AN OVERVIEW OF THE HITTITE SUFFIX -ENA-/-INA-: A PRELIMINARY ASSESSMENT*

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ABSTRACT This paper will provide an overview and a close examination of the Hittite words ending in *-ena-/-ina-*, in order to try to isolate a specific suffix and evaluate its function and action with respect to the base form.

KEYWORDS: Hittite, Derivational Morphology, Suffix, Indo-European Etymology, Language Contact.

1. INTRODUCTION

As is well known,¹ derived nouns consist of a root to which one or more derivational suffixes are added. Their internal structure, therefore, involves at least two morphemes. In Hittite, the process of affixation is the most frequent derivational strategy (reduplication is another possibility) which is mainly achieved through suffix addition (see *hark*- 'to perish', *hark-a*- 'ruin, destruction', *hark-nu*- 'to cause to perish, to destroy' etc.), even though traces of suffix substitution also emerge, typically when the base is an adjective (see *park-u*- 'high', *parg-ašti*- 'height', *parkešš*- 'become high' etc.).²

The suffix *-ena/-ina-* is not listed in Hoffner and Melchert (2008: 53 ff.) among the main Hittite suffixes for forming derived stems of nouns and adjectives.

Credit for the first collection of the forms characterised by this suffix is due to Kronasser (EHS: 182-183), who distinguished words with a derivational base (*alwanzena*- 'enchanted',³ a stem which is attested in *alwanzahh*- 'to charm, enchant' and *alwanzātar* 'witchcraft'; *arahzena*- 'foreign, abroad' < *arahza*, adverbial, 'outside') from those without (*hami/ena*- 'chamberlain' (?), *happina*- 'rich', *happina*- 'flame, baking kiln, fire pit, kiln', *ištamina*- 'ear',⁴ which is attested in *ištamašš*- 'to hear', *herina*-, a word used in connection with fire, *kapina*- 'thread', ^{GIŠ}*karpina*- 'a (kind of) tree', ^{LÚ}*kireštenna*- 'a priest', *lappina*- 'lighter, wick, flame-holder', ^(SAR)*lappina*- a botanical name

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² The problem revolves around the interpretation of Caland suffixes (Nussbaum 1976: 4-5, 100-105 and, more recently, Oettinger 2018. See Dardano 2007 for Anatolian).

³ Indeed, the basic form is unattested (Kronasser reconstructs **alwanza*-, but there is no evidence for an unattested *a*-stem), as rightly observed by one of the anonymous reviewers.

⁴ Differently from what stated by Kronasser, who reconstructs a base form **ištamana-*, there is no certainty of an original *a*-stem. The standard assumption is that the attested *n*-stem *ištaman-* is at the base of both the *a*-stem *ištamina-/ištamana-* and the verb *ištamašš-* (see, e.g., EDHIL: 411-413).

indicating 'a (kind of) garden plant',⁵ *paizzinna*- 'a (kind of) fruit', *parhue/ina*- 'a drink or sweet plant product' (?), *parši/ena*- 'loin, thigh', *pišena*- 'messenger' (?), *šalwina*- 'mortar'). Among the scholars who expressed their opinion on this suffix we recall, as we will see later, Gusmani (1978) and Puhvel (HED, *passim*).

In the present discussion I will not deal specifically with the suffix -an(n)a (except in cases where it seems to represent a variant of -e/ina-), although in his analysis Kronasser associates it with the suffixes -ena- and -ina-, as if it were a single derivational element possibly of an allomorphic nature, whilst at the same time expressing doubts about their nature (indeed, he does not exclude the possibility of three independent suffixes).⁶ Similarly, words ending in geminated -enna- or -inna- will be briefly treated in (the present) footnote,⁷ both because it is not certain that they are connectable with the -ina-/-ena- suffix and because they are by and large obscure.

As already observed by Francia (2020), this suffix has sometimes been interpreted to mean 'which has the ability of' (cf., in particular, Vitti 1984 and Stivala 2004: 51 and fn. 77), so that, for example, *lappina*- 'flammables, tinder' should mean 'which has the ability of burning', from *lap*- 'to burn' (comparable with Lat. *urtica* from *uro*, where we are probably dealing with a folk etymology, cf. DELL: 755). However, according to the scholar, although this interpretation fits this term well, it is not appropriate for cases such as *happina-/happena*- 'baking kiln', which, following this interpretation, should mean 'which has the ability of baking'. However, the Hittite verbal root **hap*-, she observes, is not known, and the meaning of the documented verb hap(p)- is 'to join, attach' (cf. HED H: 124). Puhvel (2009: 80) reports the traditional idea that *-ena-/-ina*- is a deverbative suffix, even if it also appears in nouns such as *alwanzena*-, which does not derive from a verb (in this case he thinks of a denominative suffix, cf. *infra*). Similarly, in the case of *parhuena*-(cf. infra, § 2.3), it is impossible to identify with any certainty a verbal root from which it may derive (according to Puhvel 2009: 77, in such cases, we would be dealing with «hidden Anatolian derivates of otherwise common primary verbal roots»).

⁵ According to Stivala (2004: 52), both the phytonym *lappina*-^(SAR) 'dry vegetation' and the homograph *lappina*- 'wick' could derive from **leh*₂*p*- 'to be fiery, to glow' (for the root, cf. Melchert, 1994: 69) from which *lap(p)*- 'to take fire' derives (the verb is also documented in the causative form *lap(pa)nu*- 'make sparkle, kindle'). The scholar observes that a structurally and etymologically analogous case can be found in the derivational relationship that links the verb *hap*- (comparable with the Greek $\check{\alpha}\pi\tau\omega$), to the noun *happina*-.

⁶ Cf. also Gusmani (1978). It should be noted that, among the presumed deverbal forms in *-ana-* (for which see EHS: 182), most words present problems of interpretation and lack etymology or the base form from which they would derive. ⁷ Cf. *kurdenna-* (a name associated with panthers and lions, cf. HEG A-K: 664), ^{LÚ}*kireštenna-* 'a priest in Ištar's cult' (HEG A-K: 584, according to which we could be dealing with a «Hittitisation» of the Hurrian word *kirišti-*, with article *kirištunni*, *kirištunna*) and *zahanettienna-* 'cult-room/space', whose structure seems to point to a foreign origin (HEG W-Z: 608; EDHIL: 1022), ^{MUNUS}*azzinna-* (?), *paizzinna-* 'a sacrificial ingredient', 'a fruit' (HEG P: 385; EHS: 183), and *arinna-* 'spring, fountain' (?), which alternates with the variant *arna-* and which, according to HEG (A-K: 57), could be a *Wanderwort*. It should be noted that the words for which it was possible to identify a meaning based on the context are mainly lexemes connected with religion and rituals, sacrificial ingredients etc.

1.1 THE SUFFIX -ZENA-/-ZINA- IN HITTITE: MELCHERT (2002)

Melchert (2002), discussing some indirect cases of compounding in Hittite and Luwian, where first or second members of the compound may have lost their full lexical value and been reanalysed (becoming productive) as derivational affixes, quotes cases such as *-zi/ena*-, documented in words such as *aliyanzina*- 'an animal', clearly derived from *aliyan*- 'deer'; *alwanzina*- 'sorcerous, casting spells' < *alwanti-no-, and arahzina-, from arahz(a) 'outside' (which he derives from *érh₂ti, so that the adjective could be interpreted as *érh2ti-no- "with the well-known PIE secondary suffix *-no-" (*ivi*: 297). Unfortunately, in the absence of Anatolian traces of a suffix *-*ino*-,⁸ to be considered as an enlargement of *-no- (which would better explain forms such as huwalpanzina- from huwalpant-'humpbacked'), Melchert at first thinks, for cases such as aliyanzina-, huwalpanzina- (cf. supra), (GIŠ)kalmišina- 'fire-brand, burning log' and, with more caution, DUGtapiša/ena- (cf. infra for the discussion of the single forms) of a prehistoric suffix *-sino-, which would have produced -nts- when added to a stem in -n- or -nt-, but which is, however, very unlikely for phonetic reasons. For this reason, he prefers to interpret these words as originally possessive compounds with the noun *šīna*-(later spelled *šēna*-) 'figurine' (hence conveying the meaning of 'having the form/shape of X', 'Xlike'),⁹ as second member. In his opinion, some Hittite suffixes could represent the traces, now crystallised, of ancient second members of compounds, being the result of a more general process of grammaticalisation.

2. ANALYSIS OF LINGUISTIC DATA

An important premise of the present discussion is that an analysis which takes into account the possibility of carrying out a synchronic morphological parsing of Hittite words is, as we have observed above, not always so obvious. As is well known, in Hittite there are many words of unknown etymology or whose precise meaning cannot be clearly interpreted due to the fragmented context, and many *hápax legómena*. This fact, combined with the scarcity of documentation of the forms in

⁸ The class of formations derived in *-ino-* is particularly productive in Greek, Latin and in the Balto-Slavic sector (see Brugmann 1889: 146 ff. and 1906: 272 ff.), and the origin of **-īno-* is unclear. For Old Indic suffix *-ina-* see Debrunner (1954: 350 ff.), who states that Old Indic has lost both the PIE suffix **-ino-* typical of substance adjectives and **-inó-* of time adjectives. For Latin *-(i)nus*, *-īnus* and *-īna* see LG: 326 ff. and Weiss (2020: 308 ff.), for Greek *-wo-* see GG: 490 ff. Cf. also *infra*, § 4.

⁹ Both *šena-/šina-* 'figurine, statue, likeness' and ^(NINDA)*šena-* 'bread figure, doughboy' would derive, according to Puhvel (HED ŠE, ŠI, ŠU: 17), from **dhyeh*₁*no-*. However, the old Hittite/old script spelling is always *ši-i-na-*, which would mechanically imply (EDHIL: 755) a preform **siHno-* or * $d^{(h)}iHno-$ (with regular lowering oh OH /i/ to NH /e/).

question, prevents a wide-ranging analysis that can with certainty extrapolate and evaluate a certain suffix (which, therefore, may not necessarily be interpreted as such).¹⁰

An initial consideration to be made is that a not-insignificant number of forms (cf. Jie 1994: 14-15) ending in *-ena-/-ina-* lack etymology, because their meaning cannot be deduced from the context and therefore remains too dark to be evaluated. Moreover, they are not even registered in the main Hittite dictionaries.¹¹ Before moving on to the analysis of the data, it is necessary to underline that the linguistic investigations that follow concern – for the sake of completeness – all the forms which, even only apparently, may seem to be suffixed in *-ena-/-ina-*. Words that Melchert (2002) considers to be lexicalised compounds have also been included in this preliminary list, in order to show all relevant material for the analysis. As will be seen later, as they are discussed, their removal from the final list will be evaluated and explained.

2.1 HITTITE WORDS ENDING IN -ENA-

Among these forms we recall words ending only in *-ena-* (Group 1) such as *hahratena-*, *haršattena-*, ^{IM}*hašmena-*, *šamena-*, ^{IM}*tarmena-* and *taršattena-*,¹² whose meaning and etymology are unknown.¹³ Only for ^(DUG)*tapišena* 'vessel, mug' (which is also documented in the variant *tapišana-*) could a discussion be offered. It is perhaps an original *-n* stem (then thematised), **tapišan-* (Goetze 1937: 493). However, on the basis of the variant *tapišant-* (attested twice), through abstraction of the "individualising" suffix *-ant-*, one could also imagine a base **tapiš(a)-* (see Melchert 2002: 300), probably a *Kulturwort* or loanword from Luwian (bibliography in HEG T1: 129 ff.). According to Meriggi (1937: 93 note 8), followed by Neumann (1961: 20), Pisani (1966: 44-46), and Gusmani (1968: 33 and 84), Greek δέπας and δέπαστρον 'cup' and Mycenaean *di-pa* 'container, vessel'¹⁴ could relate to the Hittite word. These words, also perhaps connected with Lat. *lepesta* id. and with the Umbrian hapax **tapistenu** (Tab.Ig. IV 30) 'vessel for fire', are considered relic forms of "Indo-

¹⁰ On this topic see Alfieri and Pozza (forthcoming).

¹¹ In addition to the lemmata listed in EHS and Jie (1994), a counting of the words contained in EDHIL was also carried out.

¹² According to HEG (T2: 224) 'ivory object', perhaps of Hurrian origin.

¹³ I do not consider among these forms *pišena*-, equivalent of *pešna*- 'man, male' < **pes-no*-, probably with secondary /e/ insertion (see HEG P: 622). See Carruba (1993) and Zucha (1988) for the hypothesis that *pišena*- is a very late secondary *a*-stem of an ablauting proto-paradigm **pesen-/pesn-* (*Contra*, HED PE-PI-PU: 42). For the graphic variants see Neu and Otten (1972), EDHIL: 670 and HED (PE-PI-PU: 37 ff.). Also, ^{Lú}*nešumena-* does not belong with the rest, being a form of *nešumen-*, which contains the semi-productive "ethnicon" suffix $-\overline{u}m(e)n$ - (on which see Oettinger 1982, 2003 and, more recently, Yates 2016: 166 ff.).

¹⁴ The nominative singular is attested in KN K 875.1-5; PY Ta 641.2.3. The nominative plural in KN K 740.2, the nominative dual in PY Ta 641.2.

Mediterranean" *substratum*.¹⁵ According to Melchert (2002: 298 ff. and footnote 12), to whom I also refer both for the different spellings of the word and for the choice of the segmentation in *tapi-ša/ena*, this word cannot be characterised as «a more than probable case of substantivized bahuvrihi *šīna-*» (*ivi*: 299), meaning '(that) which has the shape of a *tapi*-vessel (a kind of bowl)'.

2.2 HITTITE WORDS ENDING IN -INA-

We then find words which are attested only in the suffixed form (variant?) -*ina*- (seldom alternating with -*ana*-): among these ones (Group 2), we should here mention:¹⁶

- *halina*- 'clay' (*vel sim.*). «Materialbezeichnung» for Otten and Souček (1969: 94), 'clay'. EDHIL: 274 finds this translation a mere possibility; HED (H: 32) derives it from h_2liH -no- < h_2leyH - 'smear' (cf. LIV²: 277, IEW: 662 **ley*-) and considers it perhaps comparable with Lat. *linō* 'to smear', Greek à λ ívɛtv id., Skr. *lināti* 'hides, sticks together' etc. The nasal would derive from a nasal (present) stem. If we follow this etymology, this word cannot be considered as ending in -*ina*-.

- *happina*- 'rich' is also documented in the variant *happinant*-. If it is considered, following Szemérenyi (1954), as a derived form from a previous $*h_3ep$ -en-o-(nt)- (cf. Lat. opulentus 'rich', Skr. ápnas 'possessions', Av. afnahvant 'wealthy' etc.), it could be a n-derivation of the PIE stem $*h_3ep$ - 'to work, bring to completion'; 'richness' (cf. EDHIL: 297 and POZZA 2011: 149 ff. for the different etymological proposals), representing the regular outcome of an original $*h_3epen$ -. In any case, a suffix -*ina*- could not be synchronically separable from the (unattested) base (a stem *happ- is not attested, in Hittite, if not in a homonymic form hap(p)- is 'to join, attach', conveying a meaning not connected with the word in question).¹⁷ Oettinger (1979: 353; 1981: 148-149) thinks of a "Proto-

¹⁵ See Pisani (1966: 44) for the details relating to the phonological developments. Another hypothesis is that Mycenaean *di-pa* may have had as a model not Hittite, but Luwian (Hier.Luw. (CAELUM)*ti-pa-s*° 'heaven, sky' and Cun.Luw. *tappaš* id.). The Luwian word (cf. Melchert 1994: 229; 259 and Melchert 2003b: 184) shows, in initial position, the shift of PIE **n*- (cf. **nebhes*-) in *t*-. For the internal gemination cf. Melchert (1994: 252-253). The semantic shift from 'sky' to 'cup, vessel', as well as finding motivation in the metaphorical identification of the celestial vault with a cap covering the earth is supported by the presence of the hieroglyphic sign CAELUM, graphically represented by the image of a container semi-spherical in shape (See Yakubovich 2010: 146). For the CAELUM sign see Marazzi (1990: 160; 294).

¹⁶ Within this list I do not include ^(KUŠ)*išhamina-* 'string, rope' (HEG A-K: 380, EHS: 182), which is instead an *n*-stem, *išhiman-*, attested in a single aberrant form *išhaminan*, and which has been variously assessed (see Oettinger 1982, 2003 and Yates 2020). The same goes for a word that Jie (1994) mentions as *murina-*, and which, as rightly noted by an anonymous reviewer, is a mere misunderstanding of the stem *muri(yan)-* 'grape(s), cluster'. An anonymous reviewer, whom I thank, also pointed out the following forms to me: *huhhuppina-* '?' (KBo 64.254 i 6, case and number unclear), *tittina-* '?', perhaps an object (*hápax* KUB 38.20 i 8, see HEG T/D 3: 392), and ^{SiG}*zumina-/zumini-* '?', perhaps 'a kind of wool' (KUB 57.66 iii 3.4, cf. HEG W-Z: 781). Unfortunately, these *hápax legómena* are unanalysable without more data, but the two apparently reduplicated examples are worth noting.

¹⁷ Only one occurrence of the verb, namely *hapzi* (KBo xi 34 i 5), is translated by Laroche (1963: 72; cf. also HEG A-K: 157) 'avoir en abundance' (*takkuš-maš UL-ma hapzi ta natta hazzianzi* 'mais s'ils sont dans le dénuement [lit. 's'il n'y a pas pour eux abondance'], on abat un porc'). However, the translation is rejected by Neu (1968: 45, fn. 1; 1974: 83), who translates 'wenn es sich ihnen aber nicht fügt, stechen sie (es) nicht ab' and by Puhvel (HED H: 251), who translates 'but

Hittite" heteroclitic form such as **hapér/***hapén-* (underlying both *happir-/happar-* 'business, trade, price' and *happina(nt)-.*¹⁸ Contra, HED H: 125).

- *harmina*-, whose meaning is unknown.

- *herina*- 'cedarwood' for HED (H: 301), 'furnace' for HEG (A-K: 237); perhaps from Sumerian *erin* 'cedar' (\rightarrow Akk. *erinnu*), which reached Hittite once *via* Hurrian mediation under the guise of the Hurrianised derivative with suffix *-pi*- ^{GIŠ}*eripi-/irimpi-/erippi*- 'cedar(wood)', but which «might also have been exported northward by a different channel» (HED: *ibidem*).

- ^(GIŠ)*kalmišina-/kalmišana-* 'firebrand, burning log', probably 'comet', derived from *kalmi-*, attested twice, with a meaning impossible to distinguish from that of its derivatives. According to Melchert (2002), we are dealing with a compound formed by *kalmi + šīna-/šēna-* 'figurine, statue', so the meaning is 'that which has the shape/form of a *kalmi-*'. As stated by the scholar (*ivi*: 298 ff.), the variant *kalmišana-* would show syncope, «with or without subsequent anaptyctic *a*». See also HED (K: 27), who chooses to interpret the form as a thematised "animation" of a neuter heteroclite stem **kalmeššar*. For the relationship between the stem *kalmi-* and its derivatives see Pisaniello (2022: 287-288). Cf. HEG (A-K: 468) and EHS: 183.

- $kalwiš(i)na^{(SAR)}$ 'an edible plant or vegetable' (also documented in the variant spellings kalweš(še)na-, kalwiš(ša)na-, galwišaniya-); if kalwešna-, as stated by Puhvel (HED K: 35), has an Indo-European origin, it could be a thematised derivative of an unattested *kalweššar, in turn derived from a form such as *kalwi-, related to Gr. $\kappa \alpha \upsilon \lambda \delta \varsigma$ 'stem of a plant', Lat. *caulis* id. etc. < *kaul- 'hollow stem, tubular bones' (IEW: 537). Kronasser (EHS: 183, 246) thinks of an original -*i* stem kalwišni-. See also HEG (A-K: 472). This word could perhaps represent another example of a covert compound (in the sense of Melchert 2002), formed by *kalwi + šīna-/šēna- (even if, unfortunately, the base form, *kalwi-, is not attested in Hittite).¹⁹

- gapina-/^(UZU)kapina- 'thread, yarn', for which HED (K: 65) imagines a derivation from a proto-form * $g\bar{a}b$ - + suffix -*ina*-. In Puhvel's opinion, the suffix recalls structurally similar words such as *happina*-/*happena*- 'kiln, oven' or ^{GIŠ}*karpina*- 'a tree' (cf. *infra*), but there is no further etymology (see also HEG A-K: 493). For a connection with Arm *kap* 'thread' see the bibliography *apud* HED, HEG, HW² K: 110 («Etymol. unbekannt»).

if it does not work out for them, they do not stick [it]', and the whole etymology is rejected by Kronasser, who considers *happina*- «ohne nachweisbares Grundwort» (EHS: 182). See also HW² H: 196, s.v. hap(p)- 'sich fügen': «kein Zusammenhang besteht mit *happina(nt)*- 'reich', *happar* (sic!) und *happira*- 'Stadt (Dorf)'».

¹⁸ On this topic cf. Schürr (2004).

¹⁹ Only the graphic variant (accusative singular) *gal-wi-ša-ni-ya-an* (KBo ii 8 iv 14) could present a problem (whereas *kalwiš(ša)na*-could be explained, again with Melchert 2002, by resorting to the hypothesis of a syncope). EHS: 246 thinks of a possible *i*-stem (**kalwišni-*), which was then transferred to the *a*-stems. For the different spellings see Neu and Otten (1972: 186).

- ^{GIŠ}*karpina-* 'a tree or shrub' (HED K: 99-100, HEG A-K: 517, HW² K: 183; see especially Poetto 1973: 27 for the different semantic interpretations), perhaps comparable with Lat. *carpinus* 'hornbeam'< *(*s*)*kerp-*, *(*s*)*krep-* 'to cut' (IEW: 944, LIV²: 559, Neumann 1971: 78 footnote 4) or, as required by Sturtevant's rule, with Russ. *grab(ina)* 'hornbeam' < **grōb(h)os.* For a possible connection with Sanskrit *karpū́ra-* 'camphor' (which is a tall tree), with the same PIE basis **karp*but with a different suffix, see Poetto (1973: 28). Further comparands (with *s*-mobile) may be (HED K: 100) OPruss. (*s*)*kerptus* and Lith. (*s*)*kir̃pstas* 'elm'. See Corti (forthcoming)²⁰ for the analysis of a restored passage (KUB 43.23++ rev. 44-48) where this plant is mentioned and which, according to the scholar, shows undeinably how the grapevine and the *karpina* lived in (artificial) symbiosis. Therefore, both the 'hornbeam' and the 'elm' (cf. *supra*) seem to represent, as underlined by Corti, the two species on the restricted list of trees selected by Mediterranean populations and ancient Romans to support the climbing habit of the grapevine.

- kulina-, perhaps a Hurrian attribute referring to Ištar (bibliography in HEG A-K: 624).

- *kurupšini-/*^(LÚ)*kurupzina*-, denoting a material or shape qualifier of rhyta, «rather akkadographic» (HED K: 279), perhaps comparable with Old Assyrian (Kaneshite) *kupuršin(nu)m*, a qualifier of the word for 'gold'. The form *kurupzina*- is quoted by Puhvel (*ibidem*) in connection with *kurupšini*-. «Stoffbezeichnung [...] oder Tiername» for EHS: 139.

- *lappina*-(^{SAR)} 'a plant, tinder, dry vegetation, wick(like plant)'; according to HED (L: 59) derived from the verb *lapp*- 'catch fire, flare up' (< **leh2p*- 'to light up'), structurally similar to *gapina*-/^(UZU)*kapina*-, *happina*-/*happena*-, ^{GIŠ}*karpina*-. This plant could be flax, for CHD (L-N: 45), also because GADA 'flax' takes the determinative SAR.

- *lappina*- 'wick, flame holder' (?). CHD (III: 45) considers the two words (cf. *supra*) a single *lemma*. According to HED (L: 59) deverbative from *lapp*- 'catch fire, flare up' (cf. Greek $\lambda \dot{\alpha} \mu \pi \omega$ 'shine', Lith *lópė* 'light', Latv. *lāpa* 'torch' etc., from **leA-p*- (**leh2p*- 'to light up'), «with *A* lost in Hittite before stop», *ivi*: 60), structurally similar to *gapina*-/^(UZU)*kapina*-, *happina*-/*happena*-, ^{GIŠ}*karpina*-. Deverbative also for EDHIL: 519. In Kloekhorst's opinion (EDHIL: 520), «the appurtenance of *lappina*- and its derived verb *lappinae*- is not ascertained, but possible if the words denote 'wick' and 'to insert a wick' respectively».

- ^{TÚG}*paršina*- 'a piece of cloth', see HEG (P: 501).

2.3 HITTITE WORDS ENDING IN -ENA-/-INA-

²⁰ My thanks to him for allowing me to read a preliminary version of his article.

At this point, the remaining words to be investigated are the ones which are documented in both spellings, *-ena-* and *-ina-* (Group 3). These words are:

- *aliyanzina-/aliyazena-* 'an animal', quoted by Melchert (2002: 297, KUB 30.36), according to whom it is a (covert) compound formed by *aliyan-* 'deer' and *šīna-/šēna-* 'figurine, statue', meaning 'having the shape/form of a deer'. Without meaning for HW² A: 58

- alwanzena-/alwanzina- 'practising witchcraft, magical, sorcerer, sorcerous', from an unattested *alwanza-21 'affected by sorcery, subject to witchcraft' (according to HED A: 44, HEG A-K: 20, HW² A: 63 and Kammenhuber 1954: 428), from which the denominative factitive verb alwanzahh- 'bewitch, hex' also derives. This unattested adjective also accounts for denominative abstract alwanzeššar 'witchcraft' and alwanzātar 'witchcraft, magic, spell'. According to Puhvel (HED A: 46) and HW² A: 65, in the case of *alwanzena*- we are dealing with a denominative adjective in -ena- (as arahzena from arahza-). Extra-Hittite connections are not certain. Puhvel (ibidem) thinks of a comparison with Greek ἀλώω 'to be beside oneself' < ἀλύσιω (cf. ἀλυσμός 'anguish, fear').²² From the verbal adjective *alus-no- 'possessed, distraught' alwnso- would be derived alwanza- (with metathesis of -sn- cluster as in alanza[n]- 'a tree and its wood' < *alansa - < *alnso < *al(i)sno). This interpretation does not convince EDG: 76. Melchert (2002: 297) does not exclude, as we have seen, a previous *alwanti-no- (which unfortunately does not explain the derivatives alwanzātar and alwanzahh-). However, as underlined by Kloekhorst (EDHIL: 171), «all etymologies that try to explain *alwanz*- as a word of IE origin, treat it as if it were a participle *alwant*-, but such a stem is never found». In fact, we find alwanzātar and alwanzahh- instead of the expected **alwantātar and **alwantahh-. For this reason, the scholar thinks that the stem is unlikely to be Indo-European. Recently, Rieken and Sasseville (2014: 305-306) have proposed a new interpretation of *alwanz*- as *al-wont-yo-, derived from the stem *al- 'other, foreign' (cf. Lat. alius 'other', alienus 'foreign' etc.), in the sense of 'to alienate' (for the shift *-Vnt-yo- > -Vnza-, see Melchert 2003a: 134 ff., who reconstructs a base *alwanzi- 'sorcery', from which alwanzina- 'sorcerous', from a base adjective *alwent-).²³ The effect of bewitching someone or something would therefore correspond to making

²¹ As rightly observed by one of the anonymous reviewers, there is no evidence for an unattested *a*-stem. Both -*ahh*- and - $\bar{a}tar/n$ - can in fact attach to athematic bases.

²² According to GEW: 80-81, the Greek verb ἀλύω could be an *-u*- enlargement of the verbal base ἀλ- in ἀλάομαι and ἀλέομαι 'to roam' (cf. also IEW: 27, s.v. $\tilde{a}l$ - 'to wander aimlessly, to be insane, to be mentally insane' (**h*₂*elh*₂- 'walk aimlessly' for LIV²: 264). DELG: 66 underlines that ἀλώω would have specialised in a specifically medical sense and would therefore be distant from the meaning of ἀλάομαι and ἀλέομαι.

²³ In his opinion, the base -(a)nza- is derived from stems in -nt-. The possible chain of derivation leads from verbal adjectives in *-*nt*- via action nouns in *-*nti*- and thematic adjectives in *-*ntyo*- to "individualising" nouns in *-*ntyo*-on (*ivi*: 137). For a discussion on the Indo-European outcomes of the PIE nasal suffix *-*nt*- (yielding the Hitt. -n(t)- stems), also see Olsen (2004) and Josephson (2004). For *-*e*-ont- as an "individualizing" suffix yielding -*nt*- in Anatolian see Melchert 2000. Cf. Oettinger (2001).

them abnormal. The idea of the scholars is that the Hittite suffix -wa- was derived directly from the root and not that Hittite lost the *i* as Yakubovich (2008: 16-17) imagines for *alwanzahh*- 'to bewitch', because of the Bronze Age Hier.Luw. *aliwanna/i*- 'enemy' (< Pre-Luwian *ali(ya)- 'other' + - wann(i)- 'ethnic suffix'), which later underwent an optional syncope yielding Iron-Age Luwian *alunna/i*- 'enemy'.

- *arahzena-/arahzina-* 'external, bordering, foreign' < arahz(a) 'outside, away, abroad' (probably old ablative of a root noun * $\dot{a}rHts$ / $\dot{a}raHts$ / < * $\dot{e}rh_2ti$, cf. Melchert 1994: 84) < arha- 'limit, line, boundary, confine(s)' (* $\dot{o}rh_2$ -). «Erstarrte Kasusform» for HEG (A-K: 52). See EDHIL: 245, HED (A: 133 ff.), EHS: 182. If the base arha- (erha-, erh-, arah- arh-) has an Indo-European origin (also see Kimball 1999: 166), it could relate to Lat. $\bar{o}ra$ 'brim, edge, boundary' and Lith. $\dot{i}rti$ 'to separate' < $h_1\bar{o}r$ - eh_2 - or $*h_1o$ - h_1r - eh_2 - (EDHIL: 247). Belardi (1951: 189 ff.) thinks, for *arahzena*-/arhtsena/, of a derivation from /arhts/ through a suffix -*ena*- and considers a connection highly probable with the original idea of 'separation between two things', 'distance from something'. It was probably derived from a previous * $\acute{e}rh_2ti$ -no-, with the common PIE suffix *-no-, according to Melchert (2002: 297).

- ^(LÚ)*hamina-/hamena*- 'name of a functionary', 'priest' (HED H: 75); without etymology for HEG (A-K: 144); cf. also EHS: 182.

- happina-/happena-²⁴ 'open flame' (HEG A-K: 165, EHS: 182); 'baking kiln, broiler' (HED H: 121). HED (*ivi*: 122) underlines that the current translation as 'flame' is contra-indicated by the attestations, which point to a definite spot or object into or onto which the sun can mythically fall and whereby foodstuffs are subjected to *zanu*- 'cook, bake, toast, roast'. According to Čop (1971: 34 ff.), the word derives from PIE **eph*- 'to cook' (IEW: 325, cf. Gr. $\breve{e}\psi\omega$ 'to cook'). Even Puhvel (*ibidem*) thinks it could be a synonym of Greek $\grave{\alpha}\pi t \grave{\alpha} \oslash$, denominative from $\grave{\alpha}\pi t \grave{\sigma} \varsigma$ 'roasted, broiled', so also Hitt. *happina-/happena-* could be derived from a PIE * A_2 ^wopeno- (so, as stated by EDHIL: 298, the paradigm to reconstruct was **h_3ép-n*, **h_3p-én-s*, if neuter, or **h_3ép-ōn*, **h_3p-én-m*, **h_3p-n-ós*, if common). According to Gusmani (1978), Hittite *happina-/happena-* 'flame' falls into a small group of adjectives in *-na-* (*-ana-*, *-ena-*, *-ina-*), generally of deverbal origin, which constitute ancient action names which evolved into concrete designations. At the base of the word, therefore, a verb with the meaning of 'to burn' should be imagined (an unattested **hap-*), which for semantic reasons should be connected with the Greek verb $\"{\alpha}\pi\tau\omega$,²⁵ which in Homer presents, in addition to the meaning of 'attack, connect' (in the middle 'to take, touch'), also that of 'turn on'. Kloekhorst (EDHIL: 298)

²⁴ Both HEG (A-K: 165) and HW² (H: 229) quote the form as *happina*-, whereas Kloekhorst (EDHIL: 297) prefers to read the sign BI as -*pé*-, and consequently to interpret the form as *happena*-.

²⁵ Obscure etymology for DELG: 100 and for GEW: 127. Also problematic with respect to Gr. $\dot{\alpha}\phi\dot{\eta}$ 'touch' (which clearly point, for the consonant, to a PIE **bh*). See Szemerényi (1971: 656).

thinks of a possible interpretation of the word as *happen-*, *hapn-*, and not as thematic *happina-/happena-*. Without etymology according to HW² H: 230.

- hu(wa)lpa(n)zina-/hulpa(n)zena-/hulpanzana- '(ornamental) button, clasp' (HEG A-K: 281),'hump, protuberant' (HED H: 425) is etymologically unclear, perhaps having a foreign origin due tothe presence of the suffix*-zena-/-zana-*(HEG:*ibidem*). According to Melchert (2002), we would bedealing with a compound of*huwalpant-²⁶*'humpback' plus*šēna-/šīna-*'figurine, statue', so the globalmeaning could be 'having the form/shape of a humpback', later substantivised to 'protuberance,hump'). In order to adapt the explanation of the variant*hulpanzana-*to his proposals, the scholar findsit likely that it reflects a variant with syncope of the*-i-*, «with or without a new anaptyctic*-a-*». Puhvel(HED:*ibidem*) takes for granted the Luwoid elements in derivation, so that*huwalpanti-*(cf. Luw.*tappašanti-*'heaven') could underlie the further derivative*hu(wa)lpa(n)zina-*(*huwalpant(i)*which,in his opinion, could be compared with Goth.*ulbandus*etc

- ^(LÚ)gaena-/gaina-/kaena-/kaina- 'in-law, kinsman', 'brother-in-law'. According to HED (K: 13), the word is from $*\acute{gmh}_2$ -ino- (< $*\acute{gemh}_2$ -), a form with an internal laryngeal which is reconstructed to explain both the lack of Hittite monophthongisation of the Indo-European diphthong and the vocalisation in -a- of *m. Puhvel also compares the Hittite word with the cognate Sanskrit $j\acute{am}atar$ and Greek $\gamma \alpha \mu \beta \rho \delta \varsigma$ 'son-in-law' etc. That is a formally impossible reconstruction for EDHIL: 427, according to whom the Hittite outcome instead would have been *kamhina-. Kimball (1994) recovers the hypothesis, already put forward by Hrozný (1919: 100-101), of the etymon $*\acute{key}$ -'cognate, connected' (cf. Lat. $c\bar{v}vis$ 'citizen', Skt. $\acute{siv}a$ - 'friendly, favourable', OHG $h\bar{n}r\bar{a}t$ 'wedding', Latv. $si\tilde{e}va$ 'wife, spouse' etc.). Melchert (1994: 148) accepts Kimball's suggestion, according to which PA */oy/ and */ay/ are maintained as /ay/ before coronal continuants (nasals included), so that $*\acute{k}oyno- > gaina$ - (never spelled with plene -a-). Problematic etymology for HEG (A-K: 459-460). For the affinity between Hittite gaena/kaena- and Greek $\gamma \alpha \mu \beta \rho \delta \varsigma$ see also GEW: 287. See EHS: 165.

- parļuena-/parļuina- 'oats', cf. Francia (2020); 'a beverage or sweet plant product' (EHS: 183); 'cereal fermentation matter', 'brew material' (HED PA: 122 ff.), 'eine art Getreide' (HEG P: 457). This word, one of the most quoted ingredients in the lists of *materia magica* of Hittite ritual texts, is considered to have an Indo-European origin by Puhvel (2009, 2011: 72 and HED PA: 122), including Greek $\varphi p \epsilon i \alpha \tau \alpha$, Lat. *ferv(e)ō* 'seethe', *fermentum* 'leaven, malt liquor', Old English *brēowan* 'brew' (< **bhér-E*₂-, **bhr-éE*₂-(*w*-) 'heave, seethe, boil, ferment', **bhr(e)Hwr/n*-'upwelling, fermentation', with genitive **bh*₃*Hwén(o)s*), so the main meaning of the word should be 'drink of fermentation'. The prehistoric genitive of *parţuena-/parţuina-*, *bh*₃*Hwéns* (realised as

²⁶ Puhvel (HED H: 426) thinks that *hulpawant*- is either an "animate" *-nt*- derivative (from $*h_1wl(b)ho$ - 'protuberance, boss', cf. perhaps Lat. *volba* 'uterus, womb' etc.) or the participle of a denominative verbal derivate.

parhuenaš-), in Puhvel's opinion, '(drink) of fermentation', would be reinterpreted as *parhuena-* in the manner of $^{(L\dot{U})}kururaš$ '(man) of hostility' > $^{L\dot{U}}kurura$ - 'enemy' and *pahhuenaš* '(attack of) fire', genitive of *pahhur* 'fire'. According to Francia (2020), who discusses all the passages where the word is documented, *parhuena-/parhuina-* is not a beverage, but the oats that can be used to brew beer, and it has calming properties, acting on both the nervous system and the gastro-intestinal tract (*ivi:* 136). As can therefore be observed, there is no certainty that this is an Indo-European word (especially since the very meaning of the lexeme is still under debate).

- paršēna-/parš(i)na- 'description of a part of the body', 'cheek' (?), 'buttock', 'hip', 'thigh'. Bibliography in HEG (P: 500-501) and EDHIL: 641 ff. Perhaps from a proto-form *persneh₂- with e- insertion. See Kimball (1999: 162), for the hypothesis according to which the Hittite word could be from an o-grade *pors-neh₂- (or *pors-no-) or a zero-grade *prs-néh₂- (*prs-nó-). Among the possible cognates, cf. Skr. pārṣṇi- 'heel', Av. pāšna- id., Gr. $\pi \tau$ épv η id., Lat. perna 'leg, thigh, ham' and Goth. faírzna 'heel'. Melchert (1994: 175) sets up * prs-éno-, which works formally for Hittite (see Yates 2016) for a critique of epenthesis in these forms).

- šalwina-/šalwena-/šalwišana- '(wet)soil, clay, loam, mud'. According to HED (ŠA: 92), hypostatic noun from a verbal noun genitive *šalwenaš, haplologic nom.-acc. sg. šalwa(wa)r, thus 'stuff of plastering', deverbative of an unattested *šalwai- 'treat with loam, plaster', in turn denominative from a noun perhaps connected with Lat. *solum* 'ground'. HEG (Š1: 786) quotes the reference bibliography which points to a PIE *salwo- (OHG salo, salwes 'dirt', Cymr. salw 'poor' etc.). Cf. IEW: 879 *sal-wo- 'dirt-colour'.

3. FIRST GENERAL CONSIDERATIONS

An initial preliminary consideration emerges from the data collected so far. With the exception of the obscure lemmas in *-ena-* without meaning (Group 1), which can probably be removed from the analysis because they are etymologically obscure and therefore not interpretable, the words of Group 2 remain (i.e., those ending in *-ina-*), and, lastly, those of Group 3 (ending in *-ena-/-ina-*).²⁷

3.1 WORDS ENDING IN -ENA-

Almost all the forms ending in *-ena-*, i.e., Group 1 (see § 2.1), lack etymology. Only ^(DUG)*tapišena, tapišana-* 'vessel, mug' has been discussed by scholars, and, as we have seen, the

²⁷ For words in *-enna-* and *-inna-* cf. footnote 7.

possibility that we would be dealing with a *Kulturwort* also cannot be excluded. In any case, the problem is complicated, as already noted, by the presence of the variant *tapišant*-, which could lead to suggest a base *tapiš(a)- (cf. *supra*, Melchert 2002, for the hypothesis of a covert-compound). In any case, the very fact that the word is documented in more than one formal variant, as often happens in cases of loanwords or wandering words, would suggest a foreign origin.

3.2 WORDS ENDING IN -INA-

In the case of Group 2 (see § 2.2), we notice some words whose meaning is totally unknown, such as *harmina*- and *kulina*- (perhaps a Hurrian attribute referring to Ištar), some words denoting trees, plants or vegetables, such as *herina*- 'cedarwood' (or 'furnace'), ^{GIŠ}*karpina*- 'a tree or shrub', *kalwišina*-^(SAR) 'an edible plant or vegetable', *lappina*-^(SAR) 'a plant, tinder, dry vegetation', others denoting objects, pieces of clothes, materials, such as *halina*- 'clay' (*vel sim.*, but see *infra*), ^(GIŠ)*kalmišina*-/*kalmišana*- 'fire-brand, burning log', probably 'comet', *gapina*-/^(UZU)*kapina*- 'thread, yarn', *kurupšini*-/^(LÚ)*kurupzina*- (perhaps a material or shape qualifier of rhyta), *lappina*- 'wick, flame holder' (?), ^{TÚG}*paršina*- 'a piece of cloth'.

Within this group, the words for which an Indo-European origin has been proposed (although it should be emphasised that the etymologies are sometimes problematic and scholars do not entirely agree on an Indo-European origin) could be *halina*- 'clay' (*vel sim.*), perhaps reflecting a PIE **h*₂*liHno*- (according to this etymology, the -*i*- belongs to the root, so we would be dealing with a suffix **no*-), *gapina*-/^(UZU)*kapina*- 'thread, yarn' (**gāb*- + suffix -*ina*-?), and ^{GIŠ}*karpina*- 'a tree or shrub' (from *(*s*)*kerp*-, *(*s*)*krep*- or, alternatively, from **grōb*(*h*)*os*). In the case of ^(GIŠ)*kalmišina*-/*kalmišana*-, if we follow Melchert's interpretation (cf. *supra*), we would be dealing with a covert compound in *šīna*-/*šēna*- (cf. *supra* for the problems connected with the graphic variants with *a*-vocalism). Moreover, it couldn't be excluded, even in the absence of sufficient etymological clues, that *kalwišina*-^(SAR) 'an edible plant or vegetable' could also be interpreted, following Melchert (2002), as a covert compound formed by **kalwi* + *šīna*-/*šēna*- (cf. *supra*, § 2.2).

Finally, *lappina*-^(SAR) 'a plant, dry vegetation', *lappina*- 'wick, flame holder, fire-pit', which, at least according to HED (L: 59 and EDHIL: 519), should be considered deverbative from *lapp*- 'catch fire, flare up' + suffix *-ina*-. Only *happina(nt)*- 'rich' (cf. *supra*, § 2.2) is an adjective having a different value with respect to the general semantic field pertaining to materials/animals/vegetables/objects, and its synchronic base is unattested. As we have seen, according to Szemérenyi (1954) it is considered an original *n*-derivation of the PIE stem **h*₃*ep*- 'to work, bring to completion'; 'richness', and, in Oettinger's opinion (1979 and 1981), a "Proto-Hittite" heteroclitic form such as **hapér*/

*hapén- (underlying both happir-/happar- 'business, trade, price' and happina(nt)- 'rich'). In any case, together with arahzena-/arahzina- 'external, bordering, foreign' and $^{(LU)}gaena-/gaina-/kaena-/kaina-$ 'in-law, kinsman', 'brother-in-law' (cf. *infra*, § 3.3) – more peripheral, in terms of meaning, than the others – is also documented in the extended form in *-ant*-, differently from the other forms in *-ena-/-ina-* which do not present a corresponding enlarged form. These observations would lead to exclude the word from the count.²⁸

The remaining words to be considered within this sub-group are: *herina*- 'cedarwood'; 'furnace', *kulina*- attribute referring to Ištar, and *kurupšini*-/($^{(LU)}$)*kurupzina*- material/shape qualifier of *rhyta*, both having the appearance of being foreign words. As for TUG paršina- 'a piece of cloth', we have no etymology, and the meaning and etymology of *harmina*- is totally unknown.

3.3 WORDS ENDING IN -ENA-/-INA-

In the case of Group 3, we notice some words (often etymologically unclear and sometimes considered as being of foreign origin) connected with the magical/religious sphere, such as *alwanzena-/alwanzina-* 'practising witchcraft, magical, sorcerer, sorcerous' and ^(LÚ)*hamina-/hamena-* 'name of a functionary', 'priest' (without etymology), words denoting objects and materials, such as *happina-/happena-* 'open flame', 'baking kiln, broiler', *hu(wa)lpa(n)zina-/hulpa(n)zena-/hulpanzana-* '(ornamental) button, clasp', 'hump, protuberant', *parhuena-/parhuina-* 'oats', 'a beverage or sweet plant product', 'cereal fermentation matter', 'brew material', *paršēna-/parš(i)na-* 'description of a part of the body, buttock', *šalwina-/šalwena-/šalwišana-* '(wet)soil, clay, loam, mud', and the therionym *aliyanzina-/aliyazena-* 'an animal', probably a deer.

Only *arahzena-/ arahzina-* 'external, bordering, foreign' and ^(LÚ)gaena-/gaina-/kaena-/kaina-'in-law, kinsman', 'brother-in-law' represent words pertaining to semantic fields different from the more general one pertaining to religion/magic/objects/materials/animals. Regarding ^(LÚ)gaena-/gaina-/kaena-/kaina-, an enlarged form ^{LÚ}kaenant- is also attested (as in the case of happina-/happinant-, supra).²⁹ In any case, if one follows Kimball's etymological hypothesis (cf. supra), which sees in the word the outcome in the Hittite form of a pronominal base *key-/koy- followed by a suffix -na- (Puhvel's hypothesis that sees in the Hittite word the result of a PIE root *gmh₂- followed by the suffix *-*īno-* is, in fact, more problematic, cf. § 2.3), this form would not fall within the group of those synchronously segmentable in *-ena-/-ina-*. As regards *arahzena-/arahzina-*, which is

²⁸ Unless it is considered, in the wake of Puhvel (2009), as a «hidden derivate» of PIE h_3ep - (even if in absence of an attested Hittite verbal base).

²⁹ According to a usual Hittite pattern, cf. Hoffner and Melchert (2008: 56).

generally considered (cf. *supra*) a frozen case-form of the base *arha*-, probably derived from a previous **érh*₂*ti*-*no*-, with the common PIE suffix *-*no*- (cf. Melchert 2002: 297), also an enlarged form *arahzenant*- is attested (as in the case of *happinant*- and ^{LÚ}*kaenant*-, cf. *supra*). For this reason, we can exclude also this form from the count.

Within this group, other words for which an Indo-European origin has been proposed by some scholars (although it should be emphasised that the etymologies are not entirely without problems)³⁰ could be *alwanzena*- 'practising witchcraft, sorcerer, magical', *happina-/happena*- 'baking kiln, broiler' (deverbative from an unattested **hap*-); 'flame', *parhuena-/parhuina*- 'oats', 'a beverage or sweet plant product', 'cereal fermentation matter', 'brew material', *paršēna-/parš(i)na*- and *šalwina-/šalwena-/šalwišana*-(deverbative from an unattested **šalwai*-). In the case of *aliyanzina-/aliyazena*- and *hu(wa)lpa(n)zina-/hulpa(n)zena-/hulpanzana*-, if we follow Melchert's interpretation (cf. *supra*, also for the problems connected with the graphic variants with *a*-vocalism), we would be dealing with two covert compounds in *šīna-/šēna*-.

4. CONCLUDING REMARKS

As we have seen, if we exclude both forms which, according to what was observed in the individual discussions, would not contain the suffix *-e/ina-* and words that could be interpreted, following Melchert (2002), as covert compounds (for the problems connected with the variants with *a*-vocalism, cf. the discussions above), the following situation arises: we notice words which are probably of foreign origin, such as *herina-* 'cedarwood'; 'furnace' (perhaps from Sumerian *erin* \rightarrow Akk. *erinnu*), *kulina-*, maybe a Hurrian attribute referring to Ištar, *kurupšini-/*^(LÚ)*kurupzina-*material/shape qualifier of *rhyta* (perhaps comparable with Kaneshite *kupuršin(nu)m*, a qualifier of the word for 'gold'). The next words denote materials/clothes/plants/parts of the body, such as *gapina-/*^(UZU)*kapina-*, ^{GIŠ}*karpina-*, ^{TÚG}*paršina-* (without etymology), *paršēna-/parš(i)na-*, words connected with religious-magical sphere, such as ^(LÚ)*hamina-/hamena-* (without etymology), *harmina-* (without etymology), and a word, *parhuena-/parhuina-*, denoting either 'oats' (that can be used to brew beer) (Francia 2020) or 'beverage', 'cereal fermentation matter' (HED PA: 122).

As observed in footnote 16, *huhhuppina- '?'*, *tittina- '?'* (perhaps an object), and ^{síg}zumina-/zumini- '?', 'a kind of wool (?)' could also be mentioned. These words, although mostly of uncertain meaning, still seem to relate to objects and fabrics, exactly as in the case of the entries in *-enna-* and in *-inna-* briefly treated in footnote 7. Furthermore, we have also focused on words which some

³⁰ See, for example, Francia's (2020) interpretation of *parhuena-* or EDHIL: 171 on *alwanz-*, which according to his opinion, as we have seen, is unlikely to be Indo-European.

scholars have imagined to be deverbative (even if most of the base verbs are unattested, so to be considered as «hidden derivates» as *per* Puhvel 2009),³¹ such as ^{GIŠ}*karpina-, lappina-, lappina-(SAR), happina-/happena-, šalwina/šalwena/šalwišana-.* Nevertheless, what emerged from the analysis is that it is not possible to state with certainty that the suffix always yields deverbal formations, as Gusmani (1978, cf. *supra*) also argued: not all the observed forms have a clear derivation from a verbal base (which very often is not synchronically attested) and some forms appear to be rather denominative adjectives.

Additionally, the stems in question, as we have seen, are mainly phytonyms, names of commonly used objects/materials, and terms connected with the magical-religious sphere. It should be stressed that, as known, most of the phytonyms are difficult to interpret and, especially in the case of Hittite, they are usually *substratum* terms.³² Therefore, the hypothesis that some of them may be *substratum* terms and others foreign terms coming from Akkadian or Sumerian, which Hittite then accepted and integrated with a specific endogenous suffix *-ena-/-ina-*, should not be excluded (see ^(DUG)*tapišena-*, probably also a *Kulturwort*): if it represents the Hittite outcome of PIE **-ino-* we cannot say,³³ mostly because in some cases scholars have preferred to reconstruct some words according to other criteria and different morphological parsing that did not necessarily imply its reconstruction. Unfortunately, even the words for which some Indo-European etymology has been proposed, and which have been linked to lexemes drawn from other historical Indo-European languages, lead to more than one problem, and it is very difficult to establish with certainty the original formation. Moreover, even the history of **-ino-*, according to Chantraine (1933: 204 ff.), seems to be complicated, and some words containing it might have their origin in Mediterranean ending did occur.³⁴ The main value indicated

³¹ It should be underlined that *lappina-* and *lappina-*^(SAR) would be the only two derived from a documented verbal base (unlike *happe/ina-*, *gapina-/*^(UZU)*kapina-*, ^{GIŠ}*karpina-* and *parhue/ina-* etc., which, according to Puhvel 2009 and HED s.vv., would also be deverbative in *-ina-/-ena-*, even if from unattested verbal bases).

³² Cf. Haas 2003: 242: «Die überwiegende Zahl der Namen sind fremder Herkunft und nur selten einer der überlieferten keilinschriftlichen Sprachen, wie etwa dem Hurritischen oder dem Hattischen, zuzuweisen. Vielfach sind gleiche Pflanzennamen in Texten verschiedener Sprachen bezeugt [...]»). Cf. also Ünal (1992: 493): «The main reason for this lexical and semiological difficulty is that these words scarcely appear in a context which enables us to accurately identify them. [...] Hittite has hundreds of names of trees, plants, legumes, vegetables, and herbs. However, because of the nature of the cuneiform texts it is mostly impossible to identify them with the flora known today in modern Turkey».

³³ According to this hypothesis, this Hittite suffix, which could continue an Indo-European suffix which signalled 'pertaining to', and which could indicate collective elements, may represent, in some particular cases, the indicator of an attempt to "Hitticise" exogenous forms. But cf. Melchert (2002: 297), who, discussing the Hittite covert-compounds, states: «I know of no other evidence for this 'enlarged' form on *-*no*- in Anatolian».

³⁴ «On y distingue essentiellement un type indo-européen populaire qui a servi surtout à constituer des sobriquets, des noms d'animaux, etc. [...]. Mais ce suffixe indo-européen semble s'être rencontré avec une finale *-īno*, d'origine "méditerranéenne", qui s'observe surtout dans des noms d'objets, de plantes, d'animaux, et avec un type de féminine en -ιννα dont l'origine, non indo-européenne, est marquée par l'existence de termes religieux comme βασίλιννα, de noms propres en -ιννα etc.» (Chantraine 1933: 205). This suffix is very likely to have come from pre-Hellenic dialects, according to Chantraine (*ibidem*). See Debrunner (1954: 350) for a small sample of adjectives suffixed in *-ina-* (*māhina* 'big' besides *mahín-* and *máhi* etc.). Cf. Butler (1971) for Latin adjectives in *- īnus*, *-a*, *-um* and nouns in *-īna*.

by the suffix is to denote the origin, the belonging (indicating the concept of 'made of X' and 'pertaining to X', cf. Gr. ἀμπέλινος 'of the vine', from ἄμπελος 'vine', λίθινος 'made of stone', from λ ίθος 'stone' etc.)., the nature of the denoted object (cf. Gr. ἀνθρώπινος 'in accordance with human nature' etc.). Sometimes it also found in words typical of the technical and popular lexicon as well as, in the context of the family lexicon, in nicknames and therionyms (Lat. *caprīnus < capra*, Greek τυφλίνος 'a type of snake' < τυφλός, κορακῖνος 'a (type of) black fish'< κόραξ etc.) and phytonyms (cf. Lat. *fāginus < fagus*, Greek φήγινος < φαγός etc.).³⁵

Taking some ideas for granted (ideas which, in my opinion, are mainly more than reasonable, especially the ones connected with the covert possessive compounds, cf. Melchert 2002),³⁶ some considerations emerge from the final analysis of the data. Firstly, a strong structural coherence of the bases to which the suffix is attached does not seem to emerge, and the question is further complicated by the absence of some derivational bases, by the various etymological problems associated with some specific forms, and by the scarcity of documentation. Secondly, there would seem to be no difference between the different types of suffixes (-ena-, -ina-, or -ena-/-ina-), neither in absolute terms, nor with respect to the bases to which they are attached. From a formal point of view, then, it should be mentioned that the big disadvantage of discussing a Hittite morpheme containing a front vowel is the potential ambiguity of whether the scribe intended /e/, $/\bar{e}/$, /i/ or /i/ (the lack of plene writing does not in fact point unequivocally to a short vowel, see Hoffner and Melchert 2008: 25 ff. and Kloekhorst 2014). At the same time, for the stems with -e/ina- variation, a further investigation into the Hittite corpus is needed (in terms of the relative chronology of the manuscripts), in order to evaluate which graphic variant is original or whether the variation is relevant. Nevertheless, as stated by Hoffner and Melchert (2008: 28), «because much of our evidence consists of NS copies of texts of uncertain date and compositional history [...], we cannot determine the status of the variations in *e*- and *i*-spellings. One should always be prepared to find isolated examples of *e* for *i* or vice-versa». Moreover, «we must allow the possibility that [...] texts composed in one period but recopied many years later present an artificial and unreliable picture of the phonology» (ivi: 30).

³⁵ In Lithuanian, the suffix *-iena* (reflex of PIE **-eyno/-*oyno-*) combines with animal and plant names to form substantives designating 'the meat of X' and 'the planted field of X', 'the latter often specifying the field after the crop has been harvested'' (Butler 1971: 10). Among the examples, Lith. *ánt-iena* 'duck', *varnienà* 'crowmeat', *aviž-ienà* 'harvested field of oats' (< *avižà* 'oats'), *bulv-iena* 'harvested potato-patch' (< *bùlvė*) etc. (for **-eyno-/*-oyno-* in Latin, cf. *aliēnus* < *alius*, *laniēna* 'butchery, slaughterhouse' < *lanius* 'butcher' etc.). Moreover (Butler 1971: 40 ff.), among the collective suffixes in the Slavic languages, *-ina* (< **-īna* or **-eynā*) is often found attached to tree names and designating a 'grove, forest' (see OCS *bukovina* 'beech grove, forest', OBulg. *borovina* 'pine grove, forest' etc.). This suffix also forms substantives designating 'meat of X', 'pelt of X' from animal names, and occasionally with other edible items (cf. OCS *medovina* 'intoxicating drink' < *medŭ* 'honey', OCS *bibrovina* 'beaver meat', OCS *jarina* 'wool' etc.). See also Lat. *fodīna* 'pit, mine' from *fodiō* 'to dig up', *molīna* 'mill' from *molō* 'to grind' etc.

 $^{^{36}}$ However, it should be emphasised that the variants with *a*-vocalism can represent an obstacle to his interpretation, even though as we have seen, he proposes a reasonable solution to the problem.

Furthermore, with the exception of the so-called "covert-compounds" (in the sense of Melchert 2002), which, if the hypothesis proposed by the scholar is accepted, would be excluded from the analysis, there are some words with an unknown meaning and an obscure or uncertain etymology, some *substratum* or foreign words (probably adapted by the replica language) and a couple of words, perhaps of Indo-European origin, that could be interpreted either as deverbative formations (as *per* Gusmani 1978 and Puhvel 2009) formed through the addition of a PIE suffix such as *-*ino*-,³⁷ (perhaps cases such as ^{GIS}*karpina*- 'a (kind of) tree' < *(*s*)*kerp*- and *lappina*- 'wick' < **leh2p*-). In any case, the semantics of most of the lexemes containing this type of suffix, combined with the fact that among scholars there is absolutely no unanimity in considering some of them words of Indo-European origin, would suggest more strongly that they could be *substratum* words (and that, consequently, the suffix itself could be a morph of a *substratum* language). This would therefore confirm the fact that it is not possible to consider *-ena-/-ina*- as a productive and meaningful suffix, in Hittite. It cannot even be ruled out that they were two homonymous suffixes, one coming directly from a *substratum* language, the other of Indo-European heritage (and of which a small trace would remain only in a couple of Indo-European words),³⁸ used to "Hitticise" exogenous forms.

Many of the formations discussed in this work are open to more than one possible interpretation (especially because very often the base verbs from which the derivatives come from are unattested, in Hittite) and therefore deserve to be evaluated with great caution. Needless to say, this article outlines a preliminary analysis.

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³⁷ Or *-*eyno*-? Or *- $i(H)n(e)h_2$ -? Cf. footnote 35.

³⁸ As Corti (2018 and forthcoming) observes, the ^{GIŠ}*karpina*- trunk was used to support and grow a grapevine (showing the technique of training vines "wedded" to trees, through the so-called "alberate" training system). This suggests that the suffix, in this case, as observed by an anonymous reviewer, could have an active meaning 'that which raises', which could also work for *lappina*-, if one interprets a wick as 'that which lights' (meaning 'lights on fire'). Perhaps also *happe/ina*-'kiln, broiler, fire-pit' 'that which cooks' (?), if comparable with Arm. *epem* 'I cook' and Greek $\xi \psi \omega$ (*s*-present) 'cook (by boiling)' from (IEW: 325) PIE **eph*- 'to cook' (cf. Belardi 2006: 234, 350, from **(s)eph*-; for the comparison between Armenian and Greek see also GG I: 57, 706).

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