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A Luwian Heart

1. - Recent work has increased the number of Luwian (i. e. Cun. Luwian. Hieroglyphic Luwian and Lycian) words to which correct meanings and, in some instances, etymologies can be assigned. Here we discuss a word which is attested both in Cun. and Hier. Luwian and, if our interpretation is correct, can be assigned a precise meaning and etymology. We are glad to dedicate this Anatolian «heart» to Giovanni Pugliese Carratelli who has been a life-long teacher and friend for one of us, has fostered Anatolian studies in Italy with both warmth and learning – and has shown with his life work that historical, philological and linguistic studies cannot, and should not, be disjoined.

2. - Massimo Poetto (KZ 95, 1981, 274 ff.) has compared the newly found Hieroglyphic Luwian word *za + ra/i-za* (KULULU 5. 7 § 12) with the Cuneiform Luwian ^{UZU}*za-a-ar-za* of KUB XXXII 7, 12': apart from the formal similarity of the two words, the correspondence is supported by the UZU determinative. In KULULU 5, 7 § 12, which is part of a curse, the gods are exhorted to eat the *za + ra/i-za* of the evil doer:¹

¹ We transliterate Hieroglyphic Luwian according to the system first discussed in J.D. Hawkins, A. Morpurgo Davies, G. Neumann, *Hittite Hieroglyphs and Luwian: new evidence for the connection*, «Nachrichten der Akademie der Wissenschaften in Göttingen, Phil.-Hist. Klasse» Nr. 6 (1973) 145-97 [HHL]; see also J.D. Hawkins, *An. St.* 25 (1975) 119 ff., especially 153-155, tables 1 and 2. The text of KULULU 5 was communicated by Professor Mustafa Kalaç to the XXVII R.A.I. in Paris, July 1980 (see «Akkadica» 20 (1980) 25); cf. now Kalaç, «Anadolu Araştırmaları» 10 (1986) 359 ff. He numbers it KULULU 13. Hawkins in his forthcoming *Corpus renumbers the KULULU stone inscriptions to separate them from both the lead strips and the largely illegible fragments. The following numeration is employed: KULULU 3 (stele = Meriggi, Kululu 9); KULULU 4 (stele = Kalaç, Kululu 12 («Anadolu Araştırmaları» 9 (1983) 167 ff.); KULULU 5 (stele = Kalaç, Kululu 13).*

(1) *á-ta-ha-si-zí-pa-wa/i-ru* | *DEUS-ni-zi za + ra/i-za* ARHA *à + ra/i-tu*

« For him let the ATAHASI gods eat up the ZARZA ».

The word must refer to a part of the body, as the parallels discussed by Poetto show, and the Cuneiform determinative for «flesh» fits with this interpretation, even if the Cuneiform text is too broken to offer any other information. Poetto also identified a fragmentary form of the same word in an even more broken Luwian text (KUB XXXV 72 7', here quoted according to Starke, StBoT 30, 396):

3' *nu* *UZUNÍG.G*|*IG*

gi-im-ra [(-)

nu *GESTIN* *š[i-pa-an-*

6' *za-a-ú-i-du* [

pa-a za-ar[-*za*(-)

ik-ku-ua-a[*r*

za-ap-pa-at[-*ta*

ni-iš |

On the strength of the logogram *UZUNÍG.G*|*IG* found in the Hittite part of the fragment Poetto tentatively concluded that Luwian *zarza* meant «liver». Yet, this last point is not proved by the text: *zar*|*za* need not correspond to one of the words in the Hittite sentences and, if it does, there is no proof that it corresponds to one of the preserved words. On the other hand further evidence may suggest another interpretation.

3. - While the evidence for Cuneiform Luwian remains desperately fragmentary and cannot be used beyond what has been stated, forms which can be connected with *zarza* appear in other Hieroglyphic texts. Before discussing them we must clarify a point of grammar. In KULU-LU 5 *za + ra/i-za* must be an accusative: this implies that it is either an accusative neuter plural ending in *-a* and built on a stem *ZARZ-* or - more likely - an accusative neuter singular *ZAR-* marked by the *-sa/-za* element which characterizes these forms in Cun. and Hier. Luwian². Admittedly in Cun. Luwian *-za* normally occurs after *-l-* and *-n-*, while *-ša* is found after vowel and *-r-*, but at this stage we should not exclude the possibility of a permutation *-ša/-za*, particularly after *-r-*. Hier. Luwian has, to our knowledge, only one piece of evidence for an *r*-stem neuter, (BESTIA)*REL₂-ša + ra/i-sa* (ALEPPO 2, 2 § 5;

² For these neuters cf. HHL 173-176, and, more recently, O. Carruba in E. Neu ed., *Gedenkschrift H. Kronasser*, Wiesbaden 1982, 1-15; P.J. van den Hout, KZ 97 (1984) 60-80.

cf. *Studia Meriggi*, 400) with a final *-sa* and not *-za*. We shall return to the problem later, but let us point out now that from a neuter stem *zar-* we may expect indirect cases built on *zar-* or built on a root which ended in a stop such as e. g. *.zart-*.

In Hier. Luwian the following texts are relevant to our problem:

(2) ALEPPO 3, 1 §§ 1-2

....|*la + x-[n]ú²-na* DOMINUS-*ní-sa* (VAS)*za + ra/i-ti-ia-sá* | *sá-ta*
wa/i-tú-u [SUB³]-*na-[na....*

« to prosper (?) was of the lord's ZARTI-
and under (?) him³ »

(3) KÖRKÜN, 4 § 10

á-mi-sa | FEMINA²-*ti-sá* | *na-na-si-sá* BONUS-*mi-sa* X
za + ra/i-ta-si-na INFANS-*ni-na pi-ia-ta*

« My wife (?) Nanasis, the dear one, gave a child of the ZART- »
(He) who takes this vine away from her, Nanasis, the child, the grandchild, the great grand child⁴

(4) KARABURUN, 3 §§ 11-12

za-ia-pa-wa/i-ta REL-*za-ma-ia* REL-*sa* ARHA « MALLEUS »-*ia*
á-pa-ti-pa-wa/i REX *ha + ra/i-na-wa/i-ni-sá* (DEUS)LUNA + MI-*sá*
ki-hara/i-ni za + ra/i-ti INFRA(-)*sá-tu*

« (He) who shall erase these engravings,
to that king may the Moon God of Harran go down (?) (on) to the
KIHARANI, the ZART-⁵ ».

KIHARANI and ZARTI are in the dative singular; they are probably two nouns in asyndeton, but KIHARANI could also be an adjective agreeing with ZARTI.

4. - The passages quoted document a stem *zart-*, which yields the

³ Fragment of unknown provenance in Aleppo Museum, no. 6422, published by Poetto, SMEA 22 (1980) 127-32, Tav. I-II. The verb *la + x-[n]ú²-na* is identified with *la + ra/i + á-nú-*, «(cause to) prosper» (KARATEPE, 19) by Hawkins in his forthcoming Corpus.

⁴ Cf. Kalaç, «Athenaeum» 47 (1969) 162, 167, Tav. I, VI, VII; Meriggi, *Manuale* II/2 (1975) 99 f., Tav. XVI. The readings here follow Hawkins. The sign before *za + ra/i-ta-si-na* is of unclear form, certainly not *ta₅* (so Meriggi) but just as rendered by Kalaç, *loc. cit.* For the second clause see Morpurgo Davies and Hawkins, *Studia Meriggi*, 395 f.

⁵ Cf. Meriggi, *Manuale* II/1 (1967) 105 f., Tav. IX. Text and readings here follow Hawkins.

expected dative singular *zart-i* and genitival adjective *zart-asi-*, but also an « abnormal » genitive singular *zart-yas* instead of the expected **zart-as*. The logogram VAS⁶, may point to a part of the body – a meaning which also fits with the curse of KARABURUN in (4) above, and which speaks for the identification of the form *zarza* discussed above and our *zart*-stem. But what is the word we are discussing? In Anatolian terms there is only one stem whose inflection is directly comparable to ours. The Hittite neuter *ker* (*ki-ir*) « heart » has a dative *kardi*, a directive *karda*, a (rare) genitive *kardas*, but also an « abnormal » genitive *kard-iyas*⁷. Does a meaning comparable to that of the Hittite word fit our texts?

With (2) above we may compare « To be/make of the heart », i.e. « to be/make (do) what one likes » (e.g. LUGAL-ša ...*kar-di-ia-aš-ša-aš* [*i-e-iz-zi*], HAB II 53), a well known Hittite phrase which matches Akkadian expressions like *ù ša libbišu abūya lu ipuš* (EA 29 : 154) « may my brother do (that) of his heart » (i.e. « what he likes »).

In (3) « child of the heart » i.e. « child of one's body » matches well attested Hittite phrases, see KBo III 34, iii 17: *kar-di-i[a-aš-š]a-aš* DUMUMEŠ, cf. KUB XIV 1 obv. 80 (Madd.); VBoT 58 13 (cf. Sommer HAB, 94 f.) Finally the passage of (4) can be compared with (1) from where we started. In the standard curses the gods attack parts of the body with well known ferocity.

In general it seems that the meaning « heart », which we have reached on the basis of morphological arguments, fits all the contexts in which ZART(I)- occurs; for *za + ra/i-za* of KULULU 5 the same meaning had already been suggested by Kalaç (ap. Poetto, loc. cit., 276, n. 13) presumably on the basis of the context. Obviously the phonological and morphological problems caused by the equivalence we have set up between Hittite *ker* and Luwian *zar(za)* have not yet been solved.

⁶ Besides *za + ra/i-ti-ia-sa* and the verb *za + ra/i-ti-* (see Hawkins, An.St. 30 (1980) 150), the sign VAS determines: (1) *atri-*, « form, figure, image »; (2) *VAS-ni-*, closely parallel to (1), « person, self », cf. below, citation 7 ii and KULULU 4, § 9 (see a forthcoming contribution by Hawkins); (3) *atanasama-*, « wisdom »; (4) *tawa-*, « eye (?) » (see Hawkins, « Kadmos » 1980, 135 f., where the comparison with UZU is suggested); (5) (*arha*) *pa + ra/i-à + ra/i-*, verb (ASSUR letters a, 2 § 4; c, 2 § 5; e, 2 § 12), sense conjecturally « ask, require » (Hawkins and Morpurgo Davies, KZ 94 (1980) 101 f., 115 f.); (6) *nabuti-*, adjective (ASSUR letter e, 2 § 10); (7) *nabi-*, noun, and (8) *la + ra/i-bi-ri + i-ia-*, noun (ASSUR letter f + g, 1 § 4).

⁷ For some of the forms attested cf. Tischler HEG s.v. *ker* with further references; for the doubtful endingless locative *kir* E. Neu, *Studien zum endungslosen « Lokativ » des Heth.*, Innsbruck 1980, 31-33; for Middle Hittite nom. *ki-ir* = *kēr*, H. Craig Melchert, *Studies in Hittite historical Phonology*, Göttingen 1984, 129. The origin of the inflection and especially of the genitive *kardiyas*, which is an innovation, is discussed by Szemerényi, in *Donum Balticum, Fs. Stang*, Stockholm 1970, 515 ff.

However, before we turn to them it is useful to consider a few other texts.

5. - One and possibly two verbs may be related to our stem. The best attested forms are those of the verb *za + ra/i-ti-* which may be preceded, like the *zart-* stem, by the logogram VAS.

(5) KARABURUN, 1-3 §§ 7-10

(i) *si-pi-sa-pa-wa/i* REX-sa | REL-ti *si-pi-ia ni-ia-sa-na* MALUS-za CUM-ni *za + ra/i-ti-ti-i ni-mu-wa/i-zi ni-pa-wa/i ha-ma-si*

(ii) *si-pi-ia-pa-wa/i-ta* REX-ti *hara/i-na-wa/i-ni-sa*(URBS) (DEUS)*ku-AVIS-ia ku-ma-pi ta-wa/i PES-zi-ha INFRA á-za-tu*

(iii) *si-pi-sa-pa-wa/i ni-ia-sa* REL-ti *si-pi-ia* REX-ti MALUS-za CUM-ni *za + ra/i-ti-ti ni-mu-wa/i-zi ni-pa-wa/i ha-ma-si*

(iv) *si-pi-ia-pa-wa/i-ta ni-ia-sá-na* *hara/i-na-wa/i-ni-sa*(URBS) (DEUS)*ku + AVIS-ia ku-ma-pi ta-wa/i INFRA-ta á-za-tu*

« But if Sipis the King ZARTI's evil for Sipis Nis' son, for (his) son or grandson,

for Sipis the King may the Haranean (god) *together with* (?) Kubaba swallow down the eyes and feet.

But if Sipis Nis' son ZARTI's evil for Sipis the King, for (his) son or grandson,

for Sipis Nis' son may the Haranean (god) *together with* (?) Kubaba swallow down the eyes »⁸.

(6) TELL AHMAR 1, 5-6 §§ 18-20

(i) [ARHA]-*pa-wa/i*-sá | REL-i (« MORI »)*wa/i-la-tá*

(ii) *wa/i-mu-' pa-si-i-'* | (INFANS)*ni-mu-wa/i-i-za-sa* MALUS-*wa/i-z[a]-'* | CUM-ni | (« *382 ») LEPUS + RA/I-*ia-ta*

(iii) *mi-i-ha-wa/i-i-'* (*274)*u-pa-ti-ti-i* | (« MALUS₂ »)*ha-ha-nf-wa/i-* *z[a-']* | CU[M-ni] | (« [VAS] ») *z[a] + ra/i-ti-i-ta*

« But when he died,

his son decreed evil for me,

and ZARTI'ed wickedness for my demesne »⁹.

⁸ Cf. Hawkins, An.St. 25 (1975) 148; Morpurgo Davies, An.St. 30 (1980) 127.

⁹ See Hawkins, An.St. 30 (1980) 141 f., 150.

(7) TELL AHMAR 2, 6-7 §§ 12-14

- (i) *á-ma-za-pa-[wa/i]-ta?* | *á-ta₅-ma-za* | REL-*sa* ARHA
| « MALLEUS » (-)*71-*la-i* |
- (ii) |NEG₂-*á-pa-wa/i mi-i-*' | VAS-*ni-i* | REL-*i-sa* MALUS-*wa/i-za-*'
CUM¹²-*ni* | [(« VAS?»)] *za + ra/i-ti-ti-i*
- (iii) NEG₂-*á-pa-wa/i mi-i* INFANS-*ni-i*....

« But (he) who shall erase my name,
or who shall ZARTI wickedness against my person
or my son »¹⁰

(8) SULTANHAN base, § 46

|*za-pa-wa/i* | *á + ra/i-ma-za* | REL-*sa-*' | *za + ra/i-ti-ti-i-*'
« He who ZARTI's this ARAMA »¹¹

The sentence is the beginning of a curse and describes an action done by the evil doer; what follows is difficult and partly broken but the final extant clause refers to the penalty.

Clearly we have sufficient evidence to identify a verb ZARTI-¹² which contextually must be given a value such as « wish, propose, contrive » in quotations (5), (6), and (7). In quotation (8) the meaning of the substantive ARAMA (acc. sing. neuter) has not been elucidated. If the basic meaning of ZARTI- is « to wish », the verb can be interpreted as a -*ye/o-* denominative from *zart-* « heart »; for a semantic parallel one may think of Greek *ἐπιθυμῆν* « desire, wish » built on *θυμός* « soul, spirit ». From a formal point of view the verb *zarti-* could derive from **zart-ye-* or from **zarti-ye-*¹³.

¹⁰ See Hawkins, An.St. 25 (1975) 147 cit. 56a. and preceding note.

¹¹ The spelling *za + ra/i-ti-ti-i-*' (with final -*i-i*) is paralleled by *ni-i-i* also in SULTANHAN stele, top line I.)

¹² TELL TAYINAT VII 8 has a form |*za + ra/i-tu-na* in a fragmentary context. It could be the infinitive of our verb if we assume that the suffixal -*i-* (< **-ye-*) is deleted before the infinitival -*una* (for a parallel cf. perhaps the Luwian glosses *la-ya-ar-ri-it-ta*, 3rd pers. sg. pret., |*la-ya-ar-ri-ma*, participle, and *la-u-ya-ar-ru-na*, infinitive: references in Laroche, DLL s.v. and CHD, s.v.). There is also a form *za-za + ra/i-ta + ra/i* (KARKAMIS A 14a, 4 § 5), which could be associated with our root, but is quite obscure and we cannot be certain that it is a verbal form. In MARAŞ 4, 6 « VAS » [...]*ti-i* [...] may well be a form of the verb *zarti-*. MARAŞ 3, 4 also appears to have a form of the verb in a context which requires further consideration.

¹³ One could even think of a hypostasis built on the loc. *kardi*. Szemerényi, loc. cit. (in note 7), 517 derives the Hitt. *kartimmiya-* « to be angry » from a -*ma-* abstract built on a verb **kardiya-* based on *kard-*. Differently Laroche, *Mélanges Benveniste*, Paris 1975, 342 (who thinks of a compound), and Oettinger, *Stammbildung des heh. Verbums*, Nürnberg 1979, 341 n. 167 (**kard-i-mma* « Zorn » built on *kardi-*).

6. - The problems raised by the isolated form *za + ra/i-za-mi-sa* are greater. The word occurs only in:

(9) KARKAMIS A 7j, 3 § 14

|*za-sa-pa-wa/i-*' | *tú-wa/i + ra/i-sa-i-sá* | IUDEX-*ní-i-sa*
(« *357 + RA/I ») *za + ra/i-za-mi-sa* | « FRONS »-*hi-ti á-sa₅-za-mi-i-sá*
CAPUT-*ti-sa*

« But this (is) Tuwarsais, the ZARZA'ed of the ruler, the prince proclaimed for preeminence ».

Presumably the words refer to the baby who is shown in the text as being carried by a woman (cf. Hawkins, An. St. 29 (1979) 159), and who may well be the son of Iariris, the ruler. That ZARZAMIS is a participle seems obvious in view of the -*mi-* suffix and the parallelism with *asazamis*; a meaning such as « beloved », « favourite », etc., would suit the context and would favour a connection with the word for « heart ». Alternatively, we could think of a semantic equivalent of *zartasi-*, i.e. the « embodied (son) of the ruler ». In either case the morphology requires explanation. In *zarza* the final -*za* does not belong to the stem and should not appear in the derivatives of the noun. Tentatively we suggest that we have here the treatment of a reconstructed **zard-_{yo}-mis* in which a **-dyo-* cluster yielded -*za-*. A similar -*z-* does not appear in the stem of the verb *zarti-* because of the early change of -*ye-* to -*i-*. In the absence of further evidence the suggestion remains hypothetical but is not implausible. It is unfortunate that the logogram is of no help in identifying the word.

7. - So far the evidence in favour of a connection of Hier. Luw. and Cun. Luw. *zarza* with Hittite *ker* « heart » is satisfactory; it is unfortunate that the Cuneiform sequences *za-ar-ta(-ku-wa-ta)* (KUB XXXV 102 (+) 103 ii 5') and *za-ar-ti(-pa-du-ti-ta)* (KUB XXXV 133 ii 4') have no context which shows whether they belong (as seems likely) with *zarza* and with the *zart-* of Hieroglyphic¹⁴. The major problems which remain concern phonology and morphology. In increasing order of difficulty: why - and here we return to a problem mentioned earlier - the neuter nominative-accusative is marked by a -*za* element though after -*r-* we expect -*sa*? Why do we have an -*a-* vocalism in the nom.-acc. Luw. *zar(za)* vs. the *e/i* vocalism of Hittite *ki/ri*? Why an initial

¹⁴ It is also possible that our root is found as an onomastic element: cf. Laroche, *Noms des Hittites*, 209 (^m*Za-ar-ta*).

z- of Luwian corresponds to an Hittite *k*-?

If, as seems likely, an automatic choice of a *-za* form after an *-r* is to be excluded in view of neuters like Cun. Luwian *utar-ša* etc., we may suggest that the second *-z-* of *zarza* is the result of a dental + sibilant sequence: **zard-sa* > *zarza*; it is well known that in Cun. and Hier. Luwian *-z-* represents an affricate. Admittedly we have examples of dental stems which form the nom.-acc. neuter differently: the abstracts in *-abit-* have a nom.-acc. Cun. Luw. *-bi-ša*, Hier. Luw. *-bi-sa*, Hier. Luw. *tarut-* «statue» forms a nom. acc. *tá-ru-sa* (e.g. in KARKA-MIS A 25 a, 3¹⁵). This can be variously explained. Either e.g. *-hisa* is a late formation where *-sa* was added to *-hi* < **hit* which had undergone the normal Luwian loss of final stops, or *-hisa* and *tarusa* represent survivals of older forms where *-t-* did not belong to the inherited stem but only arose as a hiatus filler before endings which began with a vowel. In the case of the IE word for «heart» there is no doubt that the stem originally ended in *-d*, even if we suppose that the nominative had undergone some phonetic change already in the parent language (Szemerényi, *loc. cit.*, in note 7, 519 ff.). We could assume that *zar-za* arose from *-rd-sa* at a very early stage indeed, but it is more likely that an early **zir-sa* (see below) was replaced by **zard-sa* > *zarza* on the model of the indirect cases.

In contrast with *tarusa* and the *-hisa* forms quoted above, one may quote for Hier. Luwian other unexpected *-za* neuters from *t*-stems. The most obvious example is perhaps the word for «stele»; how do we explain the rhotacized dative *wa/i-ni-ri* + *i* (CEKKE, rev. 11 § 22; TILSE-VET 3, § 6) besides the nom.-acc. *wa/i-ni-za* (passim)? Conceivably *waniri* might derive from **wani(y)-ant-i* and *wa/i-ni-za* from **wani(y)-ant-* > **wanin* (**wanin* + *sa* > *waninza*), but there are problems. First, an *-ant-* suffix which yields neuters may well exist but is surprising. Secondly, we do not expect rhotacism after an *-n-*. Thirdly, there is no *-n-* before the dental in the Luwian participle NA₄ *uwanitaimman* «petrifié», which must be related¹⁶. Perhaps the data are better explained if we start from a (*u*)*wanid-* stem which yielded a nom.-acc. **(u)wanid-sa*, a dative (*u*)*wanid-i*, and a denominative *uwanitai-*. If so, as in the

¹⁵ Cf. HHL 173 ff.

¹⁶ Starke (KZ 94 (1980) 74-86) has shown that the voice *wa(n)ni-* in Laroche DLL includes both forms of the word for «woman» (*wana-*) and forms of the word for «stele» *wanni-*, but one wonders whether he is right in drawing a line (*ibid.*, 84 n. 35) between *wanni-* «stele» and *uwan-*, «lieu de provenance du sel»; the two words are probably related and refer to «rock, stone». It is unfortunate that *ua-ni-ia-an-ti-in-zi* and *ua-ni-i-ti-i-š* of KUB XXXV 91 lack a clear context, but given this, they cannot speak for or against an *-nt-* form of «stele, stone».

case of «heart», *-z-* may be due to the treatment of *-ds*¹⁷.

We now turn to the second question. The ablauting vocalism of the Hittite word for «heart» is obviously archaic. The nominative *ki-ir* presumably represents a lengthened form **kēr(d)* and the other cases a zero grade **krd-* > *kard-*. In Luwian we expect **ē* > *i* (hence **kēr(d)* > **kir* > **zir?*) and **r* > *ar* (*krd-* > **kard-*); the nominative has generalized the vocalism of the indirect cases (cf. Latin *cor*, *cordis* with a similar development)¹⁸.

7.1 - The most difficult problem concerns the initial *z-* of the Luwian word. The development of IE velars in the Luwian languages is far from clear and has been much discussed. Here we must distinguish two different problems. First, we must ask whether it is at all plausible that a Luwian initial *z-* corresponds to an Hitt. *k-* derived from an IE velar: this is the only question which is directly relevant to our identification of *zarza*. Secondly we may consider what use we should make of the new data.

The first question is easily answered. There is a well known parallel for the correspondence Hitt. *k-* (< **k-*), Luw. *z-*, the demonstrative Hitt. *ka-*, *ke-*, *ki-* «this», Cun. Luw. *za-*, *zi-*, Hier. Luw. *za-*, *zi-* «this».

As an additional example we may tentatively refer to Cun. Luw. *zi-ia-ri* / *zi-ia-ar* which can be compared with Hitt. *ki-* «lie down» on the assumption that we are dealing with a mediopassive 3rd sing. in *-a-ri*, morphologically similar (synchronically at least) to e.g. Hittite *eššari*, Cun. Luw. *āiari*. The Luwian word occurs twice in similar clauses: KBo XXIX 2, ii 9' [*za-a-ú-i z*] *i-ia-ri* NUMUN^{HIA}-*na pu-u-na* [*-ta*]; KUB XXXV 54 ii 31' [*za-a-ú-i zi-ia-ar* NUMUN^{HIA}-*na* [*p*] *u-u-na-a-ta* | *in-za-ga-an ua-aš-ha* Once it is found in a more broken context (KUB XXXV 68, 8' [*a-ar-ri páar-na zi-i-ia-ri*]) which is of no great help.

¹⁷ In view of the observations above, we may have to reconsider the inflection of the neuter («**382*») *šà-la-ha-za*, «power» with its probable dative **382-la-ha-ti* (TELL AHMAR 1, 4 §§ 12 and 14; cf. Hawkins, *An. St.* 30 (1980) 148 f., but it now seems preferable to take the *-ti* form as a dative rather than as an ablative). A neuter in **-an(t)-sa* > *-an-za*, Dat. *-ant-i* is possible, but we cannot exclude a dative *-at/d-i*, nom.-acc. **-at/d-sa* > *-aza*. The word for «place» nom.-acc. neuter LOCUS-*ta₄/ta₅-za*. Dat. sing. LOCUS-*ta₄/ta₅-ti* also needs further consideration (beyond Hawkins and Morpurgo Davies, JRAS (1975) 130 f.) but here the comparison with Lycian *pddati* (dat. sing.) may speak for an *-nt-* formation.

¹⁸ A short **e* would normally yield *a* in Luwian, but for «heart» we expect **ē* in the nominative. Also, Oettinger has argued that after a velar Luwian changed **ē* to *i* (see below): if this is acceptable, even a short form of the nominative could not yield *zar*. For the shift of *ē* to *i* cf. HHL 188. The clearest example is that of the root *is-* «to sit», for which see also Hawkins and Morpurgo Davies, *An. St.* 28 (1978) 107 and 108-110.

The word *za-a-ú-i* of the first two passages is normally translated as «voici» «here (is)» or the like; in some texts the subject follows in a nominal verb-less clause (cf. e.g. KUB XXXV 54 ii 41'). In a sense here *zi-i-ia-r(i)* is superfluous; we want to translate «here are the seeds». This speaks for a meaning similar to that of Hitt. *kitta(ri)* «it lies, it is» which is frequently found in Hittite rituals in similar contexts. The added bonus of this interpretation is that it provides some support for the old suggestion by Thomsen and Pedersen that Lycian *sijēni* is related to Hitt. *ki-* (II. Pedersen, *Lykisch und Hittitisch*, 17 f.). The verb is normally taken to mean «rest, lie» (cf. Carruba, «Die Sprache» 14 (1968) 19 ff.), but problems arise in determining its morphology and Carruba's attempt to treat it as a first person plural causes syntactic difficulties in a number of contexts. It is not inconceivable – though impossible to prove – that *sijēni* is a fossilized mediopassive form used for all persons and derived from **kiy-a-ri* with a Luwian change from velar to sibilant (Cun., Hier. Luwian *z-*, Lyc. *s-*) and a conceivable, though so far unparalleled, Lycian change from *-r-* to *-n-*.

Whatever we conclude about Luwian *ziyar(i)* and Lycian *sijēni*, in the present uncertainty about the fate of velars in Luwian it is clear that the comparison of Cun. Luw. *zarza*, Hier. Luw. *zarza*, *zart-* and Hitt. *ker/kart-* cannot be rejected on phonological grounds¹⁹.

7.2 - It remains to be seen how the new correspondence fits within the data we have already, but this is not the place to reconsider in detail the whole problem of the velars in the Luwian languages²⁰. Yet a few points of agreement may be summarized.

a) In Cun. Luwian the voiceless labiovelar **k^w* is preserved as such (*kuiš* «who») at least in initial prevocalic position. It is still debated whether the REL sign of Hier. Luwian (REL-*is* «who») is to be read as *kwai* or *hwai*. Lycian has *ti* (<**k^wis* ?) for the relative. In Cun. Luwian, Hier. Luwian and Lycian **g^w* (presumably together with **g^wh*) is continued by *u/w* (**g^wou-* > Hier. Luw. *wawai-*, Lyc. *wawa-iuwa-*, «cow, ox»; **g^wha-* > Cun. Luw. *wana-*, «woman»).

b) In the Luwian languages the voiced velars **g* and **gh* are lost

¹⁹ Tischler HEG s.vv. *karitt-* and *karpi-* compares these Hittite stems with Cun. Luw. *zariya-* and *zarpi-* but the two equivalences are too doubtful to be relied upon.

²⁰ We use the incorrect but conventional term «velar» to refer to all dorsal phonemes attributed to IE: pure velars, palatals etc. The problem of their treatment in Anatolian has generated a great deal of controversy: cf. for the basic data and the references to earlier literature Laroche, BSL 58 (1963) 77-79; Ivanov, *Symbolae Kurylowicz*, Wrocław 1965, 131-4; Gusmani, *Studia Pagliaro*, Roma 1969, vol. 2, 313 ff.; Oettinger, MSS 34 (1976) 101 ff.; Szemerényi, *Scritti in onore di G. Bonfante*, Brescia 1976, vol. 2, 1063 ff.

in most positions (though not necessarily in all, if we are to believe in the connection between Hier. Luw. *ta-ka-mi* and Cun. Luw. *tiyam-miš*): Cun. Luw. *iš(a)ri-* «hand», Hier. Luw. *istri-*, Lyc. *izri-* < **ghesr-*; Hier. Luw. *tuwatri-* «daughter», Lyc. *kebatra* < **dhugH₂*²¹.

The greatest uncertainty arises about the treatment of the voiceless velars, i.e. of **k* and **k̥* (for those who distinguish between pure and palatal velars) or of **k* (for those who do not). A special problem is caused by the Hier. Luw. forms for «dog» (*sū-wa/i-ni-*), «horse» (*á-šu-wa/i-*), and possibly «horns» (*sū + ra/i-ni*, with unexplainable *u*, if the Indo-European etymology is correct) which show *su-* (if the transliteration is correct) instead of the expected **ku* or *kw* clusters. No new evidence is available and it seems useless to discuss here the various interpretations proposed for these forms: borrowings, satəm like forms, instances of palatalization of **k* before *u* (perhaps fronted?), etc.²².

For the rest the best evidence – some of which was discussed above – is in initial prevocalic position. Roughly three views are possible. The first – and the most naive – would argue on the strength of forms like *za-* «this», *zarza* «heart» that all voiceless velars initially and prevocalically turned into *z-* in Cun. and Hier. Luwian and possibly into *s-* in Lycian.

This can be rejected on two grounds. First, there are far too many words in the two Luwian languages which begin with *ka-*; in a satəm language *k* could derive from **k^w*, but as we have seen this is not the case in Luwian. Hence a general statement such as the one ventured above implies that all *ka*-words are borrowings of one sort or the other – which defies credibility. Secondly, there are Cun. Luwian words which begin with *ka-* or *ki-* and for which Hittite parallels and an IE etymology are available: *karš-* «to cut» vs. Hitt. *karš-* (<**(s)ker-*?), *kiša-* «comb», vs. Hitt. *kišš-/kišai-*; *kattawatnallinza* «enemies, revenge» vs. Hitt. *kattawatar* (cf. **kot-* in Greek *χότος* «ill-will» or the **kat-* root of Gaul. *catu-*, OIr. *cath*, OHG *hadu-*, Skt. *śatru-*). It is clear that a different and more sophisticated approach is necessary.

Both verbally and in an unpublished manuscript written in the '70's Warren Cowgill suggested – with a great deal of hesitation – that Luwian showed different treatments for voiceless pure velars and palatal velars; the former would have been preserved as such in initial posi-

²¹ Cf. Ivanov, *op. cit.*, in note 20, Oettinger, *op. cit.*, *ibid.*

²² Cf. Szemerényi, *op. cit.*, in note 16, with the earlier bibliography. It is important to notice, a) that both in Cuneiform and in Hieroglyphic Luwian there are a very large number of words which begin with *ku* before consonant, and, b) that we now have at least one stem – *kumma-* «pure, holy» – which is attested in this form in Cun. Luwian, Hier. Luwian and Lycian.

tion (*karš-*, *kiša-*) but conceivably changed to *-h-* internally (*luha-*, if connected with **leuk-* «light»); the latter would have yielded *z* or *s* both initially and medially (*za-* «this» and the Hier. Luwian instances of *su-* < *kw/ku-*²³). The words discussed above would fit into this schema since both **kerd-* «heart» and **kei-* «lie» had palatal velars. Yet the suggestion does not answer the objection raised above; the number of pure velars traditionally attributed to IE is very limited. Should we assume that all attested instances of Cun. and Hier. Luwian *k-* are found in borrowings or in words which had a pure velar? Moreover, the Luwian origin of *kiša-* is not altogether clear (see below) and the etymology of Anatolian **katu-* «hostility» reconstructed on the basis of Hitt. *kattawatar*, etc. may speak against the theory. If the connection is merely with Greek *χότος*, as suggested by Laroche, RHA XXIII/76 (1965) 51, no problem arises (both a palatal and a pure velar yield Gr. *k*), but Melchert (KZ 93 (1979) 268 ff.) has made a good case for a **kat-* root with a different range of cognates²⁴. If the root in question is connected with Skt. *śatru-*, as suggested e.g. by Pokorny IEW 534, the velar must have been a palatal one. In other words the theory suffers because of the lack of words which clearly had a pure velar in the stem. At the moment the hypothesis cannot be dismissed but alternative suggestions must also be explored. What follows is an attempt in this direction.

If we leave aside the question of Hier. Luwian *su* from **ku* or **kw* the best examples of initial *z* or *s* from voiceless velars are those discussed above: *za-* «this», *zarza* «heart», possibly *ziyar(i)*, Lycian *sijēni* «lies». It is legitimate to wonder whether the treatment of the velar was influenced by a following *i*-vowel. IE **kei-* ablauted with **ki-*; both **ei-* and **i-* should yield an *i*-vowel in Luwian (possibly with quantity differences); hence *ziyar(i)*²⁵. For the demonstrative *za-* we have two attested stems in both Cuneiform and Hieroglyphic Luwian: *za-* and *zi-*. The *zi-* stem (presumably from **ki-*) occurs in the Cun. Luwian nom. and acc. plural (*zinzi* and *zinza*) and in various derived forms. The Hier. Luwian inflection which builds the nom.-acc. plural (*za(n)zi*) on the *za*-stem of the singular is likely to be less archaic. Here too we could postulate an earlier contrast **ka-*, **zi-* replaced by *za-/zi-* with generalized *z-*. We have discussed the inflection of «heart» above. The oldest

²³ Implicitly or explicitly similar views form the background of the various suggestions for satəm reflexes in Anatolian: cf. e.g. Gusmani, *op. cit.*, in note 20.

²⁴ For the words in question cf., in addition to Laroche and Melchert quoted above, J.J.S. Weitenberg, *Die heth. u-Stämme*, Amsterdam 1984, 116 f.

²⁵ **keyo-* could of course have been treated differently since *y* is intervocalic but other persons in the paradigm would have had **kei-* (or **ki-*) before a consonant.

Anatolian pattern presumably preserved the ablauting paradigm attested in Hittite. In Luwian we expect the **ē* of **kēr(d)* to appear as [i] or [i] differently from Hittite where the *e* colouring may be preserved; hence **kir* > **zir* vs. **kard-*. In these three examples, therefore, it is possible to argue that **k* > *z* before *i* and that paradigmatic levelling occurred extending the *z* consonant to other forms, where before a vowel other than *i* **k* was preserved.

A rule of the type **k* > *z*, *s* before *-i-*, > *k* elsewhere would directly or indirectly account for all examples discussed so far (*za-/zi-*, *zarza*, *ziyar(i)*, *karš-*, *kattawatnallinzi*) with the one exception of *kiša-* «to comb». It would also mean that we would not have to worry about the numerous words with initial *ka-* or *ku-* attested in Cun. and Hier. Luwian. We may find this solution more satisfactory than the preceding one but does it account for all the evidence?

Problems are caused this time by Cun. Luwian *kiša-* and by the few (very few) words of Cun. and Hier. Luwian which begin with *ki-* and mostly are of uncertain meaning and unknown etymology²⁶. For the latter the figures are so small that it would not be impossible to think of borrowings in all instances or of special phonetic circumstances (e.g. of borrowings in all instances or of special phonetic circumstances (e.g. *ki-* may have represented initial **ski-*). For *kiša-* «to comb» the question is more complicated. If etymology and interpretation are correct the form goes back to a root **kes-*; the Luwian vocalism is unexpected. Meriggi²⁷ thought of a borrowing from Hittite – which must remain undemonstrated. Oettinger (e.g. in *Stammbildung des heth. Verbums*, 535) appeals to a rule according to which Luwian and Palaic changed inherited **e* to *i* after «tectal» consonant and to *a* elsewhere; for *-e-* after **k-* the evidence adduced is only that of *kiša-*. If the rule were correct, it would be possible of course to argue that the change **ki-* > *zi-* preceded the change **ke-* > *ki-*, while following the change **e* > *-i*²⁸.

8. - The discussion in 7.2. was meant as a summary of some (by

²⁶ For initial *ki-* in Cun. Luwian the evidence still seems that collected by Laroche in DLL and, with the exception of *kiša-*, consists of obscure glosses the Luwian nature of which is far from clear, even if the endings are Luwian: *ki-ik-li-ma* «*i-me-en-zi*, *ki-nu-ha-im-ma*, *ki-in-za-al-pa-aš-ši-iš*. In Hier. Luwian we also have a few words etymologically and semantically obscure: the verb (FLAMMAE) *ki-nu-* «burn sacrifice (?)» and the nouns *kiputa/i-* «hoof (?)» (also found in Hittite), *ki-tara/i-sa* (? a meaning «donation» and a foreign origin will be argued for elsewhere), *ki-hara/i-ni* (see above quotation (4)), (ORIENS) *ki-sa-ta-mi-i* «west», (DOMUS) *ki-sa-tara/i-sa* «?».

²⁷ *Schizzo grammaticale dell'Anatolico*, in «Memorie Acc. Lincei, Classe di Scienze Morali», XXIV, 3 (1980) 265 f.

²⁸ Szemerényi, *op. cit.*, in note 20, 1067 has recalled the case of Vegliote which palatalizes *k* before *i* and *ü*, but not before *e*.

no means all) of the problems one meets in trying to account for the treatment of the IE velars in Luwian. We can retain from what precedes two conclusions. First, we now have sufficient evidence to identify in Cun. and Hier. Luwian a neuter *zar-* / *zart-* « heart » which matches Hittite *ker/ kard-*, and at least one verb *zarti-* derived from it. This identification supports (and is supported by) the old comparison between Cun. and Hier. Luwian *za-/zi-* « this » and Hittite *ka-/ke-/ki-* « this »; perhaps it also opens the way to an interpretation of Cun. Luw. *ziyar(i)* and Lyc. *siḡēni* as cognates of Hittite *kitta(ri)*. Secondly, we have to acknowledge that we do not fully understand the Luwian treatment of the voiceless velars in word-initial position (we know next to nothing for these sounds in internal position): the two hypotheses examined may shed some light on the problem²⁹. In particular, we ought to keep looking for examples which support or demolish the theory that the change **k-* > **z-* originally occurred only before a front *-i-* vowel inherited or derived from **ei* or **ē*.

²⁹ In a forthcoming article H. Craig Melchert argues with a wealth of data in favour of a version of the first hypothesis which we considered above. It is unfortunate that the manuscript reached us too late to be taken into account in this paper, but we are grateful to the author for showing it to us ahead of publication; we also notice with pleasure that the three of us have independently reached the same interpretation of *zarza* and *ziyari*.

Beobachtungen an karischen Ortsnamen

In den letzten Jahren ist immer deutlicher geworden, daß das Karische – wie seine Nachbarn Lydisch im Norden und Lykisch im Süden – zu der hethitisch-luwischen Sprachgruppe gehört¹. Im folgenden soll eine Anzahl karischer Ortsnamen daraufhin untersucht werden, ob die an ihren erkennbaren Bauelementen (Stämme, Prä- und Suffixe) in der hethitisch-luwischen Toponymie des 2. vorchristlichen Jahrtausends sowie den ON der Lykier und Lyder Entsprechungen haben. (Den lyk. ON stellen wir im folgenden gelegentlich noch einen pisidischen zur Seite, da diese beiden Sprachen offensichtlich eng verwandt sind.) Eine solche Untersuchung kann sich heute auf zwei vorzügliche Materialsammlungen stützen:

a) auf G.F. del Monte und J. Tischler, *Die Orts- und Gewässeramen der hethitischen Texte*, = Band 6 des *Répertoire Géographique des Textes Cunéiformes* (Beihefte zum Tübinger Atlas des Vorderen Orients, Reihe B (Geisteswissenschaften) Nr. 7/6, Wiesbaden 1978, und

b) L. Zgusta, *Kleinasiatische Ortsnamen*, = *Beiträge zur Namenfor-*

¹ Die karische Schrift (in mehreren leicht voneinander abweichenden Alphabeten) ist noch nicht vollständig entziffert. Im folgenden wird daher nur die Nebenüberlieferung in griech. epigraphischen und literarischen Texten herangezogen. Von der zur Zeit lebhaft erscheinenden Literatur zum Karischen können hier nur ganz wenige Titel mit allgemeiner Thematik genannt werden. Vgl. V. Georgiev, *Der indoeuropäische Charakter der karischen Sprache*, ArOr 28 (1960) 607-619. V.V. Ševoroškin, *Issledovanija po dešifrovke karijskich nadpisej*, 1965; O. Masson, *Que savons-nous de l'écriture et de la langue des Cariens*, BSL 68 (1973) 187-213; M. Meier(-Brügger), *Karisch, eine Bestandsaufnahme*, ZDMG Suppl. IV, = *Akten XX. Dt. Orientalistentag 1977, 1980*, 88-90; R. Gusmani, *Die Erforschung des Karischen*, in: W. Meid und H. Trenkwalder (Hrsg.), *Festschrift K. Oberhuber*, 1986, 55-68. Zu den kar. Glossen P. Dorsi, « Inc. ? Ling. » 5 (1979) 27-35. (Arbeiten zu Einzelproblemen der Entzifferung sind hier nicht aufgeführt.)