A PRACTICAL APPROACH TO VERBAL ASPECT IN HITTITE

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§1 The following description grew out of preparations for a new introductory Hittite grammar. Its goal is to assist in properly interpreting the meaning of Hittite verb forms as they are found in the texts. The present account takes Melchert 1998 as its starting point, addressing certain weaknesses and omissions in that treatment. And although we have sought to make clear how we are using concepts and terminology relating to verbal aspect, we make no claim here to a complete solution to this very complex problem.

§1.1 *Aspect* in the broadest sense refers to the temporal structure of related events or situations, as opposed to *tense*, which refers the time of the related event to that of the speech event. We may define aspect in the narrow sense as a *grammatical* category that is fundamentally independent of the lexical meaning of individual verbs. For Hittite it is sufficient to distinguish *imperfective* aspect, in which an event is viewed as having an internal temporal structure, from *perfective* aspect, in which it is not. The inherent meaning of individual verb stems also implies a certain temporal structure or *lexical aspect*. Recognizing that no classificatory scheme is fully adequate, we may usefully follow Vendler 1967 97-121 and Dowty 1979 54ff. in distinguishing verbs that express states ("to know", "to have"), activities ("to walk, work"), accomplishments ("to hitch up", "to drive across"), and achievements ("to die", "to arrive", "to take"). The realization of grammatical aspect as a particular *manner of action* (*Aktionsart*) in a given instance results from the interplay of context and the lexical aspect of the verb.

§2 The basic verbal stem in Hittite may be interpreted as perfective or imperfective according to context, the latter value being confirmed especially by the presence of accompanying conjunctions such as *kuitman* "while" and *mašiyanki* "as many times as".

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§2.1 Examples of perfective aspect are:

[1] *namma =aš INA* ᴴᵁᴿˢᴬᴳ*Zukkuki* EGIR-*pa uet* "Then he came back to Mt. Zukkuki" (KBo 5.6 i 1).

[2] *n =uš* GU₄-*li turier* "They yoked them like cattle" (KBo 3.34 i 16; OH/NS).

§2.2 Examples of the same verbs showing imperfective aspect are

[3] *nu kuitman* ᵐ·ᴳᴵˢGIDRU-LÚ-*iš IŠTU* KUR ᵁᴿᵁ*Mizri* EGIR-*pa uet* "While Ḫattušaziti was coming back from the land of Egypt" (KBo 5.6 iii 26). The aspect indicator is the *kuitman*: nothing in the form *uet*- either suffix nor inherent lexical component of *uwa*-zdictates or indicates aspect.

[4] *tūriyanzi=ma=aš mašiyanki nu* KASKAL-*ši* KASKAL-*ši=pat INA* 7. IKU.ḪI.A *anda penneškanzi* "But as many times as they hitch them up, each time they drive them seven IKU's" (KBo 3.5 ii 13-15). Here *tūriyanzi* refers to iterated action just as much as the formally marked *penneškanzi.*

§3 Imperfective aspect as defined above may optionally be marked *explicitly* in Hittite by the addition to the basic verbal stem of one of three suffixes: -*ške/a*-, -(*e/i*)*šš*(*a*)-, and -*anna/i*- (henceforth for simplicity cited as -*ške*-, -*šša*-, and -*anna*-). Contrary to the implication of Melchert 1998 414, the productivity of -*ške* is not unlimited. There are significant restrictions based on the lexical aspect of individual verbs, which may either imply a given aspect or be largely incompatible with it. The stative verbs *šakk*- "to know", *ḫar*(*k*)- "to hold, keep" and *ar*- "to stand" and the entire class of denominative "statives" in -*e*- (many of which function synchronically in Hittite as achievement verbs, see Hoffner 1998) and the denominative "inchoatives" in -*ešš*- (which are achievement verbs) are not attested with -*ške*- or equivalent suffix. The activity verb *iya*- (middle) "to be in motion, be walking" takes -*anna/i*- only in the inceptive sense "to set out, start to walk", and the achievement verb *akk*- "to die" takes a -*ške*- middle form only in the distributive sense, with and without a subject: *akkiškittari* "there is much dying". Cf. §10.2.

§4 The suffixes -*ške*- *and* -*šša*- are commonly labeled "iterative" or "iterative-durative," while -*anna*- is said to be "durative" (e.g. Friedrich 1960 73-75 §§137, 141). This description is misleading in two respects. First, as established by Bechtel 1936 and Dressler 1968, the use of the suffixes -*ške*- and -*šša*- is much broader than implied by the name "iterative-(durative)" (see the concession by Friedrich (§141 and §269), who recognizes many, though not all, of the variety of meanings cited

below). Second, the use of -*anna*- is completely equivalent to that of the other two suffixes-it is not limited to durativity. At least the following different meanings are attested for the trio of -*ške*-, -*šša*-, and -*anna*-:

§5 Progressive/Descriptive (see Bechtel 1936 52-57, against Dressler 1968 185-188, and others).

§5.1 An action is described as ongoing (often as setting the scene for another action-so-called "backgrounding"):

[5] *kuitman=ma=z=an* BEL SISKUR *IŠTU* SAG.DU=*ŠU tētan laplē*[*pan*] *enērann=a ḫuittiyannai* ᴹᵁᴺᵁˢˢU.GI=*ma luwili kiššan ḫukkiškezzi* "While the ritual client *is pulling* the hair, lash(es) and brow(s) from his own (-*za*) head, the Old Woman is reciting in Luwian as follows" (KUB 32.8 iii 6-10). Here the temporally parallel main clause uses the imperfective form *ḫukkiškezzi.*

[6] *takku* LÚ-*aš* GU₄=*ŠU* ÍD-*an zīnuškezzi* "If a man is driving his ox across a river (and another person pushes him off, seizes the ox's tail and fords the river [all non-*ške*-])" (KBo 6.2 ii 30, Laws §43, OS). Here the contrast of -*ške*- for the background and non-*ške*- for the events within the setting is entirely appropriate.

[7] *nu anniškemi kuin n=an=kan* ŠUM=*ŠU ḫalziḫḫi* "I call by his name the one whom I am treating" (KUB 12.63 obv. 28). Note here the equivalence of the forms in -*anna*- and -*ške*-.

[8] *takku arnuwalan* [(*kuiški*)] / *katta šeškezzi anna*(*n*)=*šan n*[*e*]*k*[*a*(*n*)=*šann=a* (*wenzi*)] "If someone is sleeping with an *arnuwala*-woman, and 'knocks up' her mother or (lit. 'and') her sister" (KBo 6.26 iv 23-27, Laws §200, OH/NS).

§5.2 The adverb *kāša* may be used to emphasize that the action is going on at the moment of speaking:

[9] *kāšatta=wa* ᴸ·ᵁ·ᴹᴵˢ*NĀŠI ŠIDĪTI=KUNU dameškatteni* "You are oppressing your provisions bearers!" (KBo 22.2 obv. 18-19, OS).

For a full discussion of the grammaticalization of *kāša* and equivalents with verbs see Hoffner 1968 532 and our summary below sub §14ff.

§6 Durative

An activity may be underscored as continuing over an extended period. In some cases the period of time is explicitly indicated:

§6.1 Imperfective forms are used if an action, although not necessarily continuous, extends over an expressed period of time (Friedrich 1960 §269e):

[10] *nu* GE₆-*an ḫūmanta*[*n uzuḫrin* ḪÁD.DU.A]/ *azzikkanzi* "(the horses) eat hay throughout the entire night" (KUB 1.13 i 35-36).

[11] (the following year I went to fight against Šanaḫuitta,) *nu* ᵁᴿᵁ[*Šanaḫuiṭ*]*tan INA ITU.5.KAM zaḫḫeškinun* "and I fought against Šanaḫuitta for five months" (KBo 10.2 i 47, OH/NS).

§6.2 In other cases the end point of the extended action expressed by marked imperfective stem appears as a result expressed by a non-*ške*-verb:

[12] (if someone sets fire to another's grain-storage shed,) [GU]₄.ḪI.A=*ŠU ētriškizzi n=uš=šan parā ḫamešḫanda / arnuzi* "he must feed (-*ške*-) his cattle, and bring them through to the following spring" (KBo 6.3 iv 60-61, Laws §100, OH/NS). Here *ētreškizzi* is durative-imperfective and *arnuzi* is terminative-perfective (cf. the underlying *ar*- "to arrive"), marking the end of the period during which the action *etreške*- transpires.

[13] *nu* É-*ri*=*šši anniškezzi kuitmān*=*aš lāzziatta* "He will (continue to) work in his (the victim's) house, until he (the victim) recovers" (KBo 6.2 i 17-18).

§6.3 Sometimes the period of time is left unspecified with no definite end point expressed:

[14] *takku* ᴳᴵˢTUKUL-*li*=*ma mimmai* LÚ ᴳᴵˢTUKUL-*š*=*a*(!, text -*uš*) A.ŠÀ.ḪI.A *ḫarkantaš taranzi n*=*an*=*za* LÚ.MEŠ URU-*LIM anniškanzi* "But if he refuses (to perform) the craft, they shall declare the fields to be those of a vacating craftsman, and the men of the city shall work them" (KBo 6.2 + 19.1 ii 20-21, Laws §40, OS, with dupl. KBo 6.3 ii 40-41, OH/NS).

[15] ᵁᴿᵁ*Ḫaḫḫan*=*ma*=*za*=*kan* UR.MAḪ *maḫḫan / arḫa tarkuwalliškenun* "I kept glowering(?) at Hahha like a lion" (KBo 10.2 iii 1-2, OH/NS).

[16] "(If someone finds a horse, mule, or ass ṛ) *n*=*an*=*za tūriškezzi* (var. *tūriezzi*) he may hitch it up (for work)" (KBo 6.3 iii 65, Laws, §71, OH/NS w. dupl. KBo 6.2 iii 60, OS). The NH scribe substituted a -*ške*-form for the OH *tūriezzi*, wishing to mark explicitly the view of the action as extending over the period until the lost animal was reclaimed.

§7 The meaning of -*ške*- in imperatives is often "keep on ...ing":

[17] *nu*=[*z*]*a pankun* EGIR-*pa punuški* "Keep consulting the *pankuš*" (KUB 1.16 iii 6, OH/NS).

[18] *nu zik azzikki akkuški nu taknaš* ᵈUTU-*i peran* LUGAL-*un āššu / memiški n*=*ašta ŠUMMI* LUGAL *taknaš* ᵈUTU-*i peran āššu tar*(*a*)*ški* "Now keep eating and drinking. And keep speaking well of the king before the Sun-goddess of Earth. Keep saying the name of the king favorably before the Sun-goddess of Earth" (KBo 7.28 + 8.92:17-19).

[19] *ta* BÀD-*eššar / [*(*waḫ*)]*ḫiškeddu* "and let it (i.e. the battering ram) keep on hitting the city wall" (KBo 22.6 iv 21-22, OH/NS).

[20] *nu*=*mu ḫatreški* "Keep writing to me" (HKM 27:10, MH/MS).

[21] *BĒLU*=*mu aššul ḫatreški / namma*=*ššan ANA* É=*YA /* IGI.ḪI.A-*wa ḫar*(*a*)*k* "Keep sending greetings to me, O lord. And further keep (your) eyes on my house" (HKM 27:23-25, MH/MS).

[22] *nu*=*ššan parā kalankanza ēš nu*=*tta kuit memiškemi nu*=*mu* DINGIR-*LUM ištamanan / lagan ḫar*(*a*)*k n*=*at ištamaški* "Be appeased, and with respect to what I am saying to you, O god, keep your ear inclined to me and keep listening" (KUB 24.1 i 15-17). Note that in the last two examples [21] and [22] the inherently stative verbs *ēš*- 'be' and *ḫark*- 'hold, keep' do not take the -*ške*- form, including the periphrastic construction with the participle plus *ḫar*(*k*)-.

§7.1 Likewise the use of a -*ške*- form with the negative *lē* sometimes carries the meaning of an "inhibitive;" i.e, it means "stop ...ing" versus the usual "prohibitive" meaning "don't ...!":

[23] *nu*=*ššan ilašni parā n*[(*aššu* 1 *gipeššaṛ*)] *naššu* 2 *gipeššar / ḫaminkiškir n*=*ašta u*[(*tnē ēšḫar akkušk*)]*ir / kinun*=*a lē ēššanzi* "(Dishonest men) by degrees have been joining one or two *gipeššar* (to their lands), and have been drinking the land's blood, but now let them stop doing it" (KBo 3.1+ iii 46-48, OH/NS).

[24] *šumeš*=*ma*=*aš*=*za* ZI-*az kuwat daškatteni kinun*=*a*=*kan apūš* NAM.RA.MEŠ *ANA* ᵐ*Duppi*-ᵈU *arḫa lē daškatteni* "Why do you keep willfully taking them for yourselves? Now stop taking those transportees away from Duppi-Tešub!" (KBo 3.3 iii 24'-26', Treaty with Duppi-Tešub, NH/NS).

[25] TÚG.ḪI.A=*wa kue zik w*[*aššiyaši nu*]=*war*=*at ANA* DUMU=*KA lē peškeši apāš*=*ma*=*at*=*ši pišket* "Stop giving the clothes you w[ear] to your son! But she kept giving them to him" (KUB 22.70 rev. 35-36, NH/NS).

Not every imperfective form with *lē* is inhibitive. The context makes clear that in the following the -*ške*- forms mark a habitual action.

[26] *n*=*an*=*ši dušgarauwanza piškellu pidduliyauwanza*=*ma*=*da lē peškemi* "(But the leavened bread which I give to you), may I (always) give it to you joyfully. Let me not (ever) give it to you under constraint" (KUB 6.45 + 30.14 iii 66-67, prayer of Muwattalli II).

§8 Iterative. An action is described as repeated, either continually (in immediate succession) or on separate occasions:

[27] EGIR=*ŠU* ᴸᵁ*meneyaš iētta kētt*=*a kētt*=*a* GI-*an ḫuittiannāi tarnāi*=*ma*=*an natta* ı ı *ḫalziššāi* "The m.-man walks behind. He keeps

drawing (back) the arrow towards this side and that, but does not let it go. He keeps crying out 'ee ee'" (KBo 17.43 i 10-11). For an example involving separate occasions see the example [4] cited above. Note again the equivalence of the three suffixes. This use of the "marked" stem is virtually obligatory with distributive expressions such as UD-*at* UD-*at* "day after day", ITU-*mi* ITU-*mi* "month after month", GE$_6$-*ti* GE$_6$-*ti* "night after night", MU-*ti* MU-*ti*, *lammar lammar* "moment by moment", etc.:

[28] *ANA* DINGIR-*LIM anda* UD-*at* UD-*at memiškizzi nu* DINGIR-*LAM walliškizzi* "(the scribe who reads the royal prayer to the cult statue of the deity) says it to the deity daily and repeatedly praises the deity" (KUB 24.2 i 1-2), cf. KBo 3.5 i 4.

[29] *nu INA* 6 *MŪŠĪ INA* É ^{LÚ}IŠ *aranda nu* ŠÀ.GAL *azzikkanzi* GE$_6$-*ti=ma* GE$_6$-*ti turiškizzi=pat* "For six nights (the horses) stand in the stable, and eat fodder, but he also hitches (the horses to the chariots) night by night" (KBo 3.5 iii 65-67).

[30] *uddār=met=ta pehhun nu kī* / [*tupp*]*i* ITU-*mi* ITU-*mi piran=tit halzeššandu* "I have given you my words. Let them read this tablet aloud in your presence monthly!" (KUB 1.16 iii 56-57, OH/NS).

[31] *n=aš=kan* MU.KAM-*ti* MU.K[(AM-*ti*)] / [(*šarā š*)]*anhiškandu* "Let them clean them out year by year" (KUB 31.86 + 40.78 + 1203/u ii 31-32 w. dupl: KUB 31.89:14).

[32] *wātar=ma=šši* KASKAL-*ši* KASKAL-*ši=pat ISTU* 1 *UPNI peškanzi* "They give water to them time after time with one *UPNU*-measure" (KBo 3.5 ii 45-46).

In accord with §5 note that *iya-* (mid.) accompanies the distributive expression without the derivational suffix:

[33] *n=ašta* LÚ.KÚR *QĀTAMMA* / *kuit* KUR-*e anda* / *lammar lammar iattar*[*i*] "And because the enemy likewise marches moment by moment into the land" (HKM 8:12-14, MH/MS).

§9 Habitual/Gnomic

The marked -*ške*- stem or equivalents may also express habitual, customary, or characteristic behavior:

One of the clearest examples of a -*ške*- verb form expressing customary action is in Muršili's Speech Loss (KBo 4.2 iv 28-32 and duplicates):

[34] *ISTU* ^{GIS}BANŠUR=*ma=za=kan kuezza azzikkinun ISTU* GAL=*ya=kan kuezza akkuškinun šašti=ya=za=kan kuedani šeškeškinun ISTU* ^{URUDU}DU$_{10}$xA=*ya=za=kan kuiezza arreškinun* "the table from which I customarily ate, the cup from which I customarily drank, the bed

in which I customarily slept, the wash bowl from which I customarily washed myself" (cf. Goetze and Pedersen 1934 10f., lines 16ff.). Note the contrast with KBo 4.2 iv 37-39 (a few lines later), where the king speaks of what happened on a single occasion (non-*ške*- forms).

[35] *tuk=ma=wa* DUMU.MEŠ=*KA mekkauš memiškanzi* "they (always) say you have many sons" (KBo 5.6 iii 11-12).

[36] *halkiš=wa mahhan* NAM.LÚ.U$_{19}$.LU GUD UDU *huitarr=a hūman huišnuškizzi* "just as grain keeps all humans, cattle, sheep and wild game alive" (KBo 4.2 i 58-59).

The preterite of the -*ške*- form is combined with the adverb *karū* to express our "used to do something":

[37] LAW §7 *takku* LÚ.U$_{19}$.LU-*an ELLAM kuiški dašuwahhi našma* ZU$_9$=*ŠU laki* / *karū* 1 MA.NA KÙ.BABBAR *pišker kinuna* 20 GÍN KÙ.BABBAR *p*[(*ai*)] ..."If someone blinds a free person or knocks out his tooth, they formerly used to give one mina of silver, but now one gives twenty shekels of silver". But the *karū* is optional, as is shown by the example:

[38] *nu=wa ANA* DINGIR-*LIM ISTU* É.GAL-*LIM* 1 GÍN KÙ.BABBAR SÍG SA$_5$ SÍG ZA.GÌN 1-*NUTUM* ^{KUS}NÍG.BÀR.HI.A=*ya* / *peškir kinun=a=wa* EZEN$_4$ *ašrahitaššin ier* KÙ.BABBAR=*ma=wa* SÍG SA$_5$ SÍG ZA.GÌN ^{KUS}NÍG.BÀR.HI.A=*ya* / *UL pier* "From the palace they used to give to the deity one shekel of silver, red and blue wool, and a set of curtains, but now they celebrated the Festival of Womanhood, and they didn't give the silver, red and blue wool and curtains" (KUB 5.10 + 16.33 + 16.83 i 8-13, NH).

§9.1 The habitual sense of -*ške*- is effectively lexicalized in *maniyahheške*- "to administer, govern," from *maniyahh*- "to handle" (always with -*ške*- in this sense except as an infinitive; cf. CHD s.v.). A similar use of -*šša*- probably appears in the usage of *halzišša*- (plus -*za*) to mean "to call (someone something)".

[39] *nu=wa=mu=za* DUMU-*lan halzeššešta* "And you called me 'boy'!" (Or: "you called me a child!") (KBo 3.4 ii 12, NH). See also the remarks below on *nanna*- "to drive".

§9.2 *memiškanzi* "they (always) say" is used frequently to introduce proverbs or popular sayings expressing customary behavior or statements of general validity (Beckman 1986). But the verb expressing the customary behavior is not in the -*ške*- form:

[40] *ANA* DUMU.NAM.LÚ.U$_{19}$.LU=*pat=kan anda memian kišan mem*[*i*]*škanzi* / *harnawaš=wa* MUNUS-*ni* DINGIR-*LUM kari tiya*[*zi*]

"Among mortals they (always) say: 'A deity will yield (non-imperfective *tiyazi*) to the wish of a woman of the bearing stool'" (KUB 21.27+ ii 15).

§10 Distributive (see Dressler, 1968: 172-182)

§10.1 An action may be performed once each on a series of objects (the action is thus from a certain point of view iterated):

[41] (if a slave burglarizes a house,) ÌR-*š=a* KA≈KAK=*ŠU išta*[(*manuš*)=*šuš kukkuŗeškezzi n=an āppa išḫi=šši pianzi* "he will cut off the slave's nose and ears and give him back to his master" (KBo 6.2 iv 45, Laws, §95, OS).

[42] NINDA*ān*ḪI.A NINDA.KU₇.ḪI.A *kue paršiyannianzi nu=kan anāḫi daškanzi n=at=kan* EGIR-*pa zikkanzi* "They take a taste of the warm breads (and) the sweet breads which they break (one after the other) and put them back" (KUB 25.32 iii 23-25). Here the focus is on doing something to the multiple objects "one-by-one." Note again the equivalence of the -*anna*- and -*ške*- forms. Likewise an action may be viewed as unfolding in several stages or consisting of repeated movements:

[43] DUG*ḫupuwaya ḫašši anda laḫuškezzi* DUG*ḫupuwaya=ma tuwarniškezzi* "(the priestess) pours out little by little from the *ḫ.*-vessel onto the hearth, and she breaks the *ḫ.*-vessel piece by piece" (2Mast. iii 32-34).

§10.2 It is less clear whether Hittite ever similarly marks a single action performed by multiple subjects, but a likely example is:

[44] *UMMA* ᵐ*Uḫḫamuwa* LÚ URU*Arzawa mān=kan* ŠÀ KUR-*TI* / *akkiškittari* "Thus (says) Uḫḫa-muwa: If in there is (much) dying in the land (i.e., a plague in which many people die)" (HT 1 ii 17-18); see Dressler 1968 162-163. Since the context surely suggests that there are multiple deaths, it is likely that this is the basis for the -*ške*- form. One notes that for expressing multiple deaths with an explicitly named subject the active form is preferred (KUB 7.53 i 4), although the unnamed "they" occurs once with the active in KBo 5.3 iii 38-39.

§11 Inceptive

§11.1 In the case of verbs that refer to activities or accomplishments, the -*ške*- form or equivalent may focus on the beginning of the activity:

[45] *maḫḫan=ma=kan* GIŠ*ḫuluganniš parā iyannai* "When the carriage begins to move" (IBoT 1.36 ii 23-24) (stem *iya*- "to walk, march, move"). *iyanna*- is a special case in that the inceptive of *iya*- (mid.) may have been lexicalized as a separate verb.

[46] *p*[*ai*] *t=aš=ššan* [GIŠ]NÁ-*aš šarkuwanza šesket* "He proceeded to go to sleep in bed with his shoes on" (KUB 24.8 i 25-26) (stem *šes*- "to sleep"). Note that as a serial verb *pait* is never inflected as an imperfective.

[47] DINGIR.DIDLI-*š=a* DUMU.MEŠ-*uš* A.AB.BA-*az šarā dair š=uš šallanušker* "the gods took the boys up out of the sea and began to raise them" KBo 22.2 obv. 4-5; cf. also line 7. Note, however, that the same verb in -*ške*- form can indicate the entire protracted course of the action: ("O my god, ever since my mother gave birth to me") *nu=mu ammēl* [DINGIR=*YA*] [*šal*]*lanuškiši* "you, [O my god], have been raising me" (FHG 1 ii 16-17, solar hymn, OH/NS); similar KUB 30.10 obv. 6-7 (prayer of Kantuzili, OH/MS).

§11.2 This inceptive value is also seen in the construction of the so-called "supine" with the verbs *dai*- "to put" and *tiya*- "to step" meaning "to begin to/undertake to." With extremely rare exceptions the "supine" is always formed from the marked imperfective stem:

[48] *iššuwan daišten ... piyanniwan daišt*[*en*] "you began to do ... you began to give" (KBo 9.5 rev. 2-3).

[49] *nu=mu* ÉRIN.MEŠ *peškewan dāir* "They began to give me troops" (KBo 3.4 iii 24).

One usually translates the supine construction "to begin to do something", "to be ready to do something", "to be willing to do something". It is found occasionally in almost all types of text, but it is used quite extensively in only two types: the NH mythological narratives (see DeVries 1967) and the NH military annals (see Goetze 1933 and Güterbock 1956), but especially in the former. There is a noticeable complimentary distribution of the two semantically similar constructions (both meaning "to begin to ..."), supine with *dai*- or *tiya*- and infinitive with *epp*-: where the supine construction is found, the infinitival one is not, and vice versa. Thus the infinitival construction is not found in the myths or in the annals of Muršili II, but the supine construction occurs. The infinitival construction occurs in the Deeds of Šuppiluliuma, authored by Muršili II, but the supine construction is not found. The infinitive + *epp*- construction occurs rarely prior to New Hittite, while the supine construction was in normal use from Old Hittite times.

§12 The productive suffix for all the functions just described is -*ške*-. Only a handful of verbs take one of the other suffixes.

§12.1 The verbs *ḫalzai*-, *iya*- "to make, do," *šai*-, and *warrai*- form their marked imperfective stems in -*išša*-. In NH the stem often appears

as -*ešša*- instead (see on this problem Melchert 1984 153-155, and Rieken 1996 294-297).

§12.2 The verbs *ḫatta*-, *ḫuittiya*-, *iškar*-, *iya*- "to walk, go," *paršiya*-, *šalla(i)*-, and *tuḫš*- regularly employ the suffix -*anna*-. In OH and MH *walḫ*- also takes -*anna*-. A few other verbs are attested with only one or two examples of -*anna*- beside regular -*ške*-: *ḫuek*- "to slaughter," *ḫulla*-, *išḫuwa*-, *išpar*-, *laḫḫiya*-, *pai*-, *parḫ*-, *peššiya*-, *piddai*-, *dai*-, *weriya*-. A special case is *nanna*-, which has been lexicalized as a separate verb "to drive," while only *naiške*- serves as the marked imperfective form of *nāi*-.

§12.3 As the productive form of the category, the suffix -*ške*- spread at the expense of the other two. In NH one finds *walḫiške*- for *walḫanna*- (also rarely *ḫalziške*- for *ḫalzišša*-).

§12.4 As described, the added suffix explicitly marks a verbal stem as expressing one of the values given above, versus the simple verb that is functionally neutral. By a common linguistic process, there is a tendency to reinforce the expressive value of the suffix by repeating it: *uškiške*- beside *uške*-, [*ap*]*piškiškemi* (HKM 89: 18) beside usual *appiške*-, and *šeškeškenun* and *šeškiškanzi* in texts of Muršili II beside *šeške*-. By the same process, the productive -*ške*- is often redundantly added to -*anna*-: *ḫuittiyanniške*-, *laḫḫiyanniške*-, *paršiyanniške*-, *peššiyanniške*-, *šallanniške*-, *takšanniške*-, *walḫanniške*-, *werianniške*-. Examples like that in KBo 3.6 i 71-72, where *walḫiškewan* and *walḫanniškewan* (*daiš*) "began to beset" are used equivalently in successive lines show that the extra suffix adds no functional value.

§12.5 Somewhat different are cases where the suffix -*ške*- lost its expressive value already in prehistoric times and became what is in Hittite the basic verbal stem: *iške*- "to smear, anoint," *paške*- "to fix, fasten," *duške*- "to rejoice." Naturally, these verbs can like any other add the suffix in its productive function: *duškiške*-.

§13 The preceding discussion of the role of -*ške*- and equivalent suffixes in expressing aspect in Hittite by no means exhausts the topic. As has repeatedly been suggested (see e.g. Luraghi 1997 29), it is likely that reduplication in the verb in at least some cases expresses iterativity or other manner of action. This issue, as well as the interaction of aspect with other verbal categories such as tense and voice, awaits further research.

§14 Our discussion of verbal aspect in Hittite would not be complete without at least a summary of the uses of *kāša* and its equivalent forms *kāšma* and (OH) *kāšatta*, in accord with the basic observations of Hoffner 1968. It is customary among translators of

Hittite texts to render these forms with a mechanical "behold", "lo" (or their equivalents in other languages). But, as Hoffner pointed out, this approach misses both the clear pattern of its uses with the Hittite verbal tenses and the fundamental function of the adverb.

§14.1 Previous interpreters of these forms have rightly signaled their ultimate derivation from the base of the proximal demonstrative" *kā*- "this" and the adverb *kā* "here" denoting spatial proximity.

§14.2 One should note that the form *ka-a-ša* is diachronically anterior to *ka-a-aš-ma*. The former occurs already in Old Script (KBo 9.73 obv. 2, KBo 7.28 + 8.92 obv. 2, and see *ka-a-ša-at-ta* in KBo 22.1:18, and *ka-a-ša-ta* in ibid. 24, KBo 17.1 + 25.3 i 11), while the latter seems to appear first in Middle Script texts, whether MH originals (HKM 1:8, 2:6) or MS copies of OH originals (KUB 17.10 iii 4). This temporal distribution accords nicely with what has been shown regarding the diachronic replacement of OH "adversative" -*a* by its equivalent -*ma* in post-OH. In OH -*a* followed (ungeminated) consonants, while -*ma* followed vowels (on this see Rieken (2000). In post-OH -*ma* began to appear in all environments. This means that OH *kāša* should be analyzed as *kāš* + -*a* which began to be replaced in post-OH by *kāš* + -*ma*. Once this step was taken, the origin of the *kāša* form was forgotten, and speakers felt free to write *kāša*=*ma* (KBo 13.119 iii 24 with dupl. KBo 13.120:8'). In post-OH the forms *kāša* and *kāšma* are free variants.

§14.3 Puhvel (HED A 216-218) has claimed that *a-aš-ma* instead of being the adverb "first" is synonymous with *kāšma*. If so, then this form too must be included in our account of *kāša* > *kāšma*. So far *āšma*, like *kāšma*, fails to occur in Old Script and by its use of -*ma* testifies to its more recent coinage than *kāša*. If *kāša* and *kāšma* are based upon the proximal demonstrative, it would be likely that *āšma* as well would be derived from a (near) demonstrative. This base is undoubtedly the pronoun *ā*-, occurring in *aši*, *uni*, and *eni*. To be sure, Puhvel has offered a different account of the origin of *āšma*, assuming syncope from *a-ša-ma, which is also his explanation of *ka-a-aš-ma* from *ka-a-ša-ma*. He stars the latter form, apparently unaware that such a form actually exists (cf. above in §14.2). But since no preform *a-ša (*āša) exists - the problematic forms of *a-ša-a* cited by Puhvel notwithstanding, and since the alleged parallel *naššu-ma* > *našma* arose as a correlative (*naššu-ma*) to *naššu*, whereas correlative constructions of *kāša* ... *kāšma* are unknown, we would prefer the account of the origin of *kāšma* and *āšma* given above.

§14.4 The implication of the proximal demonstrative origin of the forms should not be lost in the approach to interpreting their force in combination with the verbal tenses. *kāša* (and its synonyms *kāšma* and *āšma*) renders both past and non-past verbal tenses more immediate. Hoffner suggested therefore as working translations "have just ...ed" for *kāša* + preterite and "are on the point of (or: are about to) ..." for *kāša* + present-future forms. These translations were proposed only as provisional aids to convey what is essentially a process of bringing either a past or a close future action close to the moment of speech. Often the immediacy implied in the adverbs can best be captured in English by the adverbs "hereby" and "herewith", indicating that the action or state expressed by the predicate coincides with the moment of speech or writing: Ḫattušili I wrote: *kāšma* ᵐ*Muršiliš* DUMU=Y[*A*] "Muršili is hereby my (adopted) son (and designated heir)" KUB 1.16 ii 37 (OH/NS).

§15 In summary, let it be said that Hittite possessed a rich variety of means for indicating the "temporal structure" of the action being expressed. Whether or not all scholars will wish to call this "verbal aspect" is of less concern to the present authors than that interpreters and translators of Hittite texts understand the implications of these forms. It is with this purpose in mind that we offer these remarks to our colleagues in memory of Fiorella Imparati.

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CONSIDERAZIONI SULL'EVOLUZIONE DEI SIGILLI IN GEROGLIFICO MINOICO E IN GEROGLIFICO ANATOLICO

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1.Introduzione

Nel corso del secondo millennio in due ambiti diversi ma "confinanti", cioè l'Egeo e l'Anatolia, all'interno del sigillo a stampo tipico delle due aree e probabilmente di origine comune[1] si sviluppa una caratteristica analoga, cioè l'utilizzo su una o più facce del sigillo non di semplici decorazioni ma di segni di scrittura, definiti nei sigilli cretesi come "geroglifico minoico", in quelli anatolici come "geroglifico anatolico". Entrambi i gruppi di sigilli, come dimostrano le loro impronte, cominciano ad essere usati nell'ambito della gestione palatina in ambiente egeo da parte dei funzionari dei primi palazzi a Creta e, più tardi, in ambiente anatolico dai sovrani ittiti e progressivamente dai vari funzionari. Tuttavia il sigillo "scritto" in area egea con la fine dei primi palazzi cade quasi completamente in disuso, mentre continua e si intensifica l'uso del sigillo con motivi semplicemente decorativi e simbolici che caratterizza sia l'età minoica dei secondi palazzi che l'età micenea. Ben diversa sorte ha il sigillo scritto anatolico, il cui uso si estende a tutti i livelli della gerarchia palatina fino alla fine dell'età del Bronzo e alla scomparsa dell'impero ittita. Scopo di questo lavoro è individuare le motivazioni, a nostro parere risalenti fino alle origini dei primi sigilli scritti, che hanno portato ad una loro diversa applicazione nelle rispettive società palatine e da un lato alla sparizione dei primi, dall'altro alla diffusione massiccia dei secondi. Non si intende pertanto riprendere una discussione che concerne la pratica amministrativa del sigillo e le sue modalità, ma indagare sul ruolo che queste due scritture, limitatamente alla loro applicazione sul sigillo, rivestono in ambito minoico e in ambito ittita.

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[1] Esula da questa ricerca un approfondimento del problema dei rapporti fra le due aree nel corso dell'Antico Bronzo e degli inizi del Medio Bronzo, estremamente complesso e controverso. Le proposte di interpretazione vanno dal riconoscimento di semplici contatti commerciali all'affermazione di vere e proprie migrazioni di popoli. Per quanto riguarda il sigillo, sembra accertata una corrispondenza abbastanza stretta fra il sigillo a stampo anatolico e quello egeo-cretese, ben diversa dalla presenza sporadica in area egea di sigilli cilindrici di tipo mesopotamico e egizio. Cronologicamente la priorità del sigillo a stampo anatolico rappresenta una delle varie testimonianze che sembrano dimostrare un passaggio culturale in direzione est-ovest, senza nulla togliere alla originalità egea sia nello sviluppo che, in alcuni casi, nell'invenzione di varie tipologie.