Deriving Dreams from the Divine: Hittite *tesha-/zash(a)i-*Andrew Miles Byrd University of California, Los Angeles

1. Introduction.

There are two roots that most commonly provide the source of the word for 'dream' in the Indo-European (IE) languages. The first, and most frequently attested, is *swep- 'sleep', continued by e.g. Gk. hýpar 'true dream, vision; walking reverie', OE swefn 'sleep, dream' and OCS sŭnije 'dream'. The second root, * h_3en -, is only found in the nominal derivative * h_3en r 'dream', which is attested in Greek ($\acute{o}nar \sim \acute{o}neiros$ '(false) dream'), Armenian (anur) 'dream' < * $h_3n\bar{o}ryo$ -) and probably Albanian ($\ddot{e}nd\ddot{e}rr$ 'dream'). Though this root is not as widespread as *swep-, it is clearly archaic, as is evidenced by its r-stem paradigm.

In Hittite, a reflex of *swep- is found solely in *supr/*swopr 'dream, sleep', which is continued by the denominative verb suppariya- 'dream, sleep'. This form indicates that at some point in the prehistory of Hittite, the word for 'dream' was likely *su(wa)ppar. By the time of attested Hittite, however, two other, and very different-looking, words functioned as the standard words for 'dream': tesha- and zash(a)i-. The former was synchronically an animate a-stem noun, and the latter was originally an oxytone i-stem zashi-. As Rößle (2002) has convincingly shown, many oxytone i-stem nouns secondarily took ai-stem inflection, prompting the creation of acc.sg. zashain, the only unambiguous ai-stem form in the paradigm for 'dream'. The goal of this paper is to investigate the origins of tesha- and zash(a)i-. We will see that both were created at

¹ I am indebted to Brenna Reinhart Byrd, Tim Dempsey, Alice Mandell, Jeremy Rau, Cal Watkins and especially Craig Melchert for their helpful comments and suggestions.

² For a complete list of forms, see Pokorny 1959:1048-9. For a thorough discussion of the reflexes of **swep*-, see Vine 1999:579-81 & Wodtko et al. 2008:676-80.

³ Possibly * h_2 on-. See Wodtko et al. 2008:303-5.

⁴ Vine (1999:580) suggests that the original Hittite form was *suwappar (< *swopr), which was reduced to *suppar in the denominative verb *suwappariyá- by regular sound law: *suwappariyá- > *suppariyá-.

⁵ First recognized by Sturtevant (1936:283).

some point in the prehistory of Hittite, were composed of inherited IE morphemes and were fashioned by inherited IE morphological processes.

2. Beyond divining an etymology: the prehistory of Hittite 'dream'.

2.1 Some of the first work on the subject attempted to explain *tesha*- and *zash(a)i*- as borrowings from a local, non-Indo-European language. Laroche (1947:38-9), followed by Rößle (2002:128-30), connected the forms in question with the divine name

Dashapuna/Dashapuna**, who functioned as a member of the god of Nerik's entourage. Through the similarity in appearance of this divine name to the Hittite word for 'dream', Laroche inferred that **Dashapuna** was the Hattic god of dreams, and thus the Hittite words for dream were derived from the Hattic word for dream itself, **tasha** 'dream' (vel sim.). This form would then have been borrowed into Hittite and somehow have produced a-stem and i-stem variants. Unfortunately, there is no evidence that **Dashapuna** was the Hattic god of dreams, thereby rooting the hypothesis firmly in circular logic. If the only evidence for **Dashapuna**/Dashapuna** being the Hattic god of dreams was that it looked like Hitt. **tesha-/zash(a)i-** 'dream', then it is improper to say that Hitt. 'dream' derived from Hattic because it looked like the Hattic god of dreams.

Additionally, there are several variants of this divine name attested: ^DZahmuna, ^DZah(a)puna, ^DTashapuna, and ^DZashapuna, which further muddies the waters, leaving us uncertain as to which form was in fact the actual divine name in Hattic. ⁶ Moreover, as Gary Beckman has brought to my attention, Hattic borrowings were usually very technical in nature, and since the concept of dreams belongs to the supernatural and religious sphere, it is unlikely that such a word would have been borrowed into Hittite from Hattic. ⁷ This leaves us with no viable source of borrowing for Hittite *tesha*-and *zash(a)i-*. ⁸

⁶ Soysal 2004:150; van Gessel 1998:566ff.

⁷ Personal correspondence, March 15, 2009.

⁸ It has been suggested that Hitt. 'dream' was borrowed from the Caucasian languages and is cognate with Adygh *čaja* 'sleep'. However, as Kassian and Yakubovich (2002:26⁶⁵) point out, this form would be better derived from West Caucasian **λ*:*uA*, an impossible proto-form for Hittite 'dream' (Nikolayev & Starostin 1994, *non vidi*).

- 2.2 There are further, and more compelling, reasons to believe that these two words were not borrowed from another language. First, Hittite tesha- and zash(a)i- are connected by a highly archaic ablaut pattern inherited from Proto-Indo-European, with the form tesha- showing full grade of the root and zashi- (tshi-) showing zero grade. Such ablaut is difficult to explain if the forms were borrowed, and thus it is simpler to assume that this feature hearkens back to a more archaic stage of the language. Second, if we assume that the forms in question were borrowed from an unattested Hattic *tasha-'dream', it seems unlikely for it to have been borrowed into Hittite as two different stem types (a-stem vs. i-stem). Contra Rößle (2002:128-9), it is doubtful that words borrowed into Hittite fell randomly into nominal categories.
- 2.3 These facts have led many scholars to put forth Indo-European etymologies for the word for 'dream' in Hittite. For example, Kronasser (1956:87ff.) proposed that 'dream' be derived from PIE * $deih_2$ 'light up', with the highly plausible semantic development of 'shining' \rightarrow 'appearance, revelation' \rightarrow 'dream'. However, this derivation is unlikely, following our current conception of Hittite historical phonology. Since * h_2 is not lost before *s in Hittite (cf. pahs- 'protect' < * peh_2s -), we would expect *tehsha- for the full-grade reflex, and a zero-grade * dih_2 would lead to *tihshi-. Čop suggested that Hitt. 'dream' be connected with Germanic * $d\bar{e}s/das$ 'slow, dazed' (< * d^heh_1s -/ d^hh_1s -?), as seen in Old Norse $d\acute{a}si$ 'slow', Middle High German daesic 'dumb' (< * $d\bar{e}sa$ -) and Eng. daze, dazzle (< *das-), with a semantic development 'slow, dazed' \rightarrow 'sleepy' \rightarrow 'dream'. This root, however, is only conclusively attested in Germanic and is possibly of substratum origin. 12

The most widely accepted Indo-European etymology of Hittite tesha-/zash(a)i- is formed from the root * d^heh_I - 'put, place, do', as suggested by Starke (1979:248) and

⁹ I follow Rieken, apud Hoffner & Melchert 2008:47, who interprets the alternate spellings of 'dream', zash(a)i- and zazh(a)i-, as representing graphical variants of an initial cluster /tsh/-, i.e. the affricate /ts/ + the fricative /x/.

¹⁰ As presented in Melchert 1994.

¹¹ Čop 1971:66-70.

¹² Kloekhorst 2008:875.

Oettinger (1979:124).¹³ This hypothesis is bolstered by multiple reflexes of $*d^heh_{i-}$ in Anatolian, ¹⁴ by a straightforward semantic development of 'utterance' → 'message' → '(message) dream', and by its adherence to the rules of Hittite historical phonology. In fact, as Kloekhorst (2008:875) points out, only a root of this shape (* $Teh_1(s)$ -, where T = any dental stop) would have been able to account for the alternation of initial consonant in tesha-zash(a)i-, with the a-stem tesha- deriving from * Teh_1sh_2o - and the i-stem tshifrom $*Th_1sh_2i$. An original $*Th_1sh_2i$ - would have undergone laryngeal loss in the zero grade, via the sound law CHCC > CCC. This phonological process, which Melchert (1994:65) has established for Anatolian, would have resulted in the loss of $*h_i$ in * Th_1sh_2i - to produce the correct outcome * Tsh_2i -. 15

¹³ See Rieken 1999: 381-2¹⁹¹⁶.

¹⁴ Cf. Hitt. *tēzzi* 'speaks (authoritatively)' and *dai-/tiya-* 'put, place'.

¹⁵ In a forthcoming publication, I propose that the process of CHCC > CCC in Proto-Indo-European was due to a broader phonotactic constraint on IE syllable formation. Laryngeals were lost in the sequence CHCC only if the resulting outcome had been a legal cluster in PIE. For example, larvngeal deletion occurs in the sequence CHCC in PIE * $d^h u g h_2 t r \acute{e} s$ 'daughter (gen.sg.)' > * $d^h u k t r \acute{e} s$, because the resulting cluster was a possible one (-k.tr-). On the other hand, epenthesis occurs in the sequence CHCC in * $ph_2tr\acute{e}s$ 'father (gen.sg.)' > * $pah_2tr\acute{e}s$, since deletion would have produced the cluster *ptr-, which was not a legal onset in PIE. The question, then, is whether Th_1sh_2i - would have produced a legal sequence * tsh_2i - in PIE (thence Hitt. tshi-), or, to avoid an illicit onset, would rather have undergone schwa insertion (* $T \partial h_1 s h_2 i$ -). The answer to this is by no means straightforward, as one finds conflicting forms in the attested IE languages. For example, both Hitt. zikke-/zaske-/tske-/ 'put (iter.)' and Toch. tāskmām 'similar to' (Hackstein 1995:189) are derived from $*d^h h_i s ke/o$, the former with laryngeal deletion and the latter epenthesis. Nevertheless, following the Substring Generalization, which states that "all substrings of a well-formed onset or coda should themselves be wellformed" (Hammond 1999:54, following Greenberg 1978:250), if *tsk- and *tsh₂- had been legal onsets in PIE, we would expect *ts-, sk-, and *sh₂- to have been legal onsets as well. The latter two can be established as onsets (cf. *skeH(y)- 'shine' and * sh_2ew -'rain'), but *ts- cannot. Thus, if *ts- is not an onset reconstructable for PIE, we would predict that $*ts\hat{k}$ - and $*tsh_2$ - are not legal PIE onsets, either. In short, $*/Th_1sh_2\hat{\iota}$ -/ must have been realized as * $[T \partial h_{i} s h_{i} i]$. Of course, a PIE form with schwa epenthesis does not account for either Hitt. zikke-/zaske- or zash(a)i-. But zash(a)i- is not a form reconstructable back to PIE – it is only attested in Hittite. Therefore, we must assume that rules within a proto-Hittite grammar produced zash(a)i-, not rules within PIE. Note that while *ts- was not a legal onset in PIE, it was in Hittite, as an affricate /ts/. This, I believe, provided Hittite speakers with the option of deleting H in a sequence THsC, be it one inherited (though morphologically renewed) as in the case of $*d^h h_i s k e'/o$ - 'put (iterative)' or one newly formed within the prehistory of Hittite, $*Th_1sh_2\hat{\iota}$ - 'dream'.

2.4 Morphologically, *tesha*- has been thought to be composed of two elements, a root *te*- and the suffix -(a)sha- (Starke 1979). This suffix synchronically formed common gender action/result nouns in Hittite, such as *unuwasha*- 'adornment' (← *unuwāi*- 'to adorn'), *nuntariyasha*- 'haste' (← *nuntariya*- 'hasten'), and *armuwalasha*- 'moonlight' (← *armuwalāi*- 'shine (of the moon)'). However, it is impossible to tell if the suffix was -asha- or plain -sha-, as it appears to have been only productively added to stems ending in -a-. Therefore, if *tesha*- was in fact *te*- + -sha-, it was not synchronically viewed as such in attested Hittite, as *te*- does not end in -a-. There are only three other apparent -sha- formations to roots not ending in -a-: hamesha- 'spring', dammesha- 'damage' and palz(ah)ha- (paltsha-) 'pediment, base' (Starke 1979). Rau (forthcoming), following Tischler (1977), proposes that Hitt. palz(ah)ha- ultimately derives from the PIE root *pleth₂- 'broaden', giving the following morphological history:

Figure 1. Morphological history of Hitt. paltsha- 'pedestal'.

```
a) root *pleth<sub>2</sub>- 'broaden' (Ved. pr\acute{a}t^hate 'broadens') \rightarrow
```

- **c**) **o-stem** * $plth_2s$ - \acute{o} 'broad' (OIr. less, Welsh llys 'city') \rightarrow
- **d) fem. abstract** * $plth_2s$ -é h_2 'breadth' \rightarrow
- e) o-stem *pltsh₂- δ 'the broad thing' > Hitt. palz(ah)ha- pedestal'

Rau shows that historically, palz(ah)ha- was not in fact composed of a root + the suffix -sha-, but rather is the product of a multiple instances of derivation by suffixation, also known as *Suffixhäufung*.

2.5 If the root found in tesha-/zash(a)i- was also inherited from PIE, perhaps we may be able to account for it in a similar fashion: $*Teh_1 - \to *Teh_1e/os - \to *Th_1s-ó - \to *Th_1s-o -$

5

b) s-stem *pléth₂e/os- 'breadth' (Gk. plátos, Skt. prát^has-) \rightarrow

¹⁶ Hoffner & Melchert 2008:56-7.

* d^heh_I - 'put, place, do', since there was no s-stem formed to this particular root (Pokorny 1959:237-9). The only possible exception is * d^heh_Is - 'god, divine', which, according to Meier-Brügger (2006) was an archaic s-stem formation to * d^heh_I -, with the original meaning 'ritual act'. Very early on, Sturtevant (1928:160) had equated Hitt. tesha- 'dream' with a derivative of * d^heh_Is -, Gk. $t^he\acute{o}s$ 'god', though with no discussion of how the two were related. Of course, Sturtevant's direct equation is a mirage, since Gk. $t^he\acute{o}s$ goes back to PIE * $d^hh_Is\acute{o}$ -.\frac{17}{2}

Nevertheless, $*d^heh_ls$ - 'divine' makes an excellent candidate for the source of Hitt. 'dream' for multiple reasons. For starters, the root/stem $*d^heh_ls$ - has been securely reconstructed for Proto-Anatolian in $*d^hh_ls\delta m$ 'votive offering', which is seen in HLuv. tasa(n)-za 'votive stele', Lyc. $\theta\theta\tilde{e}$ 'altar' & Lyd. $tas\tilde{e}v$ 'votive object', and possibly Palaic $ta\tilde{s}$ - $\bar{u}ra$ 'on the sacrificial table/stand (?)'. Next, the semantic shift from 'divine (message)' to 'dream' is logical in the Hittite cultural context, which will be discussed in further detail in section 3 below. And lastly, regardless of its connections to $*d^heh_l$ - 'put, place, do', $*d^heh_ls$ - ended in an -s, which provides us with an entry point into the process of $Suffixh\ddot{a}ufung$ that led to Hitt. 'dream', one comparable to the morphological scenario Rau sets up for 'pediment', which I lay out in Figure 2 below:

_

¹⁷ Watkins 2004:139-40.

¹⁸ See Melchert 1997:49-50 and Watkins 2004:137ff. for extensive discussions.

Figure 2. Morphological history of Hitt. tesha-/zash(a)i- 'dream'.

```
a) s-stem *d<sup>h</sup>éh<sub>1</sub>s / *d<sup>h</sup>h<sub>1</sub>s-és 'the divine' (cf. Arm. dik' 'gods' < *d<sup>h</sup>eh<sub>1</sub>ses) →
b) o-stem *d<sup>h</sup>h<sub>1</sub>s-ó- 'possessing/characterized by the divine' (cf. Gk. t<sup>h</sup>eós, Lyc. θθẽ, etc.) →
c) fem. abstract *d<sup>h</sup>h<sub>1</sub>s-éh<sub>2</sub> 'the divine (abstract)' →
d) o-stem *d<sup>h</sup>(h<sub>1</sub>)sh<sub>2</sub>-ó- 'possessing/characterized by the divine' →
e<sub>i</sub>) *d<sup>h</sup>éh<sub>1</sub>sh<sub>2</sub>o- 'act/thing characterized by the divine' > Hitt. tesha-'dream'
e<sub>ii</sub>) *d<sup>h</sup>(h<sub>1</sub>)sh<sub>2</sub>í- 'act/thing characterized by the divine' > Hitt. tsh(a)i-'dream'
```

2.6 I understand that reconstructed instances of *Suffixhäufung* often seem *ad hoc* and convoluted, but this is a process that exists in all synthetic languages. To take an example from English, the original (and now obsolete) adjective *beau 'fair, beautiful' formed an abstract noun *beauty*, which led to the adjective *beautiful*, and today even the abstract noun *beautifulness* may be heard on occasion. Note that this derivational chain spans hundreds of years, with the adjective *beau* first being attested in 1325 and *beautifulness* in 1526 (OED 2009). In a similar fashion, we should view the steps posited in Figure 2 as stretching across multiple centuries, and likely multiple millennia.

It is extremely likely that step (b), $*d^h h_1 s - \acute{o}_-$, existed as early as PIE, since this form is continued in both Greek and Anatolian. Only steps (c), $*d^h h_1 s - \acute{e}h_2$, and (d), $*d^h (h_1) s h_2 - \acute{o}_-$, are not directly attested, and it is quite possible that $*d^h (h_1) s h_2 - \acute{o}_-$ was derived directly from $*d^h h_1 s - \acute{o}_-$ at some point in the prehistory of Hittite, once $-(a) s h a_-$ had become a productive derivational suffix. Moreover, we may say with some certainty that step (d) $*d^h (h_1) s h_2 - \acute{o}_-$ must have existed at some point in time, as it is a prerequisite for producing steps (e_i) and (e_{ii}) through inherited IE morphological processes. Full-grade a-stem $tesha_-$ was created through the derivation of a zero-grade adjective to a full-grade root-accented noun: $*d^h (h_1) s h_2 \acute{o}_- \rightarrow *d^h \acute{e} h_1 s h_2 o_- > tesha_-$ 'dream, sleep', which has comparable examples in Ved. $mrt\acute{a}_-$ 'dead' \rightarrow Ved. $m\acute{a}rta_-$ 'mortal', PIIr. $*rt\acute{a}_-$ 'true'

(Ved. $rt\acute{a}$ -) \rightarrow Av. $a\check{s}a$ - 'truth' ($<*\acute{a}rta$ -), and PIE $*\acute{g}nh_1t\acute{o}$ - 'born' (Lat. $n\bar{a}tus$) \rightarrow PIE $*\acute{g}\acute{e}nh_1to$ - 'child' (Germ. Kind). The zero-grade i-stem $tsh\acute{t}$ - was formed by the well-attested process of deriving i-stem nouns from o-stem adjectives: $*d^h(h_1)sh_2\acute{o}$ - \rightarrow $*d^h(h_1)sh_2\acute{i}$ - > zash(a)i- 'dream'. Examples of this process include Skt. $j\bar{t}r\acute{a}$ - 'swift' \rightarrow Skt. $j\bar{t}r\acute{i}$ - 'rapids' and, more relevantly, Hitt. dannatta- 'empty' \rightarrow dannatti- 'desolation'. ¹⁹

3. The cultural connection of dreams and the divine.

There were three different types of dreams in the Ancient Near East: the first, a divine message or revelation of a deity; the second, dreams which reflect the state of mind, the spiritual and bodily "health" of the dreamer; and the third, mantic dreams in which forthcoming events are prognosticated.²⁰ The divine message was the type of dream best documented in the Hittite texts and was often described as the preferred medium of the gods (Mouton 2007:30ff.). Such appearances of the gods and their messengers are numerously attested.²¹ For example, in the *Apology of Hattusili*, Ishtar or her envoy make five appearances in a dream -- once to Hattusili, and the other times to his uncle and his future wife Puduḥepa.²² The Hittites also entreated the gods to appear to them in their dreams, as we see in the Prayer of Kantuzzuli ("May my god speak to me in a dream. May my god open his heart to me.")²³ and the Prayer of Muwatalli to the Storm-god Piḥassassi ("What a great Old Man will not be able to say to me, o god, explain it to me through a dream").²⁴ Each of these cases points to a close connection between the gods and dreams in the Hittite culture.

Elsewhere in the Indo-European world, we find the association of dreams and the supernatural similarly robust. In the *Iliad*, Akhilles proclaims that dreams are divine

¹⁹ Schaffner 2001:330ff.

²⁰ Oppenheim 1956:184ff.

²¹ See Mouton 2007 for an extensive discussion.

²² Oppenheim 1956:198.

²³ na-aš-šu-mu DINGIR-YA za-aš-hé-ya me-e-ma-ú nu-mu-za DINGIR-YA ŠÀ-ŠU ki-nu-ud-du (KUB 30.10 Ro 25').

²⁴ [Ú-UL-ma-a]t-mu šal-li-iš ^{LÚ}ŠU.GI me-ma-i nu-mu Γ DINGIR \sqcap ku-u- Γun \sqcap me-mi-an te-eš-hi-it pár-ku-nu-ut Γka \sqcap (KBo 11.1 Ro 42').

messages: "But come, let us ask some seer or priest, or some reader of dreams--for a dream too is from Zeus". In English, a bad dream, or a 'nightmare', originally signified a spirit that created a feeling of suffocation in a person as they slept. Of course, today very few speakers of English view the concept *nightmare* as a supernatural entity. Similarly, *tesha-/zashai*- would no longer have been viewed specifically as a divine message by speakers of attested Hittite, having become the more generic term for 'dream'.

In another ancient Near Eastern language, Sumerian, the word MÁŠ.GE₆ 'message dream' literally meant 'divination of the night', with MÁŠ signifying 'goat; extispicy; sacrificial animal for omens' and GE₆ 'night' (Oppenheim 1956:225). It is conceivable that the prehistory of tesha-/zash(a)i- 'dream' was similar to that of Sumerian 'message dream', though it remains unclear if the two prehistories were connected by cultural contact or if they developed independently. Originally, * $d^h(h_I)sh_2$ - δ - (step (d) of Figure 2 above) meant 'possessing or characterized by the divine'. This adjective was substantivized into 'divination' through the processes discussed in 2.6 above, which then developed the more specific meaning 'divination of the night' or '(divine) message dream'. At this point tesha- and zash(a)i- were semantically bleached to a more neutral 'dream', and inherited *su(wa)ppar was then ousted as the standard word for 'dream' but was still continued by suppariya- 'dream, sleep'. 28

4. Conclusion.

We have seen that it is likely for Hitt. tesha-/zash(a)i- to have been inherited for two main reasons. First, there is no convincing source of borrowing. Second, the forms

,

 $^{^{25}}$ Iliad A:62-3. ἀλλ'άγε δή τινα μάντιν ἐφείομεν ἢ ἱεφῆα ἢ καὶ ὀνειφοπόλον, καὶ γάφ τ'όναφ ἐκ Διός ἐστιν.

²⁶ OED 2009.

²⁷ Possibly via a collocation such as * $nek^wts d^h(h_1)sh_2$ - δ - 'night's divination'; cf. Sumerian MÁŠ.GE₆.

²⁸ In an e-mail correspondence dating August 2, 2009, Jeremy Rau has pointed out to me that it seems suspicious to view tesha- and zash(a)i- as having undergone the same semantic developments, and therefore minor modifications of the proposed scenario given in section three may prove necessary.

in question exhibit a very archaic ablaut pattern and are located in different nominal classes, which is very difficult to explain if borrowed. The Indo-European etymology most typically put forth for 'dream' is to $*d^heh_{l^-}$ 'put, place, do', but this reconstruction is not optimal since $*d^heh_{l^-}$ did not form an s-stem. Rau's straightforward morphological explanation of palz(ah)ha- 'base, pediment' from $*pleth_{2^-}$ 'broaden' has provided us with an equally viable derivation for tesha-/zash(a)i- from the root/stem $*d^heh_{l}s$ - 'divine, god', which is already attested elsewhere in Anatolian words, such as in Lyc. $\theta\theta\tilde{e}$. Phonologically and morphologically our reconstruction is sound, and semantically the shift from 'divine' to 'dream' is highly plausible, since there was a close association between the two concepts not only in the Hittite culture and the Ancient Near East in general, but also in many other Indo-European cultures as well.

References

- Byrd, Andrew. Forthcoming. Predicting Indo-European Syllabification through Phonotactic Analysis.
- Čop, Bojan. 1971. Indogermanica Minora. I. Sur les langues anatoliennes. Ljubljana.
- van Gessel, Ben H.L. 1998. Onomasticon of the Hittite Pantheon, Part I. Leiden: Brill.
- Greenberg, Joseph H. 1978. Some Generalizations Concerning Initial and Final Consonant Clusters, in *Universals of Human Languages*, Vol. 2: Phonology, 243-79.
- Hackstein, Olav. 1995. Untersuchungen zu den sigmatischen Präsensstammbildungen des Tocharischen. Göttingen.
- Hammond, Michael. 1999. *The phonology of English: a prosodic optimality-theoretic approach*. Oxford & New York: Oxford University Press.
- Hoffner, Harry A. & H. Craig Melchert. 2008. A Grammar of the Hittite Language, Part 1: Reference Grammar. Winona Lake: Eisenbrauns.
- Kronasser, Heinz. 1956. Vergleichende Laut- und Formenlehre des Hethitischen. Heidelberg: C. Winter.
- Kassian, A.S. & I.S. Yakubovich. 2002. The reflexes of IE initial clusters in Hittite, in *Anatolian Languages* (ed. V. Shevoroshkin and P. Sidwell). AHL Studies in the Science and History of Language 6. Canberra: Association for the History of Language, 10-49.
- Kloekhorst, Alwin. 2008. An Etymological Dictionary of the Hittite Inherited Lexicon.

 Leiden & Boston: Brill.
- Laroche, Emmanuel. 1947. Recherches sur les noms des dieux hittites, in *Revue Hittite* et Asianique VII, 7-139. Paris: G.P. Maisonneuve.
- Meier-Brügger, Michael. 2006. Zur Bildung von Grieschisch $\Theta EO\Sigma$, in *Incontri* linguistici 29, 119-125.
- Melchert, H. Craig. 1994. *Anatolian historical phonology*. Amsterdam & Atlanta: Rodopi B. V.
- Melchert, H. Craig. 1997. Luvian /tāna-/ 'sanctified, inviolable', in *Historische Sprachforschung* 110, 47-51.

- Mouton, Alice. 2007. *Rêves hittites Contribution à une histoire et une anthropologie du rêve en Anatolie ancienne*. Leiden & Boston: Brill.
- Oettinger, Norbert. 1979. Die Stammbildung des hethitischen Verbums. Nürnberg.
- OED 2009 = Oxford English Dictionary Online. 2009. Retrieved August 14, 2009, from http://dictionary.oed.com/.
- Oppenheim, A. Leo. 1956. *The Interpretation of Dreams in the Ancient Near East*. Philadelphia: The Americal Philosophical Society.
- Pokorny, Julius. 1959. *Indogermanisches Wörterbuch*. Bern: Francke.
- Rau, Jeremy. Forthcoming. The Greek Type *nomas*, -ados, in *Münchener Studien zur Sprachwissenschaft*.
- Rieken, Elisabeth. 1999. Untersuchungen zur nominalen Stammbildung des Hethitischen. Wiesbaden: Harrassowitz.
- Rößle, Sylvester. 2002. Sprachvergleichende Untersuchungen zu den hethitischen āi-Stämmen: ein Betrag zur hethitischen Sprachgeschichte. Augsburg University Dissertation.
- Schaffner, Stefan. 2001. Das Vernersche Gesetz und der Innerparadigmatische Grammatische Wechsel des Urgermanischen im Nominalbereich (IBS 103).

 Innsbruck.
- Soysal, Oğuz. 2004. Hattitischer Wortschatz in hethitischer Textüberlieferung, HdO 1/74.
- Nikolayev, S. & S. Starostin. 1994. *North Caucasian Etymological Dictionary*. Moscow: Asterisk Press.
- Starke, Frank. 1979. Zu den hethitischen und luwischen Verbalabstrakta auf -*šḫa*-, in *KZ* 93, 247-61.
- Sturtevant, E. H. 1928. Original h in Hittite and the Medio-Passive in r, in Language vol. 4, no. 3, 159-170.
- Sturtevant, E. H. 1936. Two Hittite Words, in *JAOS* 56, 282-287.
- Tischler, Johann. 1977. Hethitisches etymologisches Glossar. Innsbruck.
- Vine, Brent. 1999. On "Cowgill's Law" in Greek, in Compositiones Indogermanicae: in Memoriam Jochem Schindler, ed. Heiner Eichner & Hans Christian Luschützky. Prague: Enigma.

Watkins, Calvert. 2004. "Hermit Crabs," or New Wine in Old Bottles: Anatolian-Hellenic Connections from Homer and Before to Antiochus I of Commagene and After, in *Anatolian Interfaces: Hittites, Greeks and Their Neighbours, Proceedings of an International Conference on Cross-Cultural Interaction, September 17-19, 2004, Emory University, Atlanta, GA*, ed. Billie Jean Collins, Mary R. Bachvarova and Ian C. Rutherford, 135-141.