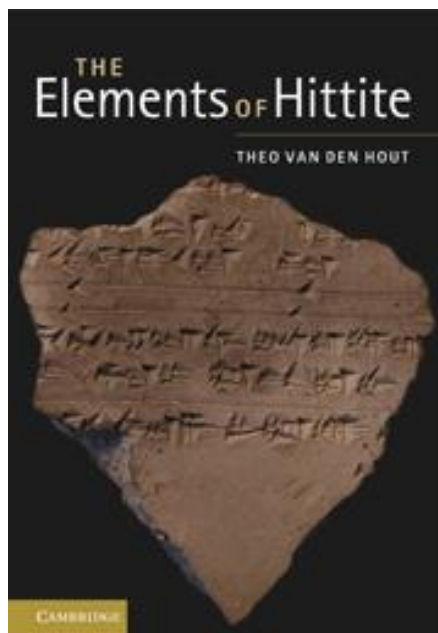


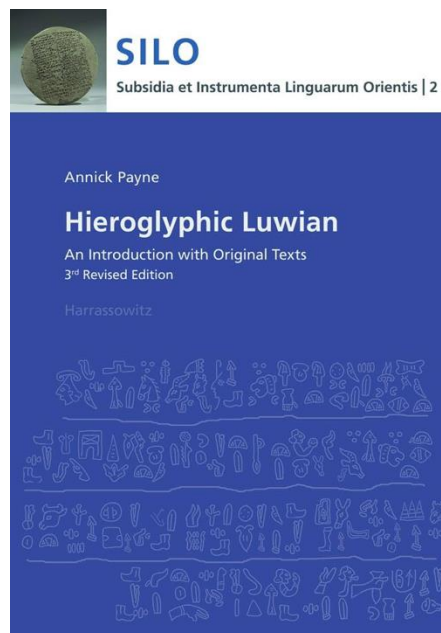


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Texts (and grammars)



van den Hout 2011



Payne 2014

Studien zu den Boğazköy-Texten

Herausgegeben von der Kommission für den Alten Orient
der Akademie der Wissenschaften und der Literatur, Mainz
Band 50

Die keilschrift-luwischen Texte in Umschrift

von Frank Starke

1985

Otto Harrassowitz · Wiesbaden

Starke 1985

Studien zu den Boğazköy-Texten

Herausgegeben von der Kommission für den Alten Orient
der Akademie der Wissenschaften und der Literatur
Heft 10

Das Palaische Texte, Grammatik, Lexikon

von Onofrio Carruba

1970

OTTO HARRASSOWITZ · WIESBADEN

Carruba 1970



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Anatolian

Class 3: Anatolian morphology



Morphological preliminaries

- Word = isolated by blank spaces (cuneiform, alphabetic) or word separator (hieroglyphic)

zinuškezzi

/t̂si-nu-sk:e-t̂si/

CROSS-CAUS-PLUR-PRS.3SG

‘he is making (the oxen) cross (the river)’

- Fusional and synthetic (cumulative exponence)

- Base **word structure**:

ROOT-(DERIVATION)-ENDINGS

takšulaš

/taks-ul-as/

JOIN-NMZ-GEN.SG

‘of agreement, peace’



Morphological processes

- **Suffixation:** itt. *war-* 'burn (intr.)' > *war-nu-* 'make burn'
- **Prefixation:** *uda-* 'carry hither', *peda-* 'carry away'
- **Infixation:** *ištark-* 'fall ill' > *ištar-nin-k-* 'make ill'
- **Reduplication:** *lelaniya-* 'become furious', *wewakk-* 'ask'
(Dempsey 2015)
- **Ablaut:** no ablaut of the Gk. type *éleipon* vs. *élipon*

unproductive!



Addition vs. substitution

- The most common pattern is suffix **addition**:

išpant- 'libate' > *išpant-uzzi-* 'libation' > *išpant-uzzi-aššar*
'libation vessel'

- **Caland System**: traces of a system of suffix **substitution**, with adjectival bases (Dardano 2007, Rau 2009, 2013, Dell'Oro 2015, Bozzone 2016):

park-u- 'high' / *parg-ašti-* 'height' / *park-nu-* 'make high' /
park-ešš- 'become high'



Compounding

- Nominal composition is scarcely attested in Anatolian:

dāyuga- 'two-year-old' << *dā* 'two' + *yuga-*

appašiwatt- 'future' << *āppa* 'after' + *šiwatt-* 'day'

pappanekneš 'brothers of the same father' << *pappa-* 'father' + *negna-* 'brother'

- Multi-word expressions (**NB**: placement of determinatives!)

GEN+NOUN ^{LÚ} *maniyaḥḥiyaš išḥa-* 'administrator (lit. lord of the administration)'

PREV+VERB *parā ḥandantār* 'divine power (lit. ?)'

ADJ+NOUN ^{UZU} *parkui ḥaštai* '(cut of meat called) pure bone'



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Nominal morphology

Kloekhorst 2008, Oettinger 2017



Hittite: grammatical categories of nouns

- **Case:** nominative, accusative, genitive, dative-locative, allative, ablative, instrumental, vocative, ergative
- **Number:** singular, plural, collective (?)
- **Gender:** common, neuter



Hittite: gender

- Hittite features **two grammatical genders**: common and neuter
- There is **no** 100% semantic correlation with **animacy**:

atta- (c.) 'father' vs. *šuhḫa-* (c.) 'roof'

peda- (n.) 'place' vs. *antuḫšātar* (n.) 'population'

- Partial correlation with **inflectional classes**: most (but not all!) **consonant** stem nouns are **neuter**, certain derivational suffixes only derive neuter nouns e.g. the nominalizing suffix *-ātar*



The inflection of *a*-stems in Hittite

NOM	<i>antuḫšaš</i>	<i>antuḫšeš</i>
ACC	<i>antuḫšan</i>	<i>antuḫšuš</i>
GEN	<i>antuḫšaš</i>	<i>antuḫšan</i>
D/L	<i>antuḫši</i>	<i>antuḫšaš</i>
ABL	<i>antuḫšaz</i>	
INST	<i>yukit</i> 'yoke'	
N/A	<i>pēdan</i> 'place'	
VOC	<i>atta, atti</i> 'oh father'	



Cases: nominative

SG.COM

OH -š̄/-∅, Pal. -š̄, Luw. -s, Lyc. -s, Lyd. -(i)s < PIE *-s

PL.COM

- OH -eš̄ < PIE *-es
- Pal. -aš̄ < PIE *-o-es
- CLuw. -Vnzi /-Vntsi/, HLuw. -V-zi /-Vntsi/,
Lyc. -i (< *-insi), -ēi (< *-onsi), -āi (< *-ānsi) < PIE *-Vms-oi



Cases: accusative

SG.C < PIE *-*m*

OH -(a)n, Pal. -(a)n, Luw. -an, Lyc. Lyd. -n

PL.C < PIE *-(o)m̥s

OH -uš̌, Luw. -nz(a), Lyc. -Vs, Lyd. -aś?



Cases: nominative-accusative

SG.N < PIE $*-\emptyset/-m$

OH $-\emptyset/-n$, Pal. $-\emptyset/-n$, Luw. $-an$, Lyc. $-\tilde{e}$, Lyd. $-\emptyset/d$

PL.N < PIE $*-eh_2$

OH $-a$, Pal. $-a$, Luw. $-a$, Lyc. $-a$, Lyd. $-a$



Hittite: collectives?

alpa- (c.) 'cloud' common gender → nom/acc pl. *alpeš/alpuš*
'individual clouds' vs. collective (=neuter plural) *alpa* 'bank of clouds'

šuhḫa- (c.) 'roof' → *šuhḫuš* acc. pl. vs. *šuhḫa* collective plural

Neuter nouns only have a collective plural *-a* < PIE **-eh₂*

Other strategies must be used to express countable neuter plurals.



Core cases and syntactic alignment

- a. **LUGAL-*uš*** 3-*ŠU* *aīš=šet*
king.NOM 3.times mouth(N).NOM/ACC=3SG.POSS.NOM/ACC.N
ārri
wash.PRS.3SG
'The king washes his mouth three times.' (KBo 17.1+ i 15)
- b. **LUGAL-*uš*** *arḥa paizzi*
king.NOM away go.PRS.3SG
'The king goes away.' (KBo 20.10+ i 2)
- c. *ta* **LUGAL-*un*** *šuppiaḥḥi*
CONN king.ACC purify.PRS.3SG
'And he purifies the king.' (KBo 20.10+ ii 8)



Core cases and syntactic alignment

- a. *kēdani=ma paḥḥur urāni*
DEM.DAT=PTCL fire(N).NOM/ACC burn.PRS.3SG.MID
‘And near to this one burns a fire.’ (KUB 23.59 iii 9)
- b. ^{LÚ}MUḤALDIM=*kan ḥašši paḥḥur warnuzzi*
cook=PTCL hearth.DAT fire(N).NOM/ACC make.burn.PRS.3SG
‘The cook lights the fire on the hearth.’ (KUB 11.35 v 16)
- c. *man=an paḥḥuwenanza arḥa warnuzi*
IRR=3SG.ACC fire.*ant*.NOM away make.burn.PRS.3SG
‘May the fire burn him completely.’ (KBo 32.14 ii 6–7)



Split ergativity in Hittite?

	LUGAL- <i>u</i> - 'king (c.)'	<i>paḥḥur</i> 'fire' (n.)
A	LUGAL- <i>uš</i>	<i>paḥḥuwen-anza</i> - <i>anzeš</i>
S	LUGAL- <i>uš</i>	<i>paḥḥur</i>
P	LUGAL-<i>un</i>	<i>paḥḥur</i>

What is *-anza*?

- 1) **Derivational approach:** derivational suffix *-ant-* + nominative *-s*
- 2) **Inflectional approach:** *-anza* is an ergative case ending

Luwian: *i*-mutation

Paradigm of common gender nouns in Luwic

	CLuw.		HLuw.		Lyc.	
	sg.	pl.	sg.	pl.	sg.	pl.
nom.	-iš	-inzi	-is	-inzi	-i	-i
acc.	-in	-inz	-in	-inzi	-i	-is
dat.-loc.	-i	-anz	-i	-anz	-i	-e
abl.	-ati		-adi		-edi	
gen.adj.	-ašša/i-		-asa/i-		-ehe/i-	



- *nakkī*- 'heavy' < *-íH (Widmer 2007)
- Lyc. -(a)za- < *-eh₂- (Melchert 2014)



Feminine gender as a Core-IE development!

- **Starke** (1982, 1990): 'feminine' motion suffix -ih₂-
- **Rieken** (2005): abstract thematic nouns > *i*-stem concrete nouns
- **Norbruis** (2021): resegmentation of *i*-stems as C-*i* stems and merger with *o*-stems

Cases: genitive

GEN.SG

OH. $-(a)š$, Pal. $-aš$, HLuw. $-as$, Lyc. $-\emptyset$ (PN) < PIE $*-os/-s$

Lyc. $-i/eh(e)$ < PIE $*-(e)so$

HLuw. $-asi$, Car. $-ś$ < PIE $*-osyo$

GEN.PL < PIE $*-om$

OH. $-an$, Lyc. $-ē$, Lyd $-an$



number indifferent or only plural?
(Kloekhorst 2017 vs. Goedegebuure 2019)



NH $-aš$ = $-aš$ **DAT.PL**

Hittite vs. Luwian possessive constructions

Luwian

tatarriyamna

curse.N/A.N.PL

'the curses...of the army'

kuwar-ašša{n}

army-ADJ.POSS-N/A.N.PL



Adjectival gentives

CLuw. *-ašša/i-*

HLuw. *-asa/i-*

Lyc. *-a/ehe/i-*

Mil. *-a/ehe/i-*

Car. *-s*

Sid. *-asV*

Pis. *-s (?)*

NB:

Hitt. ^{URU} *Tarhunt-ašša-* 'of the God Tarhun'

Pal. *Zaparwat-asa/i-* 'of the God Zaparfa'

< PIE **-osyo* GEN > PAnat **-osso-* (inflected gen.) =
Suffixaufnahme (or decausative derivation, Fortson 2020)



Cases: genitive and dative

DAT.SG < PIE DAT **-ei*, LOC **-i*

OH *-i/∅*, Pal. *-i/-ai*, Luw. *-ī*, Lyc. *-i*

DAT.PL

OH *-aš*, Pal. *-aš*, Lyc. *-e* < PIE **-os*

Luw. *-anz* < PIE **-ens* (from ACC.PL)

“This means that Lycian stems from a sister language to Proto-Luwian and that both can be regarded as **distinct daughters** of Proto-Luwic.” (Kloekhorst 2022: 69)



Cases: ablative-instrumental, allative

Ablative

- Hitt. *nepišz(a)*, Lyc. *xhadi* < PIE *-*ti*
- HLuw. *-a-ri/-a-ti* < PIE *-*óti*

Instrumental: Hitt. *-(i)t* < PIE *-*t*

From OH > NH: the instrumental *-(i)t* disappears and its functions are taken over by the ablative (Melchert 1977)

Allative: Hitt. *-a* < PIE *-*o* cfr. Lat. *pro*

Hittite nominal inflection over time

Case	OH: plural	NH: plural	Luwian
NOM.C	<i>-eš</i>	<i>-eš, -uš, -aš</i>	<i>-i(n)zi / -a(n)zi</i>
ACC.C	<i>-uš</i>	<i>-eš, -uš, -aš</i>	<i>-adi</i>
ABL.	<i>-az, -za</i>	<i>-az, -za</i>	
INS.	<i>-it, -d/ta</i>		



Hittite nominal stems

- **Nouns:**

- *-a-*: *antuḫš-a-* 'man'
- *-i-*: *ḫalk-i-* 'grain'
- *-u-*: *wēll-u-* 'meadow'
- *-ai-*: *zahḫ-ai-* 'battle'
- *-au-*: *ḫarn-āu-* 'birthing stool'
- One single *-e-* stem: *utne* (n.) 'land'

	<i>ḫalki-</i>	<i>šuppi-</i>
NOM.G	<i>ḫalkiš</i>	<i>šuppiš</i>
NOM.PL	<i>ḫalkiēš</i>	<i>šuppaēš</i>

- **Adjectives:**

- *-a-*: *ḫantezziya-š* 'first'
- *-i-* (ablaut!): *šuppi-š* 'pure'
- *-u-* (ablaut!): *āššu-š* 'good'



Hittite consonant stems

NB: most are neuter!

- *ḫ*-stem: *išqaruḫ* (n.) 'vessel', *iskaruḫ-i* D/L
- *l*-stem: *mēmal* (n.) 'meal', *memal-aš* GEN
- *n*-stem: *laman* (n.) 'noun', *lamn-aš* GEN
→ but *ḫāra-š* (c.) 'eagle' vs. *ḫāran-aš* GEN
- *r*-stem: *aniur* (n.) 'ritual', *aniur-aš* GEN
- *s*-stem: *aiš* (n.) 'mouth', *išš-aš* GEN
- *t*-stem: *kardimiyaz* /*kartimijats*/ (c.) 'anger', *kardimiyatt-aš* GEN
- *nt*-stem: *išpanza* /*ispants*/ (c.) 'night', *išpand-aš* GEN
- **Heteroclitite *r/n*-stem:** *wātar* (n.) 'water', *weten-aš*
- *-r-*: *kurur* 'hostile', *kurur-aš* GEN
- *-nt-*: *ḫūmanza* 'all', *ḫūmand-an* ACC



Nominal derivation

Hittite derivational suffixes: some examples

-ātar (abstract nouns from verbs, adjectives, nouns)

- *aku-* 'drink' > *akuw-atar* 'drinking'
- *palḫi-* 'wide' > *palḫ-ātar* 'width'
- *anni-* 'mother' > *anniy-atar* 'mother-hood'

-iya- (adjectives from nouns)

- *išpant-* 'night' > *išpant-iya-* 'nocturnal'



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Pronominal morphology

Pronominal inflection: personal pronouns

1 st person	Stressed		Enclitic	
	Singular	Plural	Singular	Plural
NOM	Hitt. <i>ūk</i> , HLuw. <i>amu</i>	Hitt. <i>wēs</i>	-	-
ACC	Hitt. <i>ammuk</i> , HLuw. <i>amu</i> , Lyc. <i>amu</i> , Lyd. <i>amu</i>	Hitt. <i>anzāš</i> , CLuw. <i>anza(š)</i> , HLuw. <i>anzanz(a)</i>	= <i>mu</i>	= <i>naš</i>
GEN	<i>ammel</i>	<i>anzel</i>	-	-
DAT	<i>ammuk</i> , HLuw. <i>amu</i>	<i>anzāš</i>	= <i>mu</i>	= <i>naš</i>
ABL	<i>ammēdaz</i>	<i>anzēdaz</i>	-	-

- **Anatolian innovation:** spread of *-u-* vocalism from 2nd **tu-* (Hitt. *tu-uk*, HLuw. *tu* ACC) > 1st person
- **Hittite innovation:** OH *ūk* > NH *ammuk* due to Luwian contact?



3rd person pronouns

- No dedicated tonic personal pronoun (demonstratives are used instead)
- **Anatolian innovation:** enclitic 3rd person subject pronouns

	Singular	Plural	
NOM (C)	= <i>aš</i>	= <i>e</i> (OH, MH), = <i>at</i> (MH, NH)	} < PIE * <i>-o-</i>
ACC (C)	= <i>an</i>	= <i>uš</i> (OH, MH), = <i>aš</i> (MH, NH)	
N/A (N)	= <i>at</i>	= <i>e</i> (OH, MH), = <i>at</i> (MH, NH)	
DAT	= <i>še</i> (OH), = <i>ši</i> (MH, NH)	= <i>šmaš</i>	< PIE * <i>-soi</i>

The reflexive pronoun

	nom.	acc.	dat.	refl.	Hittite refl.
1sg.	(none)	=mu	=mu	=mi /=mu	=z(a) ¹⁸
2sg.	(none)	=du > =ru	=du > =ru ⁶	=di > =ri	=z(a)
3sg.	=as (c.)/= ada (n.)	=an (c.)/= ada (n.)	=du > =ru	=di > =ri	=z(a)
1pl.	(none)	=anz(a)	=anz(a)	=anz(a)	=z(a)
2pl.	(none)	=manz(a)	=manz(a)	=manz(a)	=z(a)
3pl.	=ada	=ada	=manz(a)	=manz(a)	=z(a)

Table 1: Hieroglyphic Luvian pronominal clitics.

PIE **toi* > Hitt. **te*

PIE **toi* > Luw. *ti* → Hitt. =z(a)





Pronominal inflection: relative and demonstrative pronouns

Relative/interrogative pronouns: *kui-* < PIE **k^wi-/k^wo-*

Demonstrative anaphoric pronouns (Goedegebuure 2014)

- * *kó-* 'this' > Hitt. *kā-*, Pal. *kā-*, Luw. *zā*,
- **Ho-bó-* 'that' > Hitt. *apa-*, Pal. *apa-*, Luw. *āpa-*, Lyd. *bi-*,
Lyc. *ebe-*
- **h₁e-* > Hitt. *aṣ̌i/uni/ini*



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Verbal morphology



Verbal categories

	Anatolian	Other IE languages
number	singular, plural	singular, plural, dual
tense	present, past	present, past, future
mood	indicative, imperative	indicative, imperative, optative, subjunctive
aspect	-	present, aorist, perfect

“Hittite is famous for the fact that its verbal system is **monothematic.**” (Melchert 1997: 83)

Present vs. aorist?

Anatolian verbs with **two synchronic** stems (Melchert 1997 for Hittite, Sasseville 2020: Ch. 18 for Luwic lgs):

karpiye/a-

vs. *karp-* 'rise'

kar(a)ššiye/a-

vs. *karuš-* 'be silent'



-ye/a- = present

zero = past

Hitt. *-ye/a-* < PIE **-ye/o-* "this suffix should be identified with the pie present-stem-forming suffix of the same form." (Melchert 1997: 89)



Hittite verbal stem formation

Suffix	Possible base			Function
	NOUNS	ADJECTIVES	VERBS	
<i>-aḥḥ-</i>	+	+	-	factitive
<i>-āi-</i>	+	-	-	denominative
<i>-e-</i>	+	+	-	stative/fientive
<i>-ešš-</i>	+	+	-	fientive
<i>-nu-</i>	+	+	+	causative
<i>-ške/a-, -šša-, -anna/i-</i>	-	-	+	pluractional



Anatolian verbal stem formation

- PIE **-ye/o-*_A** > Hitt. *ani-ye/a-* 'work', Luw. *ar-i-* 'raise', Lyc. *pzz-i-* 'decree'
- PIE **-eh₁-s-*** > Hitt. *park-ešš-* 'become high'
- PIE **-eh₁-*** > Hitt. *marš-e-* 'be corrupt'
- PIE **-s^hke/o-*** > Hitt. *anni-ške/a-* 'continue to work', Luw. *assa-zza-* 'speak', Lyc. *qa-s-* 'strike'

"No one denies the obvious relationship of the suffixes to PIE aspectual markers [i.e. present/aorist stem-forming suffixes], but there is a widespread view that these appear in Anatolian in a 'pre-aspectual' guise. They serve as derivational suffixes which modify the 'Aktionsart' of the verbal roots." (Melchert 1997: 84)

Anatolian verbal stem formation

- PIE *-ye/o-B** > Hitt. *zahḫ-**iye/a-*** 'fight', Luw. *pudall-**i-*** 'hitch up clothes', Lyc. *kupr-**i-*** 'love'
- PIE *-eh₂-ye/o-** > **Hitt.** *luluw-**ai-*** 'make prosper', Luw. *arun-a(i)-* 'make grow', Lyc. *xtt-**a(i)-*** 'cause damage', Lyd. *pit-**a-*** 'give'
- PIE *-nu-** > Hitt. *war-**nu-*** 'burn (tr.)', CLuv. *ḫui-**nuwa-*** 'move (tr.)', Lyc. *qa-**nuwe-*** 'destroy', Lyd. *trf-no-*
- PIE *-eyé/ó-** > Hitt. *lukk-**e-*** 'set fire', Luw. *kwal-**(a)i-*** 'move (tr.)', Lyc. *kum-ez-**e(i)-*** 'sacrifice' → denominal forms = Luwic innovation!
- PIE *-eh₂-** > Hitt. *newa-**aḫḫ-*** 'renew', Luw. *tur-**a-*** 'spear', Lyc. *prnñaw-**a-*** 'build a grave-house', Lyd. *c-**a-*** 'dedicate'



No evidence for the thematic type **b^her-e-ti* = Skt. *bharati* 'brings'



Verbal inflection: Anatolian conjugations

	<i>mi</i> -conjugation	<i>hi</i> -conjugation	Anatolian innovation	
Present	sg. 1	<i>ēpmi</i>	<i>ārhi</i>	Pal. 3SG <i>-ti</i> vs. <i>-i</i> CLuw. 3SG <i>-ti</i> vs. <i>-i</i> HLuw. 3SG <i>-ti</i> vs. <i>-i</i>
	2	<i>ēpši</i>	<i>ārti</i>	
	3	<i>ēpzi</i>	<i>ari, āri</i>	
	pl. 1	<i>appueni</i>	<i>arweni</i>	
	2	<i>apteni</i>	<i>arteni</i>	
	3	<i>appanzi</i>	<i>aranzi</i>	
Preterite	sg. 1	<i>ēppun</i>	<i>ārhun</i>	Tendency for a <i>-hi</i> >> <i>-mi</i> replacement, Luw. limited to 3SG, fully achieved in Lyd. & Lyc. (on Lyc. see Vernet 2016)
	2	<i>ēpta</i>	[<i>ārta</i>]	
	3	<i>ēpta</i>	<i>āraš</i>	
	pl. 1	<i>ēppuen</i>	<i>erwen</i>	
	2	<i>ēpten</i>	[<i>erten</i>]	
	3	<i>ēppir</i>	<i>erir</i>	

NB: purely lexical distribution, no functional motivation (*pace* Rose 2006)

Hittite stem formation: *mi*-verbs

- Ablauting consonant stems:
ešmi `I am' vs. *ašanzi* `they are'
kuemi `I kill' vs. *kunanzi* `they kill'
- Non-ablauting consonant stems:
walḫmi `I strike' = *walḫanzi* `they strike'
- Irregular consonant stems:
ḫarmi `I have' vs. *ḫarkanzi* `they have'

Ablauting stem variation simply reflects **stress variation**, it does not encode grammatical features (vs. e.g. Ancient Greek)

	SG	PL
PRS	strong	weak
PST	strong	weak (excp. 3pl)



Hittite stem formation: *mi*-verbs

- Ablauting vowel stems:
uwatemi 'I lead here' vs. *uwadanzi* 'they lead here'
- Non-ablauting vowel stems: only suffixed (-*nu*-)
arnumi 'I transport' = *arnuwanzi* 'they transport'
- Irregular vowel stems:
paimi 'I go' vs. *panzi* 'they go'; *temi* 'I say' vs. *taranzi* 'they say'
- Suffixed stems: -*ške/a-*, -*ēšš-*, -*nu-*, -*āi-*



Hittite stem formation: *hi*-verbs

- Consonant stems:
 - ablauting: *ārḫi* 'I arrive' vs. *aranzi* 'they arrive'
 - non-ablauting: *istapḫi* 'I close' vs. *istappanzi* 'they close'
- Vowel stems:
 - ablauting: *tēḫḫi* 'I place' vs. *tiyanzi* 'they place'
 - non-ablauting: *tarnaḫḫi* 'I let' vs. *tarnanzi* 'they let'
- Suffixed stems: *-aḫḫ-*, *-anna-*, *-šša-*

Origin of the *mi*-conjugation

Luwic innovation: Luw. *-wi*, Lyc. *-u*, Lyd. *-w/u*

	Present	PIE		Preterite
sg. 1	<i>ēpmi</i>	*-mi,	sg. 1	<i>ēppun</i>
2	<i>ēpši</i>	*-si	2	<i>ēpta</i>
3	<i>ēpzi</i>	*-ti	3	<i>ēpta</i>
pl. 1	<i>appueni</i>	*-me-	pl. 1	<i>ēppuen</i>
2	<i>apteni</i>	*-te(-)	2	<i>ēpten</i>
3	<i>appanzi</i>	*-(é)nti	3	<i>ēppir</i>

Anatolian innovation: Hitt. *-weni*, Pal. *-wani*, Luw. *-unni* < PIE **dual** *-we-, e.g. Skt. *ábhāra-va*

Origin of the *mi*-conjugation

	Present	Preterite	PIE
sg. 1	<i>ēpmi</i>	sg. 1 <i>ēppun</i>	*-m
2	<i>ēpši</i>	2 <i>ēpta</i>	*-s
3	<i>ēpzi</i>	3 <i>ēpta</i>	*-t
pl. 1	<i>appueni</i>	pl. 1 <i>ēppuen</i>	*-me(-)
2	<i>apteni</i>	2 <i>ēpten</i>	*-te(-)
3	<i>appanzi</i>	3 <i>ēppir</i>	*-(é)nt

Anatolian innovation

< PIE *-to 3SG.MID

CLuw. -*tta*, HLuw. -*ta*,
Lyc. -*te*



Hittite innovation < PIE *-ē_r

Spread from *hi*-conj. vs. Luw. -*anta*



The mediopassive/ middle conjugation: Hittite

Singular

PRES. 1	<i>-ḫhari, -ḫhāri, -ḫḫaḫari^a</i>
2	<i>-tta, -ttari, -ttati</i>
3	<i>-a, -ari, -āri, -tta, -ttari, -ttāri</i>
PRET. 1	<i>-ḫḫati, -ḫḫat, -ḫḫaḫat, -ḫḫaḫati, -ḫḫaḫatti</i>
2	<i>-at, -tta, -ttat, -tati</i>
3	<i>-at, -ati, -tta, -ttat, -tati</i>

Plural

PRES. 1	<i>-wašta, -waštati</i>
2	<i>-dduma, ttuma, -ttumari, -ttu(m)mat</i>
3	<i>-anta/-anda, -antari, -ant/dāri</i>
PRET. 1	<i>-waštāt, -waštati</i>
2	<i>-ddumat, -ttumāt</i>
3	<i>-antat, -antati</i>

- **-a** vs. **-ta** verbs
- **-ri** endings, as in *kiš-a* vs. *kiš-a-ri*
- (preterite) endings in **-ti** (< reflexive **tī*?)
- 1SG **-ḫḫaḫa** (= Lyc. *-xagā*) as archaism vs. innovation

The middle inflection



Lydian evidence disputed
(Inglese 2020: 87-88)

	HITT.	PAL.	LUW.	LYC.	PIE
1SG	- <i>ḥa</i>			- <i>xani</i>	*- <i>h₂e-r</i>
2SG	- <i>ta</i>				*- <i>th₂e-r</i>
3SG	- <i>a/-ta</i>	- <i>ari/-tar</i>	- <i>ari/-tari</i>	-(<i>t</i>) <i>ēni</i>	*-(<i>t</i>) <i>o-r</i>
1PL	- <i>wašta</i>	< PIE *- <i>we-dʰh₂</i>			*- <i>me-dʰh₂</i>
2PL	- <i>dduma</i>				*- <i>dʰ(u)we-</i>
3PL	- <i>anta</i>	- <i>anta</i>	- <i>anta</i>		*- <i>nto-r</i>

	HITT.	LUW.	LYC.	PIE
1SG	- <i>ḥat(i)</i>	- <i>hasi</i> (H)	- <i>xagã</i>	*- <i>h₂e</i>
2SG	- <i>at</i>			*- <i>th₂e</i>
3SG	- <i>at/-tat</i>	- <i>ta</i>		*-(<i>t</i>) <i>o</i>
1PL	- <i>waštat</i>			*- <i>me-dʰh₂</i>
2PL	- <i>ddumat</i>			*- <i>dʰ(u)we-</i>
3PL	- <i>antat</i>	- <i>antasi</i> (H)		*- <i>nto</i>



-a vs. -ta edings

1) *hi-/mi*-conj. (Goetze 1933: 259) → only partly for OH!

2) 'stative' theory (e.g. Oettinger 1976)

Ved. ***bru-te*** 'invokes' vs. ***bruv-é*** 'is called' → semantically untenable, e.g. Hitt. *paršiya* 'breaks'

'to lie': **kéi-ori*, **kéi-ontori* (CLuv. *ziyar(i)*; Lyc. *sijēni*—NB Pres1Sg *sixāni*)
**kéi-tori*, **kéi-ontori* (Hitt. *kitta(ri)*, *kianta(ri)*; Pal. *kītar*; Lyc. *sitēni*)

3) 'morphological' theory: **-o* >> **-to* (based on act **-ti*) first with thematic formations (Yoshida 2013, Villanueva Svensson 2014)

pash-a 'protects' (MS) >> *pash-tat* 'protected' (NS)



-ri endings: PIE origin

	Hittite	Tochar. A	Sanskrit	Greek	Latin	Old Irish	Gothic
PRIMARY ENDINGS							
1	<i>-ḥa(ri)</i>	<i>-mār</i>	<i>-e</i>	<i>-mai</i>	<i>-r</i>	<i>-ur</i>	<i>-da</i>
2	<i>-ta(ri)</i>	<i>-tār</i>	<i>-se</i>	<i>-oi</i>	<i>-ris</i>	<i>-ther</i>	<i>-za</i>
3	<i>-(t)a(ri)</i>	<i>-tār</i>	<i>-te</i>	<i>-toi</i>	<i>-tur</i>	<i>-thir</i>	<i>-da</i>

Where does **-r* come from (Inglese 2020: 99)?

- **Deictic** adverb (= **-i`hic et nunc'*), or **ré`backwards'*
- ***r*-stem** nouns
- **3rd person plural** PIE **-ēr* > impersonal > middle



-ri endings: Hittite data

- **Tense** distribution: *-ri* limited to the **present** in Hittite
- **Lexical** distribution: *lukkatta* 'it dawns' vs. **lukkattari*
- Issue of **chronology**: *-ri* is optional in OH and becomes increasingly common (virtually obligatory) in NH
- **Morphophonological** distribution:
iš-ka-a-ri vs. *ki-it-ta*

Stage 1: *-r* lost in unaccented final syllables but preserved for a subset of *-ā* verbs with accented ending (*-Cā-a-ri*)

Stage 2: re-characterization as *-ri* on analogy with the active (*-mi*) and generalization to all verb classes



The distribution of verbal voice

- **Activa tantum:** *pai-zi* 'go'
- **Media tantum:** *zē-a(ri)* 'cook'
- **Oppositional middles:** *nai-j* 'turn (tr.)' vs. *nē-a(ri)* 'turn (intr.)'
- **Optional middles:** *nekuzi* = *nekutta* 'it becomes evening'
- **Voice reversal** (Yates & Gluckman 2020):

pai-zi 'go' > *paiške/a-ta(ri)*

parš(i)-a(ri) 'break' > *parš(i)-anna-j*

Origin of the *hi*-conjugation



ārhi
ārti
ari, āri
arweni
arteni
aranzi

PIE
*-h ₂ e-i
*-th ₂ e-i
*-e-i
*-weni
*-teni
*-enti

PIE MIDDLE
*-h ₂ e-r
*-th ₂ e-r
*-(t)o-r
*-me-d ^h h ₂
*-d ^u (u)we-
*-nto-r

PERFECT and *hi*-C based on *o*-grade roots

PIE *molh₂e-i > Hitt. *mallai* 'grind' =
*woid-h₂e- > Skt. *veda*, Gk. *oîda* 'know'

PIE *we-wok-h₂e- > Hitt. *wewakk-* 'ask'
→ secondary! (Dempsey 2015)

ārhun
[*ārta*]
āraš
erwen
[*erten*]
erir

*-h ₂ e +m ₀
*-th ₂ e
*-s-t (?)
*-wen
*-(s)ten
*-ēr

*-h ₂ e
*-th ₂ e
*-(t)o
*-me-d ^h h ₂
*-d ^u (u)we-
*-nto

PIE PERFECT
*-h ₂ e
*-th ₂ e
*-e
*-me
*-e
*-ēr

- 1) MIDDLE > *hi*-C
- 2) PERFECT > *hi*-C
- 3) X > *hi*-C, PERFECT,
MIDDLE



Origin of the *hi*-conjugation

- 1. Middle theory:** The *hi*-conj. derives from the middle (Rosenkranz 1953, Rose 2006) → semantically unconvincing
- 2. Perfect theory:** The *hi*-conj. derives from the (unreduplicated) perfect (Eichner 1975, Lazzeroni 2011) → formal and semantic issues (but see Kloekhorst 2018)
- 3. “*h₂e*-conjugation” theory:** Jasanoff (2003, 2018): PIE **m-* vs. *h₂e*-conjugation, the latter giving rise to *hi*-conj., the perfect and the middle.

The imperative

“An **optional particle**, which became partially grammaticalised to mark out the athematic imperatives and add phonological weight to monosyllabic forms.” (Clackson 2007: 128)

Hittite

1SG	-(a)llu
2SG	-Ø -i -t
3SG	-(t)u
1PL	-weni
2PL	-ten
3PL	-(a)ntu

-llu e -lit < lā- 'let'

< -Ø / *-d^hi

< PIE secondary ending + *u

= indicative!

= indicative!

< PIE secondary ending + *u

(cf. Skt. -antu) = Pal. -antu, Luw. -antu, Lyc. -ṽntu





What happened to the other moods?

the loss of the subjunctive and optative moods. (Kloekhorst 2022: 67)

- **Subjunctive** (Jasanoff 2019):

Hitt. *paḥs-i* 'protect!' = Ved. *si*-imperative, e.g. *yákṣi* 'sacrifice!'

< PIE **peh₂-s-esi* = *s*-aorist subjunctive

- **Optative**: phonological merger with *-ye/o*-stems?



Optative in Hittite

(1) *iyami=man=pat=wa* *kuitki*
do.PRS.1SG=PTC=PTC=QUOT INDF.ACC.N
'If someone might do something!' (KUB 23.103 rev. 13)

(2) *man=an=kan* ^m*Aškaliyaš* *kuenzi*
PTC=3SG.ACC=PTC A.NOM kill.PRS.3SG *man* < *mn
'A. wanted to kill him.' (KBo 3.34 ii 17)
cf. *mān* 'if'

(3) *man=uš=kan* ^m*Huzziyaš* *kuenta*
PTC=3PL.ACC=PTC H.NOM kill.PST.3SG
'H. would have killed them.' (KUB 23.11 iii 11)



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