THE LUWIAN LANGUAGES AND THE HITTITE $-\underset{\sim}{h}i$ CONJUGATION

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1. The discussion about the origin of the Hittite $-\underset{\sim}{h}i$ conjugation continues nor is there an end in sight.[1] In the circumstances there is something to be said for trying to enlarge the body of data available. In particular it would be advisable to operate not merely with Hittite data or proto-Hittite reconstructions but also with Anatolian in a broader sense. It seems unlikely that anything new can be said about Palaic or Lydian but we ought to try to clarify at least the position of the Luwian group. The main aim of this paper is to collect the evidence of Hieroglyphic Luwian which certainly calls for a fresh appraisal. At the same time I shall try to provide a sketchy analysis of what we know about Cuneiform Luwian. I do not intend to make any statement about Proto-Anatolian or Indo-European or Indo-Hittite, but I shall be content, at this stage, to offer a relatively up-to-date collection of data. Oswald Szemerényi once wrote (1961, 20): "for the Platonizing Indo-Europeanist insatiable thirst for more and more languages, for more and more data is the only road to salvation". I hope that he will not take it amiss if this paper dedicated to him in appreciation of all that he has done for Indo-European studies is only concerned with data and is so deficient in both theory and speculation.

2. In his *Dictionnaire de la langue louvite*, Laroche (1959, 141 and note 21 bis) attributes to Cuneiform Luwian only one $-wi$ (or $-mi$) conjugation which parallels the $-mi$ conjugation of Hittite. This is not

generally accepted. Both Meriggi (e.g. 1962b, 84 ff.) and Kammenhuber
(e.g. 1969, 251) agree, for instance, in attributing to Cuneiform Lu-
wian a third person singular present in $-i$ which alternates with the
more common $-ti$, and matches the third person sing. in $-i$ of the Hit-
tite $-\dot{h}i$ conjugation (present). For Hieroglyphic Luwian, Meriggi (1966,
I, 64) recognizes the existence of third persons sing. and plural in
$\dagger$-a or $\dagger$-$\bar{a}$ (in his transliteration) in alternation with $-ti$, but ar-
gues that these forms are best taken as having a modal value, as so
called 'subjunctives' in contrast with the 'indicative' $-ti$ forms. Here
too there is no agreement, and it has also been suggested that the
forms match the $-i$ forms of Cun. Luwian and Hittite (cf. e.g. Kammen-
huber 1969, 251). More recently the new readings of the signs HH, 209
and 210 discussed in Hawkins, Morpurgo Davies and Neumann 1973 have
considerably altered the data of the problem. What Meriggi read as
$-a$ and $-\bar{a}$ can be read as $-i$ and $-ia$ so that in one instance at least,
that of $-i$, the comparison with Hittite and Cuneiform Luwian is phone-
tically more obvious.

In the case of Lycian the evidence has not altered in recent years
in spite of the new epigraphical material. There are some relatively
obscure forms in $-ni$ ($sij\tilde{e}ni$ etc.), but we have no evidence for $-i$
forms of the type described above, and the regular endings are $-ti$ for
the third pers. sing. and $-nti$ for the third pers. plural.[2] Thus Ly-
cian has nothing to offer to our discussion, though, if it emerges that
the two oldest members of the Luwian group do indeed have forms which
do not fit immediately in the $-wi$ or $-mi$ conjugation, while the young-
est does not, this may be significant for our assessment of the forms
in question.

3. We may start with a brief account of the Cun. Luwian evidence. The
basic data are available in Laroche 1959 and the texts published after-
wards add nothing or almost nothing.

Laroche (1959) lists 15 verbal forms which end in $-ai$. When the
evidence is available $-a$- appears in other forms of the stem (though
the syllabic script makes it possible to assume that in some cases it

may be purely graphic); $-i$ may be part of the stem or a personal end-
ing. Of these forms Laroche takes five as 2nd. pers.sing.imperatives:
a) *la-la-a-i, pa-ap-pa-ša-i, ša-a-i, tar-ši-ya-i, ti-iš-ša-a-i.* If so,
$-ai$ ought to be part of the stem, but we ought to notice that Meriggi
(1962b, 84 ff.) makes a good case for taking *pappašai* as a third pers.
singular present. Other six forms are labelled third sing. pres. by
Laroche too: b) *ar-pa-ša-a-i, ḫal-wa-at-na-aš-za-i* (Laroche 1965, 46),
ḫa-an-ḫa-ni-ya-im, ku-wa-ta-i, na-aḫ-ḫu-u-wa-i, wi-ú-i-da-a-i. Finally
Laroche leaves without comment three other forms: c) *mi-mi-wa-a-i, ša-
-aš-šu-u-ma-a-i, ta-pár-ri-ya-i.*   For yet another form, *mi-u-wa-i,* he
leaves open both possibilities (3rd sing. pres. or 2nd sing. impera-
tive). In most cases we are dealing with glosses in Hittite texts
(marked as such either by obvious Luwian phonetic features or by the
Glossenkeil); the dialect status of the inflectional marker $-i$ must
remain doubtful, since $-i$ could also be a Hittite ending (however im-
probable this seems). Only a few forms appear in Luwian texts though
some are attested more than once. They are *la-la-a-i, ša-a-i,* and
mi-u-wa-i. [3]

   lalai occurs in *KUB* XXXV 88, obv. iii 13 (and in the parallel,
and more fragmentary, text XXXV 89, 12):

   ša-ar-ri-wa-tar DUMU-*in wa-al-li-it-ta la-la-a-i-wa* [(IX-*un-za*)]
   $^{\text{ĞIŠ}}$GA.ZUM-*za* ^{d}*kam.ru-ši-pa-aš*...

   Laroche takes the form as an imperative; this would explain the
shift from the past (*wa-al-li-it-ta*) to the present, and we have evi-
dence for a *lalai-* by-form of the *lala-* stem. Yet *Kamrušipaš* belongs
to the same clause and has a nominative ending. In Laroche's interpre-
tation it must be a nominative with the function of a vocative, though
the real vocative (^{d}*Kam-ru-še-pa*) is in fact attested. This is pos-
sible, but equally possible is to take *la-la-a-i* as a third pers. sing.
present with *Kamrušepaš* as its subject. A choice between the two in-
terpretations is difficult to make.

   ša-a-i occurs only once in a very fragmentary text (*KUB* XXXV 28
i 8); Otten (1953b, 58 f.) takes it as third pers. sing. pres. but
the evidence is not sufficient to decide.

The position of *mu-u-wa-i* is different. First, it is attested a number of times in similar passages. Secondly, though we are not clear about the meaning of the verb, we have some idea of the syntactical structure of the sentences where it appears.

The most complete text is *KUB* XXXV 24, 5 ff. (paralleled by 25, 7 and 43 iii 6) which reads:

5. [na-a-]ú-wa-ti-ya-ta ḫar-m[a-ha-ti] mu-u-wa-i na-ú-wa-ti[-ya-ta?

6. [na-]a̧-ú-wa-ti-ya-ta ma̧-a̧n[-n]a-ḫu-un-na-ti mu-u-wa-i n[a-

7. [ti-]ti-ta-a-ti mu-u-wa-i ᵘᶻᵘŠĀ-ti ᵘᶻᵘNÍG.GIG.ti XII-ta-a̧-t[i...

8. [ḫar-]ma̧-ḫa-a̧-ti(-)ti-ya̧-ta za-aš mu-u-wa-i a-a-la-la-at-ta-ti-ti[

9. [m]a-an-na-ḫu-un-na-ti-ti-ya-ta za-aš mu-u-wa-i da-a-u-wa-aš-ša[-

10. ᵘᶻᵘŠĀ-ti ᵘᶻᵘNÍG.GIG.ti XII-ta̧-a-ti ḫa-ap-pí-ša-a-ti

In ll. 5-7 three clauses are sufficiently preserved to allow us to see that they have the same structure (for a full restoration cf. Rosenkranz 1965, 389). We start with the negative particle *na-ú-wa-* followed by the reflexive *-ti-* and the Acc. pronoun *ata*.   Then comes an Abl.-Instr. noun which indicates a part of the body (*ḫarmahati* 'head') and finally the verb *muwai*. In 8 ff. the pattern is different: the Instr.-Abl. noun begins the clause and is followed by *-ti-* and *-ata*; then comes a Nom. sing. demonstrative *za-aš* 'this' and the verb *muwai*. Laroche (1959, 72) leaves open the possibility that *muwai* be an imperative or an indicative, but the first interpretation must be excluded. In ll. 5, 6 (and 7?) *muwai* follows the factual negative *na-ú-wa*; an imperative would be possible after *niš*, the prohibitive negative, but not after *nawa*. Twice here (ll. 7, 8) and once in 43 iii 11 *muwai* follows *zaš* 'this', which cannot be a vocative but must be the subject of the sentence. If so, the verb can only be in the third person singular (cf. Rosenkranz 1965 and see also Kammenhuber 1969, 251). In other words, it seems that in all its occurrences *muwai* must be third person singular.[4]

We may sum up. The evidence is meagre, but one verb at least (*muwai*) is attested eight times in Luwian texts with the function of a

third person singular. In addition we have five or six different glosses which end in -ai and are used in the same manner. It is remarkable that in no case the -i termination follows a consonant (as for instance in Hittite paši), but always follows -a-. Presumably this means that the use of the -i- ending is restricted to -a- stems; in some instances (e.g. muwai) this is obviously true, but the internal evidence is not sufficient to disprove the alternative hypothesis that the ending was -ai and not -i.

Next we ought to establish what other forms are attested for the -i verbs, i.e. for the verbs which have -ai forms. Here too the evidence is unsatisfactory. None of the -ai forms stands besides a third singular in -ti, though we have -ti forms from at least 23 different verbs. From muwa- we have besides muwai a third personal plural muwanti and a participle muwanza. Besides the glosses ar-pa-ša-a-i, ku-wa-ta-i and na-ah-hu-u-wa-i we also have a third sing. preterite arpašatta, a first pers. sing. imperative kuwayatallu and two third pers. sing. imperative kuwayatadu and nahhuwa(ya)ddu. From the stem lala- in addition to la-la-a-i we also know a third pers. plural lalanti, a third pers. sing. preterite lalatta, a third pers. sing. imperative laladdu or lalaidu and a third pers. plural imperative lalantu.

We may also wonder whether Luwian offers any other evidence for a contrast of endings similar to that of the Hittite -ḫi and -mi conjugations. In the active the answer is negative. The only doubtful form is pa(-a)-i-ú of the Istanuvian rituals (cf. Laroche 1959, 77, and also Kammenhuber 1969, 324), which could be a unique example of a third person imperative in -u rather than -tu, but we do not know any other form of the verb nor are we at all clear about its meaning. In the middle or passive Laroche notices a contrast between -ri and -tari forms in the third person sing. present and -ru and -taru forms in the third pers. sing. imperative. Yet, while the -ri and -ru forms are well documented, the same is not true of the -tari and -taru forms. In three cases only -tari and taru are found in verbs of which we know other forms too: haltittari may derive from the same stem as the third

pers. sing. active *haltatti*; *ú-i-it-ta-ri* and *ú-i-it-ta-ru* may belong
to a stem *wi-* 'to see', if *ú-i-it-ta* is in fact a preterite third per-
son singular from the same verb. The data are not clear. At any rate,
even if we accept the validity of these forms, we may notice that the
Luwian *-ti* verbs have both *-ri* and *-tari* passive forms: *ayari* 'it is
made, it becomes' belongs together with *ayati* 'he makes', while *hal-
tatti* seems to have a passive *haltittari*. This comes as no surprise
since the position of Hittite is not very different (cf. e.g. Watkins
1969, 84).

Finally it is also worthwhile to call attention to the fact that
the *-ai* glosses go hand in hand with *-atu* imperatives.

4. The evidence of Hieroglyphic Luwian is more rewarding. In what
follows we shall concentrate on the First Millennium texts and shall
ignore the evidence of the Second Millennium which is too obscure to
yield any helpful data (but see 4.2.1. end). The values adopted for
some of the most frequent signs are those first discussed in Hawkins,
Morpurgo-Davies, Neumann 1973, and the transliteration follows the
tables published in Hawkins 1975.[5]

4.1. The conjugation of Hier. Luwian is still imperfectly known but
a few facts are clear. We summarize them in the following table which
concerns the present and past active and the imperative:

	Present	Past	Imperative
Sing. 1st pers.	*-wi*	*-ha*	?
2nd pers.	*-si*	?	$\emptyset$ ending
3rd pers.	*-ti*	*-ta*	*-tu*
Plur. 1st pers.	*-mi-na* (?)	?	?
2nd pers.	*-tani*	?	?
3rd pers.	*-^{n}ti*	*-^{n}ta*	*-^{n}tu*

It is not absolutely clear whether *-mi-na* is a present or a past
ending, though it seems likely that it can have present value (the main
evidence comes from the as yet unedited KULULU strips).[6] Also, the As-
sur letters provide some evidence for two other verbal endings, though

the interpretation is too doubtful to allow us to give them a place in the table. $-ha-na$ (in '*69'$(-)sa-ha-na$, ASSUR b, 2; g, 4; *386+*381- $-ha-na$ ASSUR a,3) could be a first person plural preterite ending, while $-ti-sa$ (e.g. in $u-si-ti-sa$ ASSUR c,3, na+LITUUS$-ti-sa$ ASSUR c,3; g,1 (cf. also BOYBEYPINARI 2, IV D 1), *77+$RA/I-ti-sa$, ASSUR e,4; g,2) could be a second person plural preterite. Yet these suggestions cannot be based on a strictly contextual analysis but only on an attempt to fill the vacant slots in the table with morphologically plausible forms. Finally, it is also conceivable that the Assur letters offer evidence for a $-ta$ ending which is neither third sing. preterite nor third plural preterite, but here the level of uncertainty is at its maximum.

4.2. In addition to the forms mentioned above we also find verbal forms which end in $-i$ or $-ia$ ($pi-ia-i$, $ta-i$, $ta-ia$ etc.). There is little doubt that in a number of instances, at least, they are used as third persons, mostly singular (see below 4.4.1.) and that they alternate in parallel or identical contexts with the $-ti$ forms of the present. It is customary to mention the $-i/-ia$ endings as if they were oddities contrasted with the 'normal' $-ti$ endings. This may be correct, but not from a statistical point of view, as shown by the following figures (which are based on an analysis of the more legible and complete texts of the First Millennium):

Third pers. sing. in $-ti$:   ca. 28 different verbs
$-i$ /$-ia$ forms   :   ca. 33 different verbs

If we contrast $-i$ and $-ia$ forms, it is clear that $-i$ prevails:
$-i$ forms :   ca. 28 different verbs
$-ia$ forms :   ca. 15 different verbs

The same verb may have both $-i$ and $-ia$ forms though the evidence is limited:

Verbs with both $-i$ and $-ia$ forms :   ca. 10 different verbs
Verbs with $-i$ forms only   :   ca. 18 different verbs
Verbs with $-ia$ forms only   :   ca. 5 different verbs.

4.2.1.   The list which follows is necessarily tentative and arbitrary;
limitations of space make it impossible to justify every reading and
every interpretation, but since such a list is nowhere available it
seemed necessary to make a first attempt at its compilation. Brackets
join together –*i* and –*ia* forms which are assumed to belong to the same
verbal stem. Owing to the difficulty of the script and to the va-
garies of the logographic rendering it is possible that I have sepa-
rated stems which ought to be treated as identical.[7] For a number of
readings of collated texts I am indebted, as always, to Mr. J. D.
Hawkins.

   á-lá-na-za-ia 'covets', KARATEPE,LXV, 351.

   á-la-sa-i (?), CARCHEMISH A 15 b*

   { *á-saₓza-i* 'speaks', SULTANHAN, d
   { *á-saₓza-ia*, KARATEPE, LXII, 339; LXVIII, 362

   ('*471')*á-za-i*, BABYLON stele, 5

   CAPERE–*i*, see *tà-i*

   CRUS–*i*, see *ta-i*

   { CRUS.CRUS-*ia-za-i*, CRUS.CRUS-*i* 'passes on' (?), CARCHEMISH A 11 a,6;
   {   A 11 c, 2; A 31/2, 4
   { CRUS.CRUS(-)*ni-za-ia*, CARCHEMISH A 6, 8

   DARE-*i*, see *pi-ia-i*

   *isai, see SOLIUM-*MI-sa-i*

   i-zi-i-sa-ta-i 'honours', CARCHEMISH A 1 a, 5; A 1 b, 3

   *kʷisai, cf. REL-*sà-i* and ('*69+RA/I*') REL-*sà?-i*

   la-i 'takes', KÖRKÜN, Cb/A 4 (cf. Morpurgo Davies, Hawkins 1979)

   LITUUS.LITUUS-*na-i*, SULTANHAN, 5

   { 'MALLEUS'-*i*,'MALLEUS'-*la-i*, 'MALLEUS'-*lá-i*, 'MALLEUS'(-)*71-la-i*
   {   'hammers, breaks away', BABYLON stele, 6; BOYBEYPINARI 1, I D,
   {   II B, [II C]; 2, III C 2, IV C 2, IV B 3; CARCHEMISH A 2, 4;
   {   11 a, 6; A 11 c, 3; A 14 a, 6; A 14 b, 4; A, 18 e, 2; [A 20 a,
   {   2?],   A 27 e 3, 3; [HHM 9, B 2]; CEKKE, 11; MARAŞ 6,5(?);
   {   MARAŞ 8,5; TIL BARSIP 2, 6
   { 'MALLEUS'-*ia*, CARCHEMISH A 25 b 2, 1; KARABURUN, 3 [8]

MANUS.*218-*lâ/î/u-ha-i*, CEKKE, 10

mu-wa/i-i, *28-*wa/i-i* SULTANHAN, c; KAYSERİ, 4

pa+LITUUS-*la-ni-ia-i*, TIL BARSIP 2, 7

pa-*nu-wa/i-i*, SULTANHAN, 7

(VAS) pa+ra/i-*à*+ra/i-*ia* ASSUR e, 2

pa-sà-REL-*i*, SULTANHAN, 5

pa-za-*i*, BABYLON stele, 5

{ 'PES₂'(-)*tà-i*, SULTANHAN, 4
{ 'PES₂.PES₂'(-)*tà-ia*, BOR, 4

pi-ia-i, DARE-*i* 'gives', BABYLON stele, 6; CARCHEMISH A 13 d, 4
     (DARE-*i*); KULULU strip 2, 1 (twice); fr. 1, rev. 1 (twice), 2; KULULU
     1, 6; AKSARAY, 5

{ *pi-pa-sa-i* 'gives' BOHÇA, 2
{ *pi-pa-sa-ia* BOHÇA, 3 (twice)

 PONERE-*wa/i-i*, see *tu-wa/i-i*

{ REL-sà-*i* 'fears', SULTANHAN, 5
{ REL-sà-*i-ia*, KARATEPE, XXXIV, 179 (Hu)

 REL-sà²-*i*, see ('*69+*RA/I*') REL-sà²-*i*

 sa₅+ra/i-wa/i-ia, SULTANHAN, 6

 sa₅-sa₅⟨+ra/i⟩-la-i 'sacrifices, offers', BOLKARMADEN, 4

 ]*sa-ta-i*, CARCHEMISH A 1 a, 5

{ SCRIBA+*RA/I*(-)*tà-i*, CARCHEMISH A 6, 8; A 11 a, 6; [A 11 c, 2]
{ SCRIBA+*RA/I*(-)*tà-ia*, CARCHEMISH A 24, 5; A 31/2, 4

 SOLIUM-*MI-sa-i*, SOLIUM+*MI-i* 'sits', KARATEPE, LIV, 313 (Hu),XXIV,128;
     ÇİFTLİK,4 (cf. Hawkins, Morpurgo Davies 1978, 108 f.)

{ *ta-i*, CRUS-*i*(-') 'stands', SULTANHAN, base 8 (*ta-i*); ALEPPO 2, 6;
{   BABYLON stele, 5; CARCHEMISH A 3, 2; A 18 h;   EKİNVEREN, 3;
{   KARATEPE, LXXV, 407 ('CRUS'-*i*); SULTANHAN, 5, base 8, 9
{ *ta-ia*, CRUS-*ia*, KARATEPE, XLVIII, 262 (*ta-ia*, Hu; CRUS-*ia*, Ho); CEK-
     KE, 11

{ *tà-i*(-') 'takes', ALEPPO 2, 4, 5; BOYBEYPINARI 2, IV C 3; KÖRKÜN, 4 A;
{   KÖTÜKALE, 5; CARCHEMISH A 3,3; A 15,
{ *tà-ia*, 'CAPERE'-*ia*, CARCHEMISH [A 4 a,2]; A 6, 8, 9; HAMATH 4, 3
     ('CAPERE'-*ia*, reading by J.D. Hawkins).HAMATH 5,1

$t\dot{a}$-i, $t\dot{a}$-ia, see 'PES$_2$'(-)$t\dot{a}$-i, 'PES$_2$.PES$_2$'(-)$t\dot{a}$-ia; SCRIBA+RA/I(-)
$\quad$ $t\dot{a}$-i/ia

ta-pa-i, see *261(-)ta-pa-i

⎧ tu-wa/i-i(-'), PONERE-wa/i-i 'puts', SULTANHAN, base c (reading by
⎪ $\quad$ J.D. Hawkins), MARAŞ 7 A ((PONERE+MI) tu-wa/i-i); BOYPEYPINARI,
⎨ $\quad$ 2, IV D 2; KAYSERİ, 2 (PONERE-$w\dot{a}/\dot{i}$-$\dot{i}$)
⎪
⎩ PONERE-wa/i-ia, CARCHEMISH A 13 a

u-pa-i, SULTANHAN base, 11; IZGIN d XVII ((PES) u-pa-i)

(VAS) pa+ra/i-$\dot{a}$+ra/i-ia, see pa+ra/i-$\dot{a}$+ra/i-ia

wa/i+ra/i-ia-ia 'helps' (?), BOHÇA, 3 (twice), 4

]i, CARCHEMISH, A 4 d

*28-wa/i-i, see mu-wa/i-i

('*69+RA/I')REL-$s\dot{a}^?$-i, KULULU 11 B 3 (reading suggested by J.D. Hawkins)

*261(-)ta-pa-i, CARCHEMISH A 2, 5

('*471')$\hat{a}$-za-i, see $\hat{a}$-za-i

*480+RA/I-ia, ASSUR f, 4

$\quad$ This list does not include the possible reading ta-i of HİSARCIK 2,2, since the text is too obscure. The forms AEDIFICARE+MI-i, PES-wa/i-i and wa/i-si-i have not been listed but are discussed below (4.3. and 4.4.2). Finally it is important to notice that, though we deliberately ignored all texts of the Second Millennium, EMİRGAZİ(A 2, B 2) twice seems to have a form $s\dot{a}$-ka-ta-la-i/ia, which may be related to the 'iterative' $s\dot{a}$-ka-$t\dot{a}$-li-sa- of BOYBEYPINARI 2, IV D 1, III D 1 (cf. Hawkins 1975, 128 f.).

4.3. No doubt -i and -ia are personal endings and it is remarkable that they always follow an -a- vowel — with two possible exceptions, neither of which need to be taken too seriously. First we have the form pa-$s\dot{a}$-REL-i of SULTANHAN, 5. The phonetic value of the REL sign is not certain. The consonant(s) could be either hw- or kw-; the vowel is likely to be -i in forms like REL-sa or REL-i-sa (to be read *$hwis$ or *$kwis$ 'who'). Yet, the same sign is also used in the conjunction REL-ti or REL-$\dot{a}$-ti, which is best taken as the dative/ablative/instrumen-

tal of the relative pronoun and read as *$h\nu ati$ or *$k\nu ati$. The most
plausible suggestion is that, just as we have a $\nu a/i$ sign with double
vocalism, we also have a REL sign which can be used phonetically with
double a/i vocalism. If so, there is no difficulty in reading pa-$s\grave{a}$-
-REL-i as $pask/h\nu ai$, just as we read mu-$\nu a/i$-i as $m\nu ai$.

A text not yet fully edited offers the second exception. One of
the KULULU strips (2, 1) has the sentence:

   68 OVIS-na ^1la-li-$s\acute{a}$ $^1p\acute{a}$?+ra/i-$s\grave{a}$-ta-ia | pi-ia-i | ku-ki-$s\grave{a}$-ta-za
REL-$za|\nu a/i$-si-i

"Lalis gives 68 sheep to Parsatas so that/because he ... for
the ...".

If $\nu a/i$-si-i is a verb it is likely to be a third person singular
(from a verb hitherto unattested in Hieroglyphic), but the whole clause
is far from clear and this analysis may be entirely wrong.

As a general rule we can still hold to the point that $-i$ and $-ia$
must follow an $-a-$ vowel. The presumption is that $-a-$ belongs to the
verbal stem but the nature of the script prevents us from actually
proving that we are not dealing with $-ai$ or $-aia$ endings. A form such
as pi-pa-sa-tu could be read $pipastu$ and this would call for a segment-
ation $pipas$-ai; on the other hand could be read $pipasatu$ (with a thema-
tic suffix) and this would call for a segmentation $pipasa$-i. $t\grave{a}$-i and
za-i ('takes' and 'stands') are certainly built on $-a-$ stems, but the
forms attested could easily be derived from *ta-ai.

4.4. So much for the morphology. We turn now to the function of the
$-i/-ia$ forms. Meriggi, to whom we owe one of the most recent state-
ments about them (1966, I, 64), argues that the $-i/-ia$ forms (†$-a$ /
†$-\bar{a}$ in his transliteration) have both singular and plural functions; he
also finds that the same verb can have both $-i$ or $-ia$ and $-ti$ (sing.)
or $-nti$ (plural) forms. This speaks against the suggestion that the
contrast between $-i/-ia$ on the one hand and $-ti$ on the other hand is
due to a different conjugational pattern. Moreover Meriggi finds that
the syntactical usage of the $-i/-ia$ forms differs from that of the $-ti$
and $-nti$ forms and argues that $-i/-ia$ have a modal value similar, so

to speak, to that of a subjunctive. His conclusion is that there is no reason to compare these forms with those of the Hittite *-ḫi* conjugation.

4.4.1. My picture is somewhat different. There is a great deal of evidence for a singular use of *-i* or *-ia*; a typical text could be ALEPPO 2, 4:

|ARHA-*pa-wa/i-ta* |REL-*sa* | *tà-i*
pa-pa-wa/i-' (CAELUM DEUS)TONITRUS *ha+ra/i-na-wa/i-ni-sa-ha*(URBS) (DEUS) LUNA-*sa* | (LOQUI)*tá-tara/i-ia-tu*

"who (sing.) takes it away,

let Tarhunzas and the Moon God of Harran curse him".

(The reading of the final verb rests on Hawkins' collation).

On the whole I have counted at least 85 different occurrences of *-i* / *-ia* forms with a clear singular subject. Other instances occur in texts too broken to allow a syntactical interpretation.

There are six passages where conceivably *-i* or *-ia* forms could be used as plurals, but in three of them at least the evidence is far from compelling. In CARCHEMISH A 11 a, 6 the subject of the verb CRUS. CRUS-*i* is likely to be *-ata*, a neuter pronoun which picks up the neuter plural word for 'gates' of the previous sentence. In Anatolian it is not surprising to find a neuter plural subject with a singular verb. The syntax of KARATEPE, LIV (Hu.) is far from clear (see Hawkins, Morpurgo Davies 1978, 108); if the subject of SOLIUM-*MI-sa-i* is REGIO-*ní-ia* REL-*ia* we have again a neuter plural subject. Finally, in SULTANHAN, 4 we find two nouns in coordination as the subject of 'PES₂'(-)*tà-i*:

|('TERRA')*ta-sà-*REL+*ra/i-ri+i-pa-wa/i-ta-*'|*pá?+ra/i-wa/i-li-sà*
|SUPER+*ra/i-*'|'PES₂'(-)*tà-i* |*wa/i-ia-ni-sá-ha*

"and *parualis* will come up from the earth and wine"

It seems preferable to attribute *wiyanis-ha* to this clause rather than to the following clause, as suggested by Meriggi. The word order is significant; *wiyanis-ha* is an amplification of the clause and it is

parwalis, not *parwalis* ... *wiyanis-ha* which determines the number of
the verb.

These three examples do not contradict the bulk of the evidence.
Yet in three other texts an *—i* form definitely has a plural subject.
A fourth text probably calls for correction on different grounds and
will be discussed below (4.4.2.).

1) SULTANHAN, 5:

|*wa/i-tu-u*|DEUS-*ni-i-zi* |MALUS-*tà-ti-i* |*tara/i-pi-wa/i* |CRUS-*i-*'
"for him the gods will stand ... in badness"

2) KULULU 1, 5-6:

¹*tu-wa/i-ti-ia-pa-wa/i-ta* |*za-zi* |DEUS-*ni-zi-i*|*wa/i-su* |*à-wa/i-i-tu*
wa/i-tà ‖ *ni-i* |REL-*ti-i-ha* |*pi-ia-à-i*
"May these gods come well for Tuwatis
and let them not give it (him??) to anyone(else)"
(The reading is based on Hawkins' collation; cf. also Hawkins
1971, 115).

3) ÇİFTLİK, 3-4:

zi-wa/i-ta (DEUS)TONITRUS-*hu-za-sa* (DEUS)*hi-pa-tà-sa-ha-*'[SOLIUM]-*MĪ*[
[*zi-pa-wa/i-ta*] (DEUS)*i-ia*[-*sá*] (DEUS)*ku*[-AVIS-*pa-pa-sa-ha*]ᴵSOLIUMᴵ-*MĪ*
zi-pa-wa/i-ta (DEUS)*sa₅+ra/i-ru-ma-sá* (DEUS)*à-la-sù-wa/i-sa-ha*
SOLIUM+*MĪ-i*
"On the one hand Tarhunzas and Hebat sit[s?],
[and on the other] Eas and Ku[papas] sit(s)
and on the other Sarrumas and Alasuwas sits"

(For the reading see Hawkins, Morpurgo Davies 1978, 109)

If we compare these three instances with the number of certain oc-
currences of *—i* or *—ia* in the singular, we are entitled to wonder how
significant the former are — all the more so since in all cases the
word for 'gods' or the name of two specific gods is the subject. It
would be interesting, of course, to know whether 'gods' also calls for
a *-ti* rather than a *—ⁿti* form, but since preconsonantal *—n—* is not in-
dicated in writing, this is by definition impossible. The conclusion

seems to be that $-i$ and $-ia$ are singular endings; the exceedingly few
exceptions do not prevent us from making this general statement.

4.4.2. We can now tackle the problem of the alternation between $-i$ /
$-ia$ and $-ti$ (or $-ri$) in the same verb. The evidence is limited and,
as we shall see, in no way compelling. $pi-ia(-\grave{a})-i$ 'gives' and $t\grave{a}-i$,
$t\grave{a}-ia$ 'takes' obviously belong to the same verb as $pi-ia-ti$ (KULULU
strip 2, rev. 4) and $t\grave{a}-ti$ (CARCHEMISH A 11 a, 7; A 11 c, 4, 5) but in
both verbs the $-ti$ forms are plural : 'they give', 'they take'. Near
$sa_5-sa_5+ra/i-la-i$ and $tu-wa/i-i$ /PONERE-$wa/i-i$ we also have
LIBARE(-)$sa_5+ra/i-la-i-ti$ and PONERE-$wa/i-ti$, both in ANKOZ, 1. The
subject is missing but in the context a plural would probably make
better sense than a singular. LIBARE(-)$sa_5+ra/i-la-ti$ also occurs in
CEKKE, C 3, where the number is not clear. SOLIUM+$MI-ti$ of CARCHEMISH
A 3, 2 has a plural subject (see 4.4.1. for SOLIUM-$MI-sa-i$). Meriggi
(loc. cit.) also quotes a form $mu-wa/i-ti$ besides $mu-wa/i-i$, but this
belongs to an Empire text (KÖYLÜTOLU), which is almost entirely ille-
gible; Meriggi himself (1966, II/2, 265) now reads y-$mu-pa^?-wa-ti$ and
does not try to make sense of the text (for PES$_2$.PES$_2$(-)$t\grave{a}-ti-i$ see
note [10]).

    Two more instances of possible coexistence of $-i$ and $-ti$ in the
singular of the same verb need consideration.

    KARATEPE, LXVI, 355 has a singular form AEDIFICARE+$MI-i$, which is
matched in parallel contexts by two occurrences of a singular AEDIFI-
CARE+$MI-ri+i(-i)$ (KARATEPE, LXXI, 373 and LXXII, 379; cf. Hawkins, Mor-
purgo Davies 1975, 125 and the note on p. 128). The alternation at
such a short distance is odd; the verb is well attested (cf. Hawkins
1971, 116 ff.) but nowhere else any $-i$ or $-ia$ form is found. It seems
likely that in KARATEPE, LXVI $-i$ is the phonetic complement of an under-
stood *$tamati$ or *$tamari$, rather than of an otherwise unattested *$tamai$.

    The evidence for the verb PES-wa/i or $awi-$ 'to come' is collected
by Hawkins 1971. The past is well attested but there are also 5 in-
stances of a third person sing. present PES-$wa/i-ti$ or PES-$wa/i+ra/i$
(CARCHEMISH A 11 c, 2; ALEPPO 2, 4; GAZİANTEP 1, 2; SULTANHAN, 4 and

base, b). In addition Hawkins lists two occurrences of PES-*wa/i-i*.
Yet one of the two texts (ALEPPO 2, 6) has PES-*wa/i*[-.]-*i* which is
better restored as PES-*wa/i*-[*ti*]-*i* (Hawkins 1975, 146 and fig. 4).
On the other hand in BOLKARMADEN, 5 the reading is clear:

|*wa/i-ru-ta* |*mu-ti-ia-wa/i-ni-zi* DEUS-*ni-zi* |*wa/i-su-u*|PES-*wa/i-i*
"for him the gods of Mutis shall come well".

   PES-*wa/i-i* is anomalous in at least three ways: a) the supposed
-*i* form belongs to an -*i*-stem verb, since the interpretation *awi-*
(rather than *awa-*) of PES-*wa/i-i* is now certain. We have seen above
that -*i* normally follows an -*a*- vowel. b) the subject is plural (but
there are parallels for this). c) the verb normally has a -*ti* form
for the third pers. sing. present. Moreover, the formula itself is
anomalously used. The phrase *wasu awi-* is frequently found in connec-
tion with the gods. Yet, either it refers to the past (and the verb
is in the preterite) or belongs to contexts of the type: "if anyone
does ..., then let the gods come well for him". In this case the
verb is in the imperative; cf. KULULU 1, 5 (quoted in 4.4.1.) and
ÇİFTLİK, rev. 6:

|*wa/i-ta* ¹*tu-wa/i-ti-ia á-pa-zi-i-ha* DEUS-*ni-i-zi*|*wa/i-su-wa/i*
|'PES'-*wa/i-tu-u*
 "May those gods too come well for Tuwatis"

   The reverse formula wishing harm onto the evil-doer also has an
imperative. Cf. CEKKE, 11:
   á-pa-ti-pa-wa/i (CAELUM DEUS) TONITRUS (DEUS)*ka+ra/i-hu-ha-sá*
(DEUS)*ku*-AVIS-*ha* (DEUS) BONUS   (DEUS)*i-sa-ha* (DEUS) LUNA-*sa* (DEUS)SOL
CRUX-*wa/i-la* 'PES'-*wa/i-tú*
   "For him may Tarhunzas, Karhuhas, and Kupapas, the god Good and
Ea, the Moon (and) Sun come ..."

   Thus the BOLKARMADEN passage would add to its irregularities the
use of a present indicative in an imperative-like formula; we may feel
inclined to ask whether it would not be simpler to assume that the
scribe forgot the final -*tu* and read PES-*wa/i-i*⟨-*tu*⟩, i.e. restore the

imperative awi^ntu.

No clear cut demonstration is possible, but after this brief survey we are left with the impression that the evidence for the coexistence of *singular* $-ti$ and $-i$ forms in the same verb is either nonexistent or too scanty to be taken seriously.

4.4.3.   There may be two reasons for attributing a modal value to the $-i$ / $-ia$ forms. First, the supposed coexistence with $-ti$ forms in the same verb and for the same person. We have seen that there is no factual basis for this point. Secondly the fact that $-i$ and $-ia$ often occur in subordinate clauses of the relative or indefinite or hypothetical type. The standard context is of the type: "who does X ..., whoever does X ..., if anyone does X ...". The question arises whether this is the only type of context where $-i$ and $-ia$ occur. The answer is negative; we find $-i$ and $-ia$ in positive statements for which no modal value is called for. Some examples have already been quoted in 4.4.1 (SULTANHAN, 4 and 5; ÇİFTLİK, 4); others may be added:

>   KULULU strip 2, 1:
> *32* (OVIS)ha-wa/i-na ¹mu-wa/i-hi-$sá$ ¹ni-ia | pi-ia-i
> "Muwahis gives 32 sheep to Nis"

>   KARATEPE, XLVIII, 262-265 (Hu):
> wa/i-na |i-zi-sa-tu-na ta-ia ('AQUA')$há$-pa+ra/i-$sá$|OMNIS-MI-i-$sá$ ⋯
> "and every libation begins/began to honour him ..."
> Cf. Hawkins, Morpurgo Davies 1978, 112.

>   CARCHEMISH, A 15 b, 2:
> wa/i-mu-$tá$ (DEUS) ku-AVIS-pa-pa-sa |('PES')pa-ta_5-' PONERE-mi-i-na
> | ta-i
> "Kupapas will take me placed at (her) foot" [9]

>   CARCHEMISH, A 1 b, 2-4:
> wa/i-ti-' mi-i-sa VIR-ti-i-sa REL-i-ta REL-i-ta ‖ |$á$-ta_5-ma-za
> i-zi-i-sa-ta-i
>
> |mu-pa-wa/i-ta-'| ‖BONUS-sa_5+ra/i-ti CUM-ni i-zi-i-sa-ta-i

"wheresoever my husband honours (his) name for himself ($-ti$),
he also honours it for me ..."

(This translation seems to me preferable to that suggested by Hawkins
1972, 94 "wheresoever one shall honour the name of my husband, one
shall honour me too with reverence", which does not consider the $-ti-$
of the first clause).

Just like the $-ti$ forms, $-i$ and $-ia$ appear after the prohibitive
negative: cf. $pa-nu-wa/i-i$, $pa+ra/i-\grave{a}+ra/i-ia$, $pi-ia-i$ (BABYLON stele,
6; KULULU 1, 6), $t\grave{a}-ia$ (CARCHEMISH, A 6, 8); cf. 4.6.2.

Altogether I have counted slightly more than 70 occurrences of
$-i/-ia$ forms in subordinate clauses of the "whoever, if" type *versus*
more than 20 occurrences in main clauses. Before we wonder at the pre-
ponderance of the $-i/-ia$ forms in subordinate clauses, we may remember
that some of these verbal forms are repeatedly used in quasi-formulaic
sentences. MALLEUS-la-, for instance, accounts for almost 20 occur-
rences of $-i$ / $-ia$ and always appears in the introduction to the final
curse of the texts. If we classify in a similar manner the instances
of third persons sing. in $-ti$ attested in Hieroglyphic Luwian we find
that they are used at least 28 times in subordinate clauses of the
"whoever, if" type, and 17 times in main clauses. The comparatively
smaller number of 'subordinate' $-ti$'s can be explained when we observe
that no $-ti$ form has the stereotype properties of the most frequent $-i$
forms (we quoted MALLEUS-$(la-)i$, but one could also mention CRUS-i,
$t\grave{a}-i$ etc.). $sa-ni-ti$ with its eight occurrences (in subordinate
clauses) is unique among the $-ti$ verbs. At any rate, what emerges is
that both the $-ti$ and the $-i$ /$-ia$ forms are more frequently used in
subordinate clauses than in main clauses. At this point it is not
surprising to find that $-ti$ and $-i$ /$-ia$ appear in perfectly parallel
contexts, often in coordinated clauses. An example may suffice.

CARCHEMISH, A 11 a, 5-6:

POST+RA/I-$wa/i-s\grave{a}-pa-wa/i-t\grave{a}$ |REL-$\grave{a}-ti$‖PRAE-na CRUS.CRUS-i
$wa/i-t\grave{a}-$' | SCRIBA+RA/I(-)$t\grave{a}-i$ REL-$i-sa$
|$za-zi-pa-wa/i-t\grave{a}$ (SCALPRUM)$ku-ta-sas_5+ra/i-zi$ LOCUS-$za-$'(SA_4)$s\grave{a}-ni-ti$

NEG₂-pa-wa/i-tá |za-na DEUS-ní-na LOCUS-za-' (SA₄)sá-ni-ti

|NEG₂-pa-wa/i-tá á-ma-za á-ta₅-ma-za *ARHA* MALLEUS-i

wa/i-tú-ta-' (DEUS) TONITRUS-sa (DEUS)kar-hu-ha-sa (DEUS)ku-AVIS-

-pa-sa-ha IRA-lá-za-tú

"If in future it shall pass

(to anyone) who shall ...

and remove (?) these orthostats from (their) places

or shall remove this god from (his) place(s)

or shall erase my name

may Tarhunzas, Karhuhas and Kupapas be angry against him"

(Cf. Hawkins 1975, 146)

It would be too long to quote in full the second text of BOYBEY-PINARI. but it is worth noticing that there the curse contains in parallel clauses the following verbs: MALLEUS-i (4 times), (OCCIDENS)i--ma-ni-ti, i-zi-i-ti, PONERE-wa/i-i, tá-i.

At this stage it seems impossible to attribute a specific modal value to the -i /-ia forms in contrast with the -ti forms. The general conclusion must be that certain verbs take -i /-ia endings and other -ti endings without any specific syntactical or semantic difference, just as in Hittite some verbs have -i and others -zi.

4.5. In Hittite the -i forms belong to a specific conjugation so that a third person singular such as *memai* calls for a first sing. *memaḫḫi* and a second sing. *mematti* in contrast with e.g. *ešzi* which calls for *ešmi* and *ešši*. We have seen how scanty is the Cun. Luwian evidence from this point of view, and we must now ask what is the position of Hieroglyphic. Here some more information is available. Together with -i or -ia forms we find in the same verb:

a) a -wi first person sing. present (cf. (VAS)pa+ra/i-á+ra/i-wa/i, pi-pa-sa-wa/i-i, sa-sa₅+ra/i-la-wa/i vs. (VAS)pa+ra/i-á+ra/i-ia, pi-pa--sa-i /-ia, sa₅-sa₅+ra/i-la-i).

b) a -nti third person plural present (cf. pi-ia-ti, tá-ti(-i), LIBARE(-)sa₅+ra/i-la-i-ti /LIBARE(-)sa₅+ra/i-la-ti, SOLIUM+MI-ti, PO-NERE-wa/i-ti vs. pi-ia-i, tá-i, sa₅+sa₅+ra/i-la-i,   SOLIUM-MI-sa-i,

$tu-wa/i-i(-')$ / PONERE-$wa/i-ia$; see 4.4.2.).

c) a -ha first person sing. preterite (cf. $la-ha$ [BOHÇA, 4],
(VAS)$pa+ra/i-\grave{a}+ra/i-ha$, $pi-ia-ha$, $t\grave{a}-ha$, PONERE-$wa/i-ha$, $u-pa-ha$ etc.
vs. $la-i$, (VAS)$pa+ra/i-\grave{a}+ra/i-ia$, $pi-ia-i$, $t\grave{a}-i$ $/-ia$, $tu-wa/i-i(-')$ /
PONERE-$wa/i-ia$, $u-pa-i$).

d) -ta and -^{n}ta third persons sing. and plural preterite (cf.
CRUS.CRUS-ta, $mu-wa/i-ta$, $pi-ia-ta$, $pi-pa-sa-ta$, SOLIUM-$MI-ta$,
CRUS+ra/i, $t\grave{a}-ta$, $tu-wa/i-ta$ /PONERE-$wa/i-ta$, $wa/i+ra/i[-ia?]-ta$ vs.
CRUS.CRUS-$ia-za-i$ / CRUS.CRUS-$ni-za-ia$, $mu-wa/i-i$, $pi-ia-i$, $pi-pa-sa-i/$
$-ia$, SOLIUM-$MI-sa-i$, CRUS-i / CRUS-ia, $t\grave{a}-i$ /$t\grave{a}-ia$, $tu-wa/i-i(-')$ /
PONERE-$wa/i-ia$, $wa/i+ra/i-ia-ia$.

e) a second person imperative with no personal ending (cf. $\acute{a}-sa_5-$
-za ASSUR a,1; b,1; c,1; d,1; e,1; f,1 vs. $\acute{a}-sa_5-za-i$ /ia).

f) -tu and -^{n}tu third persons sing. and plural imperative (cf.
$pi-ia-tu(-u)$, $pi-pa-sa-tu$, LIBARE(-)sa_5 $ra/i-li-i-tu$, $tu-wa/i-tu$ vs.
$pi-ia-i$, $pi-pa-sa-i$ /$-ia$, $sa_5-sa_5+ra/i-la-i$, $tu-wa/i-i(-')$/PONERE-
$-wa/i-ia$).

(Unless specifically indicated, the references are easily trace-
able in Meriggi 1962).[10]

To sum up, it seems that the $-i/-ia$ forms belong to a conjugation
which also has a 1st. pers. sing. pres. in $-wi$, a 3rd pers. plural pre-
sent in $-^{n}ti$, a 1st pers. sing. preterite in $-ha$, a 3rd person sing.
preterite in $-ta$, a 3rd pers. plural preterite in $-^{n}ta$, and imperative
forms in $-tu$ and $-^{n}tu$. There is evidence that exactly the same state-
ment may be made for the $-ti$ forms. In both cases the evidence is
much clearer than for Cuneiform Luwian.

Obviously we should be on much safer ground if we were certain
that we know all personal endings of the Hieroglyphic conjugation(s),
but, as we mentioned above, some gaps remain in our tables and some
endings are attested for which no value has as yet been established.
Yet, at the present state of our knowledge, it is legitimate to say
that in Hieroglyphic Luwian there is no evidence for two fully fledged
conjugations such as the $-hi$ and $-mi$ conjugations of Hittite. In par-

ticular it is noticeable that the *-i* and *-ia* forms belong to verbs
which also have a first person singular in *-wi* (which corresponds
to Hittite *-mi* rather than to Hittite *-ḫi*) and imperatives in *-tu*.
Similarly the *-ti* forms belong to verbs which have a first person
sing. preterite in *-ha* and a third person sing. preterite in *-ta*.

4.6. So far we have treated the *-i* and *-ia* forms as interchangeable
and we have implicitly attributed to them identical semantic and syn-
tactical functions. Yet the very existence of the two types calls
for an explanation. First, the basic data. We have seen that we
have ca. 28 different verbs with *-i* forms and 15 with *-ia* forms. Of
these, 10 different verbs have both *-i* and *-ia* endings. If instead
of the different verbs we count the number of occurrences of the in-
dividual forms the proportion is somewhat different. The *-i* forms
occur some 85 times and the *-ia* forms some 26 times.

So much for the facts; we may add that *-i* is attested in at least
40 different inscriptions and *-ia* in 16 different inscriptions. Six
texts have both *-i* and *-ia* (BOHÇA, CARCHEMISH A 6, A 31/2, CEKKE, KA-
RATEPE, SULTANHAN).

Why two forms? I may anticipate here that the question will not
receive a firm answer in this paper but we can explore a few avenues.

5.6.1. While *-i* seems to match *-i* of Cuneiform Luwian, Hittite and
Palaic, *-ia*, if read as [ya], has no parallel outside Hieroglyphic.
This makes it an obvious candidate for a morphological innovation (the
alternative hypothesis, viz. that it is an archaic feature preserved
here only, seems unlikely), and obliges us to explore usage and meaning
of *-ia* to see how the innovation may have arisen.

Obviously the first task is too see if, and how, *-i* and *-ia* dif-
fer in usage. Yet both forms occur in parallel contexts, sometimes in
coordinated sentences. CEKKE, 10 f. may serve as an example (cf. Haw-
kins 1975, 146 f. in addition to Meriggi 1966, II/1, 111):

|*sa-ti-pa-wa/i*   URBS+*MI-ni* REL-*sa* MALUS-*hi-tà-ri+i* VERSUS (PES₂)
i+ra/i

ni-pa-wa/i FINES-*hi-zi* ARHA   MANUS+*218(-)*lá/í/u-ha-i*

ni-pa-wa/i-sa   za-ti STELE-*ri+i* (SCALPRUM) *tara/i-pi* ‖ CRUS-*ia*

wa/i-ta za-ia pá+ra/i-ta ARHA MALLEUS-*i*

"He who approaches this city with malice,

or ... (*-i-* verb) (its) frontiers,

or he stands (*-ia* verb) ... from (?) this stele,

(and) erases these words (*-i* verb) ..."

There is little doubt that the *-i* and *-ia* forms fulfil exactly
the same syntactical function: a difference in grammatical person or
modal value must be excluded.

4.6.2. We may wonder whether *-i* and *-ia* could differ in tense. The
question is important since, if this were so, it would also be possible
to explain how the innovation came about. If *-ia* were a past marker
we could think of an analogical proportion of the type:

$$-ti \quad : \quad -ta \quad = \quad -i \quad (\text{or } -yi) \quad : \quad X$$

which would trigger off the creation of a new third person singular
preterite in *-ia*. The fact that one and the same verb can have both
-ta and *-ia* forms would not count as an objection since this could re-
flect the initial period of confusion before the analogical innovation
became fully established. However, the hypothesis is acceptable only
if *-ia* occurs in contexts which call for a past, in contrast with *-i*
which clearly appears in contexts which require a present or a future.
There are, interestingly enough, a few clauses where *-ia* could be
taken as a past marker. The first two occur in KARATEPE.

(1) KARATEPE, XXXIII-XXXV, 171-187:

|*á-pa-ta-za-pa-wa/i-ta* 'TERRA'-*tau-ta-za* ⟨*-ha-pa-wa/i*⟩ |REL-*ia*
REL-*sà-ta rú-wa/i-na* |*á-sa-ta*

  CAPUT-*ti-sa-wa/i+ra/i* REL-*i-ta-na* REL-*sà-i-ia* 'VIA'-*wa/i-na*
'PES₂'(-)*i-u-na*

  REL-*pa-wa/i à-mi-ia-za* ('DIES')*há-li-ia-za* |MULIER-*ti-zi-há*
'⁺305'-*si-tara/i-ti* PES₂. PES₂-*ta*

  "and in those places which were formerly feared (?),

where a man fears/feared to walk the road,
in my days even women walked with spindles"

á-sa-ta and PES$_2$.PES$_2$-*ta* are undoubtedly preterites; the context
seems to call for a past value of REL-*sằ-i-ia*, a form of the verb 'to
fear' (cf. Hawkins, Morpurgo Davies 1978, 111 f.).

(2) KARATEPE, XLVIII, 262-265, was quoted above in 4.4.3. The
verb *ta-ia* (Hu) / CRUS-*ia* (Ho) occurs after a number of missing sen-
tences but it is noticeable that all the miserable traces of verbal
endings which we have before it point to preterite endings. The Phoe-
nician text, which is preserved, also calls for a translation with a
past tense both in this very passage and in the preceding clauses.

A third passage belongs to an inscription where the problem of
extricating tenses is far from easy.

(3) BOHÇA, 1 ff. (for the text see Morpurgo Davies, Hawkins 1979):
 (i) EGO-*mi* [|?] *ku+ra/i-ti-sá* ...
 (ii) |*wa/i-ta* |(DEUS)TONITRUS-*hu-ti* | *za-ri+i* |(BONUS)*wa/i-su-wa/i-i*
 (iii) |*wa/i-mu* |TERRA-REL+*ra/i-zi* |SUPER+*ra/i* |"CAPERE"(-)*lá/í/u-na-'*
        |*pi-pa-sa-i*
  (iv) |(DEUS)CERVUS$_2$-*ti-pa-wa/i-ta-'* |*za-ri+i*(-)*ia-pa-'*(?)
        |(BONUS)*wa/i-su-wa/i*
   (v) |*wa/i-mu   za-ri+i   sằ-ma-ia* ‖ (ANIMAL)('BESTIA') REL$_2$-*sas+ra/i*
        |*pi-pa-sa-ia*
  (vi) |*á-mi-zi-pa-wa/i* |*tá-ti-zi-i* |AVUS-*ha-zi-ha* |REL-*zi* [|?]*sa-ta*
  (vii) |REL-*pa-wa/i* (DEUS)TONITRUS-*hu-za-sa* |NEG$_2$ |REL-*ha-na*
        |*wa/i+ra/i-ia-ia*
 (viii) |*á-mu-wa/i* |REL+*ra/i* |*wa/i+ra/i-ia-ia*
   (ix) |*wa/i-mu* |'TERRA'-REL+*ra/i-zi* |SUPER+*ra/i* |'CAPERE'(-)
        lá/í/u-na |*pi-pa-sa-ia*
    (x) |*á-mi-zi-ha<-wa/i>* |*tá-ti-zi* ‖ AVUS-*ha-zi-ha*-[']?] |REL-*i*
        (ANIMAL) 'EQUUS <'>-*su sằ-ta la-u-na* REL 'PES$_2$.PES$_2$'(-)*tằ-ta*
   (xi) |REL-*pa-wa/i* (DEUS)CERVUS$_2$-*ti-ia*-⌈*sá?*⌉ [|?] NEG -' [|?]
        REL-*ha-na* [|?]*wa/i+ra/i[ia?]-ta*

(xii) [|?]*á-mu-wa/i* |REL+*ra/i* |*wa/i+ra/i-ia-ia*

(xiii) |[*á*?]-*wa/i* |*za-ri-i* |'TERRA'-*sa*-REL+*ra/i-i*|*za-ti-i* |LOCUS-*ta₅*- -*ti-i* |1 CENTUM (ANIMAL)GAZELLA *la-ha* '*381'-*ta* |REL-*za*

(i) I (am) Kurtis ...

(ii) Here I am good (*wasu-wi*) for Tarhunzas,

(iii) He grants (*pipasa-i*) to me to take over the territories;

(iv) and here ... I am good (*wasu-wi*) for Runtiyas,

(v) here he grants (*pipasa-ia*) to me the beasts (as?) *samaya*.

(vi) And (those) who were (*saⁿta*) my fathers and grandfathers,

(vii) Tarhunzas does not help (*wariya-ia*) at all,

(viii) as he helps (*wariya-ia*) me,

(ix) — he grants (*pipasa-ia*) to me to take over the territories.

(x) And when my fathers and grandfathers came ('PES₂.PES₂'(-)*tá-ta*) to take (such) horse(s) as (there) were (*saⁿta*),

(xi) Runtiyas did not help (*wariya-ta*) at all,

(xii) as he helps (*wariya-ia*) me,

(xiii) since (?) in this territory, in this place, I took (*la-ha*) 100 gazelles ...

The sense would run perfectly if all the -*ia* forms were translated as preterites — except for two problems; why should we have a present in (iii) and a past in (v), the parallel clause? why should we have a -*ia* form in (viii) but the expected -*ta* form in (xi)? It seems that if we stress the parallelism of (iii) and (v) we may be pushed to take -*ia* in (v) as a present marker; on the other hand, if we stress the parallelism of (viii) and (xi) the presence of a clear past in (xi) ought to induce us to take -*ia* in (viii) as a past marker, though the morphological contrast between -*ia* and -*ta* in the same verb would remain unexplained.

In all other contexts the -*ia* forms seem to have present/future value and often alternate in identical constructs with -*i* or -*ti* presents (as in the passage from CEKKE quoted in 4.6.1).

Three times we find -*ia* forms after a prohibitive negative: ...
ti-i |*ma-nu-ha* | ARHA-'| ('VAS')*pa+ra/i-á+ra/i-ia* in ASSUR e, 2;

... |NEG₃-*i* CUM-*ni ARHA* | *tà-ia* and ... |NEG₃ CUM-*ni ARHA* | *tà-ia*
both in CARCHEMISH A 6, 8. Once a *-ia* form appears after an adverbial
formation which means 'in future' or the like; cf. SULTANHAN, 6:

> |*wa/i-tu-u* 9 |(ANIMAL)BOS-*sa* CENTUM-*ha ma-tu-sà*
> |POST+*ra/i-ta-pa-wa/i à-ta* | *sa₅+ra/i-wa/i-ia*
> *wa/i-tu-u-ta* | *ti-na-ta-za* | POST+*ra/i-ta*
> |*u-sa-li-pa-wa/i-tu-u* | 11 (ANIMAL)OVIS-*zi*

> "to him (there will be) 9 oxen and 100 ...,
> and in future he will *anta sarwa*,
> for him in future (there will be) a *tinata^{n}za*,
> and for him, yearly, 11 sheep"

The reading is based on Mr. Hawkins' collation. The text is far
from clear but the adverb ought to point to a present/future value of
sarwaia, rather than to a past. An attempt at translating POST+*ra/i-ta*
as 'afterwards' or the like, which would allow the introduction of a
past verb to follow it, cannot be supported by any relevant evidence.

Altogether the bulk of the evidence favours for *-ia* the same func-
tions as for *-i*, though the KARATEPE and BOHÇA passages remain mysteri-
ous. On the other hand we ought not to forget the frequent instances
of Hittite present forms where we would expect a preterite. Given this,
the analogical hypothesis made above about the origin of *-ia* has to be
dropped.

4.6.3. Other morphological explanations do not seem more plausibe.
-i and *-ia* cannot be conjugational allomorphs since both endings can
occur in the same verb. Nor does it seem likely that we have two end-
ings in free variation or dialectally differentiated. In the latter
case we would not expect to find both forms in the same text; in the
former it would be very difficult to explain how *-ia* came to exist,
if it is indeed an innovation, but has no morphological *raison d'être*
and no obvious analogical origin.

Since no other explanation is available we may now ask whether
both *-i* and *-ia* could be different spellings for an [-i] morph (an

hypothesis first suggested in Hawkins, Morpurgo Davies, Neumann 1973, 180). If this were so, our problem would be solved.

That in a syllabic script the syllabogram -ia can indicate a post-vocalic -i (perhaps only in final position) is not implausible, but is there any positive evidence for this suggestion?

In final position spellings of the -CV-ia type mostly belong to two grammatical categories : neuter plurals Nom.-Acc. of the há-ni-ia--ta-ia type and datives singular of the kar-hu-ha-ia type.

The neuter plurals in -ia alternate with -a forms (cf. há-ni-ia--ta-ia and ha-ni-ia-ta in KARATEPE, XII, 60 Ho and Hu, and OMNIS-MI-ma--ia / OMNIS-MI-ma ibid., XV, 77, Ho and Hu); see Hawkins, Morpurgo Davies 1978, 107. The comparison with Hittite neuters such as šalla (from šalli-) and meggaya (from mekki-) speaks for a phonetic contrast between [-a] and [-aya]. In the neuter plural of pronouns we regularly find REL-ia, (á-)pa-ia, za-ia, and there is no trace of simple -a forms. Here Lycian ebeija provides a perfect match for á-pa-ia (if we allow for the Lycian change of a to e). Once again this speaks for a full [ya] reading of -ia rather than for an [i] value.

In the case of the -ia datives of the kar-hu-ha-ia, ka-ma-ni-ia type, the comparison with Cun. Luwian -ya and Lycian -je speaks in fa-vour of a full phonetic value of -ia (cf. Hawkins, Morpurgo Davies, Neumann 1973, 170). However, we may well wonder how to interpret the contrast between the dative FRATER-la-i which occurs twice in KULULU strip 1, rev. 4 and the dative ¹REL-za-FRATER-la-ia (a personal name) found ibid., obv. 2. It is possible that in the word for 'brother' either -i stands for [ya] or we have an almost unique example in Hiero-glyphic of dative in -Ca-i rather than -Ca-ia or -Ci.

Leaving aside this last problem what emerges is that the spelling -Ca-ia can indicate [Caya]. This does not prove or disprove that -Ca--ia can also indicate [Cai].

Elsewhere it is not difficult to quote instances of -i- /-ia- al-ternations: cf. e.g. i-zi-i-wa/i(-i) (TIL BARSIP 1, 7   KARATEPE, LXIX, 365) and i-zi-ia-wa/i (ASSUR, e, 2), i-zi-i-tà   (e.g. KARATEPE, III,

17 (Hu) and BABYLON Cup 1, 1) and *i-zi-ia-ta* (e.g. CARCHEMISH, A 15 b,
1 and KARABURUN, 1), *á-mi-ia-ti* (e.g. ÇALAPVERDİ 1, 3) and *á-mi-ti*
(e.g. KÖRKÜN, 1) etc. It is difficult to know whether we should give
any weight to the unique spelling *ha-li-i* of BOR, 12 in lieu of the
expected *ha-li-ia* (which is frequently attested). Yet in all these
cases *-ia* occurs after *-i* and we could reasonably think of a phonetic
contraction *-iya-* > *-i-* and of two spellings which reflect two dif-
ferent states of the language, an archaic one and a less archaic one.

Another instance of *-i- /-ia-* alternation, if real, may be more
relevant to our problem. In the second KULULU strip we find (obv. 1)
the city name *á-sà-ha-ia-la+ra/i-ti*(URBS); in the same text (rev. 4)
we also find the name *á-sa-i-la+ra/i-ti*(URBS). If the two cities are
the same, which seems likely, we have here an instance of *-i-/-ia-*
alternation after *-a-*. What was the exact name of the cities it is
impossible to know but the chances are that either *-ia-* stands for [i]
or *-i-* stands for [ya]. According to the former interpretation we
would have some basis for the assumption that e.g. *tà-ia* differs from
tà-i in spelling but not in pronunciation. If the latter interpreta-
tion were true we could reach the same conclusion, because if *-i-* can
stand for [ya] the odds are that the reverse is also true.[11]

Beyond this it is not possible to go. The evidence is ambiguous
and no solution can be fully demonstrated. At the moment the least
improbable hypothesis is that *-i* and *-ia* are alternative spellings for
the same ending.

5. We now turn to comparison, first within the Luwian group, then of
Luwian and Hittite. Of the *-i* verbs of Cun. Luwian two match Hierogly-
phic verbs: *la-la-a-i* and *mu-u-wa-i*. Here too, however, the comparison
is not entirely straightforward. Cuneiform *la-la-a-i* could be an im-
perative and in any case Hieroglyphic *la-i* differs from it because of
the absence of reduplication. *mu-u-wa-i* is clearly a third person
sing. in Cun. Luwian but we are not certain about its meaning either
in Cuneiform or in Hieroglyphic. Yet the correspondence can hardly be
denied. There is no counterevidence, i.e. there are no Cuneiform *-i*

verbs which have $-ti$ counterparts in Hieroglyphic (or vice-versa). On the other hand there are at least three instances of $-ti$ forms in Cuneiform which match $-ti$ forms in Hieroglyphic: Cun. *ayati*, Hier. *á-ia--:i-i* (SULTANHAN, 6); Cun. *awiti*, Hier. PES-*wa/i-ti* (CARCHEMISH A 11 c, 2 etc.); Cun. *tupiti*, Hier. *tu-pi-ti-í* (KAYSERİ, 3). The evidence is scanty but the two languages agree.

We mentioned above that Lycian has no $-i$ forms. More important is that even where Hieroglyphic has $-i$, Lycian has $-ti$; contrast Hier. *:i-ia-i* and Lycian *pijeti*; Hier. PONERE-*wa/i-ia* /? *tu-wa/i-i* and Lycian *tuti*; Hier. *ta-i* /CRUS-*i* (or *tà-i* ??) and Lycian *ta-di*. When the evidence is available the $-ti$ forms of Cun. and Hier. Luwian correspond to $-ti$ forms of Lycian (cf. Lycian *adi* 'he makes', Lycian *tubeiti* 'he puts', etc.). All works as if the two older members of the Luwian group preserved two different morphs for the third person sing. present, but the youngest member, Lycian, generalized one of the two.

3.1. How much overlap is there between Cuneiform and Hieroglyphic Luwian and Hittite? Among the $-i$ forms of Cuneiform there is no certain match with Hittite. Possible candidates are (1) *la-la-a-i*, if (a) it is not an imperative, and (b) can be compared with the non-reduplicated Hittite *tai* 'he takes'; (2) *pa-ap-pa-ša-i*, if (a) it is not an imperative, and (b) can be compared with Hittite *paši* (but *pašzi* is also attested); (3) *ta-pár-ri-ya-i*, if (a) it is a third person singular, and (b) Hittite *taparriyai* really exists, i.e. it is not a Luwian form in Hittite. The $-ti$ verbs of Cuneiform Luwian often correspond to $-zi$ verbs of Hittite (*ayati : ayazzi; anniti : anniyazi; *:: (pa)litti; kalutitti : kalutizzi; kangatiti : gangadaizzi; pari-* *:: parihaizzi; puwati : puwaizzi*, and perhaps a few others). The question is Cun. Luw. *hal-ta-at-ti*, if it corresponds to Hittite *hal-* (but in Hittite the verb also has $-mi$-type forms).

Hieroglyphic offers a somewhat different picture. There is one absolutely clear instance of overlap with Hittite : *tà-i* / *tà-ia* 'he takes' and Hittite *dai*. The semantics are less clear in the case *:: uppa-i* and Hittite *uppai* but the morphological overlap is complete.

Together with $ta-i$ 'takes', we can also consider $la-i$ 'takes', if the
two forms have a common origin. $pi-ia-i$ is etymologically related to
Hitt. pai 'gives', but the Luwian group seems to have remodelled the
whole conjugation of the verb.

In a few other cases we may think that $-i$ forms of Hier. Luwian
correspond to $-zi$ forms of Hittite, but in no instance are we certain
about the validity of the comparison. If our interpretation is cor-
rect, SOLIUM-$MI-sa-i$ may correspond to Hittite $ešzi$ (but the normal
form is middle: $eša$, $ešari$). For $pa-sa-$REL-i G.R. Hart (apud Hawkins
1975, 119 note 9) has suggested a connection with Hittite $paškuwai-$,
which seems to be a $-mi$ verb. $sa_5-sa_5+ra/i-la-i$ 'offers' may be
compared with the non-reduplicated Hittite $šarlai-$, which has a third
person sing. present $šarlaizzi$·(but also a form $šarlai$); $wa/i+ra/i-$
$-ia-ia$ 'helps' ought to match Hittite $warraizzi$.

Of the Hieroglyphic forms a number end in $-za-$ or $-sa-$. It seems
that Hieroglyphic had an iterative suffix $-za-$, which (perhaps) alter-
nated with $-sa-$, but it is also likely that $-za-$ verbs arose from
stems ending in stop followed by a $-ya-$ suffix (see Hawkins, Morpurgo
Davies, Neumann 1973, 184 ff., Hawkins, Morpurgo Davies 1975, 133).
Whatever their origin, all $-za-$ verbs for which we have evidence have
third persons sing. present in $-i$ rather than $-ti$ ($i-zi-ia-ti$ is not
relevant here because, even if it is built with a $-za-$ suffix must
have been redetermined with a $-ya-$ suffix). A number of $-sa-$ verbs
also have $-i$ or $-ia$ forms : the obvious examples are $pi-pa-sa-i$, REL-
$-sa-i$. Two possible instances of $-sa-$ 'iteratives' with $-ti$ forms
are quoted in the literature, but are both extremely uncertain and
have to be dismissed. $pa-la-sa-ti-i$ of CARCHEMISH A 3, 3, if it were
a verb, would be in the singular, but Meriggi (1966, II/1, 57) has
argued that it must be the dative-locative of a noun. $la-ma-ni-sa-ti$
of CARCHEMISH A 31/2, 4 has traditionally been taken as a verb derived
from Hittite $laman$ 'name' (though the Hieroglyphic word is $atamanza$).
Yet,(a) this is implausible, (b) the context is obscure, (c) if the
form were a verb, the chances are that it would be in the plural.

The conclusion is that both $-za-$ and $-sa-$ verbs have $-i$ third persons singular; this may be relevant for the complex question of the relationship of the $-za-$ and $-sa-$ verbs with the $-sk-$ and $-s(a)-$ iteratives of Hittite, which are $-mi$ and $-hi$ verbs respectively.

In Hittite the $-nu-$ causatives belong to the $-mi$ conjugation. Hieroglyphic Luwian has a possible example of $-nu-$ verb with an $-i$ ending, $pa-nu-wa/i-i$, but, given the obscurity of the context, it is not absolutely certain that the verb is a causative (though Hawkins 1979 discusses a possible $simplex\ pa-$). It is interesting to contrast with this form, the causative (SOLIUM) $i-s\grave{a}-n\acute{u}-wa/i-ti$ of KARATEPE, XIV, 313 (Ho). It belongs to a sentence syntactically obscure, but may well be a third person singular. If so, we may have some oscillation between $-i$ and $-ti$ forms in the case of the $-nu-$ verbs but the evidence is far too small.

It remains to add that in Hieroglyphic, as in Cun. Luwian, we find $-ti$ forms which overlap with Hittite $-zi$ forms, though the evidence is scanty; cf. $\grave{a}-ia-ti-i$ 'makes' (SULTANHAN, 6) and Hittite $iazzi$; (PES₂) $i+ra/i$ 'comes' (i.e. iri < $*iti$ (CEKKE, rev. 10, see Hawkins 1975, 146 f.) and Hittite $(pa)izzi$.

5. It is now time to summarize some of our findings. Both Cuneiform and Hieroglyphic Luwian have $-i$ and $-ti$ third persons singular present. The contrast is morphologically conditioned, i.e. some verbs have $-i$, others have $-ti$. The scarcity of our evidence does not allow us to formulate rules which predict for certain verbal types the appearance of either $-i$ or $-ti$ (though we can say, for Hieroglyphic, that the $-sa-$ and $-za-$ verbs have $-i$ and not $-ti$). It is remarkable that, both in Cuneiform and Hieroglyphic, $-i$ always follows an $-a-$vowel; with the reservations formulated in 3. and 4.3, we may venture the suggestion that $-a-$ is a thematic vowel and that $-i$ is frequent in thematic verbs.[12] There is evidence in Hieroglyphic, and to a lesser extent in Cuneiform, that in other forms of the conjugation the $-i$ verbs have the same endings as the $-ti$ verbs. The third member of the Luwian group, Lycian, ignores the $-i$ forms and in some instances we have

definite evidence for *-i* forms of Hieroglyphic (and, presumably, of
Cuneiform) which correspond to *-ti* forms of Lycian.

From a historical point of view the evidence now allows us to
attribute to Common Luwian both a *-ti* and an *-i* ending for the third
person singular present (obviously *-i* may represent an earlier diph-
thong). Common Luwian *-i* must be compared with Hittite *-i*, just as
Common Luwian *-ti* must be compared with Hittite *-zi* (< *-ti*). It fol-
lows that *-i* (or its phonetic antecedent) also belonged to Common Ana-
tolian. This is not a new conclusion, but some of the data are new.

New data also confirm the old view that the *-i* forms of Luwian
belong to verbs which, except for the third person singular present,
have the same personal endings as the *-ti* verbs. If we were to pro-
ceed in complete innocence of all that has been written about the ori-
gin of the *-ḫi* conjugation this ought to mean one of two things:
either the Luwian languages inherited from Common Anatolian a contrast
between two verbal conjugations and then lost it, except for the *-ti* /
-i contrast in the third person singular present, *or* Hittite inherited
from Common Anatolian a *-ti* / *-i* contrast which formed the starting
point for the creation of two conjugations (these, in their turn, may
have exploited inherited morphological material). To make sense of
this statement, I should add perhaps that I want to speak of a contrast
in conjugation, whenever this can be defined by a contrast in the end-
ings of two or more verbal persons.

We may now shed our assumed ignorance. No doubt the communis
opinio, which (in spite of numerous syntactical and semantic problems)
sees a clear *morphological* connection between the endings of the Indo-
European perfect (and perhaps middle) and those of the *-ḫi* conjugation,
will reject the second hypothesis. I do not want to dispute this view.
However, it is not easy to see why Luwian should have retained only the
morphological contrast between *-i* and *-ti* — all the more so since, to
judge from Hieroglyphic, the *-i* forms are not limited to a few residual
verbs. In particular, if Luwian ever had an equivalent of *-ḫi* (*-ḫai*
or the like) why should this form have been replaced by *-wi* (or *-mi*)

when the first person singular preterite was *-ḫa* ? On the other hand, if we prefer to assume that the creation of the present forms, as contrasted with the inherited $*-H_2e$, $*-tH_2e$, $*-e$, (> Luwian *-ha*, $*-ta$, $*-a$?) does not go back to Common Anatolian, why should Luwian have created a new *-i* (< $*-ai$?) ending for the third person singular present and no new endings for the other persons of the present?[13]

New data may indeed lead to salvation but the journey is long and tiring. The traveller must negotiate more obstacles than he expected, and there is no royal road to the kingdom of heaven. In my view whoever tries to explain the origin of the *-ḫi* conjugation must also explain why the Luwian conjugation came to have the form it had.

NOTES

[1] For the main facts see Kammenhuber 1969 passim, Szemerényi 1970, 227 ff. and 305 ff. (with the earlier bibliography). The most recent literature includes Cowgill 1975, Risch 1975, Eichner 1975, Neu 1976, Jasanoff 1979, Cowgill 1979, Kuryłowicz 1979.

[2] The basic facts about the Lycian conjugation are stated in Neumann 1969, 388 ff. For the forms of the *sijẽni* type cf. Carruba 1968, 19 f. The new trilingual does not seem to have altered our view of the conjugation (see Laroche 1974a and 1974b).

[3] The Cuneiform Luwian texts are quoted from Otten 1953a. As mentioned above the new texts are not very helpful. *KBo* XIII, 260 offers a number of instances of the imperative *la-a-ad-du*, and *KBo* IX, 145.7 has the imperative *la-a-la-an-du*.

[4] If *ḫu-u-i-na-i* of *KUB* IX 31, obv. ii, 30 were a full verbal form it ought to be a third person singular rather than a second person singular imperative, since it occurs in a subordinate clause. Yet Carruba 1968, 13 f. makes a good case for reading *ḫu-u-i-na-i-ma-an* (rather than *ḫu-u-i-na-i ma-an*) and for taking the verb as a first person plural.

[5] The texts are quoted according to Laroche 1960 and Laroche 1969. Implicit reference is always made to Meriggi 1966 for the edition of the texts and to Meriggi 1962a for the lexicon.

[6] For the KULULU lead strips see Özgüç 1971, 111 ff. and Laroche ibid., 114-116. For KULULU fragm.1 see Özgüç 1973, pls. XII-XIII, figs.5-6.

[7] Square brackets round a reference indicate that in that text the verb is partially restored.

[8] CARCHEMISH A 6, 9 has a form 'MALLEUS'-*la* which is unique and presumably ought to be read 'MALLEUS'-*la⟨-i⟩* or 'MALLEUS'-*la⟨-ia⟩*.

[9] An alternative translation is "for me Kupapas will take (it) (viz. the *atari-* mentioned previously) placed at (her) foot".

[10] I have not discussed above the evidence for the verb PES₂(-)*tằ-* or PES₂.PES₂(-)*tằ-*, because it is too uncertain, though it may be very relevant. CARCHEMISH A 1, 1 has the first person sing. present PES₂(-)*tằ-wa/i-i-*' (cf. Hawkins 1972, 88 but correct ibid., 109 the note on para. 5); the third persons sing. present 'PES₂'(-)*tằ-i* and 'PES₂.PES₂'(-)*tằ-ia* of SULTANHAN and BOR were listed in 4.2.1. A third person plural present PES₂.PES₂(-)*tằ-ti-i* is attested in ALEPPO 2,2 (cf. Morpurgo Davies, Hawkins 1979). A third person plural preterite 'PES₂.PES₂'(-)*tằ-ta* is found in BOHÇA, 4 (Morpurgo Davies, Hawkins 1979). If all these forms belong to the same verb of movement, which seems likely, we have a good example of a conjugation with *-wi*, *-i* or *-ia*, and *-nti* endings in the present, and *-nta* in the preterite.

[11] We should also mention the unique spelling PRAE-*i-ia* of CARCHEMISH A 6, 1 in lieu of the frequently attested PRAE-*i*; unfortunately here too the data are ambiguous. Houwink ten Kate 1961, 82 and 174 and 1965, 22 ff. has made a good case for two Luwian forms *pri* and *priya* continued by Lycian *pri* and *prija-/prijẽ-*.

[12] It seems to me unlikely that *-ai* continues *-e-i*, i.e. the old 'perfect' ending + the *-i* element of the present; the odds are that the contraction is much earlier than the date of our texts.

[13] The problems posed by Luwian have often been ignored; for a recent exception see Eichner 1975, but obviously he could not consider the Hieroglyphic data discussed above.

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