Hitt. naišhut, nešhut

One of the most valuable of our lamented colleague Erich Neu's contributions to Hittite linguistics and philology was his groundbreaking two-volume study of the Hittite mediopassive (Neu 1968a and b). It is only fitting, therefore, that a mediopassive form should be the subject of this essay in his memory.

The form in question is the 2 sg. middle imperative of the common verb *nai*-'turn (trans. and intrans.)', normally attested in the shape *naišhut* (*na-iš-, na-a-iš-,* na-a-i-iš-, na-eš-), but also occasionally found as nešhut (ne-eš-, ne-iš-, ni-iš-). From a synchronic point of view, the structure of *naišhut* (*nešhut*) is perfectly clear: it consists of the root *nai-* (*ne-*), followed by an apparently non-functional *š*-element and the 2 sg. mid. impv. ending -hut. The functionally vacuous -š-, which will be called "intrusive" -š- in what follows, is found in other second person forms of nai- as well — specifically, in the 2 pl. act. pres. naišteni, naištani, the 2 pl. pret.impv. naišten (beside later neyatten), the 2 sg. mid. pres. naišta(ri) (beside neyattati), and the 2 pl. pret.-impv. naišdumat. Quite distinct from this -š-, at least synchronically, is the *ending* -*š* that marks the 3 sg. active preterite in *nai*- (*naiš*) and the vast majority of other *hi*-verbs.³ The lexical distribution of intrusive -*š*- is more restricted than that of desinential -š, being largely confined to hi-conjugation verbs in stem-final -ai- (cf. 2 pl. pret.-impv. daišten (: dai- 'put'); 2 pl. pres. pišteni, pret.-impv. pišten (: pai- 'give'), 2 pl. pret.-impv. halzišten (: halzai- 'call'); 2 pl. pres. *memišteni* (beside *mematteni*), pret.-impv. *memišten* (: *memai- 'speak'*); etc.) and to verbs modeled on them (cf. 2 pl. pres. *ušteni* (beside *autteni*), 2 pl. pret.-impv. aušten (: au- 'see')).

The origin of desinential $-\dot{s}$ is generally agreed to be the 3 sg. in *-s-t of the PIE s-aorist. The origin of intrusive $-\dot{s}$ -, however, is unclear. Under the standard Brugmannian view of the s-aorist, which assumes a uniformly sigmatic paradigm with * \bar{e} : *e ("Narten") ablaut for the parent language (1 sg. * $n\dot{e}iH$ -s-m, 2 sg. * $n\dot{e}iH$ -s-s, etc.), forms like $nai\dot{s}hut$, $nai\dot{s}ten$, etc. might in principle be interpreted as survivals from the period when Anatolian, like Greek, Indo-Iranian, and other

familiar IE languages, had a "classical" sigmatic aorist with *-s- in all three persons and numbers. This view is in fact advocated by older writers, but it can no longer be seriously entertained. If intrusive -š- were simply a holdover from an earlier "classical" s-aorist paradigm, its absence from the 1 sg., 1pl., and 3 pl., and its almost exclusive predilection for verbs in -ai-, would be impossible to explain. The traditional fully sigmatic reconstruction of the s-aorist, moreover, is no longer tenable. The restriction of the *-s- of the s-aorist to the 3 sg. active is a feature that Hittite shares with the other "post-Brugmannian" branch of the family, Tocharian. Taken together, the facts of Hittite and Tocharian point to an originally "presigmatic" PIE category in which the s-element, starting from the 3 sg. active indicative and the active subjunctive, diffused through the rest of the paradigm in the post-IE period. A form like 2 pl. pret. naišten cannot go back to an inherited s-aorist *néiH-s-te, *néiH-s-te</sup> or (with analogical vocalism) *nóiH-s-te because no such form existed when Anatolian and Tocharian split off from the rest of the IE family.

What, then, was the source of intrusive -š-? One might consider an updated version of the standard account, taking naišhut, naišten(i), naišdumat, etc. as typological parallels to normal s-aorists — forms that acquired their -š- from the 3 sg. naiš independently of the developments that produced the classical s-aorist in the "Inner" IE languages. Diffusion of -š- from the 3 sg., however, would not explain the peculiar association of intrusive -*š*- with the second person. More important, it would not explain the existence of the less common variant *nešhut* beside *naišhut*. The forms *nešhut* and *naišhut* have quite different philological profiles. The spelling with synchronically irregular *ne*- is found twice in a Middle Hittite manuscript (KBo XVII 105), while the spelling *nai-*, with the standard anteconsonantal root shape, occurs only in manuscripts from the Neo-Hittite period. *nešhut* is thus older than *naišhut*, which evidently replaced it. The root vocalism associated with intrusive $-\dot{s}$ -, at least in the 2 sg. middle imperative, was historically different from the vocalism associated with desinential -š-. 3 sg. pret. naiš goes back to a preform *nóiH-s-t, with substitution of analogical *-o- for *-ē-; nešhut presupposes an e-grade stem *néiH-s-.

The *e*-grade of *nešhut* can easily be explained on the basis of the known behavior of the root **neiH*- in the parent language. Though confined to Hittite and Indo-Iranian, *neiH- was one of a number of roots — others were *uegh-'convey', *uedh- 'lead', *pek"- 'cook', and *dheg"h- 'burn' — whose reconstructible late PIE averbo included a full-grade thematic present and a well-developed (pre)sigmatic aorist. In the Rigveda, the s-aorist of $n\bar{\imath}$ 'lead' is less well attested in the indicative (1x) and injunctive (1x) than the subjunctive (6x); cf. GAv. 3 sg. $na\bar{e}\check{s}a\underline{t}$). The best-attested form of all, however, is the *si*-imperative $n\acute{e}$ si (10x). si-imperatives are a conspicuous category in Vedic, where their synchronic function is usually to supply a 2 sg. imperative to the s-aorist. The historical importance of these forms has increased enormously since 1966, when they were first explained as haplologized 2 sg. subjunctives by Szemerényi. The process was initially seen as confined to Indo-Iranian: in Szemerényi's original account, preforms of the type *náišasi 'may you lead' were simplified to forms of the type **náiši* (> Ved. *néşi*) 'lead!'. Since 1986, however, reflexes of *si*-imperatives have also been found in Celtic (cf. OIr. tair 'come!' < *to-ar(e)-ink-si beside subj. *toar(e)-iss- < *-ink-se/o-) and Tocharian (cf. TB päklauş 'hear!' < *- \hat{k} leusi (= Ved. śróṣi)), showing that the haplology was actually as old as PIE itself. The Indo-Iranian *si*-imperative **náiši* was the descendant of an already haplologized late PIE *néiH-si, reduced from the 2 sg. s-aorist subjunctive *néiH-s-esi within the parent language.¹¹

si-imperatives also occur in Hittite. By far the best-attested such form is the common pahsi 'protect!', found from at least Middle Hittite; another is the isolated Middle Hittite hapax esi 'settle!' (Madd. Vs. 19). Neither pahsi nor esi, as it happens, is based on an s-aorist: pahsi is the imperative of the old s-present pahsi- ($<*peh_2$ -s-) 'protect', while esi, despite its transitive meaning, belongs to the paradigm of the root present $*h_ies$ - (or $*h_ieh_is$ -?) 'sit'. The fact that pahsi- and esi- were etymologically presents rather than s-aorists did not prevent them from acquiring si-imperatives. Like s-aorists, they had 2 sg. active subjunctives in *-sesi and thus met the condition for Szemerényi's haplology rule. As we shall see below, at least one other instance of a present-based si-imperative like pahsi

and *eši* can be identified in Hittite. Of more immediate interest, however, is the fact that Hittite also offers indirect evidence in for an *s*-aorist-based *si*-imperative of the Indo-Iranian type.

The 3 sg. preterite *naiš* has an unbroken history reaching back to PIE **néiH-s-t*; indeed, it is the *only* Hittite preterite in -*š* that can be identified with an independently reconstructible s-aorist. But the PIE extended paradigm of which *néiH-s-t was a part, though not fully sigmatic in the Greek or Indo-Iranian sense, also included a sigmatic subjunctive *néiH-s-e/o- (cf. Ved. néṣa-) and a si-imperative **néiH-si* (Ved. *néṣi*). It is legitimate to assume, therefore, that pre-Hittite, as a language where si-imperatives were in principle preserved, would also have inherited a 2 sg. active imperative *nēsi < *néiH-si. No direct reflex of this form has survived; the actual 2 sg. imperative of *nai*- is the differently-formed *nai*, parallel to dai, pai, ḥalzai, etc. beside dai-, pai-, ḥalzai-. The missing Hitt. *nēši, however, is presupposed by the attested but thus far unexplained *nešhut*.¹⁵ It is significant that Vedic Sanskrit has a series of a rist middle imperatives in -sva representative examples are rásva (: rā- 'grant'), yákṣva (: yaj- 'sacrifice'), and *mátsva* (: *mad-* 'intoxicate') — which are shown by their ablaut and accent pattern to be secondary "medializations" of active imperatives in -si (cf. rási, yákṣi, mátsi). Narten, in her exemplary discussion of the imperative of the s-aorist (1964: 45-9), explains the genesis of these forms via an implicit proportion:

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subj. act. r	ilde{a}sat(i), y	ilde{a}k	ilde{s}at(i), m	ilde{a}tsat(i): impv. act. r	ilde{a}si, y	ilde{a}k	ilde{s}i, m	ilde{a}tsi: subj. mid. r	ilde{a}sate, y	ilde{a}k	ilde{s}ate, m	ilde{a}tsate: impv. mid. X,
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where X was solved as $r\acute{a}sva$, $y\acute{a}kṣva$, $m\acute{a}tsva$. 16 nešhut is clearly a medialization of the same type. We have no way of knowing whether the circumstances of its creation were exactly the same as in Indo-Iranian or whether it was simply made by substituting -hut for -i on the model of verbs in root- or stem-final $-\check{s}$ -, which offered pairs like $pah\check{s}i$ (act.) : $pah(ha)\check{s}hut$ (mid.) and $e\check{s}i$ (act.) : $e\check{s}hut$ (mid.). Under either scenario the final analysis is the same: $ne\check{s}hut$ is an analogical pendant to the unattested $*n\bar{e}\check{s}i$.

We can now begin to understand the origin of intrusive -*š*-. Hittite at an early stage in its history had a 2 sg. active imperative *nēsi (< *néiH-si) with a middle counterpart *nēshu (vel sim.).¹⁷ From these were built new plural imperatives *nēsten (act.) and *nēstuwa (mid.), an obvious analogical model being provided by inherited forms like 2 pl. impv. *paḥsten (act.; cf. MH paḥḥašten) and *paḥstuwa (mid.; cf. MH paḥḥašdumat) beside 2 sg. *paḥsi (act.) and *paḥsḥu (mid.). But since elsewhere in the language plural imperatives were formally identical to plural preterites, it was inevitable that the newly created imperatives **nēṣten* and **nēṣtuwa* would come to be used as preterites as well. In their new preterital role, *nēsten and *nēstuwa triggered the back-formation of 2 pl. presents *nēsteni and *nēstuwar. Eventually, *-s- was propagated to the singular as well: 2 pl. mid. *nēstuwar (pres.) and *nēstuwa (pret.) jointly induced the creation of 2 sg. mid. * $n\bar{e}star$ (pres.) and * $n\bar{e}sta$ (pret.). The result was the nearly complete sigmatization of the second person, with only the 2 sg. active remaining unaffected by the spread of *-s- (cf. Hitt. pres. naitti, pret. naitta). In the wake of all this the pre-Hittite system would have looked as follows:

	active	middle
2 sg. pres.	[*naitē̞]	*nēstar
2 sg. pret.	[*naita]	*nēsta
2 sg. impv.	*nēsi	*nēshu
2 pl. pres.	*nēsteni	*nēstuwar
2 pl. pret.	*nēsten	*nēstuwa
2 pl. impv.	*nēsten	*nēstuwa

Most of these forms are recognizably ancestral to their attested Hittite counterparts. In the development from pre-Hittite to Hittite proper the middle endings were modernized through phonological and other changes (*-tar, *-tuwar \Rightarrow -ta(ri), -tuma(ri); *-pu \Rightarrow -put; *-ta, *-tuwa \Rightarrow -tat(i), -tumat(i)); * $n\bar{e}$ si was lost and replaced by nai; the vowel *- \bar{e} - was mostly replaced by -ai-, taken from the present and preterite active singular. The phonological reflex of *- \bar{e} -

was preserved in two sets of forms: 1) <code>nešhut</code> itself, which was enabled to survive into Neo-Hittite by its formal and functional distance from the corresponding indicatives in <code>-ta(ri)</code>, <code>-tat(i)</code>; and 2) the compounds of <code>nai-</code>, <code>viz.</code>, <code>pennai-</code> 'drive away' and <code>unnai-</code> 'drive hither'. The latter two verbs have no middle forms, but the sparsely attested 2 pl. actives <code>penništen(i)</code> and <code>unništen(i)</code> are the phonologically regular continuants of pre-Hitt. <code>*-nēṣten(i)</code>. From <code>nai-</code> and its compounds intrusive <code>-š-</code> was extended to other <code>hi-</code>verbs in <code>-ai-</code>. Thus, e.g., the "duratives" in <code>-annai-</code>, historically unrelated to <code>pennai-</code> and <code>unnai-</code> but almost identically inflected, have 2 pl. forms in <code>-išten(i)</code> (e.g., impv. <code>iyanništen</code> 'march!'). The pattern also spread to <code>uppai-</code> 'send', <code>memai-</code> 'say', and <code>dālai-</code> 'leave'. Monosyllabic stems like <code>dai-</code> 'put', <code>išhai-</code> 'bind', and <code>šai-</code> 'press' generally substitute <code>-ai-</code> for <code>*-ē-</code> like uncompounded <code>nai-</code> (cf. <code>daišten</code>, <code>išhaišten</code>, <code>šāišten</code>). The case of <code>pai-</code> 'give', which has only <code>pišten</code> and <code>pišteni</code> for expected <code>*paišten(i)</code>, is special; <code>-i-</code> here was probably taken from the compound <code>uppai-</code> (2 pl. <code>*uppišten(i)</code>), which also influenced the paradigm of <code>pai-</code> in other ways (cf. 1 pl. <code>piwen(i)</code> like <code>uppiwen(i)</code>).

The compounds of *nai*- and some of their congeners have a special 2, 3 sg. preterite ending -išta (penništa, unništa, uppišta, memišta, dālišta; later pešta, naišta, etc.), the origin of which is inseparable from the forms just discussed.¹⁹ The locus of this ending is probably to be sought in the verb au- 'see', which had a paradigm similar to that of *nai-*, *dai-*, and *pai-*, including forms with intrusive -š- (cf. 2 pl. pres. *ušteni*, pret.-impv. *aušten*).²⁰ Prior to the sound law that reduced wordfinal *-st to *-s, the 3 sg. preterite of au- would have been *aust (vel sim.), corresponding to a 3 sg. present *awē. Perhaps because of the morphophonemic inconvenience of the latter form — heterosyllabic [a.w-] was not otherwise a typical alternant of tautosyllabic [au.-] 21 — * $aw\bar{e}$ was prehistorically remade to *austi (> Hitt. aušzi), back-formed from the preterite *aust on the model of *mi*-conjugation pairs of the type *esti: *est, *g*enti: *g*ent, etc. This substitution had morphological consequences. Since au- was now, so to speak, a "mi-verb" in the 3 sg., the preterite *aust 'saw' yielded not *aus but austa in Hittite, with the normal *mi*-conjugation addition of a final support vowel (cf. *ešta* 'was', *kuenta* 'slew', etc.). Subsequently, the inherited 2 sg. preterite *autta became aušta as

well, probably under the influence of the semantically related *ištamaš*- 'hear', where both the 2 sg. and 3 sg. preterite had the form *ištamašta*.²² The combined 2, 3 sg. ending *-šta* now spread to other verbs with a 2 pl. preterite in *-šten*. The proportion was

aušten: aušta:: memišten: X,

where X was solved as memišta. In the same way arose penništa, unništa, uppišta, etc. Interestingly, the "duratives" in -annai- retained their inherited 3 sg. preterite in -anniš (< *-nh₂i-st), at least in older Hittite (cf. OH iyanniš, etc.).

The medialized *si*-imperative *nešhut* thus proves to be the form that holds the key to the secret of intrusive -*š*- — both its confinement to the second person and its affinity for verbs in -ai-. Confirmation of this analysis comes from another unusual cluster of facts. The hi-verb $\bar{\imath}\check{s}\check{s}(a)$ -, Neo-Hittite $\bar{e}\check{s}\check{s}(a)$ -, is the iterative of ie-/iya-'do'; historically, it goes back to earlier *ii-ih,-s- (vel sim.), 23 a reduplicated s-present of the same formal type as the Indo-Iranian desiderative (cf. Ved. *cíkitsati* 'wishes to know'; Jasanoff 1988: 235). For the most part this stem, like other iteratives in $-s\check{s}(a)$ -, was "thematized" in Hittite, i.e., provided with a stem-final -a- extracted from the formally ambiguous 3 pl. in -anzi. The athematic stem still appears, however, in two places: 1) before -w-, as in 1 pl. ēššwen(i) and supine īššuwan; and 2) in 2 pl. pres. īštēni, pret.-impv. īšten. The prew cases are quasi-regular; similar athematic retentions are found, e.g., in the verbal noun *pippuwar* beside *pippa*- 'overthrow', and in the infinitive and verbal noun *malluwanzi*, *malluwar* beside *malla*- 'grind'. The 2 pl. cases, however, are harder to explain. There is no hint of an athematic stem $\bar{\iota}ss$ - in the singular (cf. MH 2 sg. *iššatti*, OH 3 sg. *īššai*), and even in the 2 pl. the athematic forms were replaced by $\bar{\imath}$ is $\bar{\imath}$ satten(i) and $\bar{\imath}$ is $\bar{\imath}$ satten(i) from the Middle Hittite period. In the context of what we have seen thus far, the natural inference is that *īštēni* and *īšten* are forms like *naišten(i)*, analogical elaborations of an inherited 2 sg. *si*-imperative * $\bar{\imath}$ *išši* < * $\bar{\imath}$ *ií-ih*₁-si < 2 sg. subj. * $\bar{\imath}$ *ií-ih*₁-s-esi. In the case of *naišten*(i), our decision to set up a *si*-imperative **nēsi* was based on Ved. *néṣi* and the suggestive power of *nešhut*; there is no **nēši* or **naiši* in any documented form of Hittite. What makes

 $\bar{\imath}$ sten interesting is the fact that the si-imperative * $\bar{\imath}$ ssi is actually attested. In the Hittite-Akkadian bilingual of Hattusilis I, a Neo-Hittite copy of an Old Hittite original, we find the 2 sg. imperative e-is-si, which Oettinger (1979: 59, note 47) correctly explains as a copyist's modernization of underlying *i-is-si. In the case of this word we are wholly in the realm of fact; e-is-si is the "smoking gun" that establishes the crucial role of si-imperatives in the propagation of intrusive -s-s-si-si

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NTakaa

Notes

¹ The spellings are collected by Neu (1968a: 122); the forms are classified by period in *CHD*, s.v. *nai*-.

² Since the 2 pl. preterite and imperative are always identical in Hittite, the abbreviation "2 pl. pret.-impv." can be used to characterize the common form whether or not both functions are attested. Late "thematic" forms of the type *neyatten* will play no role in the following discussion.

³ The lexically restricted ending -*šta* is discussed below.

⁴ So already clearly Sturtevant (1951: 144), followed by Oettinger (1979: 460 and passim). That the original form of the ending was *-*s*-*t* and not *-*s* is shown by the pair *aušzi* : *aušta*, discussed below.

⁵ By "post-Brugmannian" I mean not accessible to IE scholarship until after the classical formulation of IE comparative grammar in the second edition of Brugmann's *Grundriß* (1897-1916).

⁶ See the preliminary discussion in Jasanoff 1988, with references to essential earlier work by Watkins and Ivanov. A systematic account of the PIE "presigmatic aorist," with special attention to the facts of Hittite and Tocharian, is given in chapter 7 of my *Hittite and the Indo-European Verb*, currently in press.

⁷ I use the term "Inner IE" to refer to the body of still more or less undifferentiated IE dialects that remained after the separation of Anatolian and Tocharian from the rest of the family.

⁸ Following Melchert 1994, I assume that PIE *-oi- gave Hitt. -ai- before coronals (148), and that PIE *-ei- and *-ēi- gave Hitt. -e- (-ē-) via *-ē- everywhere (56, 148 ff.). Under these assumptions it would also be possible, at least in theory, to derive the imperative from *neiH-s-, with *-ē- taken from the 3 sg. preterite before the replacement of 3 sg. *neiH-s-t by *noiH-s-t under the influence of the s-less singular forms nehhi, naitti, nai, etc. (<*noiH-). Such a scenario, however, which would make both nais and neshut analogical, would be completely arbitrary.

⁹ Note the pairs Ved. *váhati*: aor. 3 sg. *ávāṭ*, Lat. *uehō*: perf. *uēxī*, Gk. (Pamph.) εεχετω: (Cypr.) aor. εεεξε (*μeĝh-); OCS vedǫ: aor. věsъ, OIr. fedid: s-subj. fess-(*μedh-); Ved. pácati: aor. subj. pákṣa-, Lat. coquō: perf. coxī (*pek²-); Ved. dáhati: aor. 3 sg. ádhāk, OCS žegǫ: aor. žaxъ (*dheg²h-). The root *neiH-, semantically close to *μeĝh- and *μedh- and forming both a thematic present and s-aorist in Indo-Iranian (cf. Ved. náyati: aor. 2 pl. anaiṣṭa), clearly belongs here as well.

¹⁰ The Old Irish and Tocharian forms are discussed in Jasanoff 1986 and Jasanoff 1987 (92 ff.), respectively.

The antiquity of $n\acute{e}$ si is denied by Narten (163) on the grounds that the apparent s-aorist of $n\bar{\imath}$ - was actually an $i\dot{s}$ -aorist (* $n\check{a}\dot{\imath}i$ -s-). But I am not convinced that an s-aorist * $n\check{e}iH$ -s- would phonologically have yielded an $i\dot{s}$ -aorist in Vedic, and the absence of si-imperatives to $se\dot{\imath}$ roots in Vedic does not preclude the possibility that such imperatives existed in the parent language.

¹² Otherwise Oettinger (211, note 66). As Craig Melchert points out to me, however (p.c.), the only Hittite imperatives in -i with any claim to antiquity are those in which the stem either itself ends in -i-, as in *iyanni*, *memi*, etc., or where it ends in $-\check{s}$ -, as in *paḥši* and the forms discussed below. Forms like *tarni* 'release!' (beside normal *tarna*), *ḥāni* 'draw (water)!' (beside *ḥān*), and *kuen(n)i* 'kill!' have

apparently copied the word-final sequence -*ni* from the type *iyanni*. The presence of *si*-imperatives in Hittite proves that Anatolian inherited the PIE subjunctive.

¹³ Oettinger takes the underlying Hittite verb pahš- (1 sg. pah(ha)šha, 3 sg. pahša(ri), etc.) from an s-aorist rather than an s-present. But since the *-s- of the s-aorist is restricted to the 3 sg. in Anatolian, and since the root * peh_2 - 'protect, graze' is independently known to have formed an s-present in both Slavic (OCS pasq) and Tocharian (A $p\bar{a}s$ -), the choice of an s-present seems correct for pahš- as well.

¹⁴ Note also that the inherited *si*-imperative * $\hat{k}l\acute{e}usi$ (Ved. $\acute{s}r\acute{o}si$, Toch. -klyaus, probably also Messapic KΛAΩHI) is probably based on a Narten s-present * $\hat{k}l\acute{e}u$ -s-ti, with subjunctive * $\hat{k}l\acute{e}u$ -s-e/o-.

¹⁵ I write * $n\bar{e}$ \$i, with long - \bar{e} -, because the spelling in an actual text would probably have been ne-e- \bar{s} i. But there is no contrast between accented long and short -e- in Hittite; the vowels of * $n\bar{e}$ \$i and ne\$b\$jut were phonologically the same (cf. Melchert 1994: 103).

¹⁶ The other Vedic forms cited by Narten are *trásva* (: *trā-* 'protect'), *māsva* (: *mā-* 'measure'), *váṃsva* (: *van-* 'strive for'), and *sắkṣva* : *sah-* 'be victorious'), to which she adds GAv. *frašuuā* (: *fras-* 'ask').

¹⁷ Here and below the specific reconstructions offered for the pre-Hittite endings are somewhat arbitrary. I set up the 2 sg. mid. impv. ending as *- $\hbar u$ on the assumption that the final -t of - $\hbar ut$ was an analogical import from the active imperatives in -ut < *-u-dhi. For *-r in the present middle see Yoshida 1990: 103 ff.

¹⁸ Likewise exceptional is *išpišten* (*KUB* XII 17 6), conceivably a secondarily sigmatized form of *išpitten* (*KUB* XXXIII 62 III 11'). 2 pl. *ḫalzišten* (: *ḫalzai-'call'*) is presumably parallel to *penništen*, *memišten*, **uppišten*, etc.

¹⁹ The relationship of this ending to simpler -*š* and -*ta* is a source of particular confusion in the older literature; see, e.g., Kronasser (1956: 191 ff.) for a representative discussion.

²⁰ Like $au(\check{s})$ - and presumably modeled on it was $mau(\check{s})$ - 'fall'.

²¹ [a.w-] also occurred in the 3 pl. pret. * $aw\bar{e}r$, where it was likewise eliminated; the attested $a-\hat{u}-(e-)ir$ probably represents phonetic [au.er].

²² Both forms were perfectly regular; -ta, taken from the hi-conjugation, regularly replaced -s as the 2 sg. pret. ending in consonant-final stems.

²³ If the root began with a laryngeal, as seems not unlikely from the rough breathing in Gk. ἴημι 'throw' (cf. *LIV* 225), any of the following alternatives would generate the required output: 1) root * $h_{ij}eh_{i}$ -, reduplicated stem * $h_{i}i$ - $h_{i}ih_{i}$ -s- > $\bar{\imath}\check{s}(\check{s})$ -; 2) root * $h_{2/3}\underline{i}eh_{i}$ - > * $\underline{i}eh_{i}$ -, remade reduplicated stem * $\underline{i}i$ - ih_{i} -s- > $\bar{\imath}\check{s}(\check{s})$ -; 3) root * $h_{3}\underline{i}eh_{i}$ -, reduplicated stem * $\underline{i}i$ - $h_{3}ih_{i}$ -s- > $\bar{\imath}\check{s}(\check{s})$ -.

The other special features of the inflection of $\bar{\imath} s \bar{s}(a)$ - are perfectly consistent with this analysis. The scriptio plena writing of the ending in $\bar{\imath} s t \bar{e} n i$ reflects the formerly widespread pattern of accent on the 1, 2 pl. endings in the present, but on the stem in the preterite-imperative of athematic h i-verbs (cf. pres. $t u m \bar{e} n i$, $d a t t \bar{e} n i$: pret. $d \bar{a} w e n$, $d \bar{a} t t e n$; pres. $u m \bar{e} n i$, $u \bar{s} t e n i$: pret. u m e n i, $u \bar{s} t e n i$; pret. u m e n i, $u \bar{s} t e n i$; $u \bar{s} t e n i$; $u \bar{s} t e n i$ at $u \bar{s} t e n i$; $u \bar{s} t e n i$ at $u \bar{s} t e$