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VOWEL EPENTHESIS IN OSCAN

Nicholas Zair, Cambridge

1 Introduction¹

Oscan is a language which was spoken in the southern half of Italy in the second half of the first millennium BC. It is a Sabellic language, belonging to the Proto-Italic family, which includes Latin. One of the most characteristic linguistic features of Oscan compared to the other Sabellic languages is the insertion of vowels into particular sequences of consonants.² All the evidence available at the time for this epenthesis was collected and ably analysed by von Planta 1892–1897: 1, 251–271. Of course, some of the readings and assumptions von Planta was operating with are now out-dated, but overall his description holds up remarkably well. Unfortunately, the principles he laid out have often not been taken into account by subsequent scholars, perhaps especially because Buck's 1928: 50–53 description of epenthesis forsook the precision of von Planta's, and left the exact conditions in which epenthesis occurred significantly more open to doubt.³

In this article, therefore, I lay out the (rather complex) conditions under which epenthesis did and did not take place (Sections 2 and 3), discuss the relative chronology of epenthesis (Section 4), and in Section 5 highlight a number of forms where misunderstanding of the environments of epenthesis has led to problematic etymologies (some already noted by von Planta); most of this section is dedicated to the question of the origin and meaning of the word *castrous*, *castrid*, for the understanding of which the conditions of epenthesis are essential. This work is based on a fresh collection of all the evidence now available,⁴ although

¹ I am most grateful to Satoko Hisatsugi and Martin Kümmel for inviting me to take part in the Mai Colloquium in Jena at which I presented a version of this paper, and to the attendees there and at the Second Edinburgh Symposium on Historical Phonology in 2015 for their helpful questions and observations. This paper was completed while in receipt of a Pro Futura Scientia Fellowship based at the Swedish Collegium for Advanced Study in Uppsala and the Centre for Research in the Arts, Social Sciences and Humanities in Cambridge, funded by the Stiftelsen Riksbankens Jubileumsfond.

² Epenthesis of a vowel is otherwise found in Paelignian, but only of the 'anterior' type (discussed below; on the terms 'anterior' and 'posterior' see just below).

³ Subsequently, Adiego 1994 provides a good discussion of anterior epenthesis.

⁴ I have used the edition of Crawford et al. 2011. For convenience, for each form I also provide the numeration of Rix 2002, but the reading is from Crawford et al. (unless otherwise specified). Umbrian

differences resulting from the analysis of von Planta are largely in matters of detail rather than the broad picture in Sections 2 and 3. Following von Planta's terminology, I will call the two types of epenthesis 'anterior' and 'posterior' (henceforth without quote marks).

2 Posterior epenthesis

The basic rules were identified by Thurneysen 1885. A vowel develops between an obstruent and /l/, /r/, or /n/. The vowel is the same as the vowel following the /l/, /r/, or /n/. See examples 1–6.⁵

- | | |
|---|--------------|
| 1. pukalātúī (Abella 1.4/Cm 1) cognomen | < *puklātōī |
| 2. sakaraklúm (Teruentum 18/Sa 7) 'sanctuary' | < *sakraċlom |
| 3. acūnum (Bantia 1.31/Lu 1) 'year' | < *aknom |
| 4. σεγῶνω (Potentia 1/Lu 5) 'statues' | < *segnā |
| 5. patereī (Teruentum 34.A 25/Sa 1) 'father' | < *patrej |
| 6. καπρωιννα[ī] (Potentia 16/Lu 32) divine epithet | < *kaprōñiāī |
| etc. | |

Unexpectedly, /m/ does not pattern with the other sonorants for the purpose of posterior epenthesis, but rather with the obstruents.⁶ Thus, when it is the first consonant in the sequence, followed by another sonorant (although the only examples are with /n/), epenthesis does occur, as shown by examples 7–8.⁷

- | | |
|--|----------------------|
| 7. comeneī (Bantia 1.5/Lu 1) 'assembly' | < *komnej |
| 8. δ{t}ομᾶνα[ς] (Potentia 10/Lu 7) 'mistress' | < *domnās < *domVnās |

When /m/ is the second consonant in the sequence, following the obstruent, epenthesis does not occur, as shown by examples 9–10.

- | |
|---|
| 9. δεκμας (Potentia 28/Lu 22) 'tithe' |
| 10. egmo (Bantia 1. 4/Lu 1) 'business' |

Epenthesis does not take place when the syllable preceding the obstruent contains a consonant prior to the cluster, or contains a long vowel. See examples 11–15.

forms from the Iguvine Tables are given from Rix 2002. I do not provide all the evidence for every environment here (I hope to do so elsewhere): where a list of examples provides only a representative sample, I follow it with 'etc.'; otherwise, I have provided all the examples I know of. I am glad to acknowledge here the help of Valentina Lunardi in collecting the Oscan evidence for epenthesis.

⁵ The first time an example is given, I have underlined the epenthetic vowel.

⁶ On the tendency for /m/ to pattern with obstruents rather than sonorants in Indo-European languages, see Zair 2018.

⁷ Apparent exceptions to this treatment of /m/ can be explained in various ways: [**hd**] **imnūm** (Pompeii 27/Po 19) 'half-medimnos' is a borrowing from Greek; **amnūd** (Abella 1.A 17/Cm 1), **amnud** (Bantia 1.6/Lu 1) 'around, for the sake of' may represent /amɪnud/ < *amb^hi-no- (Untermann 2000: 87–88); in *pertumum*, *pertemest* (Bantia 1.4, 7/Lu 1) the vowel in the second syllable is not due to epenthesis, but is inherited, with vowel reduction (or a spelling error) in *pertumum* (see Zair 2016a: 301–303).

- | | |
|--|---------------------|
| 11. hūntram (Pompeii 13/Po 1) ‘lower’ | < * <i>hontrām</i> |
| 12. ehtrad (Abella 1.B 5/Cm 1) ‘outside’ | < * <i>ektrād</i> |
| 13. contrud (Bantia 1.11/Lu 1) ‘against’ | < * <i>kontrōd</i> |
| 14. maatreis (Fagifulae 3/Sa 30) ‘mother’ | < * <i>mātreijs</i> |
| 15. numneis (Aufidena 1/Sa 17) ‘name’ | < * <i>nōmneijs</i> |
- etc.

This phenomenon seems best explained in terms of syllable weight. When the syllable prior to the obstruent is heavy (i.e. it contains a long vowel or a vowel followed by another consonant), epenthesis does not occur; when it is light, it does. It follows from this analysis that obstruent (and /m/) plus sonorant (other than /m/) sequences form a syllable onset rather than being heterosyllabic, with the obstruent occupying the coda of one syllable and the sonorant occupying the onset of the next. Prior to epenthesis, we can thus assume syllabifications of the type shown in examples 16–22.

- | | |
|--|------------|
| 16. acūnum (Bantia 1.31/Lu 1) ‘year’ | /a.knom/ |
| 17. patereī (Teruentum 34.A 25/Sa 1) ‘father’ | /pa.treī/ |
| 18. δ{1}ομᾱνα[ς] (Potentia 10/Lu 7) ‘mistress’ | /do.mnas/ |
| 19. numneis (Aufidena 1/Sa 17) ‘name’ | /nu.mneis/ |
| 20. δεκμας (Potentia 28/Lu 22) ‘tithe’ | /dek.mas/ |
| 21. hūntram (Pompeii 13/Po 1) ‘lower’ | /hon.tram/ |
| 22. maatreis (Fagifulae 3/Sa 30) ‘mother’ | /ma.treis/ |
- etc.

It follows that in a sequence consonant + obstruent + sonorant the first consonant makes up the coda of the previous syllable, as in **hūntram** /hon.tram/, making the syllable heavy and preventing epenthesis. The exception to this appears to be when the first consonant of such a sequence is /s/, where epenthesis still occurs, as in examples 23–24.⁸

⁸ Thurneysen 1885: 181 wrongly suggested that ⟨i⟩ in the second syllable of these words belonged to the stem, rather than being epenthetic. Subsequently, he proposed that before *-rj- or *-riV-, epenthesis took place even after a heavy syllable (Thurneysen 1904: 38). The form **vestirikiis** would then be analogical on (unattested) ***vestiriis**. But there seems no reason why these sequences should behave differently from *r followed by any other vowel, whereas cross-linguistically *s is often peculiar in terms of syllabification (see fn. 10). The names **tintiriis** (Vestini, Marrucini, Paeligni 1/Fr 7) and **aadiriis** (Pompeii 2/Po 34), **adiriis** (Pompeii 3/Po 35) are the only examples where *s does not precede the cluster apparently undergoing epenthesis. In the case of **tintiriis** the ⟨i⟩ of the second syllable is not epenthetic, as shown by the Latin(ised) form *Tintirius* (compare *Vestricius*, where the epenthetic vowel is not written in Latin). It is possible that **aadiriis** (Pompeii 2/Po 34), **adiriis** (Pompeii 3/Po 35) could be the equivalent of Latin *Ātrius* if *-tr- can sporadically give *-dr- (Buck 1928: 96, but without much evidence), and if the correct spelling is **aadiriis** (representing /a:deries/) rather than **aadiriis** (representing /a:deries/). But it could also reflect an **ādīrijos* or **ādērijos* which happens not to have an attested Latin equivalent. This is supported by **aadirans** (Pompeii 24/Po 3), which cannot have the vowel of its second syllable regularly by epenthesis; Thurneysen has to explain it by analogy with **aadiriis**. On the apparent exceptions to epenthesis of *castrous*, *castrid* and **kastrikiēis** see Section 5.

23. **vestīrikiis** (Abella 3/Cm 3 etc.) gentilicium < **ʷestrikiis*
 24. **pūstiris** (Teruentum 8/Sa 4) ‘posterior’ < **postris* < **posterijs*

From this, it follows that /s/ is always tautosyllabic, and that the syllabifications of these words are /we.strikiis/ and /po.stris/.⁹ This would correspond with the evidence of medial syncope, by which only short vowels in open syllables are lost, except before /s/ (Benediktsson 1960), as shown by examples 25 and 26.¹⁰

25. **vezkei** (Teruentum 34 A.2, B.3/Sa 1) divine name < **ʷete.skei*
 26. **μετσεδ** (Potentia 40/Lu 13) ‘appropriately’ < **mede.stēd*

A large number of exceptions to this rule come from the area around Capua, as shown in examples 27–31 (von Planta 1895–1897: 1, 268–269; Rix 1996).¹¹ A couple of exceptions (32–33) from the relatively nearby Cumae may have been written by speakers from Capua, or show that the dialect boundary extended slightly wider.¹²

27. **staflatas** (Capua 29/Cp 24) ‘fixed in place’ < **stafllātās*
 28. **sakr(u)vist** (Capua 15/Cp 8), **sakruvi(s)t** (Capua 16) ‘is sacred’ < **sakrā est*
 29. **süllemnais** (Capua 21/Cp 32) adjective
 30. **puklum, puklu(m), puklui, puklu(i)** (Capua 34.4, 8, 10, 12/Cp 37) ‘child’ < **pu-tlo-*

⁹An alternative analysis for posterior epenthesis is proposed by Agostiniani 2000: 165–166, who supposes that the initial syllable must always be heavy in Oscan, so that **paterei** reflects a syllabification /pat.rei/ vs. **matrei** /ma:trei/, with epenthesis arising only in heterosyllabic sequences of obstruent plus sonorant. This seems a less good explanation to me, partly because I do not know of other languages in which the position of the syllable boundary is dependent on syllable weight in this way, and partly because, if we assume all obstruent plus sonorant sequences are tautosyllabic, posterior epenthesis can be seen as a repair mechanism, adding an extra mora to an otherwise light first syllable (or perhaps rather foot?). This analysis also has problems in explaining the epenthesis in **vestirikiis**, since it would imply a syllabification /west.rikiis/ although on the basis of **hūntram** /hon.tram/ we would expect /wes.trikiis/, which ought not to trigger epenthesis. One would have to assume that for whatever reason, /s/ in a syllable coda did not contribute to syllable weight. Of course, /s/ also behaves strangely under my analysis as /we.strikiis/, but the exceptionality of /s/ does tend to be at syllable (or foot or word) margins rather than being syllable internal (see fn. 10). The same problem would arise for syncope, which I discuss directly below: we would have to assume that /s/ was non-weight bearing in coda in syllabifications like /we.tes.kei/ > **vezkei** (and indeed we might therefore expect that, since Oscan syllabification, under Agostiniani’s analysis, avoids light syllables where possible, the syllabification would in fact be /we.tesk.ei/, in which we wouldn’t expect syncope at all. But, of course, this might depend on the relative ranking of constraints around syllable shape, such as a preference for initial consonants). I am grateful to Sergio Neri for pointing out this reference to me.

¹⁰This is true also of syncope (or one of the syncopes) in Latin, e.g. **minoskellos* > **minskellos* > *mīscellus* ‘inferior type of grape’, **sēmīs-tertios* > *sēstertius* ‘coin worth two-and-a-half asses’ (Weiss 2009: 123). On the tendency of /s/ to ‘break’ phonotactic and syllabification rules see Bosch 2011: 789; Goad 2011.

¹¹The lack of epenthesis in **paplām**, of uncertain meaning, in the very early inscription published by Agostiniani/Facchetti 2009 (2012), supports its origin as being around Capua.

¹²But note that the epenthesised form **se|g|júnúm** (Cumae 4/Cm 9) is also found at Cumae.

31. **supruis**, **supr[us]** (Capua 34.7, 10/Cp 37) ‘above’ < **supero-*
etc.
32. **segnúm** (Cumae 4 bis)
33. **rufriis** (Cumae 8.40/Cm 14) gentilicium < **ruferijos*

Apart from this dialectal divergence, most apparent exceptions to the rules of posterior epenthesis are susceptible to fairly straightforward explanations. The reading of the possible female name **úfn[[i]]ú** (Pompeii 54/Po 49) is very uncertain. The morpheme boundary is probably the explanation for *cebnust* (Bantia 1.20/Lu 1) ‘(s)he will have come’ < **ke-g^uem-ōs-ti*, since epenthesis does not apply word-initially. As for **batrúm** (Abella 3/Cm 3) ‘base’, it is a Greek loanword (in an inscription whose inscriber demonstrates his knowledge of Greek by using the letter shape Y for /u/ in **peristuleís**). The praenomen **perkedne[ís]** (Nola 3/Cm 6), which (Meiser 1993), surely correctly, analyses as derived from a gerundive of the verb to ‘pray’, may be an analogical (re)creation.¹³ The gentilicium **sadri(is)** (Bouianum 16/tSa7) has an alternate form **sadiriis** (Pompeii 18/Po 11) with epenthesis.¹⁴ The form **sadri(is)** could either reflect an old-fashioned spelling, have an ⟨i⟩ missing by accident (e.g. caused by eyeskip to the following ⟨i⟩), or be a method of abbreviation.¹⁵

The most difficult apparent exception is the divine name **puplunai** (Teanum Sidicinum 4), **pupl[unai]** (Teanum Sidicinum 5), **pupluna[i -?]** (Aquinum 2/Sa 61) from **poplōnāi* on the basis of Latin *Pōpulōna*. Teanum is fairly close to Capua, so those instances could be due to the dialectal failure of epenthesis; but Aquinum is far away. In addition to absence of epenthesis, these inscriptions also show use of ⟨u⟩ in the first syllable to represent /o/, although all are probably to be dated after the invention of ⟨ú⟩ (on Aquinum 2 see Antonini 2016: 32). A unitary reason for these features seems required, but other than supposing that the name of this goddess consistently preserved an old-fashioned spelling, with both ⟨u⟩ for /o/ and lack of epenthesis, across both a long time-span (Teaunum Sidicinum 4 is dated to c. 80 BC) and a wide area, it is difficult to see how to explain these forms.¹⁶

¹³ According to Meiser, original nom. sg. **perkednos* > **perkedn̄s* > **perkedens* (> **perkdens*) beside gen. sg. **perkednejs* > **perkennejs* led to a paradigm split between **perkens** (also Nola 3/Cm 6), **perkennejs*, with remodelling of the nominative on the basis of the oblique cases, and **perk(e)dens*, **perkedne[ís]**, with remodelling of the oblique cases on the basis of the nominative.

¹⁴ If it is really the case that **-tr-* can give *-dr-* sporadically in Oscan (see fn. 8), a short vowel may be suggested by Latin *Sātricum*.

¹⁵ Note that the inscription is a tile stamp, which are often abbreviated, and are also prone to errors due to the creator of the stamp having to write the letters backwards.

¹⁶ García Ramón 2016 resolves the problem of ⟨u⟩ by reconstructing a meaning of *Pupluna* as ‘the Lady of the Cycle Time’, derived from **k^uu-k^ul-o-* ‘circle’, with Latin *Populōna* being the result of

3 Anterior epenthesis

A vowel develops between /l/, /r/, or /n/ and another consonant (except *ĭ) when these have different places of articulation. The vowel is the same as the vowel preceding the /l, r, n/. See examples 34–37.

- | | |
|--|----------------|
| 34. kulupu (Cumae 8.28, 36/Cm 14) ‘of thieves’ | < *kolpōm |
| 35. aragetúd (Nola 2/Cm 7) ‘money’ | < *argentōd |
| 36. menereviius (Surrentum 1/Cm 2) ‘of Minerva’ | < *menerūiōs |
| 37. manafum (Capua 34.3/Cp 37) ‘I have entrusted’ | < *man(u)fefom |
| etc. | |

It seems likely that anterior epenthesis did not take place in sequences beginning with /m/, on the basis that in sequences *-mn- it is posterior epenthesis that took place, not anterior (as shown by examples 7 and 8).¹⁷

Since the change only affects sequences of consonants with different places of articulation, we do not find epenthesis in instances such as examples 38–41.

- | | |
|--|----------------|
| 38. últiumam (Capua 22/Cp 31) ‘last’ | < *oltumām |
| 39. pumperias (Capua 4/Cp 11) name of a month | |
| 40. smintiis (Capua 36/Cp 4, Capua 37/Cp 5) gentilicium | |
| 41. ἑρσορεῖ (Vibo 2/Lu 25) divine epithet | < *uert-tōr-eĭ |
| etc. | |

Among the forms which do not undergo epenthesis are instances where original *n is followed by a velar. It follows that *n had assimilated in place of articulation to give [ŋ] before epenthesis took place.¹⁸ The examples are given below (42–44).

- | | |
|---|-------------|
| 42. tanginom (Bantia 1.9/Lu 1), tangineis (Bantia 1.9/Lu 1) etc. ‘decree’ | < *tŋg-īn- |
| 43. uincter (Bantia 1.21/Lu 1) ‘(s)he is convicted’ | < *uīnketer |
| 44. fang(v)am (Cumae 9/Cm 13), fancua(s) (Cumae 10/Cm 15) ‘tongue’ | < *fŋgūā- |

folk etymology on *populus* ‘people’. However, the issue of the lack of epenthesis (which would imply *pō- or *kō-) remains. Nor does García Ramón explain how Proto-Indo-European *k^he-k^hl(H)o- could end up giving Proto-Sabellic *k^hu-k^hl-o-: the /u/ in Greek κύκλος is the result of a Greek-specific sound change (Kim 2019: 104), while the Umbrian divine epithet **pupfikes** (gen. sg., IT IV.11 etc.), if meaning ‘cyclical’, must instead reflect *popliko- < *k^he-k^hl-iko-, with the same rounding of *e > *o in a labial environment seen in *penk^he (> *k^henk^he?) > *pompe ‘five’, cf. Oscan *pomtis* (Bantia 1.15/Lu 1) ‘five times’ and the forms in fn. 18.

¹⁷ In other cases of /m/ plus consonant sequences, the sequence is likely to be the result of syncope, which may postdate anterior epenthesis in at least some contexts (see below). This is the case for the name [n]jumsis, niumsiēis (Nola 3/Cm 6 etc.), for which cf. Latin *Numerius* and **memnim** (Capua 33/Cp 36) ‘memory’, which may come from *me-mVn-ijom. In the name **pūmt(iis)** (Bouianum 14/tSa 11, Bouianum 15/tSa 9), [p]ūmtēis (Atina 1 A/Sa 14), there was originally a /p/ between the /m/ and the /t/, as shown by πομπτιες (Messana 4/Me 1 & Me 3).

¹⁸ **saah túm** (Teruentum 34.A 17, B 20/Sa 1) ‘holy’ < *sanktom suggests either that epenthesis took place before *-kt- > /ht/, or that /h/ < *k was [χ] at the time of the epenthesis, or that epenthesis only took place at a syllable boundary. Note that *n had become /m/ by assimilation to the following /p/ in the month name **pumperias** (Capua 4/Cp 11) and the personal name **pūmt(iis)**, [p]ūmtēis, πομπτιες (Messana 4/Me 1 & Me 3), both derived from *pompe ‘five’ < *puk^he.

There is a small number of exceptions to these rules of anterior epenthesis; in most cases, the explanation seems reasonably clear. Thus for **perfa[kum]** (Capua 34.6/Cp 37) ‘to accomplish’, there is a morpheme boundary between the preverb **per** and the following verb stem **fak-**. The female name **arkiia** (Pompeii 65/Po 65) has been borrowed from Greek, presumably after epenthesis had taken place. The name **markas** (Pompeii 46/Po 66) is attested very late, between 72 and 79 AD. It could be the genitive of an otherwise unattested female name *Marca*; alternatively Crawford et al. 2011: 703 suggest it is an attempt to write Latin *Marcus*. In either case, it can have been influenced by Latin. As to the divine name **menery[a]s** (Pompeii 6/Po 38), otherwise attested with the expected epenthesis (as in example 36), the last three letters are no longer visible, and earlier reports imply that no more was seen than in the drawing in Crawford et al. 2011: 624. This shows only the vertical and lowest horizontal of the ⟨v⟩, which could therefore equally be an ⟨e⟩. I would therefore read **menere[va]s**.

The praenomen **helvi[s]** (Campania or Samnium 1/ZO 3, twice) is surprising, since the expected epenthesis is to be found in other versions of the name.¹⁹ The inscription is quite early, being dated by Crawford et al. to before 300 BC. As we shall see below, epenthesis in a sequence **-ly-* was probably relatively late (after syncope), so it is possible that a written tradition already existed prior to the epenthesis, which could have led to the preservation of the older form in the frequently conservative context of names.²⁰

The most difficult problem revolves around a series of related forms. Thus we find in *comparascuster* (Bantia 1.4/Lu 1) ‘shall have been raised (of a matter)’ apparent epenthesis in the cluster *-rs-*, despite both elements sharing the same place of articulation (and contrary to the lack of epenthesis in the same sequence in *φερσορει*, example 41). This must be explained by reconstructing Proto-Italic **prk-ske/o-*, with loss of the first **k* only after the time of epenthesis.²¹ Then, to the same root, we have the gentilicium **perk{1}en[iis]** (Pompeii 34/Po 40) and

¹⁹ These are **heleviis** (Bouianum 98/Sa 36), **helevii(s)** (Campania or Samnium 2/ZO 2), **helevi(is)** (Capua 28/Cp 27), **hellevijs** (Capua 33/Cp 36), **heleviieis** (Capua 27/Cp 28). All happen to be gentilicia rather than praenomina, but we would not expect that to make any difference. Another case where lack of epenthesis is possible is *ελ[Γ]ομ* (Thurii Copia 1/Lu 47), but damage to the curse tablet on which the name is found makes the reading difficult. Poccetti 1993: 229 doubtfully suggests a reading *ελ[ε](Γ)ομ*. The damaged patch appears to be only one letter wide, and the drawing of the text in Poccetti 1993 and Crawford et al. 2011 suggests a visible vertical stroke and top vertical, which would be compatible with either ⟨ε⟩ or ⟨Γ⟩; but Poccetti’s transcription implies that no clear traces can be made out. If this is the case, something like *ελ[ι]ομ*, the equivalent of the Latin gentilicium *Hellius*, is not to be ruled out.

²⁰ Especially since we now apparently have evidence for a written tradition in the Oscan alphabet in the fifth or early fourth century BC (Agostiniani / Facchetti 2009 [2012]).

²¹ For the reconstruction, cf. Latin *poscō* ‘demand’, Vedic *pr̥cchāti* ‘asks’. On Oscan **-ar-* as regular from **r̥* see Untermann 2000: 530 and Zair 2017: 281–282.

the praenomina **perkens**, **perkedne[is]** (Nola 3/Cm 6). As discussed in Section 2, these reflect an old gerundive, but if the root is simply **perk-* we would expect epenthesis, which is indeed found in **[kú]mparakineis** (Pompeii 20/Po 9) ‘of the assembly’ < **kom-prk-īn-*, with the same root. A number of possibilities arise, all of which are rather *ad hoc*.

The first is that we simply have an archaising spelling, as, apparently, in **helvi[s]**. A second is that we could assume that anterior epenthesis is sensitive to syllable structure, and only takes place across a syllable boundary. If this were the case, and if the nominative were at one stage **perkdens*, as suggested by Meiser (see fn. 13), it is possible that epenthesis did not take place in /perk.dens/, and that the non-epenthesised form was then generalised throughout the paradigm. This seems to me quite plausible, but *comparascuster* itself, which presumably reflects /kom.park.sku.ster/, suggests otherwise.²²

Yet another, more involved, possibility involves the treatment of **-rks-* arising at different points in time. Meiser 1993: 258–259 states that **perkens** reflects a (thematised) aorist stem **perk-e/o-*, beside the present stem **perk-ske/o-* seen in Oscan *comparascuster*, and for which there is evidence of derived forms in other Sabellic languages (Umbrian **persklum**, IT Ia 1 etc. ‘prayer, ritual’, **persnimu** ‘pray’ IT Ib 7 etc., Marsian *pesco* ‘sacrifice’ (?), Maruuium 1/VM 5; Untermann 2000: 539–542, 548),²³ and from which another gerundival name attested in the Latin name *Pescennius*, is formed. An alternative explanation might be that both **perkens** and *comparascuster* reflect the present stem **perk-ske/o-*, but with different results of the sequence **-rksk-* at different times.

There could then be a chronological difference between a development **perkske/o- > *perske/o- > *perke/o- (> perkens)* and **prkske/o- > *parkske/o- > *paraksk/eo- > *paraske/o- (> comparascuster)*.²⁴ The various sound changes would then be ordered as in Table 1. Since these changes involve a rather uncommon sequence of sounds, parallels are not easily found. However, it must be admitted, with regard to the proposed change **-rsk- > *-rk-*, that in the sequence **-rsn-* the **-r-* is not lost in **kerssnaís** (Capua 22/Cp 31) ‘with meals’ (but this may in turn reflect **kertsnā-* or even **kertesnā-*; Untermann 2000: 392–393).

²² I assume that in cases like **herekleis** (Abella 1.A 11/Cm 1) the original syllabification was /her.kleis/.

²³ It is obviously awkward that Oscan would show both the zero-grade and the full grade forms of a present in **-ske/o-*, where ablaut is not expected. It is possible that *comparascuster* may actually belong with the root found in Latin *compescō* ‘check, restrain’ (Untermann 2000: 539–542), but the semantics are hard to explain (as noted by Weiss 1993: 49 fn. 6).

²⁴ If the suggestion given here, that **perkens** comes from **perk-ske/o-*, is correct, *Pescennius* must come from another Sabellic language, in which **-rksk-* became **-sk-*: on the basis of *pesco*, Marsian seems plausible.

	<i>*perkske/o-</i>	<i>*prkske/o-</i>
<i>*-rksk- > *-rsk-</i>	<i>*perske/o-</i>	
<i>*r > *-ar-</i>		<i>*parkske/o-</i>
Epenthesis		<i>*parakske/o-</i>
<i>*-rsk- > *-rk-</i>	<i>*perke/o-</i>	
<i>*-ksk- > *-sk-</i>		<i>*paraske/o-</i>

4 Relative chronology

Once again, I start with posterior epenthesis, since its analysis in terms of relative chronology is easier. It is clear that this epenthesis must have taken place after syncope of medial short vowels in open syllables in Oscan, as is shown by examples 45–47.

45. **pútúrúspid** (Abella 1.A 9/Cm 1) etc. ‘both’ < **potrōs-pid* < **poterōs-pid*
 46. **zicolom** (Bantia 1.14/Lu 1 etc.) etc. < **dīiklo-* < **dīikelo-*
 47. **pústiris** (Teruentum 8/Sa 4) ‘posterior’ < **postris* < **posterijos*

It must also come after the sound change whereby **-kn-* became **-gn-* on the basis of **segúnú** (Abella 3/Cm 3), σεγονω (Potentia 1/Lu 5), **segúnúm** [-?] (Bouianum 39/Sa 29) ‘statue(s)’ < **segno-* < **sek-no-*. Likewise, after **-tn-* became **-kn-*, going by **akenei** (Teruentum 34.A 18, .B 22/Sa 1), **acunum** (Bantia 1.31/Lu 1) ‘year’ < **akno-* < **atno-*. Both of these must anyway come before syncope, since **-kn- > *-gn-* must precede **-tn- > *-kn-*, and secondary **-tn-* arising from syncope did not become **-kn-*, as shown by the divine name **patanaí** (Teruentum 34.A 14, .B 17/Sa 1) < **patnāi* < **patVnāi* (Meiser 1993: 262–264). One of the characteristics of posterior epenthesis not yet mentioned is that it does not take place when the preceding vowel is not in an initial syllable (as observed by Schmid 1955). Schmid connects this with the position of the accent, but this is probably unnecessary, since in the only two reliable examples (48–49),²⁵ the obstruent plus sonorant sequence is preceded by an original long vowel (and hence a heavy syllable).²⁶

48. **sakaraklúm, sakaraklúd, sakarakleís** (Abella 1/Cm 1) ‘temple’ < **sakarāklom*
 49. **δουνακλωμ** (Potentia 25/Lu 21) ‘gift’ < **dōnāklom*

It follows that posterior epenthesis took place prior to the loss of length in non-initial syllables, which had happened by 300 BC at the latest (Lejeune 1975: 244–245).

The chronology of anterior epenthesis is much more difficult. On the basis that anterior epenthesis took place in all areas where Oscan was spoken, whereas

²⁵ We do not know the length of the second vowel in the gentilicium **mināflais** (Teaunum Sidicinum 21/Si 12).

²⁶ Thus already von Planta 1892–1897: 1, 264.

posterior epenthesis is dialectally determined, it is reasonable to start with the hypothesis that it took place earlier than posterior epenthesis. Indeed, it seems also to have taken place in Paelignian, on the basis of the forms *herec(leis)* (Superaequum 4/Pg 2), *salauatur* (Corfinium 6/Pg 42) and *heleuis* (Corfinium 18/Pg 37, Corfinium 19/Pg 41).²⁷ Since Paelignian is often supposed to be particularly close to Oscan, this might argue for anterior epenthesis as having taken place in the ancestor language of Paelignian and Oscan (but for problems with the family tree model for the Sabellic languages, see Clackson 2015b).²⁸

There is a small number of forms which suggest that this epenthesis took place prior to medial syncope (examples 50–53).²⁹

50. **serevkiɖimaden** (Pompeii 13/Po 1),
 σερευκιδιμαμ (Buxentum 1/Lu 62) ‘authority’ < **seruVkiɖimā-*
51. **menvum** (Capua 34.8/Cp 37) ‘to diminish’ < **minVɖom* or **menVɖom*
52. λανφιης (Picentia 3/Cm 31) praenomen, cf. Latin *Lanuuius*
53. **perkiu** (Capua 45/Cp 41) gentilicium, cf. ‘Pre-Samnite’ **peracis** (Capua 35/Ps 3, Etruscan alphabet)

In the case of **serevkiɖimaden**,³⁰ it is necessary to place epenthesis before syncope because if syncope had taken place first **seruVk-* would have become **seruk-*, and the environment for apocope would have been lost. We know that the sequence **serev-** must be the result of epenthesis not only because **seruV-* provides a plausible etymology, but also because inherited *-*eu-* had become *-*ou-* in Proto-Italic. So the **-ev-** can only have come about by epenthesis.³¹

²⁷ The absence of epenthesis in *herclei* (Corfinium 2/Pg 56, Superaequum 3/Pg 6 and Pg 7), *alpis* (Sulmo 2/Pg 5), *minerua* (Sulmo 3/Pg 4), *polf(enia)* (Sulmo 7/Pg 13) would then have to be put down to influence from Latin. Given the other evidence of Latin influence on Paelignian, this is plausible in principle. In addition the dative *herclei* shows the same treatment of the name as a third (or fifth) declension name as Latin, while Oscan always has the dative in /-oi/ of the *o*-stems; *minerua* is the Roman form of the goddess’ name (Oscan has /men-/, and **men-* > *min-* may be a Latin sound change; Weiss 2009: 137). ‘Posterior’ epenthesis appears not to occur in Paelignian, on the basis of *puclōis* (Sulmo 2/Pg 5) ‘sons’, *decries* (Sulmo 15/Pg 34) ‘Decrius’, *sadries* (Corfinium 1/Pg 1) ‘Sadius’; and possibly *ptruna* (Corfinium 24/Pg 52) ‘Petronia’, with Paelignian **ō* > *ū* and loss of **i* after a consonant, but in an inscription that shows influence from Latin. The forms *sacaracirix* ‘priestess’ < **sakrākriks* and *pristafalacirix* ‘priestess’ < **pristafākriks* in the poetic inscription Corfinium 6/Pg 9 I take to be artificial (see Clackson 2015a: 76–77); they co-occur with a number of other features not present in other Paelignian inscriptions.

²⁸ There is no evidence for anterior epenthesis in Marrucian, *contra* Agostiniani 2000: 165.

²⁹ There is no epenthesis in **culchna** (Saticula 1/Cm 22), **culcfnam** (Saticula 6/Cm 27) ‘kylīx’ (written in the Etruscan alphabet), which are borrowed ultimately from Greek κυλίχνη. They could be explained by suggesting that syncope had not yet taken place when they were borrowed, and hence the environment for epenthesis was not there. However, it is also possible that they were borrowed via Etruscan, and that syncope took place in Etruscan. Then they would just have to have been borrowed after epenthesis had already taken place.

³⁰ On which see Gualtieri / Poccetti 2001: 213–215, 243–244.

³¹ Benediktsson’s (1960: 269–270) attempt to explain it as the result of paradigmatic levelling relies on the mistaken belief that **serevkiɖimaden** comprises two words, the first being a *jo*-stem **serevkiɖ**.

In the case of **menvum** and λανφιης the reason for the absence of epenthesis seems to be that at the time it applied, syncope had not yet taken place, so that the environment for epenthesis did not yet exist. It is generally thought that **menvum** reflects the same root as Latin *minuō*, Greek μινύθω ‘lessen, diminish’ (García Castillero 2000: 326–327; Untermann 2000: 471). I assume that the Oscan and Latin words come from the same preform, which might be **min-u-je/o-* or **mi-n-ey-*; either of these would result in **minVum* in Oscan.³² Of course, since λανφιης is a name, in which older spelling seems to tend to last, the lack of epenthesis may be an archaising feature, but it at least somewhat backs up the evidence of **menvum**. Meiser 1986: 131–132 derives **perkium** from the ‘Pre-Samnite’ gentilicium **peracis**.³³ Although this would make a perfectly plausible origin for **perkium**, with syncope not yet having taken place at the time of epenthesis, it is also possible that **perkium** is derived from the ‘pray’ root, like **perkens** (discussed in Section 3), perhaps as a hypocoristic form of **perkens** itself (on the use of **-ijo-* in this manner see Weiss 2010a: 365–366).³⁴ If this is correct, whatever the explanation for lack of epenthesis in **perkens** will be the same for **perkium**, which then does not provide strong evidence regarding the relative chronology of epenthesis. There are also some forms which imply that epenthesis took place after syncope (examples 54–57).³⁵

54. **heleviis** (Bouianum 98/Sa 36) etc. (see fn. 19) gentilicium, if from **heliyos*
 55. **teremenniú** (Abella I.A 15/Cm 1) etc. ‘boundary-markers’, if from **teramen-*
 56. **perek(aís)** (Pompeii 13/Po 1) ‘a measurement of length’, cf. Latin *pertica*
 57. **kalaviis** (Bouianum or Saepinum not Aesernia 1/Sa 22) etc. gentilicium < **kalaio-*
 and **kaluvis** (Capua 49/Cp 40) etc. gentilicium < **kaloi-*

On the basis of Latin *heluus* ‘dull yellow’, **heleviis** is often derived from **heliyos* < **ǵ^helh₃-i-uo-*, since Latin ought to have had **huluus* or **holuus* < **hel-* followed by any vowel other than **i* (Sen 2015: 15–41), and since **-lu-* gave **-ll-* in Latin

³² The (e) in the first syllable must then be explained as a mistake. Curiously, there also appears to be a root **men-* of very similar meaning, which forms *u-* or *yo-* stems in Armenian *manr* ‘small, tiny’, Greek μάνυ (in Hesychius, glossed as μικρόν) < **mḡ-u-*, μᾶνός ‘rare, sparse’ < **mḡ-uo-*, Welsh *difanwaf* ‘belittle, diminish, despise’, also based on **mḡ-uo-*, Greek μόνος ‘alone, sole’ < **mon-uo-*, as well as a number of forms which could come from **men-u-* or **min-u-* (García Castillero loc. cit.; Untermann loc. cit; LEIA M-37 s.v. *menb*; perhaps including Latin *minuō*: Weiss 2009: 137). Oscan **menvum** may belong instead with these, in which case it must still reflect **men-u-je/o-* > **menue/o-* [menuwe/o-]; if derived from an adjective **men-uo-* we would expect to find **menuā-je/o-* > **menvavum**.

³³ Which certainly makes more sense than taking it as a cognomen (Untermann 2000: 533), for which the fifth century BC is too early.

³⁴ Adiego 1994: 264 considers **perkium** an originally non-Oscan name, but on the circular grounds that it does not undergo epenthesis.

³⁵ Although **anamú {,} m** (Cumae 9/Cm 13) looks as though it has undergone epenthesis after syncope from **anmom* < **anamom* < **h₂enh₁-mo-*, the vowel in the second syllable could be generalised from the nom. sg. **anams** (Cumae 7/Cm 17) < **anamos*, where it was protected from medial syncope by being followed by two consonants after final-syllable syncope.

(Nussbaum 1997: 386–387; de Vaan 2008: 282). An *i*-stem is attested in Vedic *hari-* ‘yellow’. If this is correct, then epenthesis in **heleviis** must have taken place after syncope, since only after syncope did the word contain the right environment for epenthesis. Alternatively, *heluus* could come regularly from **hellyos* < **ǵ^helsyo-*, which has comparative support in the form of Lithuanian *gelšvas* (with an unexpected *centum* reflex of **ǵ^h*). Although this is dismissed by de Vaan (loc. cit.), on the basis that *-svas* is a productive suffix in Lithuanian, the spelling **helleviis** does suggest that we are dealing with a double **-ll-* in Oscan as well.³⁶ As a final possibility, Latin *heluus* could have been borrowed from Oscan, or another Sabellic language (de Vaan loc. cit.), which would allow us to reconstruct **ǵ^hel-yo-*, for which there is comparative evidence in Old High German *gelo* ‘yellow’, Lithuanian *želvas* ‘greenish’.³⁷

The forms **teremenniú** (Abella 1.A 15/Cm 1), **teremen[n]jú** (Abella 1.B 31–32/Cm 1), **teremníss** (Abella 1.A 14/Cm 1) ‘boundary-markers’ < **termen-*, **teremnattens** (Pompeii 13/Po 1, Nola 5/Cm 47), **teremnatens** (Pompeii 12/Po2), **terem[at]tens** (Pompeii 13/Po 1), **tere[mn]atten[s]** (Nola 4/Cm 48) ‘they delimited’ < **termenātent*, **teremnatust** (Pompeii 13/Po 1) ‘it was delimited’ < **termenātā est* all demonstrate epenthesis in the sequence **-rm-*. The question is whether there was originally a vowel between these two consonants. The root involved is **terh₂-* ‘cross’ (van Beek 2011: 164), and we would expect **terh₂-m̃* to give **teramen* in Oscan prior to syncope (and likewise in Latin, which has *termen*). Strangely, however, Greek τέρμα ‘end, boundary’ and Sanskrit *su-tárman-* ‘having a good crossing’ are lacking any reflex of the laryngeal. There are various possibilities for explaining the absence of the laryngeal, the best being Hackstein’s (2002: 2–3) rule **CH.CC > *C.CC* in the oblique stem, where we expect the sequence **terh₂mn-*, with subsequent generalisation throughout the paradigm.³⁸ In any case, the absence of the laryngeal in Greek and Vedic makes it uncertain whether we should expect to find its reflex in Oscan.

Since **perek(aís)** is generally taken to be cognate with Latin *pertica* ‘surveyor’s measuring rod, a length of ten feet’, it must come from **pertVkā > *pertkā* by

³⁶ The double (ll) is “simply a mistake” according to Buck 1928: 100, but geminates were never consistently written in Oscan, so the absence of the double spelling in the other instances of the name is not necessarily a problem for this analysis.

³⁷ For the difficulty of whether this root was *set* or *aniṭ*, see Zair 2012: 73–74. The Lithuanian form suggests there was no laryngeal in this form. If the form were **ǵ^helh₃-yo-*, we would expect this to give **helayo-*, which would leave the same problem as **heliyo-*.

³⁸ Alternatively, one might follow van Beek 2011 in accepting a rule **-VLHNV- > *-VLNV-* (where *L* is any liquid and *N* any nasal) for Greek; but this leaves the Vedic form unexplained. Since both Latin and Greek have a related stem in **-ōn* (τέρμων, *termō* ‘boundary’), one could also argue for laryngeal loss here by the converse of the Saussure effect (**-CHRo- > *-CRo-*, where *R* is any sonorant), with analogical spread of the *aniṭ* root to the related form **ter(h₂)-m̃* (but see the comments of Nussbaum 1997: 184–185).

syncope > **perkā* > **perekā* by epenthesis (Untermann 2000: 534–535). The less efficient alternative to this preform is to follow Whatmough 1953: 297–298 in invoking a root < **perk-*, from which **perek(aís)** < **perkā* and *pertica* are separate derivations. But the existence of such a root is not well supported, since most of the comparanda suggested by Whatmough cannot be or are best not traced back to **perk-*.

The last, and strongest, example is the pair of gentilicia **kalaviis** (Bouianum or Saepinum not Aesernia 1/Sa 22), **kala[v]iis** (Nola 4/Cm 48), **kalauiiúm** (Cumae 9/Cm 13) beside **kaluvis** (Capua 49/Cp 40), **kalúvis** (Cumae 4 bis), **kalúvieis** (Capua 25/Cp 30), **kaľúvieis** (Capua 26/Cp 29). Nussbaum (1997: 187 fn. 44) has very plausibly suggested that variability in the vowel of the second syllable is due to a paradigm split. The names appear to be derived from the adjective found in Latin *caluus* ‘bald’ < **kalouos* < **k[ʰ]h₁₃-e₂-o-*, and we would therefore expect for Sabellic a nom. sg. **kalouos* > **kalou̯s* by final-syllable syncope beside a gen. sg. **kalou̯eis* > **kalu̯eis* by medial syncope. The latter then became **kalaue̯is* by anterior epenthesis, giving a paradigm nom. sg. **kalou̯s*, gen. sg. **kalaue̯is*; some families derived their name from the nominative singular, some from the genitive singular. The only alternative explanations I can think of are entirely *ad hoc*: e.g. that **o* in an unstressed open syllable assimilated to **a* in a preceding initial syllable across a sonorant, resulting in **kalou̯s*, **kalou̯eis* > **kalou̯s*, **kalaue̯is*.³⁹

It can be seen that the evidence regarding the dating of anterior epenthesis is unsatisfyingly variable regarding its chronology relative to syncope. Two further points may be made. The first is that, in environments in which both anterior and posterior epenthesis are expected, it is anterior epenthesis which takes place, as in examples 58–60. Since posterior epenthesis took place only after light syllables, this might suggest that, at the time of posterior epenthesis a word like **herekleis** was still /*h̥er.kleis*/ rather than /*h̥e.re.kleis*/, i.e. that anterior epenthesis had not yet taken place. Secondly, if medial syncope had not taken place at the time of anterior epenthesis, why did it not delete most of the vowels just created by epenthesis?

58. **herekleis** (Abella 1.A 11/Cm 1 etc.) ‘Hercules’, borrowed from Etruscan *hercle* or Greek Ἡρακλῆς
 59. **anafriis** (Teruentum 34.A 9, B 12/Sa 1) ‘gods of rain’ < **anfriss* < **ɲfrifos*
 60. **teremniis** (Abella 1.A 14/Cm 1) ‘boundary-markers’ < **termnifs* < **termenifos*

Neither of these arguments is necessarily reliable, however. Hall 2006: 389–391 distinguishes between epenthetic vowels, which are visible to other phonological

³⁹ This change would have to have taken place after syncope, from which **kalou̯eis* would have been protected by analogy with the nominative (cf. the divine name **fatuveis**, Aeclanum 1/Hi 6 after **fatou̯s*, Latin *Fatuus*).

rules, and ‘intrusive’ vowels, which are invisible. Among other properties, intrusive vowels are likely to be a copy of a nearby vowel, copied over a sonorant or guttural, and generally occur in heterorganic clusters (i.e. sequences of sounds with different places of articulation). These are all features of anterior epenthesis, so it may be that at the time of syncope and posterior epenthesis, anterior epenthesis was a phonetic rule, only subsequently becoming part of the phonology of Oscan.

The evidence of **serevkiðimaden** and **menvum** is in my view very difficult to dispose of (and *λανφιης* is also suggestive), so we must accept that anterior epenthesis took place prior to syncope – at least in some environments. Either the rather unsatisfying alternative proposals for **perək(aís)** and the pair **kalaviis** – **kaluvis** are accepted, or anterior epenthesis was in fact not a single change, but one that took place at different times in different environments. Although the evidence is admittedly meagre, the forms discussed above suggest that epenthesis took place prior to medial syncope in the environments **-rɥ-*, and **-nɥ-*, while **-lɥ-* (surprisingly), and perhaps **-rk-* and **-rm-*, underwent it after syncope. The separation of the coronal plus **ɥ* sequences looks messy, but that is the way the data points.

5 Etymologies

Having achieved a reasonable amount of clarity on the environments and relative chronology of anterior and posterior epenthesis, it is possible to assess a number of words whose proposed etymologies rest on the workings of Oscan epenthesis. Several divine names are problematic in this light. The name **anagtiai** (Bouianum or Saepinum 1 not Aesernia 1/Sa 22) cannot come from **angVtjā* (cf. Latin *Angitia*) via syncope and epenthesis (Untermann 2000: 96–97). Given that in addition [gt] is not a permissible sequence in Oscan, I suspect that this is in fact simply a writing error for **angatiai**, which would be exactly cognate with Latin *Angitia*.⁴⁰ If, as is often supposed (Untermann 2000: 431–432), the first part of the divine name **liganakðikeí** (Teutumum 34.A 8, .B 10/Sa 1) is related to Latin *lēs* ‘law’ so that the vowel is long, the sequence **-ana-** must be original, and not due to epenthesis (*contra* Buck 1928: 52), since posterior epenthesis would not apply to **-gn-* after a long vowel, nor would anterior epenthesis occur in the sequence **-nk-*. Lastly, on this line, Ernout 1965: 190 (followed by Weiss 2010b: 64 fn. 131) suggested that the name of the god *Coroniceí* (CIL 1².976), found in a single Latin inscription, was derived from the Oscan name for the crow, cognate with Latin *cornīx*. Since anterior epenthesis does not take place between consonants of the same place of articulation, this cannot be correct. For the same

⁴⁰ Similarly Benediktsson 1960: 205. The second vowel is preserved from syncope because it is in a heavy syllable (followed by **-tj-*), on which see Benediktsson 1960: 202–205.

reason the praenomen $\Gamma\upsilon\rho\iota\nu\epsilon\iota\varsigma$ (Surrentum 4/Cm 16) cannot come from **uirnejs* (see Zair 2016b: 199).

As for *zicell[ei]*, *zicolom* etc. (Bantia 1.7, 14/Lu 1), [-?- **d**]i[kúlús[s -? -] (Histonium 2/Fr 14) ‘day’, much though it looks as though it ought to be, it cannot be directly cognate with Lat. *diēcula* ‘one little day’ (despite Untermann 2000: 868–869), since posterior epenthesis does not take place after a heavy syllable. Instead, it looks as though we have to reconstruct **dji-kelo-*, although I have no explanation for how this form came about.⁴¹

In the remainder of this section I will discuss a word which appears twice in the Tabula Bantina. The contexts are:

pis pocapit post {post} exac comono hafie{i}st meddis dat castrid loufir en eituas factud (Bantia 1.8-9/Lu 1)

‘After this whichever magistrate holds an assembly about *castrid* or about money, he should make it that ...;’

suae pis pru meddixud altrei castrous auti eituas zicolom dicust (Bantia 1.13-14/Lu 1)

‘If anyone in his role as magistrate shall appoint a day to another regarding *castrous* or money ...’

There are two main possibilities for what this word means: either ‘head’ (in the sense of capital punishment), or ‘land, immovable property’ (Weiss 1993: 101 fn. 18, 104 fn. 20; Untermann 2000: 374–375). The former works well for the juridical context of the Tabula Bantina, since we have examples in Latin literature where court cases are described as involving either a fine or the death penalty in apparently similar terms to the Oscan turn of phrase here, using *pecunia* ‘money’ in the sense of ‘fine’, and *caput* ‘head’ in the sense of ‘death penalty’:

non capitis ei res agitur sed pecuniae (Terence, *Phormio* 631)

‘It’s not a matter of life and death for him but only a fine.’⁴²

nam cum bis pecunia anquisisset, tertio capitis se anquirere diceret ... quoad vel capitis vel pecuniae iudicasset... (Livy 26, 3, 8)

‘For when the accuser, having twice demanded a fine, said at the third hearing that he demanded capital punishment... until he should condemn the defendant either to capital punishment or to pay a fine.’⁴³

However, the latter would fit better with the instances of what appears to be the same word in Umbrian in two versions of the same formula in the Iguvine Tables:

nerf. arsmo. ueiro pequo. castruo. fri pihatu (e.g. IT VIa 30)

‘purify the men, *arsmo*, slaves, livestock, *castruo*, crops’

⁴¹ For an outline of the problem see Buck 1928: 52 fn. 1. Von Planta 1892–1897: 1, 261 is wrong to suggest that the vowel in the second syllable is not an epenthetic vowel as the fact that the vowel changes depending on the following vowel demonstrates that it must be the result of epenthesis.

⁴² Text and translation Barsby 2001.

⁴³ Text and translation Moore 1943.

nerf. arsmo. ueiro. pequo. castruo. fri. salua / seritu (e.g. IT VIa 32-33)
 ‘keep safe the men, *arsmo*, slaves, livestock, *castruo*, crops’

The same word also appears elsewhere in the Iguvine Tables in the expression **pusti: kastruvuf:** (e.g. IT Va 13). The context is how much the Atiedian Brothers should pay; while ‘per head’ seems the more natural reading, ‘per estate’ is not impossible.

Presumably the Oscan gentilicium **kastrkifeis** (Pompeii 4/Po 36) is also connected to these words, derived from an adjective **kastr-iko-*.

For those who take ‘land’ as the basic meaning, a connection with the obviously similar looking Latin *castrum* (generally plural) ‘military encampment, fort’ is appealing. On this basis, *castrous*, *castruo* are generally taken to be a secondary *u*-stem derived from the **ks-tro-* at the base of *castrum*, with the vowel in the first syllable arising by ‘schwa secundum’ (on which see Vine 1999). The root would be **kes-* (LIV 329) ‘cut’, cf. Vedic *śāsti* ‘cuts down, slaughters’, with the suffix **-tró-* having the function of forming a verbal abstract (rather than an instrument noun, which are generally barytone; Olsen 1988: 3; Weiss 1993: 104 fn. 20);⁴⁴ so a **ks-tró-* is originally ‘a cutting’ and then specialised in the sense ‘a cutting off of a piece of land’.⁴⁵

This etymology implies a short *ǎ* in the first syllable, for which Latin *castrum* itself does not provide any evidence: its writing system did have methods of marking long vowels, but these are not used consistently, so their absence is not evidence for a short vowel. And the first syllable of *castrum* is closed, so there is no possibility of scansion answering the question. But *castellum* ‘castle, fort’, its diminutive, was borrowed with a short *ǎ* into early Middle Welsh *castell* ‘castle’ and Old Irish *caissel*.⁴⁶

Beside the short *ǎ* in Latin *castrum*, we have no evidence for the length of the vowel in Umbrian *castruo*. However, as we saw in Section 2, in Oscan we would expect **kǎstru-* to be subject to epenthesis, since **s* before a consonant cluster does not close off the preceding syllable. Consequently, the absence of epenthesis forces us to reconstruct **kǎstru-*. This means that *castrous* (and presumably also *castruo*) are not related to Latin *castrum*, in which case the meaning ‘head’

⁴⁴ As in Vedic *kṣatrá-* ‘authority’, *dātrá-* ‘gift’ for example (Wackernagel/Debrunner 1954: 701–704).

⁴⁵ For the concretisation involved cf. English ‘cutting’ in the senses given by the Oxford English Dictionary as 3a “A piece cut off; *esp.* a shred made in preparing or trimming an object for use”, 4a. “A small shoot or branch bearing leaf-buds cut off a plant, and used for propagation”, 4b. “A paragraph or short article cut out of a newspaper, etc.” and especially 8. “An open, trench-like excavation through a piece of ground that rises above the level of a canal, railway, or road which has to be taken across it.” (www.oed.com, accessed 28/03/2019).

⁴⁶ In Irish the first vowel is never written *á*, so must be short. In Welsh, inherited and borrowed long **ā* generally gives *-aw-*. I am grateful to Peter Schrijver for pointing the Celtic borrowings of *castellum* out to me.

becomes more plausible, although this meaning lacks a good etymology, and is based only on the parallels in Latin juridical language.

There is an alternative connection, mentioned by Untermann, which would keep the meaning ‘land’ but – in principle – allow a long vowel. It is to Old Irish *caithir* ‘fortress, monastery, city’, Old English *heaðor* ‘enclosure, prison’, Church Slavonic *koťcb* ‘cage’ (IEW 534; LEIA C 48–49, Matasović 2009: 194–195), which might reflect a root **kat-* meaning something like ‘enclose, separate’.⁴⁷ Put into Indo-European terms, this would be **keh₂t-*, and we could explain *castrous* and *castruo* as reflecting *keh₂t-tr-u-*.

At any rate, whatever meaning and etymology one favours for *castrous*, the fact that the first vowel must be long has to be taken into account.

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⁴⁷ The same root might also feature in Latin *catēna* ‘chain’, *caterua* ‘band’, *cassis* ‘hunting net’; while these nouns could point to a meaning ‘string together, plait’ (thus de Vaan 2008: 97), ‘enclose, separate’ also fits.

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