geminate intervocalic /m/, /n/, /l/, and /r/, shown directly in CLuwian orthography: *la-la-a-ma* 'receipts' versus *ta-ta-ri-ya-am-ma* 'curses', infinitive ending *-u-na* versus present first plural ending *-un-ni*, *ḫa-al-li-iš-(ša)* 'illness' versus *ḫa-la-a-li-* 'pure', *a-ar-ra-ya-ti* 'long' versus *a-a-ra-ti* 'time' (abl.-instr.).

Luwian has three distinct vowels /a/, /i/, and /u/: CLuwian *a-ta* /a-(a)da/ (conjunction + 'it') versus *a-ti* /a-di/ (conjunction + reflexive particle) versus *a-du* /a-du/ (conjunction + 'to him/her'). Direct contrasts between the respective short and long vowels in Luwian are few, due to a series of complex prehistoric changes (cf. Melchert 1994 60, following Eichner and Morpurgo Davies, and also Melchert 1994 239-247). Nevertheless, the distinction is surely in some cases phonemic: cf. *ādduwa̲l-za* 'evil' (neut. nom.-acc. sg.) versus *ādduwā̲l* 'evils' (neut. nom.-acc. pl.), abl.-inst. ending *-Cāti̲* versus *zātī̲* 'this' (dat.-loc. sg.), and *wāšu̲n* 'good' (anim. acc. sg.) versus *ḫīrū̲n* 'oath' (nom.-acc. sg.).

## 2. *Phonological Rules/Variation*

### 2.1 *Rhotacism*

As analyzed in detail by Morpurgo Davies (1982/83), HLuwian often shows alternation between dental stops and /r/: e.g. *á-tà~á-ra+a* (/ada/~/ara/) 'did, made', ablative-instrumental ending *-Ca-ti~ -Ca-ri+i* (/-adi/~/-ari/). As she shows, the underlying phoneme in all sure examples is the *voiced* dental stop /d/. Also noteworthy is that all clear cases appear to involve intervocalic /d/. There is no good evidence for original **r* being spelled with the signs for dental stops.[10] There

comm.) points out that in view of the many other personal names consisting of a place-name plus *mūwa-* it is far more likely that the first element is *Mizra-* 'Egypt'.

[10] The writing "LONGUS"*-ta/i*$_5$*-ya* (Hu.) vs. ("LONGUS")*a+ra/i-ya* 'long' (Ho.) in KARATEPE, §LI *could* be such an example, but cf. Hawkins (2000 65).

are also several examples of alternation between /l/ and /r/: e.g. *wa/i-la-~wa/i+ra/i-* (/wal(a)-/~/war(a)-/) 'to die'. All clear cases involve underlying /l/. Finally, there are two instances of /r/ appearing for /n/: *ma-ru-ha* (SULTANHAN, §36) for regular *ma-nu-ha* 'ever, at all' and *ta+ra/i-ma-za* for /tanimants/ 'all' (AKSARAY, §5). It is important to stress that all of the examples cited are spelled by the same means as etymological **r*: either the sign *ru* or the oblique stroke ('thorn') appended to another sign. Finally, one can find spellings like *-Ca-ti* and *-Ca-ri+i* alternating in the very same text.

The alternation with /r/ suggests that /d/ was no longer articulated as a stop in intervocalic position in HLuwian. One may compare similar developments in Lycian and Lydian (see Melchert 1994 40&43 with refs.). One possible interpretation is that **r* and intervocalic **d* had simply merged as a voiced flap [ɾ] in HLuwian, spelled alternately with the signs for dental stops and for *r*. However, the unidirectionality of the alternations argues decisively against this. If the realization of intervocalic /d/ were identical with /r/, we would expect at least some 'reverse spellings' of **r* with the signs for dental stops. We cannot determine the precise phonetics of /r/ or intervocalic /d/, but available evidence suggests that they were different sounds, as were /r/ and /l/. They were, however, close enough in HLuwian that intervocalic /d/ and /l/ could sometimes be realized as a sound identified with /r/.

There are indications that the change of intervocalic **d* to something other than a stop took place already in the prehistory of Luwian. Hawkins (1995a 114ff) argues that the hieroglyphic sign *416, which is as he shows the archaic form of sign *319 (*ta/i*$_4$), has a value *li*$_x$ in second-millennium texts and likewise that *175 (*ta/i*$_5$) may stand for *la*. However, there is no evidence that any HLuwian word with etymological /l/ is ever spelled with signs *319 or *416.[11] What Hawkins' examples do show is a rendering of Luwian intervocalic /d/ as /l/ in *Hittite*. The queen's name written *ká-ta/i*$_4$ in hieroglyphs appears in cuneiform as $^{f}$*Ka-li*. The personal name appearing in hieroglyphs as

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Likewise uncertain is MALUS-*ta/i*$_4$*-zi* (Ho.) vs. (MALUS)*á-tu-wa/i+ra/i-zi* (rhotacized /adduwarintsi/ for */adduwalintsi/) 'evil' (Hu.) in KARATEPE, §XX. The spelling in Ho. may well stand for /haniyadintsi/: cf. MALUS-*ta/i*$_5$*-sa-tara/i-ti* /haniyadastradi/ in BOYBEYPINARI 1, §5.

[11] On MALUS-*ta/i*$_4$*-zi* of KARATEPE, §XX (Ho.) see the preceding footnote.

*ta/i$_5$-ta/i$_4$-mi*[12] is represented in cuneiform as $^{m}$*A-la-li-mi-* (Poetto apud Hawkins 1995a 114[9]). The second example is crucial in showing the Hittite context of the substitution of *l* for *d*, since it applies not only to the intervocalic *-d-*, but also to the initial *d-*, in this case combined with a prothetic *a-*. We are facing two distinct but related phenomena in the Hittite treatment of prehistoric loanwords from Luwian.

We have independent reasons for assuming that all the attested Anatolian languages had devoiced original voiced stops in word-initial position by the historical period (cf. section B.3.1). We also know that this change must have taken place separately in the history of the individual languages (cf. Melchert 1994 18ff with refs.). We are free to assume that the change took place earlier in Hittite than in Luwian. Hittite, having no word-initial *d-*, replaced the initial *d-* of Luwian loans with *l-*.[13] This accounts for the borrowing of Luwian **dabarna-* '(the) strong (one)' as *labarna-* (see p. 18ff above for details). In some cases Hittite speakers further added a prothetic *a-*. This led not only to the name *Alalimi-* but also to the verb *allappaḫḫ-* 'to spit' from Luwian **dapaH-* (> attested CLuwian *tappa-* 'to spit' with eventual initial devoicing). That Hittite speakers also altered the intervocalic *-d-* of the name **Dadimi-* suggests that Luwian **d* had already changed to something other than a stop, since Hittite speakers should have had no problem in pronouncing an intervocalic voiced stop.

There are two examples pointing to a change of intervocalic *d* > *l* in Luwian parallel to *d* > *r*: CLuwian *tiwaliya-* for *tiwadiya-* 'of the Sun' in KUB 35.48 ii 11 and HLuwian $^{I}$*á-sa-tu-wa/i-la-ma-za-sa* for usual $^{I}$*á-sa-tu-wa-ta/i$_4$-ma-za-* (/Astu(w)-adamantsa-/) in KARKA-

[12] As per Poetto (1992 432[3] et aliter) and Hawkins (2000 30), the signs *172 and *319/416 may indicate either /a/ or /i/ vocalism. They should be *transliterated* accordingly. The reading of the vowel is a matter of interpretation. /a/ vocalism in the Empire period beside /i/ in the examples just cited is assured by the equation of HLuwian *pi-na-ta/i$_4$* with Lycian *Pinale* and Greek Πίναρα in YALBURT and the correspondence of HLuwian *ta/i$_4$-wa/i-ni-(sa)* with Lycian *tewinaza* (with Poetto 1993 29[43] against Hawkins 1995a 81). Lycian *e* always corresponds to Luwian *a*, never to Luwian *i*! Lycian *tewinaza-* also shows that in *ta/i$_4$-wa/i-ni-(sa)* the sign *ta/i$_4$* is indicating a dental stop in HLuwian in the second millennium.

[13] Likewise the Akkadian personal name *Dādī-Bānu* is rendered as *La-tà-pa-nu* in an Emar-type digraph (Hier. seal impression and Cun. epigraph) from Syria (Poetto 1993 11 and apud Hawkins 1995a 114, note 9). At that date Luwian had no word-initial *d-*. The problem cited for pre-Hittite repeated itself and was solved similarly. Greek Demeter appears as *Lamētru-* in Lydian for the same reason. Such substitutions are trivial in the treatment of foreign names and appellatives that do not fit the phonology of the borrowing language.

MIŠ A27u.[14] We cannot exclude that some of the names cited above also had variants with *-l-* in Luwian. However, so long as all analyzable words with *ta/i*$_4$ and *ta/i*$_5$ have original voiced dental stops, we must assume that the reflex of intervocalic **-d- alternates* with *-l-*, just as it does with *-r-*. There is no more justification for reading these signs as standing for *lV* than there is for reading them as standing for *rV*.

### 2.2 *Deletions*

Luwian loses word-final stops. In neuter nouns whose stem ends in a dental stop this results in a synchronic rule deleting the stop in the nominative-accusative singular: e.g. CLuwian *ḫazziwit-* 'rite' (nom.-acc. sg. *ḫa-az-zi-ú-i* vs. dat.-loc. sg. *ḫa-az-zi-wi*$_5$*-ti*). This rule applies before the addition of the particle /-sa/ (see C.1.2): thus *ḫantawadaḫi-ša*=REX-*ta-hi-sa* 'kingship' (stem /Hantawadahid-/). Confirmation that the underlying stem ends in the stop comes from cases where the rule is not applied: nom.-acc. sg. $^{UZU}$*zār-za=za+ra/i-za* 'heart' < /tsard-sa/ (Morpurgo Davies &Hawkins 1988 175f) and HLuwian nom.-acc. sg. *wa/i-ni-za* 'stone, stele' < /wanid-sa/ (Hawkins 2000 180).

/H/ is lost by an optional rule between sonorant and /w/, and /h/ more generally before /w/: CLuwian $^{GIŠ}$*ir(ḫ)uit-* 'basket' and *lā(ḫ)u-n(ā)i-* 'to wash'. All sure examples are in CLuwian, but this is likely due to chance (cf. Melchert 1994 52 on the verbal ending *-wi*=/-wi/).

There are enough cases of the non-writing of /-n-/ before stop or affricate in CLuwian to suggest that it shares with Hittite the sporadic loss of /-n-/ in this environment, probably resulting at least partly in a nasalized vowel (cf. Melchert 1994 124 on Hittite). We may assume the same for HLuwian, but its consistent non-writing of preconsonantal /-n-/ precludes direct proof. This change is complete in the first-millennium Anatolian languages Lycian and Lydian.

It is very unlikely that HLuwian shows genuine optional deletion of initial /a-/ in /aba-/ 'that; he/she/it', /amu/ 'I, me' and /ama/i:-/ 'my' as previously assumed (e.g. in Melchert 1994 276). See Hawkins pp. 159-161 in this volume and the further discussion in D.10 below.

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[14] Since the noun /adaman-tsa/ 'name' in Luwian has consistently a *-d-* (cf. Melchert 1994 82f for details), it would be ad hoc to suppose that the one-time *-l-* here is due to the influence of a form with *l-* as in HLuwian *la-ma-ni-(ya)-* 'to call'.

There is sporadic syncope of the sequences /-iya-/ and /-uwa-/ in both CLuwian and HLuwian, as noted by Mittelberger (1964 74ff): cf. *ariyaddu~arindu* and *dūwandu~dūndu* and *i-zi-ya-ta~i-zi-i-ta* and *tu-wa/i-ta~tu-ta*.

### 2.3 *Insertions*

Remarkably, the Proto-Indo-European 'epenthesis' rule inserting an [s] between successive dental stops appears to survive as a synchronic rule in Luwian, based on the evidence of the verb 'to eat': CLuwian second plural *aztūwari* vs. third plural imperative *adandu* and infinitive *aduna* and HLuwian third singular imperative *á-za-tu* ([ats-tu]) vs. third plural imperative *á-tà-tu-u* ([adantu] and infinitive *á-tu-na~á-ru-na* ([ad/runa]). Luwian also shows sporadic epenthesis of [-t-] in clusters of /-sr-/: cf. *ḫattašt(ar)ra/ī-*=/Hattastra/i:-/ 'violence' vs. $^{NA_4}$*kuttaš(ša)ra/ī-*=/kutassra/i:-/ 'orthostat' (see for the suffix section C.4.2 with refs.).

### 2.4 *'Sandhi' Rules*

The initial /s-/ of the particle /-sa/ appears as *z* after /n/ and /l/: *parnan-za*=DOMUS-*na-za* 'house', CLuwian nom.-acc. sg. *ādduwal-za* 'evil' (but cf. no change after /r/: CLuwian *utar-ša* 'word'). This change may be interpreted either as voicing to [z] or epenthesis to [ts].

Final /-n/ sometimes appears as *-m* before the enclitic *-pa*: CLuwian *mām-pa* '(but) if' and *nānum-pa* '(but) now'. This assimilation may well have been more common in spoken Luwian than attested spellings suggest. HLuwian orthography cannot show the feature.

The /-u/ of enclitic /-mu/ 'me' is deleted before a following enclitic with initial /a-/: e.g. HLuwian **a-wa/i-ma-tà* (/a-wa-m-ada/) 'me they'.

### 2.5 *Vowel Lengthening*

The contrast between CLuwian *a-an-na-an* 'below' as free-standing adverb and *an-na-a-an* (*pa-a-ta-an-za*) 'under (the feet)' as proclitic preposition suggests that both /a/ vowels in the word are underlyingly short and are lengthened only under the accent (see Melchert 1994 247). It is likely that the lengthening of short vowels in *open* syllables is also a synchronic rule, but direct evidence is lacking.

## 3. *Phonotactics*

### 3.1 *Consonants*

The consonants /ts/, /s/, /H/, /m/,/n/ and /l/ and the glides /w/ and /y/ occur freely in initial position. There is a general prohibition against word-initial /r-/, an areal feature shared with the other Indo-European languages of Anatolia, with the non-Indo-European Hattic and Hurrian, and with Armenian. There are only two attested exceptions in HLuwian, *rú-wa/i-na* (/ruwan/) 'formerly' and the name of the Stag-god /Runtiya-/~/Runtsa-/, both of which reflect a prehistoric initial cluster of palatal stop plus *r-* (see Puhvel 1997 114 and Watkins 1999 15ff). It is very likely that Luwian has devoiced all inherited voiced stops in word-initial position, but the limitations of CLuwian and HLuwian orthography leave only indirect evidence. The verb *pīya-=pi-ya-* 'to give' reflects a preform with voiceless stop (see Tischler 2001 379ff and in detail Melchert 1989a 42ff). The voiced (or lenis) medial stop of the derived stem CLuwian *pí-pí-iš-ša-* (cf. Lycian *pibije-*) cannot be derived by any known phonological rule. It and similar cases from roots with initial voiceless stop are probably analogical to reduplicated forms of roots with initial voiced stop, which with initial devoicing would have had the pattern *TV-DV-* < **DV-DV-* (see Melchert 1994 300). There is one apparent exception to the pattern of word-initial voiceless stops. The new dental stop that develops irregularly from initial **n-* and **s-* is voiced, to judge from the evidence of the Greek loanword δέπας < HLuwian /dibas-/ 'heaven, sky' < **nébhes-* (see most recently Neu 1999 620 with note 6) and the place-name †Δαινις = Ἐλαία (see Neumann apud Gusmani 1986 162), a form of Luwian *tāini(ya)-* 'of oil', cognate with Hittite *šakan-* 'fat, oil' (on which see Hoffner 1994).

Luwian has no stops in word-final position (cf. section B.2.2), and there are no attested examples of /-H/ or /-h/. Final **-m* has become /-n/. We thus find final /-ts/, /-s/, /-r/, /-l/ and /-n/. Final /-y/ occurs as the second element of the diphthong /a:y/, and the absence of final /-a:w/ is probably accidental.

The nature of both cuneiform and hieroglyphic orthography makes any discussion of permitted and prohibited consonant clusters in Luwian problematic. The description in Melchert (1994 248ff) is a mere first attempt in need of further refinement.

### 3.2 *Vowels*

The vowels /a/, /i/ and /u/, both long and short, occur freely word-initially and word-finally. There are no assured cases of hiatus, but we cannot exclude that some spellings in *(C)a-(a)-i* or *(C)a-(a)-u/ú* represent disyllabic sequences /a_i/ and /a_u/ instead of diphthongs.

## 4. *Accent*

We can draw a few inferences about Luwian accent from the effects of certain prehistoric changes and from one synchronic rule (see section B.2.5), but the risks of circular argument are quite high. We also cannot take for granted that inferred prehistorical accent patterns persist in the attested language. We may with due caution assume that each Luwian word has one principal accent which in multi-syllabic words may fall on any syllable. There is no positive evidence for mobile accent within nominal or verbal paradigms.

# C. MORPHOLOGY

## 1. *Nominal Inflection*

### 1.1 *Gender and Number*

Luwian nouns and adjectives alike inflect for gender, number, and case, with the expected difference that only adjectives can appear in more than one gender. There are two genders: animate (common) and inanimate (neuter). The category number includes singular and contrasting count (or distributive) and collective plural for animate nouns: e.g. CLuwian *lalamiš* 'receipt' with collective plural *lalāma* and unattested count plural **lalaminzi* (see Eichner 1985 9 with notes 23-26, Melchert 1993a 122 and 2000b 65 contra Starke 1985 269). There is no synchronic dual, but some prehistoric duals have been subsumed under the collective: *dāuwa=ta-wa/i* (/dawa/) 'eyes' (of one person) < old dual **sók*$^{w}$*oh*$_{1}$ beside singular *dāwīš* (cf. Starke 1986 161). Neuter nouns typically show only the collective plural. If an explicit count plural is required, Luwian in at least some cases uses the suffix *-ant-* plus the collective ending: CLuwian *āššanta* 'mouths' to neuter *āšš-* (see in more detail Melchert 2000b 61).

1.2 *Case*

Luwian has a maximum of seven cases: nominative, vocative, accusative, ergative, genitive, dative-locative, and ablative-instrumental. However, the vocative (distinguished from the nominative only in the singular) is limited to a mere handful of examples in CLuwian. The neuter as expected has a single form for nominative and accusative. HLuwian merges the animate nominative and accusative plural, using the ending of the nominative. The genitive case is attested only in HLuwian, having been lost in CLuwian. Even in HLuwian the use of the genitive case competes with an inflected 'relational' or 'possessive' adjective that agrees with its head noun (see on the syntax in section D.3). The ablative-instrumental does not distinguish singular and plural. The Luwian nominal endings may be schematized as follows. CLuwian is given in bound transcription, HLuwian in a phonological interpretation. A dashed line indicates a systematic gap. Endings in brackets are rare.

| | Singular | | Plural | |
|---|---|---|---|---|
| | CLuwian | HLuwian | CLuwian | HLuwian |
| Nom.Anim. | *-š* | /-s/ | *-nzi* | /-ntsi/ |
| Acc.Anim. | *-n* | /-n/ | *-nz(a)* | /-ntsi/ |
| Vocative | [-Ø] | --- | [nominative used] | |
| Nom.-Acc.Nt. | -Ø, *-n* | -Ø, /-n/ | *-a,* [-Ø] | /-a/ |
| Ergative | *-antiš* | /-antis/ | *-antinzi* | /-antintsi/ |
| Genitive | --- | /-as/, /-asi/[?] | --- | /-as/, /-asi/[?] |
| Dat.-Loc. | *-i,* [*-a*] | /-i/, [/-a/] | *-anz(a)* | /-ants/ |
| Abl.-Inst. | *-ati* /-adi/ | | | |

The CLuwian animate accusative plural *-nza* is to be read as [-nts] or [-nz] without final vowel: see Starke (1990 44). In the nom.-acc. sg. neuter the ending /-n/ is that of *a*-stems, zero that of all other classes.

Frequently in CLuwian and nearly obligatorily in HLuwian the nom.-acc. sg. neuter is extended by a particle /-sa/, which appears as *-za* after /-n/ and /-l/ (see section B.2.4). The particle usually carries no meaning, but its original force as a deictic adjective 'this' is preserved in CLuwian *īnzagan-za...šapiyaimman* 'this *i.* (is) *s*__ed' (KBo 29.6 Ro 25), where it functions parallel to nom. sg. animate *zaš* 'this' and nom.-acc. pl. neuter *za* 'these'. This example also con-

firms that the particle marks neuter *singulars*, as already shown by Hawkins, Morpurgo Davies and Neumann (1974 173ff) and van den Hout (1984) against the false claim of Starke (1990 46ff).[15]

Contra Starke (1990 46 note 77) CLuwian does preserve a nom.-acc. plural neuter zero ending with lengthening of the final stem vowel: *ādduwāl* beside renewed *ādduwala* 'evils'. Hittite *ḫuidār* 'wild beasts' is also borrowed from some form of Luwian. The existence of a nom.-acc. pl. neuter ending in /-i/ in Luwian is doubtful: see the discussions of Gertz (1982 238ff), Starke (1990 407 with refs.) and Hawkins (2000 340).

The regular HLuwian genitive singular ending is /-as/. The ending /-asi/ is not entirely assured, but an example like ADIYAMAN 1, §8 ***a-pa-si-i a-ta$_5$-ma-za*** 'his name' cannot show an inflected form of the possessive adjective (which could only be *a-pa-sa-za*). That ***a-pa-si-i*** is a mere spelling for /apas/ is possible, but seems unlikely. Both /-as/ and /-asi/ apparently can also be used occasionally for a genitive plural. For an example with /-asi/ see ANCOZ 7, §4.

The regular dative-locative singular ending is /-i/, but one also finds occasional /-a/: CLuwian *Taurišizza* $^{d}$LAMMA-*ya* 'to the Tutelary Deity of Taurisa', also *ḫu̯mma* 'into a pigsty' in Hittite context, HLuwian (NEPOS)*ha-ma-su-ka-la* 'great-grandson'. Names with stems in *-a-* also occasionally show /-aya/: CLuwian $^{URU}$*Ḫattušaya*, HLuwian (DEUS)*Kar-hu-ha-ya*.

### 1.3 *'ī-mutation'*

A defining feature of Luwian nominal inflection is so-called '*ī*-mutation', as first established by Starke (1990 45ff).[16] Many, but by no means all, nominal stems in Luwian obligatorily insert an *-ī-* between the stem and the case ending *just* in the animate nominative

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[15] Contra Carruba (1982a) and Ivanov (2001 137) there is absolutely no basis for attributing an 'animatizing' or 'quasi-ergative' force to the particle *-sa*. Not a single example of a form with the particle ever acts as the subject of a transitive verb in Luwian, and in fact the overwhelming majority of examples are direct objects, as expected of neuter nouns. On the true ergative in Luwian see section D.3.

[16] Starke himself refers to '*i*-Motion', but since the addition of the *-ī-* does not in its attested form change the gender of the stem, I follow the suggestion of Günter Neumann apud Rieken (1994 43 note 6) to call the phenomenon '*ī*-mutation'. The prehistoric source of the phenomenon remains to be fully explicated: cf. among others Oettinger (1987), Starke (1990 86ff), Melchert (1994), and Zeilfelder (2001 215ff)

and accusative singular and plural. The results of this process may be best illustrated in the paradigm of an adjective such as CLuwian *ādduwal-* 'bad, evil': nom. sg. anim. *ādduwališ*, acc. sg. anim. *ādduwalin*, nom.-acc. sg. nt. *ādduwal-(za)*, dat.-loc. sg. *ādduwali**, nom. pl. anim. *ādduwalinzi*, acc. pl. anim. *ādduwalinz(a)**, nom.-acc. pl. nt. *ādduwala*, dat.-loc. pl. *ādduwalanz(a)**, abl.-inst. *ādduwalati*. The length of the inserted *-ī-* is assured by plene spellings such as nom. sg. *da-a-u-i-iš* 'eye' (where the accent is surely on the first syllable). Stems in *-a-* delete the stem vowel before the inserted *-ī-*: *ānna-* 'mother' shows nom. sg. *ānniš*, acc. sg. *ānnin*.

The case forms with the inserted vowel naturally have the appearance of *i*-stems, but as correctly emphasized by Starke, the *-ī-* is *not* part of the stem, which remains unchanged. This fact is confirmed by the absence of the *-ī-* in derivation: cf. *ānna-wann(ī)-* 'step-mother'. In fact, the system of '*ī*-mutation' is so dominant that nearly all (perhaps in fact all) original *i*-stems have been altered to follow the pattern: a stem **ar-uti-* 'wing' (cf. for the suffix Hittite *-uzzi-*) appears in HLuwian (*78)*a-ru-ti-sá*, *a-ru-ti-na*, *a-ru-ti-zi* 'basket' with *-i-* in the animate nominative and accusative, but the *-i-* has been deleted in CLuwian collective nom.-acc. plural *aruta* and abl.-inst. *arutati* 'wings' (see Melchert 1988 224f for the derivation).[17]

### 1.4 *Possessive Adjectives in* /-assa-/

The possessive adjectives in /-assa-/, in addition to '*ī*-mutation', show two other inflectional peculiarities. First, in both CLuwian and HLuwian the dat.-loc. singular ends in *-an* (*-aššan*=/-assan/): see on this feature Morpurgo Davies (1980a). Second, in CLuwian, where the possessive adjective has entirely replaced the genitive case, an element *-nz-* is sometimes inserted before the case ending in the dat.-loc. singular and plural and in the ablative-instrumental: *-aššanzan*, *-aššanzanz(a)*, and *-aššanzati*. As argued in Melchert (2000a 173ff), this element marks plurality of the possessor, which is not otherwise expressed in the possessive adjective: e.g. DINGIR.MEŠ-*aššanzati waššaraḫitati* 'by the favor of the gods'.

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[17] Hittite speakers unsurprisingly had some difficulty in dealing with the phenomenon of '*ī*-mutation' when adopting Luwian loanwords. See for discussion Rieken (1994), Melchert (1995 270ff), and Melchert (2002c).

## 2. *Pronouns*

### 2.1 *Personal Pronouns*

The accented personal pronouns in Luwian show a very limited inflection. Suppletion in their stem formation still seen in Hittite has been eliminated. The very restricted nature of the CLuwian corpus means that most of our evidence comes from HLuwian:

| | CLuwian | HLuwian | | CLuwian | HLuwian |
|---|---|---|---|---|---|
| 1stSg | | | 1stPl | | |
| Nom. | | /amu/ | | | /antsunts/ |
| Dat.-Acc. | | /amu/ | | *ānza(š)* | /antsunts/ |
| 2ndSg | | | 2ndPl | | |
| Nom. | *tī*[?] | /ti/ | | | /untsunts/ |
| Dat.-Acc. | | /tu/ | | *ū(n)za(š)* | /untsunts/ |
| Abl.-Inst. | | /tuwari/ | | | /untsari/ |

The HLuwian 1st and 2nd plural forms are written *á-zu-za* and *u-zu-za*. An /n/ is assumed for the first syllable based on the CLuwian cognates, and for the second based on the nominal case endings in *-nz(a)*. The *z* may be read as [z] instead of [ts] (cf. section B.1). It is doubtful that there is any functional difference between the CLuwian 1st and 2nd plural forms with and without the final *-š*, but we cannot be sure of this. The same remark applies to the HLuwian variant *u-zu-s(a)* (/untsus/) for the 2nd plural (e.g. KARKAMIŠ A6, §22). We may safely assume ablative-instrumental forms for the first persons at least in HLuwian. Possession is indicated by inflected adjectives which are *a*-stems (with '*ī*-mutation'): 1stSg /ama-/, 2ndSg *tuwa-*=/tuwa-/, 1stPl /antsa-/, 2ndPl /untsa-/. The demonstrative *apā-*=*á-pa-* (/aba-/) 'that' serves as the personal pronoun for the third per-son. For its inflection see the next section.

In HLuwian /-mu/ is assured as the enclitic dative-accusative pronoun for the first person singular. In CLuwian *-mu* is attested in dative function. In the 'Istanuwian songs' *-mi* appears to be used as a dative (cf. also note 4, p. 175, and section D.5). HLuwian /-du/, /-nts/ and /-mmants/ are the dative enclitic pronouns for the second singular, first plural, and second plural respectively. We may reasonably infer that they also serve for the accusative.

The enclitic personal pronouns for the third person show minor differences in CLuwian and HLuwian:

| | CLuwian | HLuwian | | CLuwian | HLuwian |
|---|---|---|---|---|---|
| NomSgAnim | *-aš* | /-as/ | NomPlAnim | *-ata* | /-ada/ |
| AccSgAnim | *-an* | /-an/ | AccPlAnim | *-aš* | /-ada/ |
| N-ASgNeut | *-ata* | /-ada/ | N-APlNeut | *-ata* | /-ada/ |
| DatSg | *-tu* | /-du/ | DatPl | *-mmaš* | /*-mants*/ |

The HLuwian forms with /-d-/ also appear in rhotacized form. For CLuwian *-aš* as animate accusative plural see Melchert (2000a 179ff).

For the singular HLuwian has special enclitic reflexive forms for all three persons: /-mi/, /-di/ and /-di/ (the latter also appear as [-ri]). The second and third person forms are also attested in CLuwian (see further section D.5 with references). The plural enclitic personal pronouns also serve as reflexives: HLuwian 1stPl /-ants/, 2ndPl /-mants/, 3rdPl /-mants/ and CLuwian 3rdPl *-mmaš*. At least in HLuwian 1stSg /-mu/ also is used as a reflexive in competition with /-mi/.

### 2.2 *Demonstrative, Interrogative-Relative, and Indefinite Pronouns*

The demonstrative stems in Luwian are *zā-=za-* (/tsa-/) 'this' and *apā-=á-pa-* (/aba-/) 'that'. These inflect as *a*-stems in both CLuwian and HLuwian, without '*ī*-mutation'. For the endings *-inzi* and *-inz(a)* in CLuwian just in the animate plural compare *wa-a-šu-i-en-zi* to the *u*-stem *wāšu-*. For the ending /-aya/ in the HLuwian neuter nom.-acc. plural in what is otherwise an *a*-stem compare examples such as *wa/i+ra/i-la-ya* (/warallaya/) to the stem /waralla/i:-/ 'one's own'.

| | CLuwian | HLuwian | | CLuwian | HLuwian |
|---|---|---|---|---|---|
| NomSgAnim | *zāš* | /tsas/ | NomPlAnim | *zīnzi* | /tsantsi/ |
| AccSgAnim | *zān** | /tsan/ | AccPlAnim | *zīnz(a)* | /tsantsi/ |
| N-ASgNeut | *zā* | /tsa/ | N-APlNeut | *zā* | /tsaya/ |
| Dat-LocSg | *zātī* | /tsadi:/ | Dat-LocPl | | /tsadants/ |

The CLuwian animate accusative singular is by chance attested only in the assimilated form *zam-pa* (cf. section B.2.4). The HLuwian dative-locative plural is assured by *zi/a-tá-zi/a* in YALBURT 4, §2. The dative-locative plural /tsadi(ya)nts/ (*za-ti-ya-za*, *za-ti-za*) probably belongs not directly to the demonstrative stem /tsa-/ 'this', but

to a derived adjective /tsadiya-/ ‘of this place, hiesig’. No examples are attested of the ablative-instrumental, but it surely would have been *zāti*=/tsadi/* (with *short* final [-i]!). In addition to the possessive adjective in /-assa-/ one finds also the likely genitive in /-asi/: **a-pa-si-(i)* and *za-si* (cf. section C.1.2).

The stem *kui-/kuwa-*=REL-*i/a-* (/kwi/a-/ or /k$^{w}$i/a-/) serves as relative and interrogative pronoun. The indefinite pronoun is formed by adding the particle -*ḫa*=/-ha/ (in origin the enclitic conjunction ‘also, and’) to inflected forms of the interrogative (e.g. anim. nom. sg. *kuišḫa*=REL-*(i)-sa-ha* (/kwisha/).[18]

| | CLuwian | HLuwian | | CLuwian | HLuwian |
|---|---|---|---|---|---|
| NomSgAnim | *kuīš* | /kwi:s/ | NomPlAnim | *kuīnzi* | /kwi:ntsi/ |
| AccSgAnim | *kuīn* | /kwi:n/ | AccPlAnim | *kuīnz(a)** | /kwi:ntsi/ |
| N-ASgNeut | *kui* | /kwantsa/ | N-APlNeut | | /kwaya/ |
| Dat-LocSg | *kuwātī** | /kwadi:/ | Dat-Loc.Pl. | | /kwadants/ |
| Abl.-Inst. | | /kwadi/[19] | | | |

The CLuwian neuter nom.-acc. singular *kui* is the only sure trace of the *i*-stem seen in cognates such as Hittite *kuiš*. This form is attested in HLuwian only in its secondary use as a subordinating conjunction. The long -*ī*- of the CLuwian animate nominative and accusative singular probably shows the influence of ‘*ī*-mutation’, and the HLuwian paradigm appears to be fully adjusted to this pattern (on the neuter plural /kwaya/ see the remarks above on the demonstrative). The CLuwian dat.-loc. singular is attested only as an adverb ‘as, how’. For the dat.-loc. plural see REL-*tá-zi/a* in EMİRGAZİ altars, §19.

## 3. *Verbal Inflection*

### 3.1 *Finite Forms of the Verb*

The Luwian verb is inflected for the usual three persons, for singular and plural number, for two tenses (present and preterite), two voices (active and middle), and two moods (indicative and imperative). On

[18] Of peculiar formation is HLuwian nom.-acc. sg. neuter REL-*ha-n(a)*, apparently with secondary end-inflection of the particle.

[19] Attested in BOYBEYPINARI 2, §4ab: *a-wa/i* LITUUS+*na-ti-sa hu-pi-tà-ta-tà-ti* REL-*a-ti sà-ka-tá-li-sà-wa/i* ‘Do you see with what *hupitatata-* I am *saka(n)tali*-ing?’. Cf. Starke (1990 518 with refs.) and Hawkins (2000 339).

aspect see D.6. The nature of both the CLuwian and HLuwian text corpora leaves significant gaps in our knowledge of the personal endings. The problem is particularly acute for the middle voice.

Present Indicative Active

| | CLuwian | HLuwian | | CLuwian | HLuwian |
|---|---|---|---|---|---|
| 1stSg | *-wi* | /-wi/ | 1stPl | *-unni* | |
| 2ndSg | *-ši,-tti*$^{?}$*,-tiš*$^{?}$ | /-si/, /-tis/ | 2ndPl | *-ttani*$^{?}$[20] | /-tani/ |
| 3rdSg | *-t(t)i*, *-i* | /-t/di/, /-i/ | 3rdPl | *-anti* | /-anti/ |

Present Indicative Middle

| | CLuwian | HLuwian | | CLuwian | HLuwian |
|---|---|---|---|---|---|
| 2ndSg | | | 2ndPl | *-ttuwar(i)* | |
| 3rdSg | *-ar(i),-t(t)ari* | | 3rdPl | *-antari* | |

Preterite Indicative Active

| | CLuwian | HLuwian | | CLuwian | HLuwian |
|---|---|---|---|---|---|
| 1stSg | *-ḫ(ḫ)a* | /-H/ha(n)/ | 1stPl | | |
| 2ndSg | | /-t/da/ | 2ndPl | | |
| 3rdSg | *-t(t)a* | /-t/da/ | 3rdPl | *-a(u)nta* | /-a(u)nta/ |

Imperative Active

| | CLuwian | HLuwian | | CLuwian | HLuwian |
|---|---|---|---|---|---|
| 1stSg | *-lu*$^{?}$ | | | | |
| 2ndSg | -Ø | -Ø | 2ndPl | *-ttan* | /-t/danu/* |
| 3rdSg | *-t(t)u* | /-t/du/ | 3rdPl | *-antu* | /-antu/ |

The only attested present indicative first singular ending is *-wi*.[21] As shown by Morpurgo Davies (1979), the present indicative third singular ending *-i* reflects a formation cognate with the Hittite '*ḫi*-conjugation'. CLuwian *-tti*, if real, would reflect the matching present second singular ending (see Melchert 1993a iv). In any case, the HLuwian ending /-tis/ (perhaps also attested in CLuwian *-tiš*) repre-

[20] Context argues that *āttanī* in KUB 9.6+ iii 10 is second plural to *ā-* 'to do, make', as per Carruba (1968 15). Cf. also D.8.

[21] There is no CLuwian variant *-mi*. The alleged example *a-ú-i-mi* in KUB 35.71 ii 5 cited by Laroche (1959 36) is to be restored as a participle *a-ú-i-<im>-mi[-iš]*: cf. KBo 29.6 Ro 19ff.

sents a renewed form of second singular *-*ti* (Morpurgo Davies 1980b 106). However, it is certain that there is only one first person singular ending in the present and the preterite. There is no evidence for more than one ending for the preterite second and third singular. We also have no proof that the distribution of second singular /-si/ vs. /-ti/~/-tis/ matches that of third singular /-ti/ vs. /-i/. It is therefore very doubtful whether one may speak of two distinct synchronic conjugations in attested Luwian (cf. Morpurgo Davies 1980b 107).[22]

The present indicative third singular ending /-ti/ and the preterite singular endings of all three persons (as well as imperative third singular /-tu/) all have voiceless and voiced (or 'unlenited' and 'lenited') variants. On their distribution see Morpurgo Davies (1982/83). The voiced variants also appear rhotacized in HLuwian.

On the alleged HLuwian present first plural ending *-mi-n(a)* see the next section. The HLuwian ending /-han/ is preterite first *singular*, as per Carruba (1984 18ff), contra Morpurgo Davies (1980b 97ff). There is no evidence for a CLuwian preterite second singular ending *-š*, contra Laroche (1959 24,82 & 142): the alleged examples are to be read as imperative second singulars plus the enclitic pronoun *-aš* 'them' (Melchert 2000a 181). Likewise there are no attested examples of a HLuwian second singular preterite ending /-s/: see Morpurgo Davies 1980b 88[5]. Both CLuwian and HLuwian show clear instances of a preterite third plural ending /-aunta/ (Melchert 1993a v), whose origin and distribution remain obscure.

The interpretation of CLuwian *wišita* as a preterite third middle 'has been pressed' (Melchert 1993a 270) is made unlikely by the appearance of the HLuwian cognate ($PES_2$)*wa/i-si-~wa/i-sa-i-*, a clearly intransitive verb (see Hawkins 2000 234). Its meaning 'come' or 'appear' would also fit the contexts of CLuwian *wiš(a)i-*. There are no assured examples of synchronic preterite middles in Luwian (cf. Yoshida 1993 and on the source of HLuwian preterite first singular /-han/ Melchert 1992b 196). On the second plural imperative active ending /-t/danu/* (attested as rhotacized *-ra+a-nu*) see Morpurgo Davies (1980b 92f). The only imperative middle forms attested are third singular *-aru*=/-aru/, CLuwian third singular *-ttaru*, and

[22] The ending /-i/ is sometimes spelled as *-ya* in HLuwian (e.g. *ta-ya* 'stands' beside *ta-i*). It is unlikely that this spelling represents a linguistically real variant (see Morpurgo Davies 1979 596-602).

third plural *-antaru**.[23] The 'voluntative' first singular *ˀkuwayatallu* in a Hittite context probably shows a Hittite ending, but *lilailu* in the context of *lilandu* (KUB 32.13,6-7) may show the genuine Luwian equivalent.

### 3.2 *Non-finite Forms of the Verb*

Luwian has an infinitive in *-una*=/-una/ and a participle in *-m(m)a/ī-*= /-m(m)a/i:-/. The latter inflects like an ordinary adjective with '*ī*-mutation'. HLuwian also has verbal forms in *-mi-na* which function as gerundives with deontic sense.[24]

## 4. *Word Formation*

### 4.1 *Word Classes*

Luwian words may be conveniently divided into two major groups: those that inflect (nouns, adjectives, pronouns, verbs) and those that do not (adverbs/adpositions, conjunctions, interjections). There are no useful formal generalizations to be made about the second set, and the formation of pronouns has been covered in section C.2. Nouns, adjectives and verbs may be usefully described in terms of stem plus ending. The stem consists of a root that bears the lexical meaning and usually one or more suffixes. Stems consisting of the bare root are relatively rare in Luwian. There are no sure derivational prefixes in Luwian (cf. section C.4.2, end). The following brief survey of nominal and verbal stem formation does not purport to be complete. Space limitations permit only minimal references to secondary literature.

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[23] On the form AUDIRE+*MI-ta+ra/i-ru* (KARKAMIŠ A11b+c, §32) as third plural see Hawkins (2000 107), but the meaning is surely transitive: 'let the gods hear'.

[24] Against Morpurgo Davies (1980b 93ff) and Hawkins (2000 148 and passim) forms in *-mi-na* cannot be present first plurals, as shown by examples like that in the second KULULU lead strip, §1,6: 30 OVIS-*sa* $^{\text{l}}$*ku-li-ya*...DARE-*mi-na* 'Thirty sheep (are) to be given to Kuliya...'. OVIS-*sa* can only be read as anim. nom. sg. /hawi:s/ and thus the subject, not the direct object. See in detail Melchert (to appear).

4.2 *Nominal Stem Formation*[25]

Luwian has only a few root nouns. The surest is the neuter 'heart': *zart-*=/tsard-/, on whose inflection see Morpurgo Davies and Hawkins (1988). HLuwian animate /waw(a)/i:-/[26] 'cow' and /tsuwan(a)/i:-/ 'dog' may be synchronic *a*-stems or root nouns.

Some animate nouns with a suffix *-a-* reflect old action nouns, such as *tāwa/ī-*=/dawa/i:-/ 'eye' < **sók$^{w}$o-* *'seeing', CLuwian *zūwa-* 'food' < **ĝyóuh$_x$o-* *'eating' or HLuwian /Hasa-/ 'abundance' < **h$_2$áso-* *'satiation'. Other notable stems with a suffix *-a-* include: CLuwian neuter noun *mī(ya)ša-* 'flesh' (Poetto 1995) and adjective *nāwa-* 'new', HLuwian neuter noun /pidá-/* (LOCUS-*ta/i$_{4/5}$-*) 'place', and animate *ušša/ī-*=/ussa/i:-/ 'year'. CLuwian animate *lāla/ī-* 'tongue' is but one example of reduplication, a widespread process that cannot be covered systematically here.

Extremely productive in Luwian is a suffix *-alla/ī-*=/-alla/i:-/ that forms adjectives from nouns: e.g. *dadalla/ī-*=/tadalla/ī-/ 'paternal' < *tāda/ī-*=/tada/i:-/ 'father'. Another adjectival suffix *-la/ī-*=/-la/i:-/ is seen in **šarla/ī-*=/sarla/i:-/ (SUPER+*RA/I-la/i-*) 'high' and CLuwian *ipala/ī-* 'left-hand'. Also productive is *-il(ī)-*=/-il(i:)-/ as in *ḫantil(ī)-*=FRONS-*lá/í-* 'front-, foremost'.

A suffix *-ma/ī-* forms animate nouns from verbs: CLuwian *lalama/ī-* 'receipt' < *lāla-* 'to take, receive', *dušduma/ī-* 'manifest, voucher' < **du-šdu-* 'be manifest'. An older example of the same type is CLuwian *tarma/ī-* 'nail, peg'. Distinct is a suffix *-ama/ī-* that forms adjectives of appurtenance from nouns: $^{LÚ}$*maššanāma/ī-*=/massanama/i:-/ (DEUS-*na-mi-(i)-* in TELL AHMAR 6, §22) '(one who) belongs to a god' (a type of priest) < *maššan(ī)-* 'god' and HLuwian /Tiwadama/i:-/ 'of the Sun-god' < /Tiwad-/ 'Sun-god' (after Arbeitman 1980). The preceding is not to be confused with the suffix *-m(m)a/ī-*=/-m(m)a/i:-/ that forms verbal participles (section C.3.2), which also is used secondarily to form possessive adjectives from nouns: *piḫamma/ī-*=/pihamma/i:-/ 'imbued with splendor' < **piḫa-* 'splendor' (Melchert 1993a 177 contra Starke 1990 314f).

A suffix *-na-* is seen in examples such as animate noun **targašna-*=/targasna-/ 'ass' < **dherĝhos-no-* *'having a burden' (after Janda

[25] One should consult globally on this topic Starke (1990) and the review by Melchert, *HS* 105 (1992) 309-312.

[26] Stems inflected with '*ī*-mutation' (see section B.1.3) will be so marked.

1999 194f) and HLuwian /Hi:lana-/* (PORTA-*la-na-*) (collective plural) ‘gate-(house)’ (base seen in Hittite *ḫīla-* ‘courtyard’). The suffix *-anna/ī-* forms diminutives (CLuwian animate *armanna/ī-* ‘lunula’ < *arma-* ‘moon’ and also possessive adjectives that are then secondar-ily substantivized: *ʴkantanna-* (collective plural) ‘wheat-field’ (base seen in Hittite *kant-* ‘wheat’).

A suffix *-ra-* deriving adjectives from nouns appears in CLuwian **ḫutra-/ḫutar-* *‘agile, quick’, the base of animate *ḫutarlā-* ‘slave’, < *ḫūta-* ‘haste, alacrity’ (see Eichner 1983 57ff). Likewise in the substantivized neuter *waššar-*=/wassar-/ ‘favor’ (on the phonology cf. Melchert 1993b). Also of interest are the ‘oppositional’ suffixes that derive adjectives from adverbs, as seen in **āppara/ī-*=/appara/i:-/ (POST+*RA/I-(i)-*) ‘after-; later; younger’ and CLuwian **nanuntarra/ī-* ‘(of the) present’ and HLuwian /annantarra/i:-/ ‘lower’.

In addition to the possessive suffix *-aššа/ī-*=/-assa/i:-/ we find a suffix *-(a)šḫa-*=/-(a)sha-/ that forms animate nouns (notably without ‘*ī*-mutation’): e.g. CLuwian *mar(ru)wašḫa-* (a mineral) < **marwa-* ‘dark’ (see on the suffix Starke 1979). A suffix *-aš(ša)ra/ī-*=/-assra/i:-/ (also with epenthesis *-ašt(ar)ra/ī-*=/-astra/i:-/—see section B.2.3) forms animate abstract nouns from adjectives: *ḫattašt(ar)ra/ī-*=/Hattastra/i:-/ ‘violence’ (thus with Neumann 1965 contra Starke 1990 384ff). For the origin of this suffix in compounds see the very end of this section. Quite distinct is the suffix *-aš(ša)ra/ī-*=/-assra/i:-/ that derives animate nouns referring to females: **nānaš(ša)ra/ī-*=/nanassra/i:-/ ‘sister’ < **nāna-* ‘brother’ (see Oettinger 1986c 122ff, following Szemerényi).

There are some examples of a suffix *-ta-*=/-ta-/ added directly to the root: animate *ašta-*=/asta-/ (*á-sa-ta-*) ‘(evil) spell, charm’ (thus with Starke 1990 186 with note 613 contra Melchert 1987 185f; cf. Latin *astus* ‘wile, cunning’ with Neumann apud Tischler 1977 86). Likewise CLuwian animate *ḫūta-* ‘haste, alacrity’ < **h₂uh₁-to-* (Starke 1990 362ff). Fairly productive is a suffix *-t(t)a-*=/-t/da-/ that forms adjectives (often then substantivized) from nouns: CLuwian animate *ḫupparta/ī-* ‘pelvis’ (base seen in Hittite *ḫuppar-* ‘bowl’); animate *ḫapāta/ī-*=/Habad/ra/i:-/ ‘river-valley’ < *ḫāpa/ī-* ‘river’ (false Melchert 1993a 55 and Starke 1990 514). See in detail Melchert (1999 368ff). A suffix *-tar-* (< **-tro-*) is weakly attested as forming neuter nouns: CLuwian *šāwatar* ‘horn’ (see Oettinger 1979a and Melchert 1993b) and HLuwian */i:star-/, the base of /i:starta-/ ‘seat, throne’ (with another example of denominative /-ta-/).

Very productive in Luwian is the suffix *-iya-*=/-iya-/ that derives adjectives from nouns: e.g. *tāti(ya)-*=/tadi(ya)-/ 'paternal' < *tāda/ī-* 'father'. This example shows deletion of the final *-a-* of the base noun before the *-iya-* suffix. We also find a type without such deletion: *kummaiy(a)-*=/kummaiy(a)-/ (PURUS+*MI-ya-*) 'pure, sacralized'.[27] See on this suffix Carruba (1982b), Melchert (1990), and for its use in place-names Starke (1997a 458). See also section D.3.

A productive suffix *-izza-*=/-itsa-/ forms adjectives from nouns, especially place-names: e.g. CLuwian $^{URU}$*Taurišizza-* 'of Taurisa', HLuwian *Kar-ka-mi-si-za-*(URBS) 'of Carchemish'. A different suffix *-zza-*=/-tsa-/ forms adjectives and names of professions: e.g. CLuwian *wašḫazza-* 'sanctified, holy' and HLuwian animate /kummatsa-/ 'priest' (see Hajnal 1994 51 on the matching forms in Lycian).

As described in C.1.3, virtually all Luwian stems in *-i-* inflect synchronically according to the pattern of '*ī*-mutation'. Examples with a suffix *-i-* added directly to the root are few. One is *ḫāwa/ī-*=/Hawa/i:-/ 'sheep' (the original *i*-stem is reflected in the CLuwian derivative *ḫawiyašša/ī-* referring to a kind of bread, contra Melchert 1993a 66). More productive is a suffix *-i-* that forms animate substantives from adjectives: e.g. CLuwian *ānnari-* 'forcefulness, virility' < *ānnara/ī-* 'forceful, virile' (see further Melchert 1999 365ff). A suffix *-t(t)i-*= /-t/d(i)-/ derives animate nouns from verbs: CLuwian *kupiyat(i)-* 'plot' < *kup(iya)-* 'to plot', HLuwian /marad(i:)-/ 'order, injunction' (base seen in Lycian *mar-* 'to order').

CLuwian shows several examples of a suffix *-al-* that forms neuter nouns from verbs: e.g. $^{GIŠ}$*ariyal-* 'basket' < *ariya-* 'to lift' (see Starke 1990 317ff).

Nouns with a simple suffix *-an-*=/-an-/ include animate *maššan(ī)-* =/massan(i:)-/ 'god' and neuter *ku(wa)lan-*=/ku(wa)lan-/ 'army'. Very productive is the suffix *-mman-* that derives neuter action nouns from verbs (see Starke 1990 260ff): e.g. CLuwian *tātariyamman-* 'curse' (base seen in HLuwian *tá-tara/i-ya-* 'to curse'). This suffix is the basis for the participial suffix *-m(m)a/ī-*, which in origin is **-mn-a-*. The suffix *-wann(ī)-*=/-wann(i:)-/ derives adjectives from nouns with the sense 'of the sort of': CLuwian *ānnawann(ī)-* 'step-mother' < *ānna/ī-* 'mother'. It is especially productive in forming adjectives from

[27] The addition of '*ī*-mutation' leads to contraction of /-iy-ī-/ to [-ī-] and probably of /-aiy-ī-/ to [-ay-]. Hence the shorthand indication of the stems as *-i(ya)-* and *-aiy(a)-*.

names for places: CLuwian $^{URU}$*Ninuwawann(ī)-* ‘of Niniveh’, HLuwian /Assurawann(i:)-/ ‘of Assur’ (over twenty examples in HLuwian).

Starke (1990 433ff) has shown that ‘heteroclite’ neuter nouns are quite well attested in Luwian, contrary to previous claims. In addition to a few nouns with simple *-r/-n-* such as CLuwian *āšḫar~āšḫan-** ‘blood’ and HLuwian /lammar/*~/lammn-/ ‘time’, one also finds derivatives with the suffix *-ttar/-ttn-* (e.g. CLuwian *tarmattar~tarmattn-* ‘fastening, nailing’). The suffix *-war/-w(a)n-* is directly attested in examples like CLuwian *guršawar~guršaw(a)n-* ‘island’ and more widely in indirect fashion in the infinitive *-una*=/-una/, which reflects an old dative-locative (originally allative) of such a noun.

Luwian attests a variety of neuter *s*-stems (see in detail Starke 1990 95ff): e.g. CLuwian *tappaš-* and HLuwian /dibas-/ ‘sky, heaven’ with suffix /-as/, CLuwian *ḫappiš-* ‘limb, member’ and HLuwian /tanis-/ ‘stele’ with /-is-/, and CLuwian *tāruš-* ‘statue’ with /-us-/.

Very productive in Luwian is the suffix *-it-*=/-id-/ that forms neuter nouns (see Starke 1990 151ff). First, it is used to derive nouns from native bases: e.g. *upatit-*=/ubadid-/ ‘land-grant’ (*‘allotment’ < *upa-* ‘to allot’ via **upati-*). Second, it is used to adapt loanwords, especially from Hurrian: e.g. CLuwian *natḫit-* ‘bed’ < Hurrian *natḫi-*. Finally, the complex suffix *-aḫit-*=/-ahid-/ is the productive suffix for forming abstracts from both nouns and adjectives: e.g. *ḫandawadaḫit-*=/Hantawadahid-/ ‘kingship’ < *ḫantawat(i)-*=REX-*wa/i-ta/i-* ‘king’.

While the synchronic participle is that in *-m(m)a/ī-*=/-m(m)a/i:-/ cited above, one finds lexicalized participles in *-ant(ī)-*=/-ant(i:)-/: e.g. CLuwian *u(wa)lant(ī)-* ‘dead’ and HLuwian /miyant(i:)-/ ‘abundant’. There are also some examples of a possessive suffix *-want-*: e.g. CLuwian *ašḫanuwant(ī)-* ‘bloody’. On the ergative suffix see section D.3.

Stems in *-u-* include neuter nouns (*maddu-*=/maddu-/ ‘wine’), animate nouns ($^{NA_4}$*āššu-*=(SCALPRUM)/assu-/ ‘stone pillar/column’) and a few adjectives (CLuwian *aru-* ‘high’).

There are few attested compounds among ordinary Luwian nouns and adjectives. HLuwian REGIO-*ni*-DOMINUS-*ni-* ‘country-lord’ provides one example of a determinative compound. Another is probably (*481)*wa/i+ra/i-mu-ta-li-* (/wara-mu(wa)talla/i:-/) ‘strong of sense/smell’ (an epithet of dogs): cf. Hittite *pattar-palḫi-* ‘broad of wing’ (name of a bird). For the syntax underlying this type see D.3. The noun $^{NA_4}$*kuttaš(ša)ra/ī-*=/kutassra/i:-/ ‘orthostat’ may be analyzed

as a possessive compound *'having the form of a wall' (*kutt-* 'wall' as seen in Hittite plus **āš(ša)ra-* 'shape, image' cognate with Hittite *ēš(ša)ri-*): see Melchert (2002d). A similar analysis may be applied to the type of CLuwian *niwalla/ī-* 'innocent' < *'not having power, powerless', although one cannot exclude a synchronic negative prefix. The rich store of compounds in personal names cannot be explored here.

### 4.3 *Verbal Stem Formation*[28]

Verbal stems consisting of a bare root include *āš-~aš-*=/as-/ 'to be', *ī-*=/i:-/ 'to go', CLuwian *kuwar-~kur-* 'to cut', *tā-*=/ta:-/ 'to step, stand' (present third singular in *-i*—cf. C.3.1), and CLuwian *zī-* 'to lie' (with only medial inflection). As the first two examples demonstrate, CLuwian appears to preserve some examples of quantitative ablaut.[29] We also find reduplicated stems: e.g. CLuwian *ta-tarḫ-* 'to crush' or *na-na-* 'to lead'.

A few verbs add a suffix *-i(ya)-* directly to the root: e.g. *wall(iya)-*=/walli(ya)-/ 'to lift, exalt'. There are also some cases of a suffix *-nu(wa)-* with a transitivizing sense: CLuwian *ḫuinuwa-* 'to cause to run', HLuwian (SOLIUM)/isanu(wa)-/ 'to seat', (CRUS)/tanu(wa)-/ 'to (cause to) stand'. Rare but attested are stems reflecting an itera-tive suffix **-eye/o-*: *dūpi-~dūpai-*=/tu:bi:-/~/tu:bai-/ 'to strike' (see Melchert 1997b 135). HLuwian also has at least one reflex of a 'simple thematic' stem in **-e/o-*: /tama-/ 'to build' < **dém(h₂)e/o-* (Morpurgo Davies 1980b 261ff).

Luwian has several suffixes that derive verbs from nominal stems: *-i(ya)-* (*ḫarwanni(ya)-*=/harwanni(ya)-/ 'to send' < *ḫarwanna/ī-* '(little) path'); *-ā-* (CLuwian *tūrā-* 'to pierce' < $^{GIŠ}$*tūra/ī-* 'spear', HLuwian (VASTUS)/tannata:-/ 'to devastate' < (VASTUS)/tannata/i:-/ 'empty, desolate'; *-ā(i)-* (CLuwian *patalḫā(i)-* 'to fetter' from a base seen in Hittite *patalḫa-* 'fetter'), *-nu(wa)-* (*urannu-*=/uranu(wa)-/ 'to make great' < *ura-* 'great'); and *-ī-~-ai-* (CLuwian *tarmī-~tarmai-* 'to nail down' < *tarma/ī-* 'nail, peg', HLuwian (274)/Hatalli:-~Hatallai-/ 'to smite' from a base seen in Hittite *ḫattalla-* 'club'). See in detail on

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[28] One should consult globally on this topic Oettinger (1979b 561ff).

[29] HLuwian orthography permits no conclusions on this point. Variants of 'to be' apparently without initial vowel (e.g. preterite third singular *sa-ta*) are almost certainly simplified variants of the spellings of the type **a-sa-ta* described above (pp. 159-161). They definitely are not reflexes of a prehistoric weak stem **h₁s-*.

denominative verbs Melchert (1997b). For the suffixes *-za-*, *-š(š)a-* and *-anna-* see D.6.

Most adverbs associated with verbs as preverbs remain syntactically independent (cf. D.1). There are some cases of compounds with the prefixes *aw-/u-* and *pa-*: *awī-*=/awi:-/ 'to come' vs. *ī-*=/i:-/ 'to go'; CLuwian *ūppa-* 'to bring' (= Hittite *uppa/i-*); *pīya-*=/piya-/ 'to give' (cf. HLuwian /i(ya)sa-/ 'to buy' and see Melchert 1989a 42ff with references).

## D. SYNTAX

### 1. *Word Order*

A thorough study of Luwian word order has yet to be carried out. A *preliminary* investigation suggests that Luwian has most of the features established for Hittite. The unmarked order is 'S O V'. As usual in such formulas, 'O' stands not for the direct object alone, but for all elements of the predicate save the verb. The sentence negation and preverbs appear immediately before the verb. When both are present one finds both Preverb Negative Verb and Negative Preverb Verb. An indirect object precedes the direct object, while locatives (including adpositional phrases) follow it. The status of time expressions and ablative-instrumentals needs further study. Attributive adjectives and demonstratives regularly precede their head noun, as do adnominal genitives in HLuwian. However, postnominal adjectives and demonstratives are far from rare in HLuwian. A functional difference in the ordering is not easy to discern (cf. e.g. SULTANHAN, §§2 and 8). Indefinite adjectives follow their head noun.

Most enclitics (notably anaphoric pronouns, various particles, and some conjunctions) follow 'Wackernagel's Law': i.e., they are attached to the first accented word in the clause (including sentence-initial conjunctions). There are three exceptions to this rule. First, *-ḫa*=/-ha/ 'and' conjoining nouns or verbs naturally may occur wherever these constituents appear (for an example with verbs see SULTANHAN, §16). Second, while clause-linking *-ḫa*=/-ha/ 'also, and' is attached in the vast majority of cases to the first word, it can appear later in the clause (e.g. ÇİFTLİK, §15). Third, the local particle *-tta*=/-ta/ occasionally appears attached to a dative-locative within the clause: *aštummantanza-ta* (KUB 9.31 ii 25) and /ami(ya)nts-ta/ (KARATEPE, §XXX, 151).

The order in 'enclitic chains' is fixed: conjunction *-ha* or *-pa*, quotative particle *-wa-*, dative or reflexive pronoun, nominative or accusative pronoun, and finally local particle: e.g. *ARHA-pa-wa/i-tú-wa/i-tà-ta* (/arHa-pa-wa-du-ada-ta/) (ALEPPO 2, §18). For the reflexive and dative pronoun before nominative see respectively /wa-ri(y)-as-ta/ (ASSUR letter f+g, §51) and /wa-m-as-ta/ (BOR, §6). For reflexive before accusative see *tūrin-ti(y)-an kuiš ada* 'The one who has made it a spear for himself' (KBo 13.260 ii 22) and MARAŞ 4, §9 (cited in D.7). Note that this order contrasts with that in Hittite.

As in Hittite, any constituent of the sentence may undergo 'fronting' either to absolute initial position or the position immediately following a sentence-initial conjunction (plus enclitics). These two positions are functionally equivalent. This process surely involves some kind of topicalization, but a more precise characterization is not yet possible. Surprisingly, as in Hittite, one occasionally finds fronting of *two* elements in the same sentence (e.g. KARATEPE, §§VI and XXXVII). Luwian may also 'extrapose' any constituent except the verb to the right of the clause-final verb. Here one must distinguish extraposition of an appositional element (*á-wa/i+ra/i-ku-sa-wa/i* REL-*i-na* MAGNUSi+*ra/i-nu-wa/i-ta* *á-TANA-wa/i-ní-i-sá*(URBS) REX-*ti-sá* 'whom Awariku, King of Adana, made great' (KARATEPE, §II), from 'right-dislocation', which moves one of the arguments of the verb and which in the case of subject or object requires 'clitic-doubling': *tāīn-ti(y)-ata malli aiyaru tapāruwa ḫīrūta tatarriyamna* 'Let them, the *t.*, oaths and curses, become oil (and) honey' (KUB 9.6+ ii 12-13). Note that here there has also been fronting of the predicate nouns. See D.2 and D.6 for more examples.

## 2. *Agreement*

Attributive adjectives agree with their head noun in gender, number and case, and likewise predicate adjectives with the subject. Cardinal numbers greater than one may take either singular or plural: 5-*na-′* ("*78")*a-ru-ti-na* 'five baskets' and 4-*zi* ("*78")*a-ru-ti-zi* 'four baskets'. As seen in the last example cited in the preceding section, a collective plural subject takes a singular verb (*aiyaru tapāruwa...*). This is also attested in HLuwian (SULTANHAN, §14 and ASSUR letter e, §12). In the case of multiple subjects, the verb is often singular, agreeing with the nearest subject, as does any predicate adjective: *a-ata*

*ḫalāl āšdu zā parnan-za ḫūḫḫuršantinzi* DINGIR.MEŠ-*inzi*... ‘Let them be pure, this house, the *ḫ.* gods...’ (KUB 35.54 iii 26ff).

### 3. *Use of Cases*

The nominative is the case of the subject and its modifiers and of predicate nouns and adjectives in nominal sentences and with ‘linking’ verbs such as ‘to be’ and ‘to become’. The accusative marks the direct object of transitive verbs. A double accusative with ‘to make’ is attested (KARATEPE, §III). One also finds ‘partitive apposition’ (or the ‘accusative of respect’) with body parts (KUB 35.45 ii 21ff & KARKAMIŠ A7a, §3, KULULU 5, §11, etc.). The accusative is also used for extent of time (KARATEPE, §LXXIV).

As shown by Garrett (1990a), Luwian like Hittite shows ‘split ergativity’. A neuter noun cannot function as the subject of a transitive verb, but must be replaced by a special ergative form (singular /-antis/, plural /-antintsi/).[30]

As per section C.1.2, CLuwian expresses possession entirely by means of adjectives (with suffixes *-aššа/ī-* and *-iya-*). Not only is the noun expressing the possessor converted into an adjective, but so also are any nouns or adjectives that modify it. All show agreement with the ultimate head noun: e.g. *ta-ni-ma-si-na* REGIO-*ni-si-na′* INFANS-*ni-na* ‘a child of every country’ (see Neumann 1982). In HLuwian, where the genitive case may also be used, one finds mixed constructions: *á-ma-za tá-ti-ya-za* $^{\text{I}}$*á-za-mi-sa a-ta$_5$-ma-za* ‘my father Azami’s name’ (BOYBEYPINARI 2, §18). See Melchert (1990 203ff) for further even more remarkable examples.

The dative-locative expresses goal with persons and objects and location with objects. It also expresses the person affected by an action, including the one from whom something is taken. As in Hittite, this usage is also sometimes extended to objects, in competition with the ablative-instrumental (cf. KARKAMIŠ A6, §§27-28, HAMA 4, §8). There is one example of the dative-locative used for the object of an

[30] That this is fundamentally a grammatical feature, not one of semantic ‘animacy’, is shown by an example like KUB 35.54 ii 49ff, where *only* the neuter nouns for ‘house’ and ‘statue’ are replaced by the ergative, not the semantically equally inanimate words for ‘pediment’, ‘hearth’ and ‘earth’. This is not to deny that, as in Hittite, the ergative is also occasionally used for genuine cases of personification, such as KUB 35.39 ii 14-15, where heaven and earth are to wash their mouths.

infinitive (so-called 'double dative'): *za-ti* "CASTRUM"-*si* AEDIFICARE+*MI-na* 'to build this fortress' (KARATEPE, §XL).

The ablative-instrumental is used to express 'from' with both objects and sometimes also persons (cf. KARKAMIŠ A6, §30). It also marks relative location and direction: *ipalāti…išarwilati* 'to the left...to the right', ("OCCIDENS")*i-pa-ma-ti* (DEUS.ORIENS)*ki-sà-tama-ti* 'to the west (and) to the east'. This is also surely the sense of the forms of the personal pronouns: *tu-wa/i+ri* 'to(wards) you' (ASSUR letter f+g, §10), *u-za-ri+i* 'for/on your part'. The ablative-instrumental also expresses means, accompaniment and the agent with a passive participle: (DEUS)TONITRUS-*tá-ti-i* (LOQUI)*ta-tara/i-ya-mi-sa i-zi-ya-ru* 'let him become cursed by the Storm-god' (KARKAMIŠ, A2+3, §24).

## 4. *Adpositions*

Luwian regularly has postpositions with the dative-locative. Attested are: /annan/ 'under' (SULTANHAN, §9 etc.), /parran/ 'before' (spatial and temporal) (KUB 35.55,10 etc. and CEKKE, §10 etc.), /sarri/ 'over' (KARKAMIŠ, A6, §11 etc.), /tawiyan/ 'towards, facing' (KUB 35.107+ iii 8, KARATEPE, §V etc.), CUM-*na/i* 'with, for' (read /katan/?), *336-*na-na* 'among'? (KARKAMIŠ A6, §24 etc.). Prepositions are rare: *annān pātanza* 'under the feet' (KUB 35.39 iii 29—cf. B.2.5), *šarri tappašī* 'above heaven' and *šarri tiya<m>mi* 'above earth' (KUB 7.53+12.58 i 58-59), and PRAE-*wa/i á-mu* 'before me' (ASSUR letter e, §31). Postpositional phrases may be broken up by movement rules like 'right-dislocation' (KARATEPE, §XXI) and 'fronting' (ALEPPO 2, §25).

## 5. *Use of Pronouns*

The accented personal pronouns are used only for emphasis or contrast. As noted in C.2.1, some dative enclitic personal pronouns also serve as reflexives. As in Middle and Neo-Hittite (see Hoffner 1969), so also in Luwian nominal sentences and sentences with the verb 'to be' require a reflexive pronoun when the subject is in the first or second person: HLuwian *a-mu-wa/i-mi* plus personal name 'I (am) So-and-so', *wa/i-ma-za u-zu-za ha-tu-ra+a a-sa-ta-ni* '*You* are to write!' (ASSUR letter e, §6); CLuwian ˹*zunnimiš-ti* ˹*mannaimiš* 'you (are) a *z. m.*' (KUB 44.4+ Vo 16). The use of enclitic *-mi* as a

dative in the 'Istanuwian songs' (cf. A.1, end) supports the suggestion of Eichner (1974 68[16]) that this usage is derived from an 'ethical' dative.[31] Again as in Hittite, the enclitic reflexive may also be used to underscore a change of state: cf. CLuwian *-ti...āyari/u* 'becomes/ let become' vs. HLuwian simple *i-zi-ya-ru* 'let become' (cf. Hittite *kiš-* 'become' with or without *-za*).

Enclitic subject pronouns occur only with a subset of intransitive verbs (so-called 'unaccusatives'). See Garrett (1990b) and (1996) for a description of the corresponding facts in Hittite. Enclitic subject pronouns never cooccur with transitive verbs. Apparent exceptions to this rule are a matter of false syntactic analysis. Direct object pronouns are occasionally omitted (ASSUR letter b, §10 etc.). That this feature is especially prominent in the ASSUR letters may reflect their more colloquial register, but further study is needed.

Iteration of a relative pronoun gives a generalizing sense: REL-*i-sa* REL-*i-sa* 'whosoever' (anim. nom. sg.), REL-*i-ta* REL-*i-ta* 'wheresoever'. For more on the syntax of the relative-interrogative see D.9. The indefinite /kwisha/ 'some/anyone' is used with a preceding negative to mean 'no one'. Repeated /kwisha/.../kwisha/ means 'the one ...the other' (e.g. KARKAMIŠ A1a, §§19-20).

### 6. *Use of Verbal Categories*

The use of person and number requires no special comment (on subject-verb agreement see D.2). The present tense is used for present and future time, for general statements and prescriptively ('shall __'). The preterite serves for the simple past and for the perfect. The latter is particularly frequent in CLuwian rituals where it describes an act that has just taken place (cf. *tappatta* 'has (just) spit' in KUB 35.45 iii 24 with preceding Hittite context). The adverb *zāwi(n)* 'here, voici' may be used to make explicit this perfect with 'present relevance': *zawi(y)-aš wišita ḫalāliš taluppiš* 'It has (just) appeared, the pure lump' (KUB 32.9+ Ro 3 with parallels), [*a*]*-tta laḫunīḫa* 'I have (just) washed...' (KUB 35.54 iii 37). See Hoffner (1968) for this use of *kāša/kašma* in Hittite.

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[31] The introduction of the enclitic forms *-mu, -tu,* and *-tu* as datives would have severely restricted the use of those with *i*-vocalism, leading to their synchronic analysis as reflexives, including in the special use in nominal sentences. The Hittite usage may be explained as a borrowing from Luwian.

The middle voice indicates that the action of the verb is subject-oriented. Some intransitive verbs referring to bodily motion inflect only in the middle (CLuwian *zī-* 'to lie'), others in both the active and the middle (cf. CLuwian *dādduwar* beside HLuwian *ta-i* 'to step, stand'. Some transitive verbs may also appear in the middle: CLuwian *aztūwari* 'to eat' and HLuwian AUDIRE+*MI-ta+ra/i-ru* 'to hear'. No direct examples are attested for the middle expressing the passive, but this use is implied by the use of the middle of 'to make' to mean 'to become' (see examples under D.1 and D.3).

The indicative mood is used for statements of fact and also sometimes prescriptively ('shall __'). In the first and third person the imperative expresses more a wish of the speaker than a direct command. It is also possible that the second person plural form AUDIRE+*MI-ta-ra+a-nu* combined with REL-*i* in ASSUR letter e, §7 is a wish '(Would) that you might hear...'.

The basic Luwian verbal stem can express either perfective or imperfective aspect according to context. Cf. *niš dādduwar* 'don't step' (KUB 9.31 ii 26) with "CRUS"-*i* (/ta:i/) 'stands, lasts' (KARATEPE, §LXXV) or *ta-ma-ha* 'I built' (KULULU 1, §3) with *ku-ma-na* AEDIFICARE+*MI-ha* 'while I was building' (KARKAMIŠ A11a, §14). Like Hittite (see Melchert 1998), Luwian may also optionally mark a finite verb explicitly as imperfective with one of the suffixes *-za-* or *-š(š)a-*. The particular manner of action ('Aktionsart') expressed by a given example results from the interplay of the context and the lexical aspect of the verb. We have examples for 'durative' (*ta-za-tu* 'let last/endure', KARATEPE, §LXXIV, parallel to simple "CRUS"-*i* cited above), 'iterative' (*kuiš-an šaḫḫaniššatta kuiš-an ippatariš<š>atta* EN SÍSKUR-*aššin* 'whoever has repeatedly imposed *s.* on him, whoever has distrained him, the ritual client', KUB 35.45 ii 21-22), 'distributive' (**a-wa/i-mu *a-mi-zi ta/i$_4$-ta-ni-zi-′ pi-pa-sa-ta *a-mu-pa-wa/i ta/i$_4$-na-za-′* NEG$_2$ *pi-ya-ta* 'She gave my enemies to me, but me to my enemies she did not give', KARKAMIŠ, A23, §§4-5), and 'inceptive' (ɿ*kappilazzata* 'became hostile, angry', KUB 14.8 i 23), and 'progressive' *kāša* EGIR-*pa tiyaneššwi* 'I am re-__ing', KUB 7.53 ii 12).[32] The contexts of the very few examples of the

[32] For the inceptive value of *kappilazza-* cf. the Hittite equivalent with dative plus *kartimmiyaz kišat* (KBo 14.12 iv 5 and KUB 14.8 i 37). The base verb with stative meaning is attested in Hittitized *kappilā(i)-* 'be hostile'. The force of Luwian

suffix *-anna-* are too unclear to determine whether this suffix, like its Hittite cognate *-anna/i-*, also had been grammaticalized as a marker of the imperfective.

There is no evidence in Luwian for an analytic perfect matching the Hittite type with *ḫar(k)-/ēš-* plus participle. A 'serial' use of 'to go' is securely attested in CLuwian in KUB 35.102+ ii 11ff. More dubious is the CLuwian example for 'to come' (KUB 25.39 iv 9-10) and that for 'to go' in HLuwian (TOPADA, §8).

Participles may be used attributively or predicatively. As in Hittite, a participle in the nominative may also be used to mark a circumstance surrounding the action of the main verb (see KULULU 2, §3). All infinitives are dependent on a main verb or predicate: e.g. 'give to eat and drink' (ÇİFTLİK, §16), 'enter to worship' (KARKAMIŠ A31+, §8). The infinitive plus /ta-/ 'to step' is used to mean 'begin to __' (e.g. KARATEPE, §XLVIII)—cf. Hittite infinitive plus *tiya-*. In the ASSUR letters the dative-locative of a verbal noun /Hatura/ is used predicatively with a deontic sense (see ASSUR letter e, §6, cited above in D.5, and Morpurgo Davies 1980b 91). For the similar use of 'gerundives' in *-min(a)* see C.3.2 with note 24.

### 7. *Negation*

The negation for declarative sentences is *nā(wa)*=/na(wa)/. Prohibition is marked by *nīš*=/ni:(s)/. The form of the verb is usually imperative in HLuwian, but the indicative is attested (*ni-i-'*...("*69")*sa-si* 'Do not abandon...' in ASSUR letter f+g, §12). CLuwian shows at least one example each with the indicative and the imperative. Noteworthy is the use of a double negative in HLuwian to express 'do not fail to' (ASSUR letter d, §10 and f+g, §26). As expected, one occasionally finds negation of an element other than the predicate: *wa/i-ti-ya-ta* $NEG_2$*-a-ha tá-ti-i-sa* NEG-*a-ha* AVUS-*ha-sá sá-ta* 'Neither my father nor my grandfather __ed it to himself' (MARAŞ 4, §9). See globally on this topic Hawkins (1975).

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*tiyaneššwi* is assured by its pairing with Hittite *elaneškemi*, the *kāša* (see Hoffner 1968) and the context.

## 8. *Questions*

Yes-no questions are probably marked only by intonation in Luwian.[33] In written texts they can be identified only by context, and the status of some examples naturally is a matter of debate. A number of reasonably secure cases appear in the ASSUR letters, such as c, §2: *á-pi-wa/i-za ha-tu-ra+a* 'Are we to write again?'. In negative questions the negative may be fronted (e.g. ASSUR letter a, §6), but the far more plentiful evidence of Hittite suggests that this device is not a consistent indicator of a question versus a statement.

Wh-questions show so-called 'wh-movement', by which interrogatives must be fronted: REL-*sà-'-wa/i-sa-' a-zi-sa ha-tu-ra+a-sa* 'What is it, our letter?' (ASSUR letter f+g, §9). As in the case of relatives (see D.9 below), this fronting is then sometimes obscured by the fronting of some other element ahead of the interrogative: (*205)*á-tu-ni-na-wa/i-mu* REL-*za* $NEG_2$-*' ma-nu-ha* VIA-*wa/i-ni-ta* 'Why did you not send me at all the *a.*? (ASSUR letter a, §7).

## 9. *Subordinate Clauses*

Simple conditional clauses are introduced by *mān* in CLuwian, by REL-*(a)-ti*~REL+*ra/i* (/kwadi:/~/kwari:/) in HLuwian. Iterated *mān... mān* is used in both to mean 'whether...or'. The form *kuwatī(n)*= REL-*(a)-ti*~REL+*ra/i* (/kwadi:/~/kwari:/) is used in both to mean 'as' (in CLuwian sometimes correlated with *apatī(n)* 'thus,so'—cf. Hittite *maḫḫan...apeniššan*). HLuwian REL-*(a)-za* (/kwan-tsa/) is definitely used to mean 'because' (also interrogative 'why?'), and REL-*i* (/kwi/) is definitely employed as 'when'. Other meanings for these such as 'although' or 'that' remain possible (cf. Hawkins 2000 127 and 129).

The syntax of relative clauses in Luwian shows the same features as those established for Hittite by Garrett (1994), following Held and Hale. The relative pronoun undergoes fronting by 'wh-movement'. In preposed determinate relative clauses (at least) one constituent is obligatorily fronted to the left of the relative pronoun. In indeterminate relative clauses the relative pronoun appears first in the clause (not counting sentence-initial conjunctions with or without enclitics).

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[33] The unexpected final long vowel in *āttanī* (cf. note 21) may reflect such question intonation. See Melchert (1994 107) with references to Watkins and Ivanov on such a phenomenon in Hittite.

This pattern is seen in KARKAMIŠ A1a, §§30-35: *a-wa/i* REL-*i-sa* OVIS(ANIMAL)-*si a-wa/i za-a-ti-i* STATUA-*ru-ti-i* OVIS(ANIMAL)-*na* (LIBARE)*sa*$_5$+*ra/i-li-i-tú* REL-*i-sa-pa-wa/i* (PANIS)*tu*+*ra/i-pa-si-i* ***a-wa/i-tú*** (PANIS)*tu*+*ra/i-pi-na* (LIBARE)*sa*$_5$+*ra/i-la-ta-za-ha* PES$_2$(-)*pa*-(-)PES$_2$-*ya-tú a-wa/i i-zi-i-sa-ta-i* REL-*i-sa* ***a-pa-pa-wa/i-ta za-a-zi*** DEUS-*ní-zi-i...* 'Whoever is (a man) of sheep, let him consecrate a sheep to this statue, while whoever is (a man) of bread, let him __ bread and a libation to it. The one who does honor (to it), him these gods...'. The same contrast appears in CLuwian: cf. *tūrin-ti(y)-an kuiš ada* 'The one who has made it a spear for himself' (KBo 13.260 ii 22) vs. *kuiš-tar malḫaššaššanzan* EN-*ya ādduwala ānniti* 'Whoever does evils to the lord of the sacrifice...' (KUB 9.6+ iii 25-26).

Preposed relative clauses are resumed by enclitic anaphoric pronouns where appropriate (this is not possible for subjects of transitive verbs—cf. D.5) or by a form of *apa-*. The latter is often fronted in HLuwian, as in the example cited. For the use of conjunctions in relative constructions see D.10.

Non-restrictive relative clauses follow their main clause: e.g. $^{d}$*Annarummienzi ašḫarnuwanta kuinzi waššantari* 'Oh A.-gods, who wear bloody garments' (KUB 9.31ii 22-23). For a HLuwian example see KARATEPE, §§1-2.

### 10. *Non-subordinating Conjunctions*

Common to both CLuwian and HLuwian are the enclitic conjunctions *-ḫa*=/-ha/ and *-pa*=/-ba/.[34] The first conjoins clauses with an additive force that may apply to a variety of circumstances. The same subject may repeat an action (KARKAMIŠ, A15b, §§8-9). The same subject may perform different actions (KARATEPE, §XIVff or KARKAMIŠ A1a, §25ff). Different actions may be performed on the same object (KARKAMIŠ A6, §§2-3). In some cases, however, the logical connection between the clauses may be of a looser sort (KARATEPE, §III-VIII).

The use of enclitic *-pa* is entirely parallel to that of Hittite *-ma* (for which see Güterbock and Hoffner 1980-89 91ff). It conjoins clauses that stand in a complementary relationship. This value is clearest in cases of alternatives, such as KARKAMIŠ A1a, §30ff (cited in D.9)

[34] The consistent single spelling of the initial stop after vowel in CLuwian shows that the stop is voiced or 'lenited'.

or iterated /ma:n...ma:n-pa/ 'whether...or'. For CLuwian examples see KUB 35.54 ii 33-34 and iii 17-21. The line between additive and complementary actions is not a hard and fast one, and it is interesting to note the cases where one version of KARATEPE uses /-ha/ while the other uses /-ba/ (e.g. §§VIII and XIV).

On the other hand, it is also a short step from complementary to contrastive or even adversative. Hence the nearly fixed collocation *nānum-pa* 'but now' in CLuwian (the contrast with the past being essentially inherent). A very clear adversative example is 'She gave my enemies to me, but *me* (**a-mu-pa-wa/i*) to my enemies she did not give' (KARKAMIŠ A23, §§4-5, cited in full in D.6). It is important to stress, however, that 'but' is not an inherent meaning of *-pa*.

The contrastive value of *-pa* is also seen in its use to introduce new topics (e.g. KUB 35.45 iii 22 or KARATEPE, §LIX). However, *-pa* by no means always introduces entirely new topics. Like Hittite 'anaphoric' *-ma*, *-pa* is also used to highlight a previously mentioned element that is to be further described or defined (cf. Güterbock and Hoffner 1980-89 96). See e.g. TİLSEVET, §§5-6. HLuwian often uses this device in resuming relative clauses: **a-pa-pa-wa/i-ta* '(The one who does honor) *him* (these gods...)'—see the full citation in D.9 above.

Both CLuwian and HLuwian employ sentence-initial *a-*=/a-/, whose function appears to be roughly that of Hittite *nu*. It is used to introduce the resumptive clause to a preposed relative (KUB 9.6+ iii 26, BULGARMADEN, §11) and the main clause following other types of subordinate clauses (EMİRGAZİ altars, §21). It links prosecutive actions in past narrative (KUB 35.107 iii 11ff, YALBURT, passim), in ritual actions just performed (KUB 35.54 ii 35ff) and series of imperatives (KUB 35.54 ii 49 - iii 11). Only CLuwian has sentence-initial *pā*, whose usage largely overlaps with that of *a-*. It introduces resumptive clauses to preposed relatives (KUB 9.31 ii 25). It links prosecutive clauses in past narratives (KBo 29.25+ ii 11-12 and KBo 12.100 Ro 1ff—in the latter the parallelism with Hittite *nu* is explicit) and in other series of actions (KUB 35.102+ iii 1ff). One difference between *a-* and *pā* is that only the latter may occur alone without clitics (KUB 9.31 ii 32, 32.9+ Vo 31).

The apparent use of the quotative particle /wa/ as a sentence-initial conjunction in HLuwian is almost certainly a mirage. As per Hawkins (p. 159ff in this volume), spellings such as *wa/i-mu-a* in second-millennium texts (e.g. YALBURT 2, §§2-3) stand for /a-wa-mu/ with

expected sentence-initial conjunction /a-/. Likewise in forms of the verb 'to be', the demonstrative stem /aba-/, and forms of the first person pronoun and possessive adjective: *sa-tu-a* = **a-sa-tu* /astu/ (EMİRGAZİ altars, §21), *pa-ti-a* = **a-pa-ti* /abadi/ (SÜDBURG, §18), and *mi-sa-a* = **a-mi-sa* /amis/ (EMİRGAZİ altars, §4). This practice continues in texts of the early first millennium. Later spellings such as *wa/i-na* or *sa-ta* are surely mere simplifications of *wa/i-na-a* = **a-wa/i-na* and *sa-ta-a* = **a-sa-ta*. CLuwian assures us that both the conjunction *a-* and the verb 'to be' are accented, making true loss of the initial *a-* highly implausible. Since the spelling patterns appear to be entirely parallel for /aba-/ and /amu/~/ama/i:-/, it is quite unlikely that there is genuine aphaeresis in these either.

Disjunction is usually marked in HLuwian by /ni:pa/ 'or' (rarely /napa/). The negation /ni:/ also occasionally is used alone for 'or' (e.g. KARATEPE, §LXXI). One also sometimes finds REL+*ra/i-pa* 'or' (KARAHÖYÜK, §22). See in detail Morpurgo Davies (1975).

## 11. *Local Particles*

Both CLuwian and HLuwian make frequent use of the particle *-tta*= /-ta/ that may be compared with Hittite *-(a)šta* both etymologically and functionally (see Josephson 1972 419 and 1995 170ff).[35] Its basic sense may be said to be to mark passage from one spatial domain across a boundary into another domain. In a given instance the focus may be on the starting, mid-, or end point of the complex movement. The full range of meaning of *-tta* may be seen in KUB 35.54 iii 17ff: *wār-ša-tta* ÍD-*ti nanamman...wār-ša-tta zīla* [ÍD-*i*] *anda nāwa iti* 'Water (is) led from the river...the water henceforth does not go back to the river.' CLuwian has a second local particle *-tar*, which in some cases is equivalent to Hittite *-šan* (KUB 9.31 ii 24 ~ ibid. i 38). See Josephson (1976 174) and especially on the combi-nation *kuiš-tar* Watkins (1995 150f).

[35] The fact that CLuwian *-tta* often is equivalent to Hittite *-kan* reflects the spread of the latter in Hittite in place of *-(a)šta*. Since there is no trace of *-kan* in Luwian, we cannot exclude that *-tta* has conversely extended its usage there to functions originally filled by *-kan*. A full study of *-tta* is needed, especially in HLuwian.