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# On the origin of Latin suffixes in *-d-* and *-es*, *-itis*

## Case endings, composition, analogy and borrowing

**Abstract:** This article discusses case endings, composition, analogy and borrowing for the origin of Latin suffixes in *-d-* and *-es*, *-itis*. From *pedes*, formed on the model of PIE-inherited types of compounds in simple *-t-*, the suffix *-es*, *-itis* spread by analogy to further nouns. Despite the Etruscan borrowing *satelles*, an Etruscan origin for this suffix is unlikely. Composition and instrumental case endings are the origin of the suffix in *d*. From the instrumental case endings this suffix spread by analogy. Some new insights into the etymologies for the discussed compound nouns in *-d-* (*custōs*, *cuspis*, *cassis*) buttress the composition origin.

**Keywords:** Latin dental suffixes, case endings, nominal composition, analogy, Etruscan, Latin *custōs*, *cuspis*, *cassis*

## 1 Introduction

Nominal suffixes in simple dentals are quite a puzzle in Indo-European languages and especially in Latin. They seem to represent an archaic stage of the system of derivative suffixes, since a specific meaning of the suffix is hard to discern. This protoplasmic vagueness is quite the contrary to the manifold functions of *t*-stems with more phonetic material (thematic verbal adjectives in \*-*to-*, nomina agentis in \*-*te/or-*, nomina instrumenti in \*-*tr-o-*, verbal abstracts in \*-*ti-* and \*-*tu-*, noun abstracts in \*-*teh₂t-*), which thrived abundantly on the ground of voiceless simple dental stems. Their function is, however, clearer than that of their voiced equivalents. Previous research has limited itself mainly to gathering and categorizing these suffixes and has given some scarce and tentative explanations of their origins.[1] Recently Weiss (2009: 303–5) delineated in his *Outline* a clear sketch of the steps by which the Latin group in *-et-* originated by composition and analogy, and identified three subgroups (deverbal, denominal, deinstrumental) with different origins among the nouns in simple *d*. The first goal of this paper is to provide a

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**1** Leumann 1977: 372f.; Schwyzer 1939: 510f. (θ); Grdr.²: 2.1, 422–428 (*t*), 466–469 (*d*), 472f. (*dʰ*).

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detailed re-assessment of Weiss' explanation of the origin of suffixes in *-es*, *-itis*. This discussion demonstrates, in a way which the format of an *Outline* does not permit, how much of an advance Weiss' explanation is in comparison with previous research. Moreover, it suggests a chronology of the successive appearance of nouns in *-es*, *-itis* which differs from Weiss'. As a third source for Latin suffixes in *-es*, *-itis,* borrowing from Etruscan will be discussed (and rejected). The second goal of this paper is to go further in Weiss' direction with regard to the origin of the nouns in *d*. I shall argue that they can be derived from a common deinstrumental origin. Furthermore, I shall demonstrate composition as another source of the Latin nouns in simple *-d-* which Weiss only hinted at.

## 2 Latin *-es*, *-itis*: composition and analogy

Let us start with the Latin suffixes in *-es*, *-itis*. Weiss (2009: 303) assumes that this group has its origin in *comes* 'companion, comrade' and that this noun is a compound of *\*kom-* 'together' + *\*h₁ei-* 'to go' + the root noun suffix in simple *t*. He refers to *coeō*, a verbal compound in Classical Latin which is formed in the same way. Sanskrit *arthét-* (< *artha-it-*) 'active, hasty'[2] (lit. 'going to the goal') offers an example of a *t*-formation from the same verbal root.[3] Further nouns, chiefly with military meaning, were formed by analogy:

*eques*, *equitis*, m. 'knight'[4]
*pedes*, *peditis*, m. 'foot soldier'
*vēles*, *vēlitis*, m. 'light-armed foot soldier'[5]

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**2** Not listed by Scarlata (1999: 48–50), who offers many other examples of compounds with this verbal root as second element.
**3** Grdr.²: 2.1, 422; WH: 1, 253 s. v. *comes*.
**4** Unless marked otherwise all Latin meanings are taken from the OLD, all Greek from LSJ⁹.
**5** WH: s. v. reject the Etruscan origin, which Isidorus *orig.* (Isidoro de Sevilla 2007: 18.57) (sive a civitate Etruscorum quae Veles vocabatur; cf. Pliny *nat.* 7.201: invenisse […] hastas velitares Tyrrenum) and Ernout 1930: 117 (but DELL: s. v. "sans étymologie certaine") had suggested. Indeed Ernout merely draws on etymological deficiencies of *mīles* and *vēles* and on the testimony of the two aforementioned Latin authors. These two arguments are not sufficient for proving an Etruscan origin but only provide clues for assessing it. WH: s. v. prefer a derivation by the same suffix as in *mīles*, *eques*, *pedes*, *satelles* from "*\*u̯eǵ-slo-s* 'dahinfahrend'" ("driving" in de Vaan's paraphrase) (to *vehō*) pointing to OCS *veslo* 'oar' (< *\*u̯eǵslom*) as a similar formation. DELL: s. v. rejects the Romans' association of *vēles* with *vehō* and *vēlōx* as a folk etymology, but a folk etymology need not be false and does not exclude this derivation from modern explanation provided that it follows the methods of historical linguistics. Indeed de Vaan endorses WH's etymology and merely suggests

*mīles*, *mīlitis*, m. 'soldier'[6]
*satelles*, *satellitis*, m. 'henchman, follower'[7]

## 2.1 The origin: Latin *comes* 'companion, comrade', *pedes* 'foot soldier'

Weiss suggests this perspicuous sequence of analogical derivation which takes its cue from one starting point and which is both an innovation and represents progress in comparison with previous research. Before, scholars assumed different words as starting points and also segmented other nouns of this group as compounds. Hereby scholarship produced a bewildering imbroglio of competing and contradictory explanations and equations with nouns throughout a wide range of IE languages, which ultimately led to several dead ends. Already WH: s. v. *comes* segmented *comes* exactly like Weiss as *\*com-i-t-* 'Mitgeher' drawing on Brugmann (Grdr.²: 2.1, 422) and Saussure (1922: 340: *com-i-t* ["[s]*ens actif*, [*t*] *immédiat*"]). Yet Brugmann (Grdr.²: 2.1, 145, 422) – as well as AiG: 2.2, 46 – explains also *pedes* in the same way as *comes* as a compound of *ire* (*ped-i-tis*), hence literally 'going on

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a different meaning of *\* u̯eǵh-slo-s* (with *h*, as one has to posit) 'carrier, soldier carrying goods'. He convincingly supports this change with the meaning of *\*u̯eǵhō* 'to convey', which matches 'carrier' better. This IE etymology is the best derivation and reduces any need to speculate on an Etruscan etymology for which, apart from the ancient authors, there is no evidence, cf. Watmough 1997: 129 n. 101 (who does not yet take into account the coherent IE etymologies): "The existence of an Etr. *\*mīlaθ* (> Lat. *mīles*) and an Etr. *\*velaθ* (> Lat. *vēles*), in the absence of Indo-European etymologies for these terms, is possible, but cannot be demonstrated."

**6** Walde & Hofmann (WH: s. v.) reject the Etruscan origin which DELL s. v. had suggested ("Peut-être d'origine étrusque, comme *satelles*") and dismisses several IE explanations as uncertain. For the speculative nature of an Etruscan etymology see the footnote above. De Vaan s. v. admits that the first element *mīl-* is unclear and suggests a connection to the root of *mīlia* 'thousands'. Previous research had merely linked both lexemes via a *\*smīli-* 'heap, pile' (> *mīlle*)/*\*smīlo-* 'troop, band' (> *mīles*) (WH: s. v. *mīles*).

**7** Watmough (1997: 130) demonstrates convincingly that this noun is borrowed from ancient Etruscan *\*zatilaθ* (from a verb *\*zatil* 'to strike' or 'to hit with an axe'), originally meaning 'striker' or 'axe-striker' and that "[a]rchaeological evidence is consistent with an original meaning 'axe-striker' for *zatlaθ*", the attested and syncopated form. By examining the contexts of the inscriptions which transmit the Etruscan word, Wallace (2008: 130) reaches the etymological meaning 'one who brandishes a weapon'. These two scholars achieved considerable progress in research since, as stressed by Weiss, the Etruscan origin of this word (WH: s. v. *zatlaθ*; DELL: s. v. "peut-être étrusque"; no entry in de Vaan 2008) has been contested (Weiss 2009: 303 n. 3). Even if Etruscan origin has not been ascertained, doubtless *satelles* follows the flexion pattern of the preceding words. The close semantic affinity to *comes* in Latin, with which its meaning 'follower' is partly synonymous, makes it very plausible that it was influenced by analogy to *comes*.

foot' (cf. NHG *Fuß-gänger* 'pedestrian' which Leumann (1977: 372) indicates as the meaning of *pedes*), and hereby significantly influenced later research. He is probably followed by WH: s. v. *comes* and s. v. *pēs,* who refer to Grdr.²: 2.1, 145, 422 without further comment. In these passages Brugmann (Grdr.²: 2.1, 145, 422) adduces Lat. *ped-i-t-* as a parallel to Gk. πεζός 'on foot, infantry' < *\*ped-i̯o-s* which he also takes to be a compound the second element of which *\*i̯o-s* 'walking' stems from *\*i-* 'to go' (Grdr.²: 2.1, 145 names εἶμι). Yet Vedic *pádyas* 'regarding the foot', which is "formally identical" with the Greek noun as pointed out by Beekes (2010: s. v.), provides a clear indication for identifying the second element as the suffix of appurtenance *\*-(i)i̯os*.[8] Schwyzer (1939: 472) lists πεζός among the words formed with *\*-i̯os*, yet he also reports Brugmann's interpretation as a compound. He gives several examples in which the suffix *\*-(i)i̯os* transformed the preceding stem according to the rules which apply to the cluster consonant + *i̯* in Greek ("Nachwirkungen"), for instance κοίρανος, καινός and κοινός (Schwyzer 1939: 471f.). Chantraine (DELG: s. v.) deems Gk. πεζός to be formed by the suffix *\*-(i)i̯os* and explicitly contradicts Brugmann's compound thesis. Mayrhofer links the Vedic and Greek nouns. Even if he deems them a special semantic offspring ("eine Sonderentwicklung") from *\*pedi̯o-* 'fetter for the feet' (KEWA: 2, 207), a thesis which is isolated in the literature, he endorses the suffix theory. Frisk (GEW: s. v.) merely reports the reasons and proponents of the compound thesis, but he adds in defence of the derivation by the suffix *\*-i̯os* two further examples, the Norwegian *fior-fit* 'lizard' (literally 'four-legged') and Lat. *acu-ped-ius* 'swift of foot'. This equation, however, presupposes that in the Latin form, the *-d-* has been re-established by analogy to *pēs*, *pedis* as in Latin the normal outcome of *\*di̯* was *\*ii̯*, e. g. *\*ped-i̯ōs* (cf. Vedic *pádyate* 'falls') > Old Latin *peiior* > Classical Latin *peior* 'worse'.[9] If in the case of *\*acupeiius,* which is derived from exactly the same root as *peior,* the *-d-* was restored in analogy, this is due to the semantic affinity and the etymological transparency of the relationship with *pēs, pedis,* which had been lost in the case of the comparative. Hence, it remains possible to assume that Norwegian *fior-fit* and Lat. *acu-ped-ius* go back to the same phonetic shape, which can be reconstructed as the base of Gk. πεζός. Moreover, as a result of the preceding discussion one must take note that there are no compelling objections against the assumption that Gk. πεζός derives from the suffix *\*-i̯os* and hence does not contain the verbal root *\*i-* 'to go', as is supposed in the case of Latin *pedes*. Concerning this noun, DELL: 502 s. v. *pes*, however, do not mention the compound hypothesis. Instead, they assume a

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**8** For this suffix, see Fortson 2010: 134f.

**9** Leumann 1977: 126; Meiser 1998: 120; Weiss 2009: 159. In fact, WH: 1, 11 s. v. followed by Mayrhofer KEWA: 2, 208 s. v. *pádyaḥ*, clarify that Gk. πεζός and Ved. *pádyas* on the one hand and Lat. *acupedius* on the other are formed in the same way but are not related by inheritance.

*t*-suffix. In the case of Ved. *pattiḥ* and OP *pastiš* 'foot soldier' (with *i*-flexion) as well as Lith. *pė́sčias* 'pedestrian (subst. and adj.)' (with *ē*) they give impressive parallels for formations with the *t*-suffix in other IE languages.[10] According to Mayrhofer (KEWA: 2, 201 s. v.) the Indo-Iranian forms stem from *\*ped-ti-* 'foot walk' formed with the suffix for abstract nouns *-ti-* (like NHG *Ordonnanz* or *Schildwache*). The Lithuanian form – as well as OCS *pěšь* 'pedestrian' – would be the same formation with vṛddhi (*\*pēd-ti̯-os*).

Hence, to sum up, we find in IE languages three formally different types of formations for a noun 'pedestrian', all stemming from the root *\*ped-* 'foot'. Of course, one may not rule out the possibility that they formed independently after PIE had split up. But given the identical root and meaning, this explanation is rather unlikely. It becomes even more unlikely if we consider that in Greek, which is represented by the word πεζός in this set, the word for 'foot' has a different ablaut grade (πούς, ποδός m.). An alternative scenario seems more likely: the three historically attested formations are reflections and transformations of one original PIE formation. In PIE we find words for horse, chariot, and the various parts of the latter.[11] Obviously, locomotion and migration played a major part in the PIE world vision. Hence, it is likely that in contrast to the locomotion by horse and chariot there was a word for a person walking on foot. The original formation was likely to be a compound of *\*ped-* 'foot' + *\*h₁ei-* 'to go'. NHG *Fußgänger* is a striking parallel for such a formation and dispels possible objections about semantic redundancy. As to the ending, both Latin and Indo-Iranian offer forms with *t*. They are strong evidence for a formation with *t*. Morphologically, such a formation, namely a noun as the first part + a verbal root + *t*, is far from implausible, cf. Ved. *deva-śrút-* 'listened by the gods', Ved. *deva-stút-* 'praising the gods', OAv. *θraotō-stāt-* 'being in the rivers',[12] Gk. ὠμοβρώς, -ῶτος 'eating raw flesh', Ved. *madhu-kṛ́t-* 'bee' (lit. 'honey-maker'), Ved. *viśva-jít-* 'all-conquering', and it is even attested in Latin (*sacer-dōs*, *sacer-dōtis* 'priest', *locu-plēs*, *-plētis* 'wealthy').[13] Sanskrit *arthét-* even offers a parallel for this formation with the verbal root *\*h₁ei-* 'to go'. Hence I suggest that at least Latin *pedes* goes back to a PIE root compound *\*ped-h₁i-t-*. As to the Indo-Iranian forms, which are reconstructed as *\*ped-ti-*, the verbal abstract *-ti-* would be very odd in a denominal function. Therefore one might argue that forms with this suffix are transformed from an original compound *\*ped-h₂t-i-* 'going

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**10** De Vaan (2008: s. v. *pes*) does not offer a morphological analysis.

**11** Cf. Anthony 2007: 63–65.

**12** Examples and meanings taken from Grdr.²: 2.1, 422f.

**13** Examples and meanings taken from Weiss (2009: 303). For this formation with *t* and further examples in Vedic, Avestan, Greek, and Latin, see AiG: 2.2, 41–47.

on foot'.[14] This compound would be derived from the completely different root *$h_2et(H)$- which is, however, attested in Vedic *atati* 'wanders' and hence the same IE subgroup as the Indo-Iranian forms. In Indo-Iranian, the vocalic reflex of *$h_2$ is at times syncopated between two consonants.[15]  In *$ped-h_2t-i$-, the syncope and subsequent assimilation are still more likely because they would take place between two dental stops. We find similar developments with syncopation and subsequent assimilation between two dental stops in German (*raten → rät* '(s)he guesses' vs. *falten → faltet* '(s)he folds'; *gelten → gilt* '(s)he is valid' vs. *nehmen → nimmt* '(s)he takes' [< OHG *nimit*]) and Romance languages where they are most evident in Italian (Lat. *nitidus* 'bright' > Ital. *netto* 'clean' vs. Lat. *calidus* 'warm' > Ital. *caldo* 'id.'). One might go a step further and argue that *$ped-h_2t-i$- goes back to *$ped-h_1i-t$- (or vice versa). The former could have originated from the latter by a simple transposition of the *i*, which would have been motivated by the affinity to *$h_2et(H)$-. Conversely, the common distribution of the verbal root *$h_1ei$- and the scarce attestation of *$h_2et(H)$- suggest that *$ped-h_2t-i$- might have been the original form which was transformed after the disappearance of *$h_2et(H)$- by analogy to *$h_1ei$-. This analogical transformation and the priority of *$h_2et(H)$- become more plausible when we consider that all languages which yield compounds for 'pedestrian' preserve the root *$h_1ei$- in verbal forms. Gk. πεζός and Ved. *pádyas* might go back to a compound *$ped-h_1i-o$-, with PIE post-consonantal laryngeals being lost in the middle of a word before $\underline{i}$ + vowel according to Pinault's Law.[16] In a discussion on comparative forms Pinault (1982: 267) had already detected his law in forms in *-yas*. Hence, Latin *pedes* has many IE cognates and likely presents the most archaic formation within this set. By contrast, Latin *comes* has only one exact match in compound type and verbal root, Skt. *sam-it-* 'fight'.[17] Still, the meaning diverges and only the second element is identical and the first has different origins.[18] Hence the two nouns are likely to be independent formations.[19] Therefore it is plausible that Latin *pedes*, and not Latin *comes*, is the oldest noun

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**14** I am very grateful to Professor Michael Weiss, who kindly read a draft of this paper, for this and other suggestions.

**15** Meier-Brügger 2010: 246.

**16** Pinault 1982: 266. For a reformulation paying attention to aspects of syllabification, see Byrd 2015: 208–240 ("Motivating Pinault's Law").

**17** AiG: 2.2, 45.

**18** *$sm̥$- > Gk. ἀ- (KEWA: 3, 434f.)

**19** Likewise, Gk. πρό-βα-τ-α 'sheep' (lit. 'going ahead'), which might belong to the deverbal root nouns in *t* (cf. AiG: 2.2, 46) and hence be formed in the same way as Lat. *comes* by an adverbial prefix + a verbal root + *t* 'to go', is an independent formation. The type adverbial prefix + a verbal root + *t* is very common in Vedic (AiG: 2.2, 45).

in *-es*, *-itis* and that the others were formed by way of analogy to it, beginning with *comes*.

## 2.2 Analogy and borrowing: Latin *eques* 'knight', *mīles* 'soldier', *vēles* 'light-armed foot soldier', *satelles* 'henchman, follower'

With *pedes* and *comes* we have the nucleus of the nouns in *-es*, *-itis*. Still, their priority and the way that further nouns were integrated into this emerging group is not firmly established in the literature. Ernout & Meillet, for instance, suppose that *pedes* was formed on the model of *eques*, which, according to them, is formed in the same way as Gk. ἱππότα (DELL: s. v. *pes*). They thereby postulate the priority of a noun which was wrongly assumed to be of pre-Latin existence in earlier research. Already Brugmann (Grdr.²: 2.1, 423 n. 2) approached *eques* as if it was related to ἱππότης/ἱππότα, noticing that both nouns share a secondary *t*-formant (Grdr.²: 2.1, 426). Consequently DELL: s. v. *equus* compares Gk. ἱππότης and reconstructs *\*equot́s* as the original Latin form. WH: s. v. *equus* even reconstruct *\*eḱwot-* as a common IE etymon both of *eques* and ἱππότης/ἱππότα.[20] However, Schwyzer (1939: 499 n. 6) calls this equation factually questionable ("sachlich bedenklich"), and Leumann (1977: 372) criticizes this equation for isolating in an unacceptable way both words within their respective languages ("isolier[e] in unzulässiger Weise die beiden Wörter in ihren eigenen Sprachen"). It is therefore more likely that Gk. ἱππότης and Latin *eques* are independent formations with a suffix containing the same inherited *t*-element. A compound formation of *eques* has never been considered and seems extremely implausible. Hence this word is formed with the suffix *-es*, *-itis* which could be abstracted from *comes* and *pedes*.

To sum up this critical review, we have to amend Weiss' finding that *comes* was the starting point for the group in *-es*, *-itis*, and *pedes* should be placed in the prior position. Still, Weiss is correct in thinking that there was one initial starting point. Leumann (1977: 372) had rightly argued that *pedes* served as a model for the formation of *eques* and that the other members of this group formed subsequently. Yet, brachylogically, he juxtaposes *comes* and *pedes* without comma and with the meaning 'pedestrian' following *pedes*. With *pedes* in first position we get an uninterrupted line of formation by analogy.

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**20** Once again, de Vaan (2008: s. v. *equus*) gives no morphological analysis and also lists this noun merely under the derivatives of the basic word.

This integral scenario is completed by the analogous incorporation of the three examples listed above in Section 2 (*mīles*, *mīlitis*; *vēles*, *vēlitis*, *satelles*, *satellitis*). These nouns surely do not owe their *t*-element to the PIE suffix *-t-*, but to an analogous transfer of the suffix *-es*, *-itis* from *pedes* and *eques*.[21] The trajectory for this analogous transfer was determined by a common semantic sphere, either 'person of a certain kind of locomotion' or 'type of an armed person', which had been established by *pedes* and *eques* and to which also the three new nouns belong. By this semantic analogy both *mīles*, *mīlitis* and *vēles*, *vēlitis* were derived from an IE stem by suffixing *-es*, *-itis,* and the phonetic make-up of *satelles*, *satellitis,* which is probably of Etruscan origin, was adapted to Latin by transforming the dental end of the Etruscan etymon (*\*zatilaθ*) to Lat. *-es*, *-itis*.[22] The new formation helped to integrate these nouns into the Latin declension system. At the same time, their addition stabilized this new group. A parallel case, albeit only of nouns of IE origin, is the formation of the declension group in *ē*, which was completed by the subsequent integration of originally different nouns (Meiser 1998: 148f.; Weiss 2009: 253–255, cf. Leumann 1977: 285).[23] Ultimately, *-es*, *-itis* had become a new productive suffix that could be added to any stem, be it verbal, nominal or borrowed, as is proven by the addition of further nouns to this group.

## 2.3 Outlook: Etruscan influence in Latin *-es*, *-itis*?

In order to cross-check these findings, let us investigate whether the Etruscan locative postposition *-θi* sheds new light on the origin of Latin *-es*, *-itis*. In this group, one word (*satelles*, *satellitis*, m. 'henchman, follower') has a plausible Etruscan cognate (*zatlaθ*). An Etruscan origin has also been discussed for two other items (*mīles*, *mīlitis*, m. 'soldier', *vēles*, *vēlitis*, m. 'light-armed foot soldier').[24] In Etruscan the locative postposition *-θi* is suffixed to a locative case ending in *-i*. When added to stems in *a*, the resulting *ai* is transformed to *e*, and the form

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**21** Cf. Ernout 1930: 117.

**22** Watmough (1997: 129f.) proposes a multiphasic model with alternatives (depending on when the Latin plural of the consonant declension changed from *-ĕs* to *-ēs*) for the integration of *\*zatilaθ*. But even in her model it is ascertained that at a given stage the *-es* in *satelles* was associated with *-es*, *-itis* and that this form served as a basis for the formation of the plural in an analogical rule of three with *pedes* : *peditēs*. This derivation is accepted by Wallace (2008: 130), who, however, notes the continued lack of an explanation for the double *l* in the Latin form.

**23** Stempel (2005: 367), who suggests a different and innovative scenario for this declension's genesis (transfer of pluralic *-ēs* to the nom. sg.), also assumes that only the analogical formation of new deverbal nouns established the new declension.

**24** For references and details see 2. Latin *-es*, *-itis*: composition and analogy.

ends in *-eθi*. This transformation is well attested *(spura* 'city' → *spureθi* 'in the city', *mutna* 'sarcophagus' → *mutneθi, hupnina* 'relative to the loculi (cult niche)' → *hupnineθi*).[25] The words in *-eθi* resemble very much the Latin nouns in *-es, -itis*, especially when we consider that the oblique forms appeared as \*-*et-* in Old Latin. And yet this correspondence can only have played a minor role in the genesis of the whole group. Apart from *satelles* there is no word in this group that has an uncontested Etruscan etymology and cognate.[26]

# 3 Latin nouns in simple *d*: Case endings and composition

## 3.1 Ablative in *d*

As to the origin of the Latin nouns in simple *d*, Weiss (2009: 304f.) is able to identify three groups:

1. Deverbal

    *capis, capidis* f. 'bowl' ← *capiō*[27] (commonly interpreted as a transformation of Gk. σκαφίς 'bowl'[28])

    *lapis, lapidis* m. 'stone' ← *lapit* 'causes pain, cuts' (Pac. Trag. 276 Ribb. = 207 Schierl)

2. Denominal

    *palūs, palūdis* 'swamp', cf. Late Ved. *palvalám* 'pond'

    *pecūs, pecūdis* 'head of cattle' ← *pecū* 'cattle'

3. Deinstrumental. In two nouns, the long vowel before *-d-* makes Weiss suggest they "may be deinstrumental forms" (Weiss 2009: 304):

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**25** All information is taken from Facchetti 2002: 76 and Rix 2008: 150 (cf. G. Bonfante & L. Bonfante 2002: 83 and Wallace 2008: 102).

**26** And yet in Watmough's complicated model for the integration of Etruscan \**zatilaθ* into Latin as *satelles*, Etr. *-eθi* plays no role (Watmough 1997: 129f.) (see 2. Latin *-es, -itis*: Composition and Analogy). Hence, the only ascertained borrowing from Etruscan within the Latin group *-es, -itis* would be eliminated as possible evidence for the origin of Latin *-es, -itis* from Etr. *-eθi*.

**27** Weiss (2009: 304).

**28** Leumann 1977: 372; WH: s. v. de Vaan 2008: s. v. ("maybe"). DELL s. v. propose a model that integrates both explanations: "On peut penser à un emprunt ancien au grec σκαφίς, déformé par l'étymologie populaire." By this they refer to the derivation from *capiō* which already Varro *ling.* 5.121 had suggested, which is quoted by DELL. Hence we find here a parallel mechanism as postulated for *cassis* (see below 4).

> *mercēs*, *mercēdis* 'wages' ← *merx* 'goods'
> *hērēs*, *hērēdis* 'heir', cf. Gk. χήρα 'widow'

I would go a step further and argue that the *-d-* can be identified with the *-d-* of the merged instrumental/ablative after long vowels in Proto-Italic.[29] For this purpose, let us leave aside the last example for the moment because its origin is controversial.[30] *Pecūs* provides a decisive argument for the instrumental origin: like *mercēs* this word belongs to the semantic sphere of trade and exchange, cattle having been used for a long time by the Romans in commercial calculation. Thus an ablativus instrumenti or pretii seems to be a plausible base for this word's derivation.[31] Latin *pecūnia* provides a striking parallel for another word derived from *pecū*, where the calculative function is enshrined in the etymology and its meaning ('[legal] tender, money'). The analogy of goods passing from one person to another is likely to explain why the *d*-suffix spread to *hērēs*, *hērēdis* 'heir' and why *hērēs* is the only noun denoting a person within this group otherwise comprising of objects. Moreover, this word provides a morphological bridge for the formation of a full-fledged paradigm in *-d-*. Nussbaum (2004: 4f.) identifies the element *-ēd-* in *hērēs* with the suffix *-ēd-* which appears in Latin *-ēdō*, *-ēdĭnis* f. and Gk. -ηδών, -ηδόνος f.[32] These two conglutinate suffixes testify to the view that *-ēd-* was a common and productive suffix even though the historical evidence for *-ēd-* is rather scarce. Nussbaum (2004: 4) is able to identify both the suffix *-ēd-* and its conglutinate form *-ēdō* in a remarkable parallel: *\*kou̯pó-* 'appetitive' (cf. with the zero grade Lat. *cupiō* 'wish for, desire') → *\*kou̯pēd-* > *cuppēs* 'appetitive (one), glutton(ous)' → *\*kou̯pēd-(ŏ̆)n-* 'desire, market for delicacies'. He duly points out that in both chains, the suffix *-ed-* is added to a thematic stem and amalgamated with it (*hērēs*, *hērēdis* < *\*ǵheh₁re-o/ed-* ← *\*ǵheh₁ro-* 'delict' [cf. Gk. χήρα 'widow']). Although *cuppēs* is attested only once in primary literature (Lindsay 1910: *Trin.* 239) and twice in grammarians (Paul Fest. p. 42,9 L., CGL: 5, 595,54), in all instances in the nominative case[33], this noun is a striking parallel because it shows that, as

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**29** Meiser 1998: 128.

**30** Weiss (2009: 305 n. 8) indicates an alternative explanation, whose identification of the element *-ēd-* with the IE root 'eat' (Dunkel 1987: 93) seems rather implausible, and indeed the etymology of *hērēs* and of its dental suffix is highly controversial (cf. de Vaan 2008: s. v.).

**31** Leumann (1977: 392) reports the thesis that the *-d-* has been taken over from *\*quadru-pod-*, an explanation which can be buttressed by the juncture *quadrupedemve pecudem* in the Lex Aq. dating from the year 287 BC (Leumann 1977: 392).

**32** I am highly indebted to Professor Nussbaum for providing me with a copy of his illuminating paper.

**33** Cf. Ernst Lommatzsch in TLL: 4, 1436, 45–48 s. v.

with *hērēs, -ēd-* could serve as a suffix denoting a person. The price instrumental *merce* of *merx* 'goods' provided a stepping-stone for spreading the suffix *-ēs, -ēdis* to inanimate nouns, whence *mercēs, mercēdis* 'wages', the meaning of which focuses upon exchange and payment. *mercēs, mercēdis* in turn, offered a model for forming full-fledged paradigms from long-vocalic ablative/instrumental stems such as *pecūd* whence the analogical dynamics could jump to *palūs* and even to nouns with short vowels before the *-d-* such as *capis* 'bowl' and *lapis* 'stone'.

Regarding the details, I would interpret the *-d-* in *palūs, palūdis* as the Italic ablative suffix in *-d* after vocalic stems, which in this case adopted a locative function following the general case syncretism of PIE ablative, locative, and instrumental in Latin. Greek nouns where the locative suffix -θι might have provided the basis for the suffix θ (e. g. κόρυς, -υθος m. 'helmet', with the dative κόρυθι as starting point; hence thematised in κύαθος 'ladle for drawing wine out of the κρατήρ' ← κύαρ 'hole, eye of the needle', λάπαθος 'pitfall for wild beasts', κάλαθος 'basket narrow at the base', γυργαθός 'wicker-basket, creel')[34] provide a functional, not a genetic, parallel. As in the Greek examples, this thesis aligns well with the meaning of *palūs,* 'swamp', in denoting a place. The most common occurrence of a place name is probably local in a general sense, be it a place, a direction or an origin. And note that for all these three local uses (-θι, -δε, -θεν) there were dental suffixes in Greek (or even PIE). Thus the denominal group (*palūs, pecūs*) probably originally formed a larger group of case endings together with the deinstrumental. Given the fact that the two members of the deverbal group *capis* 'bowl' and *lapis* 'stone' denote objects with high practical use and that they are related to verbs which have an instrumental implication, I would posit that the preponderant instrumental meaning of the suffix *-d-* was the basis for the deverbal formation. In the case of *capis* 'bowl', which denotes a recipient, the locative function of the suffix *-d-* likely supported this formation.

## 3.2  Lat. *custōs, -ōdis* m. 'guard'

A fourth source for the suffix *-d-* are nouns in which *-d-* can be interpreted as an element of the second part of a compound. Compound formation has been identified as the origin of the Latin nouns in *-es, -itis* and it can be assessed in more nouns containing the *-d-*suffix than is commonly accepted. Indeed, compound analysis of nouns with the suffix *-d-* is much less established than that of the group in *-es, -itis* and bears much more controversial points.

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**34**  Cf. Schwyzer (1939: 510f.), who lists these words as nouns with the θ and Greek origin.

### 3.2.1 Nowicki: *\*kusto-sd-* 'who sits near the hidden/treasure', Go. *huzd* 'treasure'

The most commonly accepted etymology of Latin *custōs*[35] was suggested by Nowicki. He proposes that this noun is a verbal governing compound,[36] *\*kusto-sd-* 'who sits near the hidden/near the treasure' with the second element *-sd-* being the zero grade of *\*sed-* 'to sit down'[37] (Nowicki 1978: 191) and the first corresponding to Go. *huzd*, ON *hodd*, OE *hord*, NE *hoard* and OHG *hort* 'treasure, hoard' which, as he writes, was commonly accepted (cf. Nowicki 1978: 186). This explanation is lucid and transparent, especially in comparison with earlier inconclusive research or tentative explanations.[38] Several doubtful points and disagreements, especially about the first element *\*kusto-*, however, call for discussion. They concern the way in which the Latin and Germanic words as well as their possible cognates from other languages were formed and the question of whether one must assume one single formation or several different derivations. These uncertainties go back to no less a person than Brugmann, who paved the way for the modern interpretation. Without suggesting a compound (and hence identifying a first or second element), this eminent neogrammarian proposed two possibilities for segmenting Lat. *custōs*:

1. *\*kudʰs-t-* or *\*kūdʰs-t-* with OHG *hūs* 'house' (< *\*kūdʰs-*) and Gk. κεῦθος n. 'hiding place, hole' as cognates.
2. *\*kuzdʰ-* < *\*kudʰ-dʰ-* like in Gk. κυσθός 'female genitals' and Go. *huzd* 'treasure' (Brugmann 1896: 103–4).

Linking *custōs* to the two nouns of Brugmann's option 2 found general acceptance.[39] Irslinger (NIL: s. v. *\*kusdʰ(h₁)-* 'etwas Verborgenes' ['something hidden'])

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**35** From the group of nouns with the suffix *-d-* which are candidates for being compounds, Weiss merely mentions *custōs*, *-ōdis* m. 'guard' (Weiss 2009: 304 n. 7), still indicating that its most probable etymology (Go. *huzd* 'treasure') contains uncertainties.

**36** For verbal governing compounds whose first element has a local meaning see Tichy 2004: 62.

**37** Before Nowicki, several other second elements had been suggested (cf. Nowicki 1978: 188–191); but they are so scarcely convincing and mostly far-fetched (*\*ō-d-* 'taking', Gk. ὄθομαι 'care for sth.', *\*-dō-t-* 'giving' or *\*-dʰō-t-* 'putting') that they illustrate by contrast the lucidity of Nowicki's etymology.

**38** DELL: s. v. give no etymology and deny that there is a parallel formation in Latin. WH: s. v. give a different segmentation and host of cognates, among which also Go. *huzd*, OHG *hort* 'treasure'.

**39** Orel (2003: 196 s. v. *\*xuzđan*) cites Brugmann's link to Greek κυσθός 'female genitals' and his segmentation *\*kudʰ-to-* (Brugmann suggests a different segmentation, but this does not matter for our purposes) but concludes: "Of uncertain origin". Also Kroonen (2013: s. v. *\*huzda-* 'treasure') favours this derivation (without naming Brugmann), i. e. from *\*kudʰ-to-* (albeit with question

adds Middle Welsh *cwthr* 'anus, rectum' (< *$kusd^h(h_1)$-ro-*) to the set. This noun is formed by means of the *ro*-suffix from the same base as Go. *huzd* 'treasure' and Gk. κυσθός 'female genitals'. These nouns are derived either from *$(s)ke\underline{u}H$-* 'to cover' or from the same root with dental enlargement *$ke\underline{u}d^h$-* 'to hide' (> Gk. κεύθω 'to hide'). Still, the exact reconstruction and derivation of these four nouns' etymon remains highly controversial. Brugmann's chart strikingly illustrates the two possibilities of segmenting it and their almost mathematical combination: its stem ends in either $d^h$ or *s* and its suffix (or second element) is either *t* or $d^h$. Later research has operated under the assumption of these two possibilities, regardless of the fact that Brugmann confines *s* to OHG *hūs* and Gk. κεῦθος. Difficulties arose mainly from the fact that scholars had to assess four possibilities of clusters, each of which has far fewer and often more controversial pieces of evidence than single sounds. In fact, dental clusters in PIE and IE languages are highly controversial and sound laws far from established. For some combinations, they are based on two examples or fewer, the reconstruction and etymology of which are sometimes so disputed that argumentation risks amounting to a *petitio principii* or ending up in aporia. It is useful to remember these phonetic shortcomings because in a kind of Neogrammarian rigorism scholars have categorically excluded reconstructions on the basis of such sound laws. The uncertainties in reconstructing phonetic regularities suggest looking for other parameters in assessing the formation of *custōs* and its possible cognates. Semantics, although widely neglected in these debates, is able to provide valuable criteria. First, every reconstruction of a formation should have a comprehensible meaning. Second, the genetic filiation of the single pieces of evidence should align with semantic plausibility. In discussing the filiation and especially one or several original formations, one should also take into consideration the geographical distribution and subsequent morphological differentiation resulting from the further addition of suffixes to obfuscated compounds and derivatives.

The meaning of Gk. κεῦθος n. 'hiding place, hole' and Go., OE, OHG *hūs* 'house' in the sense of 'hiding place, shelter' remains closest to that of the verbal roots *$(s)ke\underline{u}H$-* 'to cover' or *$ke\underline{u}d^h$-* 'to hide'. The other nouns are more specific and hence posterior evolutions derived from the basic meaning 'something hidden' (Irslinger in NIL: 449), reflecting a shift from the subjective to the objective view. Indeed the need for shelter against beasts or bad weather is older than the need for hiding treasures or the naming of abdominal cavities. It occurs even with animals

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mark) linked to a root *$kéud^h$-e-* preserved in Gk. κεύθω 'to hide'. Neither mentions Lat. *custōs*. Pfeifer et al. (1989: s. v.) reconstructs *$kusd^h o$-* and supposes an *s*-enlargement of the root *$(s)keu$-* 'to cover'. For a recent and more detailed survey of the abundant literature on the etymology of the Gothic noun, see Casaretto 2004: 461.

far before the evolution of the human race began, and, for a long time, even human beings had to cover themselves before thinking about hiding something, even though the phenomenon of hoarding goes back to the Upper Palaeolithic era.[40] The names for abdominal cavities and treasure are specifications of the basic meaning 'something hidden', and are independent of each other. In order to buttress this thesis Irslinger (NIL: 449) invokes the formally irreproachable equation of Go. *huzd* and Gk. κυσθός 'female genitals' (< *$kusd^h(h_1)$-o-*). Indeed, every attempt at mutual derivation, most likely of Gk. κυσθός 'female genitals' from 'treasure', would end in racy speculations. As this word occurs only in Old Attic Comedy (Eup. fr. 233,4 Kock, Ar. *Ach.* 782, 789, *Lys.* 1158) this is not evidence for an origin in erotic communication but rather due to literary genre, which allows the use of such an explicit word instead of the usual veiling euphemism τὰ αἰδοῖα 'pudenda'. In Ar. *Lys.* 1184 the allusion to hiding and treasure is purely due to the pun with κίστη 'chest'; κυσθός itself is absent from the passage. The derivation from a verb meaning 'to cover', 'to hide' suggests that κυσθός originated from a veiling euphemism and could only shift into frivolous usage after its etymology had been obscured. Although κεύθω persisted in Classical Greek the etymological link between the two words was not obvious any longer. As an alternative to the formal equation of Go. *huzd* 'treasure' and Gk. κυσθός 'female genitals', Irslinger mentions the semantic approach of gathering nouns with the meaning 'anus, vulva'. Indeed, Middle Welsh *cwthr* 'anus, rectum' is formed by means of an additional suffix, and is geographically very distant from Gk. κυσθός although both nouns denote intimate orifices. These two aspects speak for an independent Celtic formation and a semantic shift from the basic meaning 'something hidden'. It characterized the noun, which later on resulted in Go. *huzd* and Gk. κυσθός. If Latin *custōs* is to be linked to this group it can only be formed on a common basis with Go. *huzd*.

After these preliminary remarks we can now assess the morphological and phonetic side. Already Nowicki (1978: 188) admitted that a definite reconstruction of the first element is not possible and suggested two variants of equal possibility:

1. *$kus$-$d^ho$-* > got. *huzd* : *$kus$-$to$-* > lat. *custo-*
2. *$kud^h$-$d^ho$-* > got. *huzd* : *$kud^h$-$to$-* > lat. *custo-*

Unlike Brugmann, Nowicki splits the two possible suffixes into Lat. *custōs* and Go. *huzd*. Likewise, Casaretto (2004: 461) suggests different stems in the Germanic and Latin nouns. However, he links the two nouns reservedly ("[b]edingt vergleichbar") and adopts Rix' segmentation of *custōs* as *$kud^h$-$to$-$sd$-* (see below), who himself follows Nowicki and opted for one of his PIE reconstructions. Nevertheless, the

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**40** Helmut Geißlinger, art. *Depotfund*. RGA: 5, 320.

close semantic affinity of Lat. *custōs* 'guardian' and Gmc. *\*huzda-* 'treasure' in contrast to the other nominal derivations from a root 'to hide' is a strong argument against assuming a formation with different elements. Fittingly, however, Nowicki (1978: 186) analyzed the first element as an enlargement of the root *\*(s)keu̯-* 'to cover, hide': to be either 1) *\*(s)keu̯-s-*, or 2) *\*(s)keu̯-dʰ-*, preserved in Gk. κεύθω 'to hide'.

Martin Kümmel (LIV²: 358f. s. v. *\*keu̯dʰ-* 'to hide') shares Nowicki's etymology of the Greek verb. In a footnote to this entry, without naming Nowicki and ignoring his assuming a different shape of the dental suffixes in Latin and Germanic, Rix mentions that Gmc. *\*huzda-* (> Go. *huzd*, ON *hodd*, OE *hord*, MoE *hoard* and OHG *hort*)[41] is to be derived from *\*kudʰ-tó-* 'something hidden' → 'treasure', and Lat. *custōs, -ōdis* from *\*kudʰ-to-sd-* 'sitting next to the treasure'. The adjectives are regularly derived by means of the *to*-suffix from the zero grade of the verbal stem. *\*kudʰ-to-* ← *\*keu̯dʰ-* is therefore morphologically indisputable. The meaning 'something hidden' of *\*kudʰ-to-* is a plausible basis for the Germanic, Latin, and Greek nouns. Irslinger, however, explicitly contradicts LIV²'s interpretation as a *to*-adjective *\*kudʰ-tó* from *\*keu̯dʰ-*, arguing that *-dʰ- + -t-* would have produced *ss* in Germanic. However, the treatment of the cluster *-dʰ- + -t-* is far from certain either in Germanic or in Latin. It certainly deserves a detailed assessment which is beyond the scope and space of this paper. Hill, who devoted an entire monograph to the outcome of $T + T$ in IE languages, concludes that in both Latin (Hill 2003: 226, 247) and Germanic (Hill 2003: 216f.), *-ss-* was the regular outcome of all double dental stop clusters and explains instances of keu̯dʰ-*st-* in both languages by means of analogy or phonetic sub-rules. In the case of Germ. *\*huzda-* 'treasure' he strongly argues against Kluge & Seebold 2011's segmentation as a compound with *\*dʰeh₁-* 'put' as the second element (see below) and favours a derivation from *\*kudʰ-tó-* according to Bartholomae's Law (Hill 2003: 217–219). Yet the effects of this law, which has been reconstructed on the basis of Indo-Iranian, are quite contested for Germanic.[42] In Latin, according to Hill, *d(h) + t* resulted in *st* only after disyllabic roots as in *aestus* < Proto-Italic *\*aïdh-* < *\*h₂é-h₂i̯dh-/o-* (← *\*h₂ei̯dh-*) + *-tus*, *fūstis* 'stick, rod, club' < Proto-Italic *\*bhóüde/o-* < PIE *\*bheHud-* < *\*bhéh₃ud-* 'beat' + *-tis*, *caestus* 'strip of leather, boxing-glove' < Proto-Italic *\*kaïde/o-* < PIE *\*kéh₂ide/o-* + *-tus* (Hill 2003: 247, cf. 236f., 242). However, Hill's thesis is not pertinent to *\*kudʰ-to-*, the root of which is monosyllabic.

Given these uncertainties, it seems less complicated to assume an etymon which does not contain a double dental stop. Leumann (1977: 168) assumes that

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**41**  Orel 2003: 196 s. v. *xuzđan*; Kroonen 2013: s. v. *\*huzda-*.

**42**  Bennett 1966: 736; Casaretto 2004: 461.

*-zd^h- was a pre-Latin intermediary stage in $d^h + t > $ *-zd^h- $> st$. Cautiously, he does not posit this long trajectory for all nouns in *st* but quotes some cases only for *-zd^h- $> st$, amongst which is Latin *custōs*. Meiser (1998: 119) argues in exactly the same way as Leumann. Although he holds $d^h + t > st$ to be true, he does not mention *custōs* for this rule, but lists this word alongside *vastus* 'huge, vast' as example for the development of -sd^h- to -st- in Latin. He reports the etymology of *kusto-sd- 'who sits near the treasure' as well as the link with Go. *huzd* and reconstructs a common original form *ku(d^h)s-d^hh₁o- for the first part, which is based according to him on the same root as Gk. κεύθω. Hence, like Brugmann, he assumes that the $d^h$ was lost before the $s$ and that this element goes back to the zero grade of *keu̯d^h-. Given the inextricable difficulties which the cluster -d^h-t- in *kud^h-to-sd- entails, this is doubtless a wise decision. Still, this etymology is only one of two competing explanations, as we shall see in a moment.

Irslinger posits, albeit with doubts, *kusd^h(h₁)-ōd- for *custōs* following her reconstruction of the first compound element as *kusd^h(h₁)-. On this point, she endorses a more complicated, multi-alternative derivation that ends up at *keu̯d^h- or at *(s)keu̯H- 'to cover': the first part of *kusd^h(h₁)- is at any rate *kus-. Positing a final *s*-ending for the first element seems sufficiently justified by the aforementioned doubts which the final $d^h$-ending raises and the fact that a final *s*-ending is the last certain stage of reconstruction. According to Irslinger, who in this point follows Casaretto's argumentation (Casaretto 2004: 461), the second element, the identity of which Brugmann had not touched upon, is either the suffix -d^h- or *d^hh₁o- (< *d^heh₁- 'to put').[43] The latter explanation would make the noun a compound and provide another example for this transition of a dental from the second part of a compound into a suffix. The meaning 'putting into a hiding-place' is semantically and referentially plausible: things might be hidden in nature by chance, but normally hiding is a human action which takes place with the intention of concealing either what is precious or what would expose one. Suffixes in -d^h-, on the contrary, are extremely rare in IE languages; the only example which is attested in several languages is Ved. *svadhā́* 'custom', Gk. ἔθος, ϝέθος 'custom, habit', ἦθος, ϝήθος 'custom, character' and Latin *sodālis* 'member of a religious fraternity, comrade' < *su̯edālis (Grdr.²: 2.1, 472f.). Many Greek nouns with the suffix -θ- are suspected of having been borrowed from a pre-Greek language.[44] Hence, if one posits a final *s*-ending for the first element that bestows upon it a substantive meaning and

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**43** Likewise, Kluge & Seebold (2011: s. v. *Hort*) posit *kud^hs-dhə-o- segmented as an *s*-stem like Gk. κεῦθος + the zero grade of PIE *dhē- 'to put, to set'. He mentions that this word is deemed the first part of Latin *custōs* with the second element unknown.

**44** Schwyzer 1939: 510.

semantic reasons compel one to identify the second element $*d^h$ with $*d^heh_1$- 'to put' and to segment the noun as a compound 'put into a hiding place'.

For the first part $*kus$-, Irslinger proposes two interpretations, either an *s*-stem $*kud^h$-*s*- from $*ke\underline{u}d^h$- 'to hide'[45] or $*kuH$-*s*- from $*(s)ke\underline{u}H$- 'to cover'.[46] $*kud^h$-*s*-, which is presupposed by Meiser's reconstruction of *custōs* $*ku(d^h)s$-$d^hh_1o$- (Meiser 1998: 119), looks like an elegant resolution of the dispute over the dental or sibilant auslaut of the first element, because it posits that an original dental ending had been eliminated before the sibilant. Still, a morphological objection has to be raised. $*kud^h$-*s*- presupposes a neuter *s*-stem derivative of a dental root $*ke\underline{u}d^h$-. This formation, however, is formed from a root in the full grade (cf. Gk. κεῦθος, κλέος), not in the zero grade as posited for $*kud^h$-*s*-. Conversely, there are no compelling objections against the alternate derivation from $*kuH$-*s*-. It is noteworthy that its reconstructed root $*(s)ke\underline{u}H$- 'to cover' is the modern transposition of IEW's $*(s)ke\underline{u}$- 'to cover' and that, moreover, already IEW: 953 s. v. $*(s)ke\underline{u}$- 'to cover' subsumes Go. *huzd* 'treasure', Welsh *cwthr* 'anus, rectum', and Gk. κυσθός 'female genitals' as well as, presumably, Go., OE, OHG *hūs* 'house'[47] under the *s*-enlargement $*(s)ke\underline{u}$-*s*- and adds Lat. *custōs*, albeit with doubts. Unlike $*ke\underline{u}d^h$- 'to hide', the verbal root $*(s)ke\underline{u}H$- 'to cover' is not listed anymore in the LIV²: 561, whereas IEW subsumes $*(s)ke\underline{u}d^h$- as formed by a dental enlargement under $*(s)ke\underline{u}$-. This does not preclude the direct nominal derivation $*kuH$-*s*- with *s*-suffix from $*(s)ke\underline{u}H$- 'to cover'. The primary verbal stem does not seem to have been too dominant and productive. IEW lists relatively few verbs in this entry, all of them with suffixes (OI *skunāti*, *skunōti*, *skāuti* 'to cover', OIc. *skȳla* 'to protect', MHG *schūlen* 'to be hidden', Russ. кутать 'to cover', OE *hȳdan* 'to hide').

Hence, a derivation of $*kusd^h(h_1)$- 'something hidden', the first part of Latin *custōs*, as $*kusd^h(h_1)$- 'put into a hiding-place', a compound from $*kuH$-*s*- (< $*(s)ke\underline{u}H$- 'to cover' + *s*-enlargement) + $*d^hh_1o$- (< $*d^heh_1$- 'to put'), is far less problematic than as $*kud^h$-*tó*- (itself a regular adjective formation by the *to*-suffix

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**45** Kluge & Seebold 2011: s. v. *Hort*.

**46** Lühr 2000: 274, who, like Kluge & Seebold 2011, assumes that the dental element of the historical words goes back to the PIE verb 'to put, set'.

**47** Kroonen 2013: s. v. $*h\bar{u}sa$-, who posits $*kuH$-*so*- with question mark, argues in a quite circular and presupposing way that the old link to Gk. κεύθω "is erroneous, because the related $*huzda$- [...] < $*kud^h$-*to*- proves that the root was $*keud^h$- without a laryngeal." Likewise, Lühr (2000: 274) assumes Pre-Proto-Germanic $*ke\underline{u}s$- as the basis for Go. *huzd* and ON *hodd*, but $*ke\underline{u}h$-*s*- as that for *hūs*. Still, by deriving $*h\bar{u}sa$- from $*kuH$- 'to cover', Kroonen 2013 suggests an etymon which has been supposed also in $*huzda$- and in $*keud^h$-. According to Orel 2003: s. v. $*x\bar{u}san$ the Germanic noun was borrowed from "East Iranian $*xuz \sim *xud$ < Iran $*kata$-". Yet, this derivation is isolated in etymological scholarship and hinges on many unattested reconstructions. Orel's only attested evidence is Av. *kata*- 'room, cellar'.

from the zero grade of *$keu̯d^h$- 'to hide') because the latter entails many phonetic uncertainties. Nonetheless, the lexicographical, morphological and semantic divergences between the competing derivations are negligible for our etymology of *custōs* as they all amount to the meaning 'something covered/hidden' and entail a derivation from a stem of that semantic meaning, formed possibly by means of a dental enlargement. The meaning 'something hidden' matches well both referentially and pragmatically with that of the three historical nouns. It is likely to cover intimate parts or to deem them hidden in the body in such cases when they comprise inner organs, as in the case of the female sex organs or the rectum. Likewise, a treasure is normally sunk into a hole in the earth or covered by it or hidden in a cave (cf. the anatomical use of MoE *cavity*, Fr. *cavité* and NHG *Höhle* 'cave'), and this is the point that matters for our further assessment of the etymology of Lat. *custōs*. Conversely, Thieme's qualms about the semantic compatibility of 'to hide' and 'to guard' seem rather sophistic: 1) one needs not guard what is hidden; 2) one hides what one cannot guard or is not willing to do so; and 3) the thing close to which a guard is sitting is not hidden anymore (Thieme 1985: 541 n. 30). These objections fundamentally ignore the meaning 'treasure', which works as a link between 'to hide' and 'to guard': it is normal to hide or cover a treasure or to place a guard with it. A cave or a treasure house with entrances guarded by a sentinel combines both strategies.

Still, Irslinger (NIL: s. v. *$kusd^h(h_1)$-) raises a morphological objection against Nowicki's derivation of *custōs*: his etymology presupposes *-sd-* for the second element of the compound, yet there are no other root nouns to roots with the structure CeC which serve without enlargement in the zero grade as the second element of a compound. Still, given the scarce attestation and long period of unwritten development of IE languages, the lack of such a precise parallel does not rule out Nowicki's analysis and de Vaan, who like Irslinger argues with the scarcity of exact parallels, provides examples of compounds with *-*sed-* as the second part, which make Nowicki's etymology less aberrant. Still, all these examples feature a preverb as first element. *$ni$-$sd$-$o$- 'nest' > Lat. *nīdus* has the zero grade like *$kusto$-*sd-* and is thematized as de Vaan remarks. And yet, an athematic noun would have had too little length. Athematic compounds with *$sed$-* as second element, like *praeses*, *subses* and *obses,* which Nowicki (1978: 192) adduces as parallels for this formation, keep the full grade and thus remain etymologically perspicuous as de Vaan remarks. And yet, why should *$kusto$-$sd$-* do so since its first element has completely vanished from Latin? Once again, a further shortening of the alleged counter-examples is phonetically unlikely, this time because it would have produced unpronounceable consonant clusters which upon simplification would have made the words shrink to hardly understandable stubs (†*praess*, †*praesdis* > †*praedis*, †*subss*, †*subsdis*, †*obss*, †*obsdis*).

### 3.2.2 Thieme: *\*pḱu-stoh₂dʰ-* 'who stands next to the cattle'

The competing analysis of *custōs* by Thieme (1971: 789; 1985: 540f.) as a compound *\*cu-stōd-* < *\*pḱu-stoh₂dʰ-* 'who stands next to the cattle', which Irslinger (NIL: s. v. *\*kusdʰ(h₁)-*) gives is far less plausible than Nowicki's, even though it also presupposes a compound and agrees in its logic with this paper's thesis that some *d*-stems evolved from compounds. Thieme's etymology does not lack semantic plausibility for the PIE cattle breeder society. The first attestations in Latin still clearly point to an animate, for the most part human, and sometimes an abstract object of custody.[48] The human objects can be deemed an organic development from the animal object. They are, however, hardly to be reconciled with Nowicki's etymology which suggests rather a material object. In accordance with the earliest usage de Vaan 2008: s. v. raises similar semantic objections against Nowicki's etymology. This noun occurs in the context of *thesaurus* merely in *Rhet. Her.* 3.16.28 (Achard 1989) and only later its custody refers to precious objects.[49] However, for a speaker of Old Latin neither the link of *custōs* to *\*pḱu-stoh₂dʰ-* 'who stands next to the cattle' nor to *\*kusto-sd-* 'who sits near the hidden/near the treasure' is still transparent, so the collocation of this noun could develop freely.[50] Furthermore, Lat. *servus* 'slave' has an etymological meaning which is similar to that which Thieme presumes for *custōs* (< *\*sorwó-* 'who guards, pays heed to' < *\*ser-* 'pay attention, protect' [> YAv. *ni-šaŋharatū* 'should take care of', Gk. ὄρονται, ὁράω, cf. Zehnder in LIV²: 534 s. v. *\*ser*] + suffix *\*u̯o-*).[51] Rix, the author of this etymology, points out that *\*sorwó-* is attested in Hom. οὖρος 'watcher, guardian' (for Nestor) as well as in Iranian in a verb and two attributes of the sheep guarding dog (Rix 1994: 79). He suggests that the meaning 'shepherd' of *servos* developed in ancient Italy in the context of transhumance, but shifted to 'slave' between 700 and 450 BC, as *servos* already had this meaning in its first attestation in the Laws of the Twelve Tables, and the word *pāstor* was substituted for the meaning 'herdsman' (Rix 1994: 78–87). If *custōs* had kept its presumed original meaning 'shepherd' the neologism *servos* 'shepherd' would have been superfluous.[52] Moreover, Thieme's

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**48**  Cf. Hans Mertel TLL: 4, 1572f., 1576 s. v.

**49**  Cf. Hans Mertel TLL: 4, 1575, 63ff. s. v.

**50**  As Nowicki (1978: 193) himself states in order to explain why the first attestations of *custōs* he gathered do not feature the meaning 'treasure' and do not comply with the etymology he proposes.

**51**  Rix 1994: 78–87, de Vaan 2008: 558 s. v. *servus*.

**52**  Likewise, Rix argues that in presupposing Nowicki's etymology, *custōs/custōdiō* and *servos/serviō* have a different nuance, the former referring to a hoard of metal objects and the latter to cattle (Rix 1994: 70).

etymology leaves the dental unexplained as Irslinger remarks. However, Thieme is able to adduce parallels for the dental from Germanic and Slavic, viz. OCS *stado* 'herd',[53] Gmc. *\*stōda-* 'herd of horses'[54] > OE *stōd* 'herd of horses',[55] MoE *stud* 'an establishment in which stallions and mares are kept for breeding. Also, the stallions and mares kept in such an establishment',[56] OHG *stuot* 'herd of horses kept for breeding in open air', NHG *Stute* 'mare'.[57] Although the inner coherence of this set is widely ascertained by etymological dictionaries, its connection with *\*pḱu-stoh₂dʰ-* presupposes at least a semantic shift from 'place where a herd stands' to 'one who stands next to a herd'. This is accompanied by a quite plausible ablaut as Derksen 2008 posits PIE *\*steh₂-dʰo-m* and Kroonen 2013posits slightly differently *\*steh₂-dʰh₁o-m* for the Germanic and Slavic nouns.

The phonetic reservations concerning the first element are more serious. Thieme identifies *\*pḱu-* < *\*peḱu-* in several Greek and Latin words (1985: 539–541): κῦδος 'glory' < Pre-Greek *\*pḱu-víd-* 'winning cattle',[58] κύκλωψ 'cattle thief'.[59] And yet, in none of these are there traces of the alleged etymon *\*pḱu-* as clear as in Iranian *fšu-* where the initial labial element is preserved (Thieme 1985: 540),[60] and the change *\*pḱ-* > Gk. κ Thieme postulates is unmotivated and has no attested parallels. Schmitt-Brandt's (1998: 280) derivation of the PIE word for 'dog' *\*péḱwōn* from *\*peḱu-*, hence 'shepherd', which presupposes a similar subsequent reduction of the initial labial syllable (> *\*ḱúwōn* > Lat. *cănis*, Gk. κύων, NHG *Hund*, MoE *hound*, OI *śván-*), is rivaled by many other derivations (NIL: 437 s. v. *\*ḱ(u)u̯ón-*, *ḱun-*, *\*ḱu̯n̥-* 'Hund'). Neither these nor the link to *\*peḱu-* have found general acclaim.[61] Thieme's equation of his reconstructed etymon of κῦδος (Pre-Greek *\*pḱu-víd-* 'winning cattle') with OI *go-víd-* 'winning cows' is purely a stipulation in the second element and links etymologically unrelated elements for the first. Moreover, as for OCS *čudo* 'wonder, miracle', Russ. чудо, Polish

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**53** Derksen 2008: s. v. *stàdo* 'herd, flock'; REW: rews. v. стадо.

**54** Orel 2003: s. v. *\*stōđan* (< PIE *\*stādhom* ← *\*stā-*) and Kroonen 2013: s. v. *\*stōda-* 'flock' who just mentions that the Slavic forms might be borrowed from Germanic but sees no reason for assuming such a borrowing.

**55** Pfeifer et al. 1989: s. v. *Stute*.

**56** OED² s. v.

**57** Kluge & Seebold 2011: s. v. and Pfeifer et al. 1989: s. v. link the Germanic and Slavic words.

**58** Not mentioned by GEW: s. v.; DELG: s. v.; Beekes 2010: s. v.

**59** GEW: s. v. ("Kühne Hypothese") and DELG: s. v. ("Hypothèse fantaisiste") mention Thieme with ostensible reservation and prefer a different derivation. Absent from Beekes 2010.

**60** This objection is also raised by DELG: s. v. Κύκλωψ.

**61** NIL: 437 s. v. *\*ḱ(u)u̯ón-*, *ḱun-*, *\*ḱu̯n̥-* 'Hund', cf. the absence of Thieme's analysis and the competing explanations from Beekes 2010: s. v. κύων; de Vaan 2008: s. v. *canes*.

*cudo* there exists a competing and widely accepted Slavic cognate[62] which is phonetically, morphologically (both are neuters in *-es-*, cf. Russ. pl. чудеса́) and semantically plausible: deeds which are marvellous are able to inspire admiration and hence to bestow glory on the respective person.

To sum up, Nowicki's etymology of *custōs*, *-ōdis* 'guardian' as 'one who sits next to a treasure that is something hidden' offers far fewer morphological and phonetic difficulties than Thieme's competing explanation $*p\hat{k}u\text{-}stoh_2d^h\text{-}$ 'who stands next to the cattle'. Furthermore, there are only some difficulties, but no pertinent objections, as in the case of Thieme's postulation, against the etymon *kusto-sd-*, which Nowicki suggests, and its form is even closer to the attested *custōs* than Thieme's reconstruction.

## 3.3 Lat. *cuspis, cuspidis* f. 'spear'

Already Holthausen (1921: 72) derived Lat. *cuspis*, *cuspidis* f. 'spear' from *kuri-spid-*.[63] De Vaan (2008: s. v. *cuspis*) lists *curis* 'spear' as a derivative of *cuspis*, calls its etymology "unclear" and speculates at the same time that it might stem from a form *kusis* so that it goes back to the same stem as *cuspis*. Yet I think it plausible that *curis* might have the same origin as Oscan *kúru* 'stone object'.[64] This meaning matches the derivation of this Oscan noun from the PIE verbal root *(s)ker-* 'to scratch, to cut, to shear'[65] which Untermann (2000: 421) considers ("vielleicht"). I assume that the Oscan word was derived by an *o*-grade ablaut from this root. In Latin, the *o* shifted to *u*, a frequent change in this language, which also sometimes occurred before *r* (*fornāx* 'furnace' vs. *fornus ~ furnus* 'oven').[66] In keeping with its older phonetic shape, Osc. *kúru* also appears to preserve an older meaning of this nominal derivation. Untermann, however, calls the connection with *curis* "erledigt" ("laid to rest") on the grounds that it is based only on a single stone object on which this word is attested, a throwing-stone ("Wurfstein") or (as is generally assumed nowadays) a door-knocker or gravestone (Untermann 2000: 421). It is true that a use of this word for a missile would present a striking semantic

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**62** Derksen 2008: s. v. *čùdo* 'miracle'; REW: s. v. чудо; GEW: s. v.; DELG: s. v.; Beekes 2010: s. v.

**63** Szemerényi 1989: 26, whom de Vaan 2008: s. v. mentions as the main proponent of this derivation ("etymologizes"), merely agrees with Holthausen. IEW: s. v. *(s)p(h)ĕi-* 'spitz, spitzes Holzstück' reports Holthausen's etymology and deems it possible when grouping *cuspis* with the Germanic nouns ("vielleicht hierher"). *Cuspis* is absent from NIL.

**64** Cf. Untermann 2000: 421 ("aus Stein hergestellte Gegenstände").

**65** Martin Kümmel in LIV²: 556 s. v.; IEW: 938–940 s. v. where, however, other Italic nouns are mentioned (Latin *carō* 'meat', *corium* 'leather', Umbrian *karu* 'part').

**66** Leumann 1977: 48f.; Meiser 1998: 83f.; Weiss 2009: 139f.

bridge to Lat. *curis* 'spear', which in that case would represent a derivation by synecdoche from the putative common etymon that meant 'object for throwing'. Regardless of the unique and controversial specialized sense 'missile' for *kúru*, the assumption nevertheless remains likely that Lat. *curis* is derived from a general meaning of 'stone object', which Untermann also indicates as the basic meaning of Osc. *kúru*. This synecdoche too focused on the most important part of the weapon, the stone tip. Holthausen and Szemerényi identify the second element, which they spot in Lat. *cuspis, cuspidis* f./*\*kuri-spid-*, with Gmc. *\*spitu* (OE *spitu*, MoE *spit*, OHD *spiz*, NHG *Spieß* 'spear, spit'). *Cuspis* hence originally meant 'spearhead'. As with Lat. *curis*, the spearhead becomes the starting point of a new formation, and afterwards the meaning shifted once again by means of synecdoche from the most important part to the whole tool. This shift of meaning counters de Vaan's objection that a dvandva compound "spear-lance" is unusual in Latin (s. v. *cuspis*), as the interpretation this paper suggests does without it, instead supposing a *tatpuruṣa* 'spearhead'. Moreover this explanation is buttressed by the NHG compound *Speerspitze* 'spearhead', which is formed in the same way as assumed for *cuspis*. Furthermore, in *Speerspitze* the same second element as in Lat. *cuspis* has been determined by a word meaning 'spear'.

Ernout & Meillet (DELL: s. v.) mention OE *cosp* and OIr. *cuisp* as cognates of Lat. *cuspis*. In order to complete the assessment of our new derivation we have to check whether it is compatible with these Germanic and Celtic nouns. They are, however, quite marginal in modern etymological dictionaries.[67] Kroonen (2013: s. v. *\*kuspa-* 'fetter') thinks that OE *cosp* 'rope, cord, fetter' and Modern English *cosp* 'hasp for fastening a gate, head of a plough, cross piece at the top of a spade handle'[68] were not borrowed from Middle Greek κοῦσπα 'fetter' but are to be derived by ablaut from the stem that underlies Modern Dutch *kesp* 'beam' (< *\*kespa-*). Presupposing 'elongated wooden object' (which served together with ropes to fetter the hands behind the neck) as the original meaning of the Germanic words one could assume with semantic plausibility that *\*kuspa-/\*kespa-* survived in a shortened variant of *\*ku(ri)-spid-* 'spear(head)', which is attested in Latin *cuspis* and the second element of which corresponds to Gmc. *\*spitu*. From *\*ku(ri)-spid-* to *\*kuspa-/\*kespa-*, the meaning would have shifted via 'spearhead' to 'spear'. Taking into consideration that the lack of iron reduced the size of pre-Roman Germanic spearheads and forced them to use bone for spearheads,[69] the marginalized physical role of the spearhead and the further shift to 'elongated wooden object' that emerges in

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**67** Both are absent from NIL and IEW. Orel 2003 does not list OE *cosp*.

**68** OED²: s. v. gives only the meaning 'hasp', and no etymology beyond the OE records.

**69** Klaus Raddatz, art. *Bewaffnung*. RGA: 2, 371.

*\*kuspa-/\*kespa-* becomes plausible. And yet there is a serious objection to this scenario: *\*kuspa-/\*kespa-* and Lat. *cuspis* yield the same consonants, which means that they cannot derive from a common ancestor, since otherwise Grimm's Law would have altered the Germanic consonants. The only way to save a common origin of the Germanic and the Latin words is to suppose that the Germanic word was borrowed from Latin after Grimm's Law. A semantic shift from Latin *cuspis* 'spear' to 'beam' (as found in Modern Dutch *kesp* 'beam') via the common idea 'elongated wooden object' seems quite plausible as well as the dropping of the *-d-* which occurs only in the oblique cases, since the borrowing probably took place from the nominative *cuspis*. While at first sight there does not seem to be any likely reason for assuming that the Germans borrowed the name of a primitive weapon from the Romans which they could make themselves, also Latin *pīlum* 'javelin' survives in NHG *Pfeil* 'arrow'[70], although OE *earh*, Modern English *arrow* (< OE *ar(e)we*, borrowed from ON *\*arw-* whence the attested Old Norse *ǫr*,[71] gen. *ǫrvar* f.; both Germanic nouns go back to *\*h₂erkuh₂-* and are closely related to Latin *arcus* 'bow' (<*\*h₂erku-*) and Go. *arƕazna* f. 'arrow' (+ *sn*-suffix)[72]) shows that there existed an inherited Germanic word which even had Pre-Germanic origins in common with Latin and was certainly no loanword from that language. The idea that Germ. *\*kuspa-/\*kespa-* was borrowed from Latin *cuspis* becomes more plausible when considering a parallel case. For this Latin noun is attested as a loan-word in another Western European language branch, viz. Celtic as OIr. *cuisp,* albeit as glossing Lat. *tricuspis*.[73] In conclusion, Germ. *\*kuspa-/\*kespa-* and OIr. *cuisp* do not preclude the IE etymology of Latin *cuspis* as has been proposed here because they might well go back to this word as loan-words.

Thieme's (1971: 789; 1985: 540) competing etymology of Latin *cuspis, cus-pidis* f. 'spear', *\*pḱu-spid-* 'cattle stick', does not seriously rival Holthausen's and Szemerényi's either. As in the case of *custōs*, he assumed that *\*peḱu-* is the first element. As to the second element, he kept his two predecessors' *\*spid-* (> Gmc. *spit-*, MoE s*pit*). In favour of this suggestion, one can adduce that Thieme pos-

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**70** Pfeifer et al. 1989: s. v.; Kluge & Seebold 2011: s. v.

**71** Onions (1966) s. v. who calls *earh* "the native [...] form", as is assumed by Holthausen 1948: 358 s. v.; OED²: s. v. shares this view and specifies "*arhwe* < *\*arhwôn*" as the origin of OE *arwe* and "*\*arhwâ*" as that of its Old Norse etymon. de Vries 1962: 688 s. v. mentions only the inherited Germanic words and their relation to Lat. *arcus* and not Engl. *arrow*.

**72** WH: s. v. OED²: s. v.; IEW: s. v. *arqu-*; Kroonen 2013: s. v. *\*arhwō-* 'arrow'; Orel 2003: s. v. *\*arxwō*.

**73** VGK: 1, 219, 2, 701. Codex Prisciani Carolisruhensis fol. 39b (Stokes 1887: 206). Maybe this marginal attestation is the reason that there is no entry in LEIA: C, 280. The fact that it is probably a loan-word excludes it from Matasović, who included only words which are attested at least either in two branches of Celtic or in one of them and another IE language (Matasović 2009: 1).

tulates the same phonetic outcome *cu-* of *\*peḱu-* both in *cuspis* and *custōs*. Yet unlike in the cases of Latin *curis* and Oscan *kúru* 'stone object', there are no extant semantic and lexical parallels for Thieme's etymology in the same language family. And in the case of *custōs*, with *cu-* < *\*peḱu-*, it presupposes an otherwise isolated phonetic shift in Latin. Hence, instead of cumulative evidence, we have the juxta-position of two speculative postulates. Consequently, Thieme's derivation has not even been mentioned in de Vaan's etymological dictionary (s. v.). What rules out Thieme's suggestion are the serious semantic problems it entails. Holthausen's etymology 'spearhead'/'stone object' matches perfectly the material object 'spear' which *cuspis* denotes, because, as with assembly instructions, it focuses on its composition in the way of synecdoche or metonymy (cf. Lat. *tēctum* 'house' or Lat. *ferrum* 'sword'). The original meaning which Thieme suggests ("Viehspieß" – cattle stick) denotes the function, but this function remains unclear, incoherent and unlikely. *\*peḱu-* primarily denotes "small livestock"[74] and still denotes cattle in Latin, but not wild animals which are intended for hunting. Yet the primary function of a spit is to pierce, as in hunting or warfare, not to tip from the side as a shepherd does with a stick to guide his herd. Hence, for phonetic and semantic reasons, we can dismiss Thieme's explanation of Lat. *cuspis, cuspidis* f. 'spear' as *\*pḱu-spid-* 'cattle stick' and keep Holthausen's and Szemerényi's etymology as *\*kuri-spid-* 'spearhead' because its elements are better attested and its original meaning is much more likely.

## 3.4 Latin *cassis*, *cassidis* f. 'helmet'

Another candidate for being segmented as a compound is Latin *cassis, cassidis* f. 'helmet', this time a defensive piece of armor. Its second part might be, as with Latin *custōs*, a shortened form of *\*sed-* 'to sit'. The first part is usually derived from PIE *\*kadh-* 'hüten, schützend bedecken'[75], which may be discerned in the Germanic simple word for headgear (*\*hōda* [< *\*koHt-ó-*, Kroonen 2013] > OS, OE *hōd*, MLG *hōt*, Middle Dutch *hoet*, Modern Dutch *hoed*, OHG, MHG *huot*, NHG *Hut*; *\*hattu-* [< *\*kHt-nú-* Kroonen 2013] with ablaut and a nasal suffix[76] > OE *hætt*, Old Frisian, MoE *hat*, ON *httr*).[77] The synonymous Go. *hilms*, ON *hjalmr*, OE *helm*, OHG,

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**74** Beekes 2011: 37. This word is absent from NIL.

**75** De Vaan 2008: s. v. (with qualms). The root is absent from LIV² and NIL.

**76** Pfeifer et al. 1989: s. v. *Hut*.

**77** De Vaan 2008: s. v. and IEW: s. v. *\*kadh-*, who only quote the Latin and Germanic words. Kroonen 2013 does not give parallel words from non-Germanic languages. This isolation and his

NHG *Helm* are coined with the same defensive function in mind.[78] WH: 1, 253 s. v. derive *cassis* from *\*kadh-tis*. Hence the second part is to be identified with the *ti*-suffix. A development $d^h + t > ss$ can be aligned with the complicated phonetic treatment of this cluster in Latin (see above 3.2 Lat. *custōs*). There are also other cases in which the *ti*-suffix formed nomina instrumenti (Lat. *vectis* 'door-bar, lever' [from *vehō* 'to drive, to ride'], *vestis* 'clothes, dress', Gk. βάσις 'base, pedestal'). Following the model of other (deverbal) nouns of this group (*cuspis*, *cuspidis* f. 'spear', *capis*, *capidis* f. 'bowl', *lapis*, *lapidis* m. 'stone') the oblique forms of *cassis* were transformed into the shape of a *d*-stem. Being also a weapon, *cuspis* lent itself as an especially effective model for analogy for semantic reasons. As an alternative explanation for this transformation one could suggest a popular etymology which linked *cuspis* to a prior form of *custōs* where the second part *sid* still could be identified as stemming from *\*sed-* 'to sit'. Given the function as headgear[79] the first part would have been associated with *caput* 'head'. Hence speakers of Proto-Italic would have segmented *cassis* as *cap(ut) + sed-* 'what sits on the head'. Phonetically this interpretation is too problematic to be seriously taken into consideration as a sound modern etymology. Such associations by popular etymology are, however, promoted from the realm of pure speculation to folk etymology by Isidore of Seville, who derives *cassis* from *caput*.[80] He combines this idea with an Etruscan origin, thus proving that he does not follow the logic of modern historical linguistics. Still, his speculation provides material proof that ancient folk etymology could link *cassis* to *caput*.

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reconstruction with *t* chime with speculations about a Western European origin of this group. Orel 2003: s. v. *\*xattuz* does not specify the origin ("unknown origin") but he reports that this word has been formerly linked to Latin *cassis*, sometimes positing a reconstructed form *\*xōđaz*.
**78** This noun was derived by means of a *mo*-suffix from the root *\*ḱel-* (> NHG *hehlen*, OE *helan*, Lat. *cēlare*, *occulere*, Gk. καλύπτω, κολεόν), hence 'das verhüllend Schützende [which protects by veiling]' (Pfeifer et al. 1989: s. v. and s. v. *hehlen*; Kroonen 2013: s. v. *\*helma-*). Furthermore Orel 2003: s. v. *\*xelmaz* mentions Thracian ζαλμός 'hide' (cf. the Germanic and Thracian equation in Detschew 1976: 175). Both are formed in the same way as Vedic *śárman-* 'protection, shelter, cover', which is additionally enlarged by an *n*-suffix. The latter is also mentioned by IEW: s. v. *\*ḱel-* 'bergen, verhüllen' as a parallel to the Germanic words for 'helmet'. Absent from NIL.
**79** Cf. EMoG Eisenhut 'helmet' (lit. 'iron hat').
**80** DELL: s. v. Isid. *orig.* 18.14.1: *Cassidam autem a Tuscis nominatam: illi enim galeam cassim nominant, credo a capite.*

# 4 Conclusion

This article has identified five sources of the simple dental stop suffixes in Latin: PIE heritage, case endings, composition, analogy, and borrowing from foreign languages. Among these factors, analogy is no primary source, but it helped to establish a suffix by expanding the dental suffix to further nouns. Regarding the Latin suffixes of simple dental stops, I deepen the understanding provided by Weiss' systemization (Weiss 2009: 303–5) by buttressing and by revising as well as by joining together subgroups. The type *-es*, *-itis* started from the compound PIE *\*ped-h₁i-t-* whence Latin *pedes*, *peditis*, m. 'foot soldier'. Such compounds with a verbal root and *t* in the second element are not unusual both in Latin (*sacer-dōs*, *sacer-dōtis*) and in other IE languages (Ved. *madhu-kŕt-* 'bee', Gk. ὠμοβρώς, -ῶτος 'eating raw flesh', Sanskrit *arthét-* (< *artha-it-*) 'active, hasty'). Moreover, there are many parallel formations from *ped-* for 'pedestrian' in other IE languages (Gk. πεζός 'on foot, infantry', Vedic *padyaḥ* 'regarding the foot', OI *pattiḥ*, OP *pastiš* 'foot soldier', Lith. *pě̃sčias*, OCS *pěšь* 'pedestrian'). They can be interpreted as transformations of a common PIE verbal compound from *\*h₁ei-* 'to go' and prove at least that such derivations of nouns for 'pedestrian' from PIE *\*ped-* occurred in PIE. Latin *\*com-i-t-* 'going together' was likely formed by analogy, probably only in this language. Latin *eques*, *equitis*, m. 'knight' was formed by analogy to these two nouns denoting pedestrians and is no independent formation, as previous research has assumed. Scholars falsely deemed *eques* and Gk. ἱππότης/ἱππότα to be a reflex of the same formation with *t* inherited from PIE. More likely, these nouns were formed independently in both languages. The group *-es*, *-itis* was completed by *vēles*, *vēlitis*, m. 'light-armed foot soldier' and *mīles*, *mīlitis*, m. 'soldier', both formed from PIE roots, and provided a morphological tool for integrating *satelles*, *satellitis*, m. 'henchman, follower', probably of Etruscan origin, into Latin. The extension and incorporation into the group *-es*, *-itis* was probably favoured by their semantic affinity, since all these nouns denote an individual function within the military and political realm or a way of locomotion. Despite the phonetic correspondence Etr. *-eθi* (a form of the locative suffix) ~ Lat. *-es*, *-itis*, an Etruscan origin of the Latin suffix *-es*, *-itis* is very unlikely because both suffixes occur in different semantic groups (places vs. functions of persons).

The Latin suffixes in simple *-d-* stem from two primary sources: composition and case endings. Weiss (2009: 304f.) suggests that *mercēs*, *mercēdis* f. 'wages' and *hērēs*, *hērēdis* m./f. 'heir' "may be deinstrumental forms". I would like to go a step further and to identify the *-d-* with the *-d-* of the instrumental which had been generalized after long vowels in Proto-Italic for the merged ablative and instrumental case (Meiser 1998: 128). This development probably started from

a *-d-* in the nouns which Weiss rightly identifies as denominal (*palūs*, *palūdis* f. 'swamp', *pecūs*, *pecūdis* f. 'head of cattle') and later on spread to those he classifies as deverbal (*capis*, *capidis* f. 'bowl', *lapis*, *lapidis* m. 'stone'). Since cattle served as a base for value exchange, the *-d-* in *pecūs*, *pecūdis* might be an instrumental ablative used as an ablative of price. An instrumental function is probably also at the origin of *lapis* whereas a local one is to be suspected in *palūs* and *capis*. These interpretations are based on the nouns' meaning. The formation of a full-fledged paradigm probably started from the analogy of *mercēs*, *mercēdis* formed on the model of *hērēs*, *hērēdis*, where *-ēd-* reminds one of a suffix *-ēd-* (cf. *cuppēs* 'glutton(ous)') which is very common in the Latin and Greek conglutinate suffixes *-ēdō* (e. g. *torpēdō* 'inertness, lethargy') and -η/εδών (e. g. τηκεδών 'melting').

In three other Latin nouns, *-d-* stems from the last consonant of the second element of a compound: 1) *custōs*, *custōdis* m. 'guard' < *\*kusto-sd-* 'who sits near the hidden, i. e. treasure' with the zero grade *-sd-* of *\*sed-* 'to sit', cf. Go. *huzd*, ON *hodd*, OE *hord* and OHG *hort* 'treasure', Gk. κεύθω 'to hide'; 2) *cuspis*, *cuspidis* f. 'spear' < *\*kuri-spid-* 'spearhead'; cf. Lat. *curis* 'spear', Osc. *kúru* 'stone object' (< PIE *\*(s)ker-* 'to cut'), Gmc. *\*spitu* (> OE *spitu*, MoE *spit*, OHD *spiz*, NHG *Spieß* 'spear, spit'); 3) *cassis*, *cassidis* f. 'helmet' (< *\*kadh-ti-* (< PIE *\*kadh-* 'heed, cover and protect' + verbal noun suffix *-ti-*) + *sed-* 'what sits on the head', with folk etymology interference of *cap(ut)* 'head').

# Abbreviations

AiG      Jakob Wackernagel & Albert Debrunner (1930–1957). *Altindische Grammatik*. 2nd ed. 3 vols. Göttingen: Vandenhoeck & Ruprecht.

CGL      Georg Goetz (1888–1923). *Corpus glossariorum latinorum*. 7 vols. Leipzig & Berlin: Teubner.

DELG      Pierre Chantraine (2009). *Dictionnaire étymologique de la langue grecque. Histoire des mots*. Nouvelle édition avec supplément. Paris: Klincksieck.

DELL      Alfred Ernout & Antoine Meillet (1979). *Dictionnaire étymologique de la langue latine. Histoire des mots*. Paris: Klincksieck.

GEW      Hjalmar Frisk (1960–1972). *Griechisches etymologisches Wörterbuch*. 3 vols. Heidelberg: Winter.

Grdr.²      Karl Brugmann (1897–1913). *Grundriss der vergleichenden Grammatik der indogermanischen Sprachen*. 2nd ed. Strassburg: Trübner.

IEW      Julius Pokorny (1959–1969). *Indogermanisches etymologisches Wörterbuch*. Bern: Francke.

KEWA      Manfred Mayrhofer (1956–1980). *Kurzgefaßtes etymologisches Wörterbuch des Altindischen*. 4 vols. Heidelberg: Winter.

LEIA    Joseph Vendryes & Pierre-Yves Lambert (1959–). *Lexique étymologique de l'irlandais ancien. Lettres A, B, C, D, M, N, O, P, R, S, T, U*. Paris & Dublin: Centre National de la Recherche Scientifique & Dublin Institute for Advanced Studies.

LIV²    Helmut Rix (2001). *Lexikon der indogermanischen Verben. Die Wurzeln und ihre Primärstammbildungen*. Unter Leitung von Helmut Rix bearbeitet von Martin J. Kümmel, Thomas Zehnder, Reiner Lipp, Brigitte Schirmer. 2nd ed. Wiesbaden: Reichert.

LSJ⁹    Henry G. Liddell et al. (1996). *A Greek–English Lexicon*. 9th ed. Oxford: Clarendon Press.

NIL    Dagmar S. Wodtko, Britta Irslinger & Carolin Schneider (2008). *Nomina im indogermanischen Lexikon*. Heidelberg: Winter.

OED²    John A. Simpson & Edmund S. C. Weiner, eds. (1989). *The Oxford English Dictionary*. 2nd ed. 20 vols. Oxford: Clarendon Press.

OLD    Peter G. W. Glare, ed. (2012). *Oxford Latin Dictionary*. 2nd ed. 2 vols. Oxford: Clarendon.

REW    Max Vasmer (1953–1958). *Russisches etymologisches Wörterbuch*. 3 vols. Heidelberg: Winter.

RGA    Heinrich Beck, Heiko Steuer & Dieter Timpe (1973–2008). *Reallexikon der germanischen Altertumskunde*. 2nd ed. 36 vols. Berlin: De Gruyter.

TLL    *Thesaurus linguae latinae* (1900–). Stuttgart, Leipzig et al.: Teubner, de Gruyter.

VGK    Holger Pedersen (1909–1913). *Vergleichende Grammatik der keltischen Sprachen*. 2 vols. Göttingen: Vandenhoeck & Ruprecht.

WH    Anton Walde & Johann B. Hofmann (1938–1956). *Lateinisches etymologisches Wörterbuch*. 2 vols. Heidelberg: Winter.

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