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THE KULULU LEAD STRIPS ECONOMIC DOCUMENTS IN HIEROGLYPHIC LUWIAN

By J. D. HAWKINS

1. Lead strip-1 (T. Özgüç, Kültepe and its Vicinity in the Iron Age (Ankara, 1971), Pl. L), see pp. 136-146.

2. Lead strip 2 (Özgüç, op. cit, Pl. LI), see pp. 146-151.

3. Lead fragment 1 (Özgüç, Anadolu 17 (1973/1975), 10-11 and Pls. XII-XIII), see pp. 151-154.

4. Lead fragment 3 (unpubl.), see pp. 154-155.

5. Lead strip 3 (Özgüç, Kültepe ... op. cit., Pl. LII), now joined to lead fragment 2 (Özgüç, op. cit., Pls. XLVII-XLVIII), see pp. 155-157.

Addenda, p. 157.

Index: Personal names, pp. 157–161. Town names, pp. 161-162.

The present study incorporates the results of work which I did on the KULULU lead strips in Ankara in the spring of 1978. There by the kind permission of Professor Tahsin Özgüç I was enabled to examine all the lead strips thoroughly. The texts presented here are based on tracings of collated photographs of the strips made at that time. I am most grateful to Professor Özgüç for his help and encouragement.

The manuscript of this article was submitted to Belleten for publication in 1979, but due to unforeseen circumstances has remained unpublished until the present. It has therefore been decided to publish it in the present form without further delay. Since the original submission of the manuscript to Belleten, however, two major contributions on the KULULU lead strips have appeared:

(1) Sargon Erdem: "Le strisce di piombo di Kululu" (Studia Mediterranea Piero

Meriggi dicata (ed. O. Carruba; Pavia, 1979), 143-164);

(2) Piero Meriggi and Massimo Poetto: "Note alle strisce di piombo di Kululu" (Investigationes Philologicae et Comparativae: GS für Heinz Kronasser (ed. E. Neu; Wiesbaden, 1982), 97–115).

Erdem's contribution consists of copies of the texts together with photographs (unfortunately almost unusable), to which the editors of the volume have added transliterations and brief notes. The contribution of Meriggi and Poetto consists of a full transliteration of the texts and a commentary, thus effectively an edition of the texts, which became available too late to be included in Meriggi's Manuale di Eteo Geroglifico.

My study naturally overlaps to a large extent with these two works but was written independently before either appeared. It thus seems worth presenting it in a form as close as possible to that in which it was originally written. Where I differ significantly from Erdem's texts, I have added notes in square brackets, as also for some advances in understanding since 1980. In particular I have not in my copies followed the practice of Erdem of attempting to render erased signs, since this virtually never yields even intelligible words. I have added a few remarks on the interpretations of Meriggi and Poetto in the form of addenda on p. 157.

KULULU lead strip 1 Translation (Transliteration opposite)

obverse:

§	1,	1.	Of the 400		iw]arali: for Ar(a) <i>kwi</i> tas (?)
§	2,	2.	100	*179	for Hapiyamis [x]rusa/is' (son), of the town Huwa/i
-		3.	100	*179	for Uramuwas, of Uramuwas' town.
		4.	100	*179	for Kwisais (?), of Uramuwas' town.
		5.	100	*179	for Mur(a)kis.
		6.	30	*179	for Nus, of Uramuwas' town.
§ .	3,	7.	Of the	town U	pper Tuna:
			140	*179	for Hapira/is.
		8.	120	*179	for Kulis.
		9.	-100	*179	for Tas, the cup-bearer(?).
		10.	100	*179	for Tarhunazas, the freeman.
		11.	50	*179	for Huliyas Kukuwa/is' (son), of the town Tuna.
		12.	40	*179	for Piyai(ya)s.
		13.	22	*179	for Tuwa/is Musatalas'(?) (son).
		14.	10	*179	for Tarhunazas, the freeman.
§ ·	4,	15.	Of the		ower Tuna:
			200	*179	for pugnus–rimis.
		16.	22	*179	for Nanas Huliyas' (son).
		17.	151	*179	for Kurtiyas and Kwazatalas (?) (two).
		18.	150	*179	for Las and Papanalis (two).
		19.	150	*179	for Nis and Kukuwa/is (two).
		20.	150	*179	for Hapira/is and Nus (two).
		21.	60	*179	for Las Hanis' (son).
		22.	50	*179	for Kurtis, the Waralaza.
		23.	40	*179	for Tarhuntapiyas.
		24.	40	*179	for Kukuwa/is.
		25.	20	*179	for Nus, of pugnus-rimis' town(?).
		26.	42	*179	for Nus, the KUKISATI.
		27.	8	*179	for War(a)piyamis.
§ :	5,	28.	100	*179	for Wasumas, man of the town Zaka.
		29.	200	*179	for DOMINUS-nizarmas, of the town Parzumina(?)
		30.	50	*179	for Huliyas Iyara/isa/is' (son), of the town Parzumina(?)
		31.	112	*179	for Kukuwa/is Laluwis' (son), of the town Waratura/i
		32.	100	*179	for Kwarimuwas(?) Muwas' (son), of the town Waratura/i.
		33.	75	*179	for Kuwa/is, from the town Haru(wa/i).
		34.	75	*179	for Kwarinazis(?), man of(?) the town Aluwana(?).

Note. For the suggestion that the logogram *179 stands for "barley", see the addendum on p. 139.

	-
Transliteration	KULULU lead strip
	}

	[2] 12(1) 2			CUM-ni	'REL + RA/F-na-zi-ia		\(\sigma\)+za	75	
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			m-wa/v-su-m	CUM-ni	REL + RA/I -mu-wa/ i -ia-		"*179"	100	
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					$^{\mathrm{I}}ku + ra/i - ti - ia - ia$		"*179"-za	151	
			hu-li-ia-sa-na	CUM-ni	'na-naia'		"*179"	22	-
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		-	mu-sa-FRATER-la-sa-na	CUM-ni	IIIWa/IIa		"*179"	22	
				CUM-ni	$^{\mathrm{I}}pi-ia-i-ia-'$		[":]*179"-za-'	40	
	lu-na-sá (URBS)		ku-ku-wa/i-sa-na	CUM-ni	'hu-li-ia-ia-'		"*179"	50	
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		wa/i-tara/i		CUM-ni	ta-ia		"*179"	100	
				CUM-ni	ku-li-ia		"*179"		
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	The state of the s				NA				
	(c) lown-name	qualifications (a) patronym (b) status/occupation		postposition/verb	ren prem(s)		contimodity	numeral	town-name
					4:	٥		2:	element 1:
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1. KULULU lead strip 1 Translation (cont.) Transliteration opposite

10/27	102	000
/ E	ver	se:

. {	6,	35.	200	*179	to Hahas we give.
		36.	200	*179	to Tarhunazas we give.
-	ł	37.	10	*179	for Pulais, of the town Tuna.
· §	7,	38.	10	*179.	for Muwas Kiyakis' brother, the hunter(?), of the town
		-			Lower Tuna.
		39.	10	*179	for Tuwanis, of Uramuwas' town.
		40.	10	*179	to Ruwatis we give, Apanis' (son), of the town Uhazira/i.
		41.	40	*179	for Nunus Huliyas' (son), of the town Tasaku.
		42.	50	*179	for Huliyas Nanimuta/is' (son), in the town Tapa.
		43.	200	*179	for Huliyas, the A[]URI(?)
		44.	50	*179	for Huliyas Tarhunazas' brother.
8	8,	45.	100	*179	for Tatas and Kus (two), men of (?) the town Zaka.
		46.	10	*179	for Huliyas Sunatiyamis' son, of Uramuwas' town.
§	9,	47.	40	*179	to Kuku[wa/is].
		48.	20	*179	[to] Si-[].
		49.	40	*179	for Hapira/is, the univali, of the town Tuna.
		50.	40	*179	to Wasumas.
		51.	50	*179	for Harhariyas.
		52.	20	*179	for Kulis.
		53.	20	*179	for Has, of the town Tuna.
		54.	20	*179	for Warpasis.
		55.	20	*179	for Masanis, of the town Tuna.
		56.	20	.*179	for Hasus, of the town Tuna.
	-	57.	20	*179	for Nunus Kukuwa/is' (son), of the town Tuna.
		58.	10	*179	for Zarmas(?) Nis, PUGNUS-rimis' (son).
		59.	10	*179	for Las Hanis' (son).
		60.	80	*179	to the town Tuna's mother(?) we give.
		61.	30	*179	to Harhariyas we give.
		62.	20	*179	to Tarhunazas Tatas' (son).
		63.	200	*179	for the town Upper Tuna.

1. KULULU lead strip I Analysis and discussion

This, the longest of the KULULU lead documents, is divided up on each side into three registers by horizontal rulings running the entire length. The registers are subdivided by vertical rulings into small compartments, each of which contains a single entry, and these compartments are, on the obverse only, divided into five groups by the insertion at intervals of double vertical rulings with a central wavy line. This grouping appears to relate to the place-names, since three of the five obverse groups are introduced by town-names ([Ti]warali, Upper Tuna, Lower Tuna), and another lists people mostly from the town Uramuwa. On the reverse all three registers have some compartments erased, and in addition the second part of the middle register seems never to have been inscribed. In the third register of the reverse the usual boustrophedon order of line reading is abandoned, in that, like the register above, it is read from right to left.

In the transliteration each compartment (entry) is given a single line numbered consecutively. The rulings dividing the five groups of the obverse represent the double vertical rulings with central wavy line.

The entries in each compartment follow the same pattern throughout although some are more detailed than others. The elements occurring may be listed as follows (omissible elements are bracketed):—

- (1. Town-name)
- 2. Numeral
- 3. Logogram
- 4. PN_1 in dative
- (4a. PN_2 in dative + copula -ha)
- 5a. either postposition, CUM-ni
- 5b. or (less often) verb, DARE-mi-na
- (6a. PN in dative of -asi- genitival adjective (-asan))
- (6b. Common noun in dative)
- (6c. Town-name).

Element 1, the town-name at beginning of group.

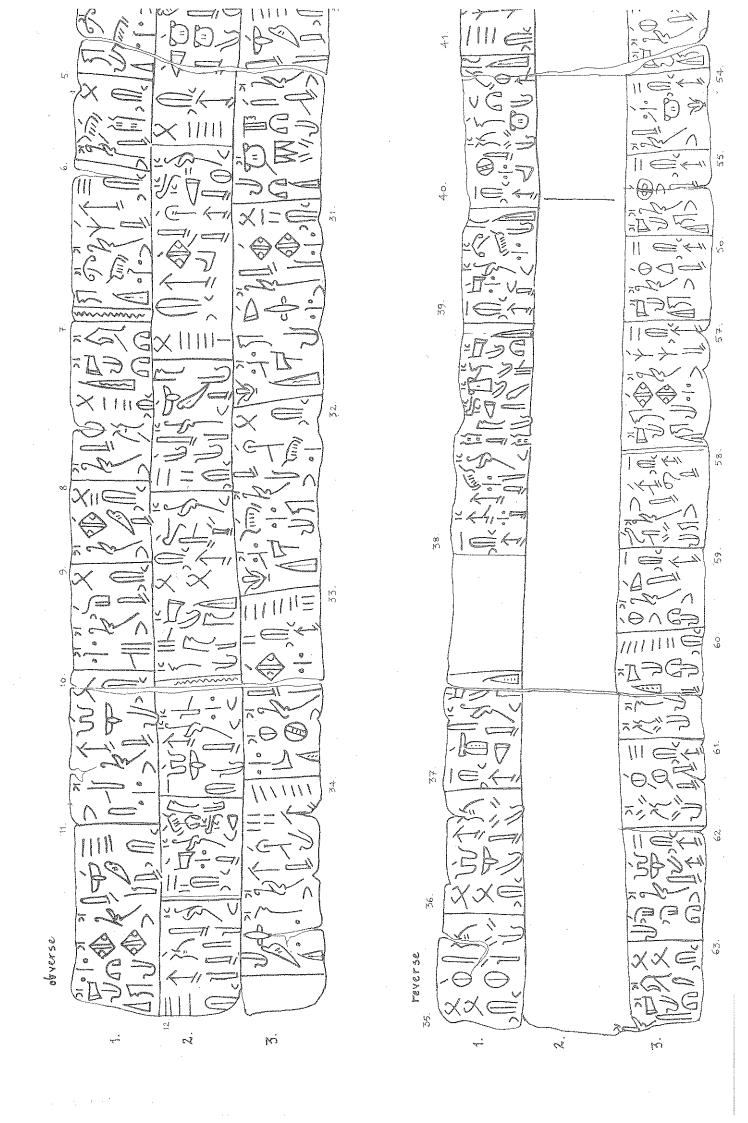
It is clear that the first four groups of the obverse are arranged by towns: §§ 1, 3 and 4, which are introduced by the town names [Ti]warali, Upper Tuna and Lower Tuna, appear to assign the individuals listed to these towns. It may be noted that in these three groups only two out of twenty-two entries have element 6(c), the further town name; thus entry 11, under the general heading "Upper Tuna" has the additional element "Tuna", while entry 25, under "Lower Tuna", has the additional element 1 PUGNUS-ri+i-mi-sa-na (URBS)—for a consideration of these, see below under element 6(c).

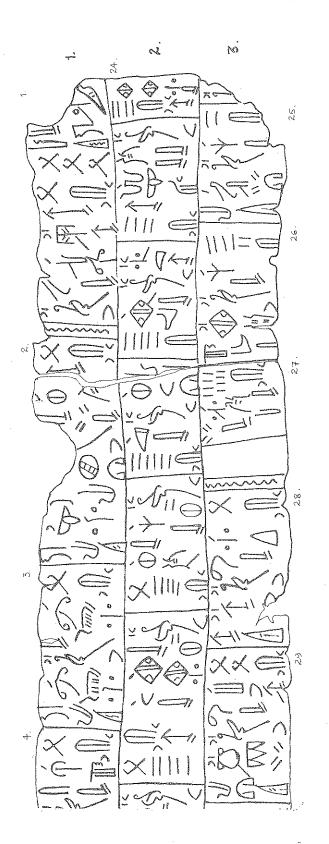
§ 2, which lacks element 1, has three of its five entries qualified by element $\delta(c)$, "of Uramuwas' town", one unqualified, and only one qualified by "of the town Huwa/i"; this group too then seems to be based on local qualifications.

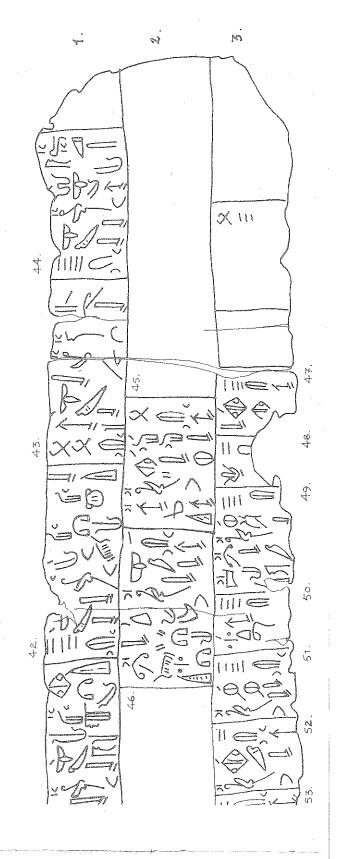
§ 5, also lacking element I, has all seven entries qualified by element $\delta(c)$, but these are miscellaneous town names (two pairs).

The reverse does not show any local groupings but merely miscellaneous town names under *element* $\delta(c)$, with a preponderance of Tuna. It is thus clear that *elements 1* and $\delta(c)$ are alternatives.

The three town names of element l, and their two qualifications "Upper" and "Lower," all end in -as (or possibly -is) and may be taken as genitives by comparison with a series of forms found under element 6(c) (see below, for







ch side ers are tains a to five I wavy he five Lower arse all part of of the ike the like the libered in the ighout clisted

§§ 1, 3 Jower hat in Inther is the ie adie, see t(6,c), town

), but town discussion). §§ 1, 3 and 4 are thus introduced by "of [Ti]warali /Upper Tuna/Lower Tuna" respectively.

Element 2, the numerals.

These occur as *element 1* on KULULU lead strip 2 and frag. 1, and the present observations may be taken to apply to the usage in all three documents.

They are written as usual in "figures", i.e. units 1-9 in vertical strokes, tens

10–90 in horizontal strokes and hundreds by pincer-like crosses \times .

Writings of the following numbers are attested in these documents: 8, 10, 14, 15, 20, 21, 22, 25, 27, 28, 30, 32, 40, 42, 50, 55, 60, 68, 69, 75, 80, 97, 100, 111, 112, 120, 131, 133, 140, 141, 150, 151, 200, 308, 400.

Element 3, the logogram (1).

This is written uniformly throughout, usually marked by the logogram marker, HH no. 410, and with or without the phonetic complement -za(-'), which

presumably indicates that the noun represented is nom./acc. singular N.

The logogram itself, despite slight variations in form, is probably to be identified with \bigcap found on Kululu lead fragment 3 (see below), and also occurring on Sultanhan stele, 3, Karkamis A 11 a, 3, and now Aksaray, (Kalaç, KZ 92 (1978), 119, 121 f.) (cf. topada, 4), i.e. Glossar, no. 259; and with \bigcap , occurring on assur letter e, iii, i.e. Glossar, no. 152–153; HH, no. 179. It is found also in ISKENDERUN, 2 (Glossar, no. 260, HH, no. 454 (2)), and in the writing of the god's name on tell ahmar 1, 2; 2, 2 (Glossar no. 152a; HH, no. 454 (1)). It should not be confused with the sign SCRIBA, Glossar, no. 258, HH, no. 326.

The present context, and also the AKSARAY occurrence, are new evidence which

should assist with the interpetation of this sign.

[In my treatment of the AKSARAY, SULTANHAN, and KARKAMIS Alla passages, I have argued that they represent statements of ideal price, and that the logogram frepresenting the principal commodity in these statements should therefore stand for "barley". See Ancient Anatolia. Essays in honor of M. J. Mellink (ed. J. V. Canby et al.; Wisconsin, 1986), 93–102, especially 96 f. This fits well enough with the present context].

In two cases between elements 3 and 4, an additional word occurs, each ending in -aza (or -iza) namely SCRIBA + RA/i-za (entry 1) and za + ra/i-wa/i-ia-za (entry 38). It is not clear what these words are: the ending suggests either that they are adjectives in the nom./acc. sing. N., agreeing with the logogram, or that they might be designations of occupation, suffixed -aza, in the dative agreeing with the following PN instead of being placed after it as the other designations of status or occupation—see below, element 6 (b); also the discussion, of waralaza—KULULU lead strip 1, Philological Notes. Against the second possibility may be argued that the recipient in entry 38 is in any case qualified, under element 6 (b) as hurnali, "hunter(?)". This factor thus inclines one towards the first possibility.

Element 4, the personal names.

In every case where the text is preserved the personal determinative! is written. Every name ends in -ia regardless of the preceding vowel (-Ca/i/u-)—in the four damaged examples this can be restored (entries 25, 48, 49, 50). The ending can be confidently identified as that of the dat. sing. on morphological and syntactic grounds.

Some of the names in this element occur twice or more, either in batches (Huliyas, entries 42-44; Nus, entries 25-26) or scattered (Huliyas also entries 11, 30,

46; Nus, also entries 6, 20b; Hapira/is, entries 7, 20, 49; Harhariyas, entries 51, 61; Kukuwa/is, entries, 19b 24, 31, 47; Kulis entries 8, 52; Las, entries 18a, 21, 59; Nunus, entries, 41, 57; Tarhunazas, entries 10, 14, 36, 62; Wasumas, entries 28, 50). To assist in distinguishing namesakes, qualifications could be added as element 6 (a-c), which may be identified as (a) patronyms, (b) designations of status or occupation, (c) town-names marking origin or residence. These normally show that the namesakes are different individuals: thus e.g. the six Huliyas's all seem to be marked as different. Las son of Hanis however occurs twice, and two of the Tarhunazas's are both designated arawani, "free-man" in § 3, so they may be the same. It may be therefore that some of the namesakes lacking qualification refer to one and the same individual.

In § 4 four pairs of individuals, all without further qualification, appear instead of the usual single individual, and a further pair is found in § 8. In all cases the second PN in the dative is linked by the copula -ha, and a pair of small horizontal strokes follows the couple, presumably to be read "2" though horizontals properly denote "20". The connection between the paired individuals can only be guessed.

In only two of the sixty-three entries is *element 4* not a personal name or names, *viz.* entries 60 and 63. The former reads: "we give 80 *commodities* to the town Tuna's *ANA* (common noun)"; the latter: "200 *commodities* f[or] Upper Tuna(?)". For further discussion of these entries, see below, KULULU lead strip 1, Philological Notes.

Element 5, postposition CUM-ni / verb DARE-mi-na.

Throughout the obverse and most of the reverse the personal name(s) of element 4 are governed by the postposition CUM-ni. In a few entries (35, 36, 40, 60, 61) this is replaced by the verb DARE-mi-na, "we give" (taken as 1st. plur. present; see discussion below, lead strip 2, entry 3). In the latter cases the construction and sense of the entry is clear: "we give so many commodities to PN". The only question is whether this variant of the normal entry is intended to convey the same sense or a contrast.

A decision on this is bound up with the known but still unelucidated adverb CUM-ni, for which no phonetic reading and no definite correspondence with an adverb in another Anatolian language have been established; cf. Glossar, no. 50; HH, no. 58. The sense can be approximately gathered from the contexts in which it occurs, and Laroche rightly observes "Paraît correspondre à certains emplois de hitt. katta(n)". With this in mind we chose the Latin CUM to represent the logogram. The general sense, especially in the phrase "to do good etc. for someone" (dat. + cum-ni izi- / a(ia)-, see JRAS 1975/2, 128; An. St. 25 (1975), 146, citation 53 c (iv)), suggests the interpretation in this document of "for, to the credit of". The majority of the entries then would run: "So many commodities (are) for PN", for which the variant "we give to PN" would be without special significance. We should however bear in mind the possibility that CUM-ni here might have the reverse meaning, i.e. "against, to the debit of", which would assign to the CUM-ni entries the opposite sense to the DARE-mi-na entries, but this interpretation does not seem likely. We may therefore provisionally conclude that this entire document consists of issues of numbered commodities to named individuals. A comparison with KULULU lead strip 2, especially element 5, supports this. Since, however, we have no indication of the source of the very large numbers of the commodity distributed (a total of 4,757), beyond the very indefinite "we", an important half of the transaction eludes our comprehension.

Element 6, the qualifications of the recipients' names.

The personal names of this text which stand as element 4 may be distinguished in any of three ways, or not at all.

6 (a). Patronyms: these occur as element 6 in entries 2, 11, 13, 16, 21, 30, 31, 32, 40, 41, 46, 57, 59, 62. Their character is clear from the following observations:

(i) they all bear the personal determinative I (the sole exception, entry 11, is marked with the word divider which is clearly a mistake).

(ii) the stem forms are in any case mostly clearly identifiable as personal

names, and in many cases are the same as names occurring in element 4.

(iii) All these items have the ending $-sa/s\acute{a}-na$. This is certainly the dative ending -(a)san, identified by Mittelberger, and now recognized as the regular dative of the genitival adjectives in -asi-; see HHL, n. 105; and most recently A.

Morpurgo Davies, An. St. 30 (1980), passim, esp. citations 19-43.

Thus personal names in the dative are qualified by -asi adjectives in the dative formed from other personal names. There can be no doubt that "PN, (he) of PN2", rendered either by a genitival adjective or by a straight genitive, was the regular way of expressing a patronym in Hier. Luwian; the latter construction is exactly paralleled by Lycian (e.g. Pulenjda Mullijeseh, "Apollonides (son) of Mollisis", T. L. 6), as by (Athenian) Greek (e.g. Dēmosthenēs Dēmosthenous etc.). Since this recognition, other examples have been identified in Hier. Luwian texts: Sipis Niyas(is), "Sipis Nis' son" (An. St. 25 (1975), 148); DOMINUS-tiwaraya Ahalisan, "to Dominus-tiwaras Ahalis' son" (An. St. 29 (1979), 162 n. 63); [...] ara/i-FRATER-la-ia Santatiwarasan, "for [...]aratalas (?) Santatiwaras' son" (TÜNP, 1).

In two entries, 38 and 44, the recipient's name is qualified not with a patronymic but an "adelphonymic" ('kiyakisan/tarhunazasan FRATER-lai, "K's/T's

brother").

The fathers' names which are also found in element 4 as recipients' names are: Kukuwa/is (entries 11, 57); Huliyas (entries 16, 41); Muwas (entry 32); Tatas (entry 62); PUGNUS-rimis (entries 25(?), 58). The two brothers' names Kiyakis and Tarhunazas are also found as recipients' names. Whether any of these fathers (and brothers) are the same individuals as any of their namesake recipients cannot be demonstrated in any case. There are no combinations which might suggest papponymy (e.g. if a Huliyas Kiyakisis and a Kiyakis Huliyasis were found in the same section).

6 (b). Designations of status or occupation: instead of a patronym, a common noun (marked with a word divider) in the dative case may be used to qualify the recipient's name (in one entry, 38, this is used in addition to the brother's name). The terms are watara/i (entry 9); arawani (entried 10, 14); waralaza (entry 22); kukisati (entry 26): hurnali (entry 38); ? (entry 43); uriyali (entry 49). Of these, the following interpretations may be offered: arawani, "free man"; hurnali, "hunter(?)"; uriyali, an officer; watara/i, "cup-bearer(?)".

These interpretations suffice to indicate that these terms and the others also belong to the general category of status or occupational designations. Compare the same and similar terms, mostly nomina actoris in -ali-/-ala-, which appear in KULULU lead strip 2, element 6, also element 4; and for discussion of the terms see

below, philological notes, under relevant entries.

6(c). Local designations: thirdly, as the most frequent qualification added to the recipient's name, we find the names of towns, used either as sole qualification or in addition to patronyms or status and occupational designations. All these town names are clearly marked as such by the addition of the normal post-determinative URBS.

We have seen that §§ 1, 3 and 4 introduce the whole group of names with a town name serving as element I (§ 1, [Ti]warali; § 3, Upper Tuna; § 4, Lower Tuna) and that in these sections element 6(c) is found only twice: thus entry 11, coming under the general heading "Upper Tuna", as the further qualification under element 6(c) "of Tuna"; while entry 25 under the general heading "Lower Tuna", has the further qualification "of 'Pugnus-rimis' town". In the first case element 6(c) seems superfluous and is perhaps a mistake. In the second, the extra local designation is added as a qualification to the first of two Nus' otherwise undistinguished, and could perhaps be explained by the supposition that while they were both now resident in Lower Tuna, the first originated in 'Pugnus-rimis' town. Alternatively we might assume that the determinative URBs has been added by mistake to 'Pugnus-rimisan, which should be taken as a simple patronym as it is in entry 58.

In the sections other than §§ 1, 3 and 4, which are not introduced by town-names as element I, the majority of recipients' names are qualified by town-names as element 6(c): thus in § 2, four out of five entries are so qualified; in § 5, seven out of seven; in § 6 one out of three; in § 7 five out of seven; in § 8, two out of two; and in § 9, five out of fifteen (with in addition two unusual entries incorporating the town-name Tuna as element 4 see above). To put it the other way, comparatively few entries are qualified by no local designation: only entries 5, 35, 36, 43, 44, 47, 48, 50, 51, 52, 54, 58, 59, 61, 62.

It has been noted above that § 2 groups individuals mostly qualified as "of Uramuwas' town", including the eponymous Uramuwas himself. The other sections, §§ 5–9, list individuals of miscellaneous localities.

The town-names found, in order of frequency, are: *Tuna* (entries 11, 37, 38 ("Lower"), 49, 53, 55, 56, 57); *Uramuwas' town* (entries 3, 4, 6, 39, 46); *Parzumina* (entries 29, 30); *Waratura/i* (entries 31, 32); *Zaka* (entries 28, 45); *Huwa/i* (entry 2); *Haru(wa/i)* (entry 33); *Aluwana* (entry 34); *Uhazira/i* (entry 40); *Tasaku* (entry 41); *Tapa* (entry 42); and perhaps ¹PUGNUS-rimis' town (entry 25, see discussion above).

They occur in a number of different grammatical forms, identifiable by their endings:

- (i) in -sa/sá-na (Huwa/i-, Uramuwa-, IPUGNUS-rimi-, Tasaku-; cf. Tuna-).
- (ii) in -Ca/i-sa (Tuna-, Uramuwa-, Parzumina-, Uhazira/i-).
- (iii) in -Ca/i-si (Waratura/i-).
- (iv) in -Ca/i-ti (Haru(wa/i)-).
- (v) in -ia (Tapa-).
- (vi) in -Ca-li-(Aluwana-).
- (vii) In -Ca-za (Zaka-).

It is clear that (i) $-sa/s\dot{a}-na$ must be the dative of the genitival adjective -(a)si, qualifying the recipients' names, in exactly the same way as the patronyms. Endings (ii)—(v) are obvious case-endings: (ii) and (iii) are best taken as the -as and -(a)si genitive endings dependent on the recipients' names, syntactically parallel to the -(a)si—genitival adjective. We should note that Tuna— and Uramuwa—, the two most common town-names occur in both forms (i) and (ii). Thus (i)—(iii) all render the sense "(to PN) of GN". (iv) may easily be taken as -(a)ti, ablative (note the ablative forms of town-names introducing grouped persons in CEKKE—Manuale II/1, 110 f.) and (v) as -ia, dative; these would render "(to PN) from/in GN". In (vi) and (vii), endings -aza— and -ali— may probably be identified which may be taken to convey ethnic connotations; for discussion, see below, Philological Notes, entries 28, 34.

We may also note that on KULULU lead strip 2, town-names are found in

similar contexts in the gen., dat. and abl., as well as with the -aza- suffix.

One, perhaps two, of the towns are named after individuals. § 2 groups individuals, three out of five of whom are qualified as "of Uramuwas" town" including the eponymous Uramuwas (entry 3). Most of the occurrences of *Uramuwa* as a town-name write it preceded by the word-divider, but one example (entry 3) marks it with the personal determinative, possibly influenced by the proximity of Uramuwas himself. In these cases, only the determinative urbs distinguishes the local from a patronymic adjective: thus "Uramuwas" *Uramuwas* "Uramuwas" (urbs) means "Uramuwas of Uramuwas" town", while "Uramuwas "Uramuwas" (is)" would mean "Uramuwas Uramuwas' son". In the case of "Pugnus-rimisan (urbs) (entry 25), only the urbs distinguishes it from the patronym, entry 58. It may be that "Pugnus-rimis, like Uramuwas, gave his name to his town, yet we have seen reason to question whether one of a group of inhabitants apparently listed as "of Lower Tuna" would be further qualified as "of "Pugnus-rimis" town". This led to the suspicion that entry 25, element 6(c), might really be a patronymic, element 6(a), incorrectly determined by urbs.

1. KULULU lead strip 1 Philological Notes

1. [ti]-wa/i+ra/i-li-ia- $s\acute{a}$ -' (URBS): restoration suggested by comparison with KULULU lead strip 2, entry 14, ti-wa/i+ra/i-li-[ia] (URBS). The identification of the latter as dat. sing. suggests the identification of the present form as gen. sing. of tiwarali-.

SCRIBA + RA/I-za: the appearance of this anomalous element between elements 3 and 4, and another one like it (za+ra/i-wa/i-ia-za) in entry 38, has been noted above, discussion of element 3, where the view was taken that this was more likely to be an adjective in the nom./acc. sing. N agreeing with element 3, the commodity. It also seems more likely that SCRIBA has a logographic value rather that is (uncommon) syllabic usage $(t\dot{u})$, but the grammatical form of the word remains unclear, so interpretation remains guesswork.

7. SUPER + RA/I—sa tunas (URBS): cf. below, entry 63, SUPER + RA/I—li, which shows the usual phonetic complement and points to the readings sarli— (Laroche, Festschrift Friedrich (Heidelberg, 1959), 292–295), thus "Upper Tuna". Compare

below, entry 15, element 1, "Lower Tuna".

9. watara/i: identified, by comparison with other items in element 6(b), as term denoting status or occupation, dat. sing. MF. If the Hier. root u(wa)—, "drink" (<*eg*—; see Morpurgo Davies apud Hawkins, "Late Hittite Funerary Monuments", in B. Alster, ed., Death in Mesopotamia (Mesopotamia 8; Copenhagen, 1980), 221), may be regarded as established, this word might speculatively be identified as the Hier. form of the Hitt. nomen actoris ekuttara— (for which see van Brock, RHA XX/71 (1962) 125 f.; Kammenhuber, Hb. Or. I, II, 1/2, 2, p. 191). Such an identification would fit well with van Brock's observation that in Cun. Hitt. ekuttara— is to be set against a large number of nomina actoris in —talla—, for here watara/i contrasts with a number of nomina actoris in —ali— or —ala—, hurnali—, uriyali—, (lead strips 1 and 2), and uzakali—, tarpali—, lahinala/i—, sarkunala—, and perhaps huhurpari— (lead strip 2).

10. arawani: a striking coincidence with the Cun. Hitt. arawanni-, an older (Hittite Laws) variant of arawa-, "free"; see now Friedrich-Kammenhuber,

 HWb^2 , Lief. IV, s.v.

13. $^{\text{I}}$ mu-sa-frater-la-: frater-la- as an onomastic element is found here also in $^{\text{I}}$ rel-za-frater-la- (entry 17), and recurs several times in the CEKKE name-

list and elsewhere; cf. the use of Cun. šeš as an onomastic element (Laroche, Noms, 326), with its Hier. logographic equivalent of the Empire period (HH, no. 276), and the presumed reading nani— (Houwink ten Cate, LPG, 142 f.). Hier. of the Late Period seems to have replaced (*276) nani— with FRATER—la—, perhaps read atala—(see An. St. 29 (1979), 159 n. 51 for references).

[Erdem reads (6a) mu-ta-...; -sa- more likely.]

15. \dot{a} -na-tara/i- $s\dot{a}$ -': cf. entry 38, element 6(c). The clear contrast of this word with SUPER + RA/I(-li)-(= sarli-, "upper"), both used as epithets of the city Tuna, permits us to identify it as the -tara/i- suffixed adj. formed from annan (Hier. SUB-na-na), "under", clearly the Hier. correspondence of Lyc. $\tilde{e}tri$ (from $\tilde{e}n\tilde{e}$, "under"; for the forms, see Laroche BSL 53 (1958), 180 ff.; cf. also Neumann, Hb. Or. I, II, 1/2, 2, p. 381, § 20.8). The phonetic spelling \dot{a} -na-tara/i, representing either ana(n)-tara/i or ana-tara/i but hardly an-tara/i-, as well as attesting the adjectival form, confirms Laroche's interpretation of SUB-na-na.

22. wa/i + ra/i - la - za: in KULULU lead strip 1, element 6(b-c), two terms occur ending in -Ca-za, the present word, presumably a designation of status or occupation, and za-ka-za (URBS) (entries 28 and 45), clearly qualifications by town-name. The latter is further paralleled in KULULU leap strip 2, with su-na-wa/i+ra/i-za/|su-na-wa/i-ta-za| (URBS) (entries 6, 13) and a-ha-ti-ku-ku-ra/i-za| (URBS) (entry 17). We appear to have here an -(a)za- suffix (dat. sing. -(a)za), which acts both as an ethnic-forming suffix (see further below, entry 28), and as another, as here. This latter, because of the category to which the suffixed word appears to belong, is best compared with the Lycian -aza suffix used to form occupational designations (Houwink ten Cate, LPG, 63 par. 10; Neumann, Lykisch (Hb. Or. I, II 1/2, 2) 380, § 19.2; Laroche, in Fouilles de Xanthos VI (ed. H. Metzger, Paris, 1979), 98 f., § 21). The base of the word so formed may be the adj. warali-, "own, proper" (JRAS 1975/2, 129), but this is not of immediate assistance in determining the exact meaning of the term.

[25. Erdem (6c) has failed to see (URBS).]

26. ku-ki-sà-ti-i: assigned to element 6(c), the qualification of status or occupation, this word is dat. sing. MF; cf. kululu lead strip 2, entry 2, $ku-ki-s\dot{a}-ta-za$ (dat. plur.); lead frag. 1, side ii, entry 9, $ku-ki-s[\dot{a}]-t[i...]$. Further information on this word may be gathered from KARKAMIS A 3, 2, where it is stated that Katuwas has dedicated to Karkamisean Tarhunzas some "lords of the warpi-" ((*273) warpasi DOMINUS-ya(n)zi), who are itemized as sapatari's, mizinala's, tunikala's and (*359. ovis) ku-ki-sà-ti-zi, "who dwell in the village of Urhisarmas" (see An. St. 28 (1978), 109 (5)). The categorization of the occupation of these persons depends on the semantic range of warpi- cf. An. St. 25 (1975), 151; 29 (1979), 159 n. 49), and if, as suggested, this belongs to the professional rather than the cultic sphere, then these lords or masters of the warpi- will be craftsmen rather than priests. Katuwas' donation to Tarhunzas recalls that of Asmunikkal to the Stone-House (KUB XIII, 8), where LUMES BEL QATI are stated to have been given, along with LU.MES APIN.LAL, LU.MES SIPA.GUD, LU.MES SIPA.UDU. In fact one wonders whether Cun. LÚ.MEŠ BĒL QĀTI may not designate a class similar to Hier. warpasi DOMINUS—ya(n)zi. As far as the term kukisati—goes, the compound logogram *359. ovis of Karkamis A 3 seems to link it with sheep, as does also the context of KULULU lead strip 2, entry 2 (see below).

28. za-k[a]-za(URBS): restored by comparison with reverse, entry 45. We note that both in KULULU lead strip 1 and further in lead strip 2, element 6(c) (designation by city), the town-names, in addition to appearing in gen., dat., or abl. forms, also show forms ending in -Ca-za, namely za-ka-za (URBS) (lead strip 1, entries 28, 45), su-na-wa/i+ra/i-za / su-na-wa/i-ta-za (URBS) (lead strip 2, entries

d 1, ...,

6, 13), and \dot{a} -ha-ti-ku-ku+ra/i-za (lead strip 2, entry 17). zakaza follows one PN in the dative (entry 28) or two PN in dative linked by -ha (entry 45), sunawar/taza follows three PN in the dative linked by -ha (entry 6) or two PN in the dative (entry 13), and ahatikukuraza follows the phrase "3 taruta(n)za", dat. plur. (entry 17). The problem is whether, as seems likely, all these -aza endings are the same morpheme, and how to identify it.

The most obvious solution would be that -aza— like -iza— is an ethnic suffix appearing here in the dat. sing. (cf. kar—ka—mi—si—za, "to the Karkamisean", dat. sing.) When it follows the single PN in the dative then, it would be in agreement with it; and when in three other cases it follows groups of two or three PN in the dative, it would have to be taken to qualify the last name only. But when it follows 3 taruta(n)za, "to three statues", we would expect a dat. plur. ending -a(n)za to be visible, which leaves the stem and ethnic ending of ahatikukura/i—in doubt, and casts further doubt on the other -Ca—za forms. Should they all therefore be interpreted simply as datives of place-names, which have been formed with a -aza—suffix (thus "in Zakaza, Sunawar/taza, Ahatikukuraza")? In considering this question we should bear in mind the Lycian evidence which shows an occupational suffix in -aza— and an ethnic in -a/ezi—, which perhaps belong together (Neumann, Hb. Or I, II 1/2, 2, p. 380, § 19. 1–2 quoting Meriggi and Bossert).

[33. Erdem reads (4) ku-wa/i-ia-ia; last sign broken, uncertain.]

34. Δ -lu?-wa/i-na-li (URBS): already identified as an ethnic adj., dat. sing., perhaps to be associated with the Luw. (Hitt.) adj. suffix –(a)lli– (van Brock, RHA XX/71 (1962) 105 ff., C I a). A Lycian usage of –li as an ethnic suffix appears in trm̃mili, "Lycian".

35. DARE—*mi*—*na*: for the identification of this form as (1st. plur.) present tense, see below, KULULU lead strip 2, entry 3, Philological Note.

[37. Erdem reads (4) pu-la-na'-ia; perhaps correct, collation needed.]

38. za + ra/i-wa/i-ia-za: one of two anomalous entries between *elements 3* and 4; cf. above, entry 1, SCRIBA + RA/I-za. Here, because the recipient is qualified, in *element 6(b)*, as *hurnali*, "hunter (?)", it is apparently ruled out that this word is an occupational designation in -aza. The alternative, to take it as an adj., nom./acc. sing. N with ending -a(n)za, qualifying the commodity "*179"-za, seems preferable.

39. $hu_x + ra/i - na - li$: for the identification of HH. no. 347 as hu_x , and the interpretation of the resulting word hurnali by association with Cun. Hitt. hurna, "hunt", see Kalaç, KZ 92 (1978), 123 f.

 $|\dot{a}-na-tara/i|$ |tu-na-sa| (URBS): for "Lower Tuna", see above, entry 15 (element I). tu-na-sa here identified as gen. sing. along with many other examples in this element, 6(c); $\dot{a}-na-tara/i$ must agree in case with it, so we must have here a purely orthographic omission of the gen. case—ending (cf. below, entry 63, |SUPER + RA/I-li |tu-na-sa| (URBS), and note there).

[40. Erdem reads (6c) mu-ha-zi-sa; u/mu broken, uncertain, zi has +ra/i-1.

43. \acute{a} – $\ulcorner sa? \urcorner$ – $\ulcorner tara / i? \urcorner$ (-)MAGNUS + RA / i?-ia: readings uncertain (for MAGNUS + RA / i read $t\grave{a}$?), perhaps to be divided into two words. It can however only be assigned to element 6(b) (designation of status or occupation). Compare such formations as tuppa(la)nuri– (for which see Laroche RHA XIV/58 (1956), 27 f.)?

[register 3, 3 blank spaces: Erdem reads erased signs here.]

49. MAGNUS + RA/I-ia-li: (cf. KULULU lead strip 2 entry 4), presumably to be read urayali— or uriyali— apparently a nomen actoris in -ali— like others in the same context, element 6(b) in lead strips 1 and 2. The writing with the logogram MAGNUS points to the derivation from ura—, "great", through an intermediate (nominal?) form uriya—; cf. tapariyalli—, "governor" (van Brock, RHA XX/71 (1962), 105 f.).

May we compare Cun. Hitt. Liburiyanni-/urayanni-, designation of a high officer?

[Erdem reads a final $-s\acute{a}$ at end of word, but this seems to be an erasure.]

- 58. $^{1}za+ra/i-ma-ia(-)ni-ia$: perhaps a double name Zarmas Nis, although no division is marked. For the element zarma- (=zalma-/PAP, "protection"), see Neumann, KZ 90 (1976), 139 ff.
- 60. |tu-na-sa-na(URBS) |á-na-ia: this entry and 63 are the only ones not to have a personal name marked as such as element 4, the recipient. tunasan is clearly the dat. sing. of an -asi- adj. like others appearing in element 6(c), thus "to that of Tuna", qualifying á-na-ia, a common noun in the dat. sing. marked with the worddivider. A plausible interpretation of the word ana- is to suppose that we have here the full phonetic spelling of the Hier. word "mother", normally written, FEMINA-nati-, i.e. the -ti- suffixed form. In Hier., the expected form would have been *ani-, an -i- stem, by comparison with Cun. Luw. anni-, Lyc. eni as against Hitt. anna-. Certain forms however suggest the possibility that anna- too occurred in Luwian: Hier. FEMINA-nati-(*ana(ti)-), Cun. Luw. (Hitt.) annawanna/i-, "stepmother", and the Hier. PN 'Ana-, cf. Cun. Hitt./Luw. 'Anna-/'Anni-. "To Tuna's mother" seems plausible sense, whatever personage, human or divine, might be so
- 63. Final entry somewhat anomalous, perhaps obscured by loss of the final sign(s). $|SUPER + RA/I - li/tu - na - sa/URBS^n|$ it is hard to suppose that anything other than a dat. sing. was intended, which would be sarli(ya) tuna(ya). tu-na-sa! must

2. KULULU lead strip 2 (Copy, transliteration and translation overleaf)

Analysis and discussion

This document is also well preserved and resembles kullulu lead strip 1, though it is shorter and simpler. A fragment missing from the obverse lower left corner (= reverse upper left corner) which restores a single sign on either side has been replaced since Özgüç's original publication. The strip is divided horizontally into two registers on either side, and the registers are divided by vertical rulings into twenty compartments each containing a single entry. The end of the obverse falls in the middle of an entry (compartment), which runs on to be completed at the beginning of the reverse. The entries are grouped into three sections divided off by double vertical rulings with a central wavy line (entries 1-11; 12-13; 14-20), as is seen also on KULULU lead strip 1. The reason for the division into these groupings is not immediately apparent, but may concern the statues belonging to different towns mentioned in each section (see below, discussion under element 4).

The entries in each compartment, while not so completely regular as those of KULULU lead strip 1, follow a set pattern with only two divergences (entries 2 and 19). The elements may be set out as follows (omissible elements bracketed):

- 2. Commodity: sheep
- (3. Donor)
- 4. Recipient
- (5. Verb (once postposition CUM-ni)
- (6. Qualification of recipient)
 - [(a) (patronym): absent]
 - (b) status or occupation
 - (c) town-name

Element 1, the numerals.

See above, KULULU lead strip 1, element 2 (p. 139).

Element 2, the commodity: sheep.

The word sheep is written with the cursive form of the logogram ovis (HH, no. 111), accompanied in entry 1 with a full phonetic spelling ha-wa/i-na, i.e. hawin, acc. sing. MF, "sheep", following the syntax of the entry. In the other entries, it is written simply with the logogram with a phonetic complement -na (entries 2, 5, 7, 17), -sa (entries 6, 10, 12, 13, 15, 16) or -sá (entries 4, 8, 9, 11), or without complement (entries 3, 14, 18, 19, 20). Properly speaking -sa/sá should mark the nominative case and -na the accusative, so we might expect the latter to be used when a verb, element 5, is present, and the former when it is absent, but this is not the case (see entries 5, 6, 7, 17). That "sheep" is consistently marked as being in the singular after numerals other than 1 need not surprise—singular nouns after plural numbers are a regular feature of Hieroglyphic as of Cun. Hittite (Meriggi, Manuale I, p. 59 § 108. 2).

Element 3, the donors.

Personal names in the nominative, governing the verbs, *element 5*, occur only in entries 1 and 2.

Element 4, the recipients.

Here are found either personal names or common nouns in the dative. The personal names are all marked with the determinative 1 , and the dative ending is always -ia, as was the case with KULULU lead strip 1, element 4. As there too, two personal names are found joined by the copula -ha (entry 13), but in this text only, also three names, $PN_1 PN_2-ha PN_3-ha$ (entry 6). Among the names of this text Kulis, Nis, Nunus and REL-sais (entries 1, 4, 6, 8, 13) are found also on KULULU lead strip 1; Muwahis, Lalis, Par(a) satas(?), Tumisis, Tutus, Mamis, Satanus, Paluzis(?) and Atiwaramis occur only here.

The common nouns include taru(t)—, "statue" (entries 3, 12, 14, 17), tarpali—, "substitute" (entry 5), lahinala/i—, "?" (entries 10, 16), huhurpari—, "?" (entry 11), hurnali—, "hunter (?)" (entry 15), and apparently also ta—REL+RA/t—ta— (entry 18) (for discussion of the individual terms, see below, Philological Notes, under relevant entries). They are all except the last introduced by numerals and all show endings of the dat. plur., except for tarut— which in three of its four occurrences has that of the sing. (entries 3, 12, 14).

The offerings to the statues of various cities seem to comprise the core of this document, since they occur in each of the three sections (twice in the third). The statues receive 20 sheep each if the numbers recorded are divided equally between them, except in entry 17, where they get 47 each. The named individuals receive 20 sheep each (entries 7, 8, 9) or 10 (entries 6, 13), except the *uriyali*, who receives 40 (entry 4). The unnamed members of the occupational groups receive 10 each (entries 5, 10, 11, 15, 16). The implication seems to be that the individuals and workers are grouped with the statues, for which they would have had the responsibility of maintenance.

Element 5, the verb.

The verb, when it occurs is some person/number of piya-, "give", 3rd. sing. pres. (entries 1, 2), 3rd. plur. pres. (entry 18), 1st. plur. pres. (entries 3, 6—for the identification of the form see below, Philological Notes, entry 3). In the anomalous entry 19 it is replaced by the 3rd. plur. pres. of usa-, "bring", and in entry 20 by the

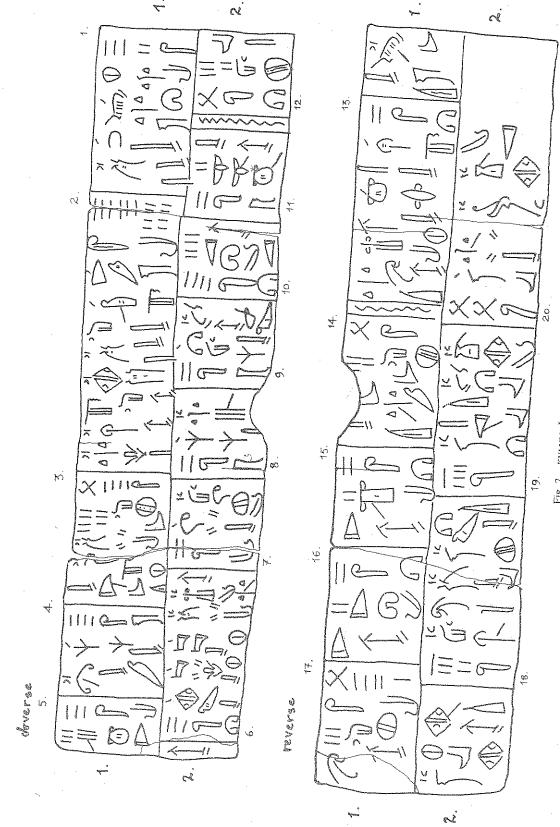


Fig. 2. KULULU Lead Strip 2.

200/64			Fig.	2.	KULULU Lead Strip 2.				
	§3, 14. 15. 16. 17. 18. 19. 20.	\$2, 12.	\$1; 1. 2. 3. 3. 5. 5. 7. 10. 9. 9.		83 15 15 17 18 18	82; 12 (reverse) 13:	7. 10. 10. 11.	obverse §1, I. 2	Section and entry
	100 20 20 141 15 14 200	100 20	140 68 30 30 20 20 20 20 20		100 20 20 141 15 14 14 200	20	20 20 20 20 20 20 20 20 20 20 20 20 20 2	32 68 140	element 1: numeral
	sheep sheep sheep sheep sheep sheep	sheep sheep	sheep sheep sheep sheep sheep sheep sheep sheep sheep sheep		OVIS OVIS-3a OVIS-4a OVIS-7a OVIS OVIS OVIS	OVIS-5 <i>a</i>	OVIS-sá OVIS-na OVIS-na OVIS-na OVIS-na OVIS-na OVIS-ná OVIS-sá	SIVO (OVIS) ha-wa/i-na	2: commodity (sheep)
	to 5 statues; in the town Tiwarali to 2 hunters(?). to 2 LARTMAL 1's to 3 STATUES; (off) the town Abaril to(?) they give; in the town As from the town Asailara/i they bri for Aliwaramis, the SARKUNALA.	to 5 statues; of the to Kwisais(?) and	Muwahis to Nis gives. Lais to Par(a)satas(?) gives, so the of statues we give; from the low to Nunus, the URIVALL. to 3 "substitutes". to Kulis and Tunnisis and Tutus we for Mamis, in order to(?) TAMAR—to Nunus, the cup—bearer(?). to Satanus, the UZAKALL. to 4 LAHNALL'S. to 2 HUHURPARU'S.		5			¹mu–wa/i-ht-sá ¹ta–li-sá	3; donor
	to 5 statues; in the town Tiwarali. to 2 hunters(?). to 2 hunters(?). to 2 hunters() to 3 hartness (of?) the town Abarikukura/i. to 3 statues; (of?) the town Arusali. from the town Asaliara/i they bring, in order to(?) sarks— for Atiwaramis, the sarktinala.	to 5 statues; of the town Mur(a)ti. to Kwisais(?) and Paluzis, (men of ?) the town Sunawata	Muwahis to Nis gives. Lalis to Par(a)satas(?) gives, so that/because he will wast for the KUKISATI's(?) to 7 statues we give, from the town Asahayalara/i. to 1 statues we give, from the town Asahayalara/i. to Nunus, the curval. to Kulis and Tunnis and Turus we give, (men of?) the town Sunawara. to Manis, in order to(?) Tamar. to Nunus, the curval. to 10 Nunus, the curval. to 5 statunts, the CZAKALI. 10 4 HAHIMALI'S.	Tran	5 ta-ru-ti 2 ta, + rafi-na-ta-za 2 ta-ti-na-ta-za 2 ta-ti-na-ta-za 3 ta-ru-ta-za 3 ta-ru-ta-za [a-zu. + za/t-tà-' [d-su-t-ta + rafi-ti (URIS) -ti-na/ti-na/ti-nt-ta	5 ta-ru-ti-i RKL-sd-i-ia 1pa-la/i/u-zi-la-ha	"m-m-ia" 3 laraji-pa-la-za "ku-ii-la "nu-mi-si-ja-ha "nu-mi-la "nu-mi-la "nu-mi-la "nu-mi-la "nu-mi-la "a-la-mi-la 2 lar-hi-na-la-za 2 lu-hi-na-la-za	¹ni-ia ¹pá? + ra[i-sá-1a-ia ¹ 1a-ru-ii	2. KULULU Transii 4: recipicat(s)
	(?) sark~.	unawaia.	will wast for the KUKI (f). f) the town Sunawarr	Translation	pi-ia-ti u-sa-ti CDM-ni	A Paris Ann	DARB-mi-na	pi-ia-i pi-ia-i DARE-mi-na	2. KULULU lead strip 2. Transiliteration 5: verb/postposition
			вант's(?) a.		[]] $ti \rightarrow wa/i + ra/i - tir^i ia^i$ (URBS) ia - ha - ti - ku - ku + ra/i - za (URBS) ia - ra - sa - li - ia (URBS) $sa_5 + ra/i - ku - na - la$ $sa_5 + ra/i - ku - na - la$	mu+ra i-ti-ia-sá (URBS) sù-na-wa i-tà-za (URBS)			6: qualifications (a) uncertain (b) status/occupation (c) town-same
	and the second				<u> </u>	6 6	(c) (c) (c) (d)	(<u>6</u> 0)	own-name

postposition CUM-ni. An alternation DARE-mi-na with CUM-ni reflects that found in KULULU lead strip 1, element 5 (a-b) (see above).

The other entries, 4, 5, 7–17 have no element 5, and the question recurs whether variations of entry here were intended to register essentially similar or actually different transactions. Casting one's eye over the entries, one gets the impression that all the transactions are similar, particularly e.g. in the case of the statues, where the verb "give" appears only once (entry 3) in four otherwise apparently identical transactions (entries 12, 14, 17). This leads one provisionally to conclude that the addition of element 5, whether the verb "give" or postposition CUM—ni, makes no difference to the nature of the transaction noted, which remains the issue of sheep to listed recipients. It incidentally strengthens the case for considering that KULULU lead strip 1, where the preponderant PN (dat.) + CUM—ni transaction.

When the verb is in the 3rd. sing. pres., the subjects are specified as *element 1*, two personal names in the nominative, not otherwise qualified. The 1st. plur. pres., "we give" is less clear to us, and even more so the 3rd. plur. pres., "they give, they bring". This would hardly have been a problem to the compiler(s) of the document, but since it conceals from us the identity of the authority issuing large numbers of sheep (a total of 1,090), we cannot penetrate an important half of this transaction, any more than we can for KULULU lead strip 1.

Element 6, qualifications of recipient.

As in KULULU lead strip 1, the last element of each entry is frequently a qualification of the recipient's name, recognizable after what was said above under lead strip 1, element 6 (b-c), as designations of status or occupation, or of locality (the present document has nothing corresponding to element 6 (a), the patronyms). Among the status or occupational designations, which appear as common nouns in the dative preceded by the word-divider, the terms uriyali and watara/i recur (entries 4 and 8), and another term uzakali (entry 9) is clearly of the same type. In fact these terms are clearly parallel to those common nouns appearing in element 4 as groups of recipients, tarpali—, lahinali—, huhurpari— and hurnali—; i.e. in this text individuals may be named and qualified with status or occupation, or alternatively unnamed groups of status or occupation are listed. It will be noticed that all end in the suffix—ali— except watara/i and huhurpari—, and even the latter may be a simple phonetic variant of huhurpali— (see below Philological Notes, entry 11).

Three other terms appearing in the same position may or may not be designations of status or occupation, namely tamaruna (entry 7), sarkuna (entry 19) and sarkunala (entry 20). While sarkunala may well be an occupational term in -ala- derived from the preceding word, both tamaruna and sarkuna look suspiciously like infinitives. Even if they are such however, they may still perform the same function of indicating the occupation of the recipient. For further discussion see below, Philological Notes, under relevant entries.

The town-names, marked with the word-divider and post-determinative URBS, include Asahayalara/i-// Asailara/i- (entries 3 and the anomalous 19), Sunawara-//Sunawata- (entries 6, 13), Mur(a)ti- (entry 12), Tiwarali- (entry 14), Ahatikukura/i- (entry 17,) and Arusali- (entry 18). As in KULULU lead strip 1, they may occur in the genitive (-as), the dative (-ia), or the ablative (-ati), i.e. "of/in/from GN". The forms ending in -Ca/i-za require special consideration—see above KULULU lead strip 1, Philological Notes, entry 28. These town-names are used to qualify the personally named recipients and also the "statues" (tarut)—, which seem to be the most important item in each group.

Anomalous entries.

Two, perhaps three, entries do not conform to the regular pattern.

Entry 2, instead of qualifying the recipient with *element* 6, apparently has a relative clause, for a consideration of which see Philological Notes, relevant entry.

Entry 19, instead of recipient (dat.): verb, "give": qualification (dat.), has asailarati(URBS) usa(n)ti sarkuna, "from the town Asailara/i they bring . . . ". See also Philological Notes, relevant entry.

Entry 18, in the place of element 4, the recipient, has neither a personal name nor a number followed by a common noun in the dat. plur., but the unintelligible |ta-REL+RA/I-ta-'|. If this were a dative however the general pattern would be followed.

2. KULULU lead strip 2 Philological notes

2. |ku-ki-sá-ta-za |REL-za |wa/i-si-i: apparently relative clause introduced by REL-za. This could be nom./acc. sing. N, "which", but what antecedent could be understood? Hardly hawin, for which a MF sing. or plur. relative pronoun would be expected. Perhaps REL-za is used here as a conjunction, "because" or the like.

wa-si-i: perhaps verb, 3rd. sing. pres. in -i, but see A. Morpurgo Davies (Festschrift O. Szemerényi (Amsterdam, 1979), 587), who points out that this would be the only attested form of the type -Ci-i as against -Ca-i, and thereby raises doubt.

ku-ki-sá-ta-za: dat. plur. MF of kukisati-, for which see above, lead strip 1, Philological Notes, entry 26.

3. ta-ru-ti: cf. below entries 12, 14 (ta-ru-ti(-i)) and 17 (ta-ru-ta-za), respectively dat. sing./plur. N. of taru(t)-, "statue". The first three show the regular Hitt./Luw. usage of singular after numerals (Meriggi, Manuale I, p. 59 § 108 n. 2), the last a less expected plural.

DARE-mi-na: the occasional occurrence of this form on lead strip 1 has been noted above. The usage of this indefinite 1st. plur. seems characteristic of this type of economic text, and recurs in two or three other texts belonging to a genre which may be classed as "donations", and clearly similar to the economic lead strips, namely CEKKE, KARKAMIS A4a and perhaps TÜNP (for the formulation, see Festschrift G. Neumann (1982), 91-105). -mi-na has long been identified as the 1st. plur. preterite, but since in the present text, element 5 (the verb), all the other verbs are in the present (piyai, piya(n)ti, also usa(n)ti), there seems good reason to suppose that -mi-na is also present tense. For a recent study concluding that this is the case and identifying another possible ending as 1st. plur. pret., see A. Morpurgo Davies, KZ 94 (1980), 93-97.

 $\acute{a}-s\grave{a}-ha-ia-la+ra/i-ti(URBS)$: cf. below, entry 19, $\acute{a}-sa-i-la+ra/i-ti(URBS)$, an interesting variant spelling of what must be the same town-name.

- 4. MAGNUS + RA/I-ia-li: cf. above, KULULU lead strip 1, entry 49, Philological Note.
- 5. tara/i-pa-la-za: dat. plur. MF, doubtless to be associated with Cun. (Hitt./) Luw. « tarpalli-, for which see the original study of van Brock, RHA XVII/65 (1959), esp. 117–126; and most recently Kümmel, StBoT 3 (Wiesbaden, 1967), esp. 19 ff.; Gurney, Some Aspects of Hittite Religion (1977), 52 ff. In what sense these "substitutes" or "representatives" function here is less clear; perhaps in the diluted sense postulated by van Brock, for Greek θεράπων, "esquire, attendant" (op. cit., 125 f.).
- 6. s u na wa/i + ra/i za: Cf. entry 13, s u na wa/i t a za (URBS): further variant spellings for the same town-name. For a consideration of the form (either town-

name Sunawata-(> Sunawara-)+-(a)za- ethnic suffix, dat. sing. qualifying the last of two or three recipients; or town name Sunawataza-(> Sunawaraza-), dat. sing., "in the town S.") see above, KULULU lead strip 1, entry 28, Philological Note on zakaza(URBS).

7. tamaruna: when this form is compared with element 6 entries 19 and 20, (sarkuna, sarkunala), one observes that sarkunala appears to be an occupational designation formed from sarkuna, and that both sarkuna and tamaruna have the appearance of infinitives. An -ala- suffix on an infinitive form would however be unparalleled. Is the existence in Cun. Hitt. of the words sarikuwa— and dammara—designating lower functionaries a pure coincidence?

8. watara/i-: see above, lead strip 1, Philological Notes, entry 9.

9. uzakali-: no identifications of the root of this apparent professional

designation suggest themselves.

10. lahinala(n)za. dat. plur. MF of nomen actoris in -ali- or -ala-. No root lahin(a)- is attested in CHD (1980), s. v.; but cf. the PN Lahinaziti, Noms, no. 674, and the place name URU Lahinaššiš (ibid., p. 272). Is the resemblance to Akkadian (a)lahhinu (CAD 1 Part I, p. 294) more than fortuitous?

11. hu-hu+ra/i-pa+ra/i-ia-za: this word may be associated with a verbal root huhurpa- written (PUGNUS+PUGNUS)huhurpa- (ALEPPO 2,2) and a word written ("*382") $hu-hu_x+ra/i-pa-li$ (KARKAMIS A 11 b, 4), as pointed out by Kalaç (KZ 92 (1978), 124; cf. now my edition of ALEPPO 2, An. St. 30. (1980), 153). Indeed one might be tempted to suggest that huhurpari- was simply a phonetic variant of huhurpali- showing the common l/r alternation of Hieroglyphic (for which see recently KZ 94 (1980), 113), especially since huhurpari- is associated contextually with a fair number of nomina actoris in -ali-/-ala-. The KARKAMIS context does not however lend unqualified support to this, reading as it does: "The gods loved me for my justice, wamata ("*382")huhurpali (SOLIUM)asa(n)ta, and they ran before me". It is most natural to translate the middle clause "and for me they sat on the huhurpali" (("SOLIUM")asa-, probably simple verb "sit", causat. (SOLIUM) isanu-; cf. An. St. 28 (1978), 109 f., where replace *isa- with asa-). huhurpali is best taken as dat. sing. (thus Meriggi, Manuale II/1, 64), and appears to be an object rather than a person, a view strengthened by the logogram HH, no. 382.

19. $ta - REL + RA/I - t\hat{a} - t\hat{a}$: if this unintelligible word may be construed as dative, the entry would at least follow the pattern of all the others (except 19): "15 sheep to

the ta-REL + RA/I-ta they give in the town Arusali".

3. KULULU lead fragment 1 Transliteration

side i	·			
register 1, 1	. 111	(OVIS)ha-wa/i-na	^I DEUS- <i>ni-sa</i>	pi-ia-i
2	. 131	(OVIS)-na	$i\dot{a}$ - $p\dot{a}$? + ra/i -Magnus + Ra/I - $s\dot{a}$	[] <i>pi-ia-i</i>
3	. 133	(OVIS)-na	1 REL + RA/I - na - zi - $s\acute{a}$	[]
register 2, 4	. 27	(OVIS)		[p]i- $[ia]$ - i
5	97	(OVIS)	^I na-i-sá	pi-ia-i
6	. 69	(OVIS)-na	ⁱ pi-ia-[]
register 3,	(erased)		,	
side ii				
register 1, 1	. 21	pi-ia-za	DEUS-ni-sa	
2	2. 25	pi-ia-za	$^{\mathrm{I}}\dot{a}$ - $p\dot{a}$? + ra/i -MAGNUS + RA/I - $s\dot{a}$	
3	. 25	pi-ia-za	REL + RA/I - na - zi - sa	

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register 2, 4.		- 47 17 7 1	OLIA	NSTUDIES
5, 6, 7, register 3, 8, 9,	[x 55 20 28 (erased) 308	pi-ia]-za pi-ia-[za pi-ia-za pi-ia-za pi-ia+ra/i-		na-i-sá p]i-ia-SARMA-ma-sa ha-mi-ia-sá-' [] á-na-ti-sá ku-ki-s[á]-t[i]
side i 1, 2, 3, 4, 5, 6, side ii 1, 2, 3, 4, 5, 6, 7, 8, 9,	25 [x 55 20 28 4	sheep Masa: sheep Apara sheep Kwarii sheep [] gi sheep Nais g sheep Piya[sa "gift(s)" "gift(s)" "gift(s)" "gift(s)" "gift(s)" "gift(s)" "gift(s)" "gift(s)"	(?)-uras (?)-nazi ives. ives. irmas g (of?) (of?) ((of?) I (of?) F (of?) H	s. 5 gives. 5 [gives]. ives]. Masanis. Apara(?)-uras. Kwari(2)

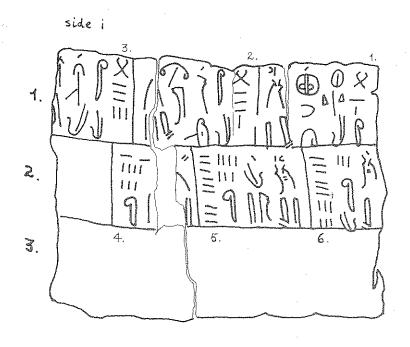
3. KULULU lead fragment I Analysis and discussion

This piece is stated by Professor Özgüç, on the basis of the report of the villager who found the documents, to be the only surviving fragment from a very much larger strip. A consideration of the inscribed text itself however makes this rather surprising, and suggests that on the contrary the document as we have it is

Each side is divided into three registers by horizontal rulings, and the registers into compartments by vertical rulings. It is not possible to pronounce definitively which side is obverse and which reverse, since the entries on each side are a parallel series involving the same people, and one cannot be considered logically prior to the other. The pattern of the entries is very simple:

side i:	the chines is very simple:
1. Numeral	
2. "sheep"	side ii
3 1917 - 3116eb.,	Numeral
3. PN in nominativ	pi- ia - za
4. Verb Divai	e PN in nomina
4. Verb piyai, "(he)	gives" PN in nominative (or genitive?)

Unlike KULULU lead strips 1 and 2, where personal names in the dative (the recipients) are the main feature, this document as preserved has none. With this exception, side i begins in a way identical to KULULU lead strip 2, 111 hawin DEUS-nis piyai, "Masanis gives 111 sheep". The full phonetic writing of "sheep" ((Ovis)ha-wa/i-na) in only this entry as in lead strip 2, (while the other entries write only ovis(-na)) Would tend to suggest that this was indeed the first entry and that the right-hand margin was preserved; but conversely on the line below where the writing runs in the opposite direction, the last entry breaks off in the middle at this point, as does the corresponding entry on side 2, which must be taken as a counter-



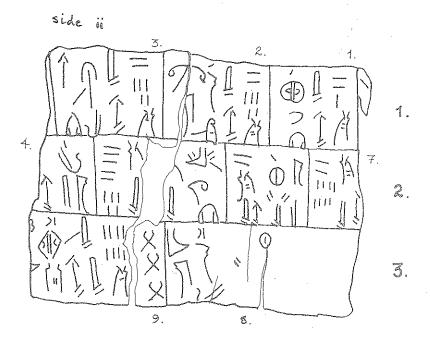


Fig. 3. KULULU Lead Fragment 1.

The three entries of register 1 on either side each contain the same three names, (1) Masanis, (2) Apara(?)-uras, (3) REL-rinazis. Of the four entries of register 2 on either side, side ii has (1) Nais, (2) Piyasarmas, (3) Hami(ya)s, (4) missing, and side i has (1) blank, (2) missing, restore [Hami(ya)s]?, (3) Nais, (4) Piya[sarmas]. Register 3 on side i has apparently been erased, as has some of register 3 side ii, where a single word and an (almost complete?) compartment with an irregular entry remains. If this text was indeed the middle portion of a much longer text, it would be a remarkable coincidence that the same names should appear on either side. Two of these names (Masanis and REL-rinazis) appear also on KULULU lead strip 1.

The entries of side i are syntactically clear: "So many sheep So-and-so gives". Practically of course we are not informed to whom he gives them, an omission contrasted with that of KULULU lead strip 1 and (partially) 2, where the recipients

but not the donors are named.

Those of side ii are less evident. The numbered commodity instead of "sheep" is written pi-ia-za, followed directly by the PN apparently in the nominative, but perhaps the genitive, and there are no verbs. pi-ia-za could thus be understood as acc. sing. N, or perhaps nom. sing. (MF)N. Its association with the root piya-, "give" is obvious, but its morphology is not. Laroche considers it a deverbative form *piyat-, and compares with a Lyc. attestation piyatu (acc. sing.) (Fouilles de Xanthos VI (Paris, 1979), 107, table), yet this gives rise to difficulties. If the word is neuter we would expect the form *pi-ia-ta-za (=piyata(n)+sa, cf. $sa_5 + ra/i - la - ta - za$), or possibly. *pi - ia - sa (=piya(t) + sa, cf. ta - ru - sa); only if it were nom. sing. MF might we explain the present form as piyat + s, yet such a formation would be unusual in Luwian. The general sense of "gift" survives the morphological problems, but the practical implications of these entries are obscured by our inability to identify the cases of the elements.

The irregular entry on side ii, register 3, has a different word, pi-ia+ra/i-ia-za, an unclear form, apparently nom./acc. sing. N. This entry is the only one to follow with a common noun ku-ki-s[a]-t[i-...] (also nom., or gen., sing.?) instead of a PN. For kukisati-, an occupational designation, see KULULU

lead strip 1, Philological Notes, entry 26.

The word preceding this entry $(|\hat{a}-na-ti-s\hat{a})$ stands on its own at the end of an erased passage, unless it is to be understood as continuing the entry at the end of register 2 which breaks off with pi-ia-za. Could we see in this word the full phonetic writing of FEMINA -na-ti-, "mother" (cf. KULULU lead strip 1, Philological Notes, entry 60)?

4. KULULU lead fragment 3 Transliteration

1. ...] $CUM-ni[x?]na\ hi\ ia\ x?$

2. 400(?) "*179"-za REX-ti hi+ra/i-ni DARE-mi-na

3. 「220¹(?)「"*179"¹-za à-ta-sà-sa hi+ra/i-ni |DARE-mi-na

4. 「100¬(?) [... DARE-mi-na

5. 170(?) "*179" |tara/i-pa-la-za [...m]i[...

This small fragment shows writing on only one of two registers on one side. The register was divided up into compartments (entries) by vertical rulings as in the previous texts. Parts of 5 entries are preserved. Such as can be seen of their character shows that they were comparable with the previous texts and made up of similar elements.

1. Numerals: partially preserved in entries 2-5, showing one or more hundreds.

2. Commodity: indicated by logogram (with logogram marker) apparently identical with that on KULULU lead strip 1, element 3 (where see for discussion, i.e. HH, no. 179. It occurs in entries 2 and 3 (with phonetic complement-za), and 5.

3. Recipients: entry 2, REX-ti, "to the king"; entry 5, tarpala(n)za, "to the substitutes"; entry 3 doubtful, à-ta-sà-sa, PN (?) in dat. (?) (ending -ia not visible).

4. hi + ra/i - ni: unknown word, preserved in entries 2 and 3.

5. Verb: DARE-mi-na, "we give", preserved entries 2, 3, 4, and perhaps represented by [...m]i[...] in 5.



Fig. 4. KULULU Lead Fragment 3.

The pattern "So much x to someone... we give" is thus discernible for entries 2-5. Entry 1 does not seem to have followed the pattern but is not sufficiently preserved to show any recognizable elements except CUM-ni.

The most noteworthy features of the fragment are: (1) the form of the logogram representing the commodity, \bigcap ; (2) the occurrence of "the king", and recurrence of "the substitutes"; (3) the unknown word hi + ra/i - ni.

5. KULULU lead fragment 2+strip 3

"Census" of households already transliterated and commented upon by Laroche, and Özgüç, Kültepe and its Vicinity, 114 f.

Transliteration

			ridiisiid	υ χ.	u ci () i i				
side i register [l	•••								
	[,]	:	[1] domus- $z[a]$:	4 VIR-zi	:	2 femina	:	1 BOS-sa
	^[1] nu-nu-sa	:	1 domus-za	:	1 VIR-ti-sa	:	2 femina	:	3 BOS
	¹ha-nu-wa/i-sá	:	1 domus-za	:	5 vir-sa	:	2 femina-zi	. :	
	^I ta-sá	;	1 domus-za	:	3 VIR	;	2,FEMINA	:	
	¹ la-hi-ia-sá	:	1 domus-za	;	3 VIR-ti-zi	;	2 femina- <i>ti-sa</i>	:	
	(blank space)								
register 2	(erased)								
side ii register 1	(erased) ^t tara/i-pa-mi-sá (erased)	:	1 DOMUS-za :	ł	6? vir- <i>⁻zi?</i> "	:	9 femina-sa		
register 2	(erased)								

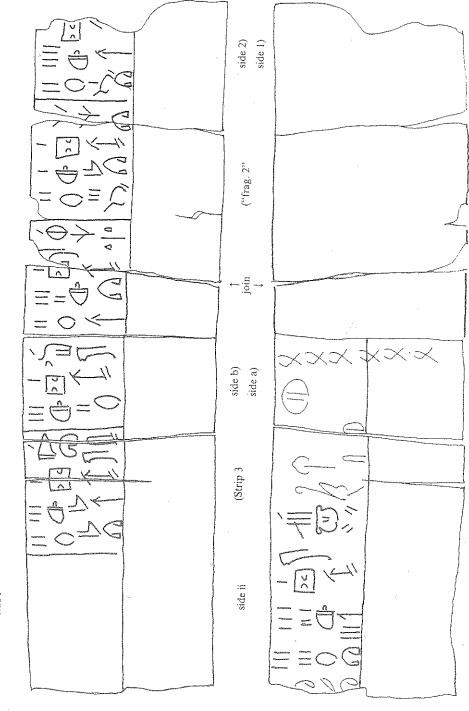


Fig. 5. KULULU Lead Strip 3 + Lead Fragment 2. Strip 3, right fragment (erased both sides) joins on left.

side i

Translation

side i	[(Of?)] (Of?) Nunus (Of?) Hanu(wa)s (Of?) Tas (Of?) Lahi(ya)s	: 1 house	: 4 men : 1 man : 5 men : 3 men : 3 men	: 2 women : 2 women : 2 women : 2 women : 2 women	: 1 ox : 3 oxen :
side ii	(Of?) Tarpamis	: 1 house	; 6? men	: 9 women	:

Addenda

The commentaries of Meriggi-Poetto (here M-P) and myself naturally show a large degree of agreement. The following observations on points of difference may be offered as addenda.

M-P, §2: "the conservation of an ante-consonantal nasal" seems unlikely. The two names are better interpreted as *Tarhunazas* (cf. M-P, addenda, p. 112) and *Sunatiyamis*.

M-P, §5: the system of transliteration adhered to by M-P obscures the clear contrast between the -asi- gen. adjective, acc. sing. (-asin), and dat. sing. (-asan), but even so it seems curious to speak of "an accusative used as a dative".

M-P, §7–8: in the reading "UR + r-ja-li- s_2 " the final $s\dot{a}$, as noted above is almost certainly an erased sign and should be removed. This permits the interpretation of uriyali as dat. sing. qualifying the preceding personal name as a mark of status or occupation. To take it as M-P do as gen. sing. and link it with the following Tunas hardly seems probable.

M-P §9.3: contrary to the view expressed by M-P, it seems to me that the Cun. Luw. and Hier. evidence on waralli-/niwaralli- combine very effectively to support the interpretation of waralli- as "own, proper", and niwaralli- as "not-own, alien, hostile" (for the semantic range of the latter, compare that of the Akkadian nakru, "foreign, alien, strange, hostile", arising from a basic sense of nakāru, "to change, to different"). In particular this fits well with the contexts of niwaralli- in the Myth of the god KAL ("as he is hostile, so he has made hostile the lands"), and waralli- in the Birth Ritual ("the child's own mother": see now also Starke, KZ 94 (1980), 79). I would also adhere to the interpretation of waralaya in KARATEPE which we offered in JRAS 1975/2, 129; cf. An. St. 31 (1981), 174f. None of this of course suffices to define the sense of the probable derivative, waralaza.

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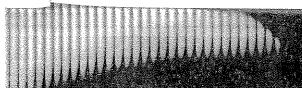
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