The pre-Roman elements of the Sardinian lexicon

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9 Morphology

Various Sardinian words of possible pre-Roman origin have been analyzed as containing pre-Roman morphemes (e.g. Guarnerio 1904a; Guarnerio 1904b; Terracini 1927; Wagner 1997: 254–280; Blasco Ferrer 1988: 173–178 etc.). In what follows, the evidence for the existence of pre-Roman affixes will be evaluated on the basis of the relevant lexical material. A pre-Roman morpheme can most confidently be posited on the basis of doublets consisting of variants with and without the affix in question (§ 2.2.2). Once the "morpheme-hood" of a certain sequence is established, it is possible to investigate its original function.

9.1 Prefixes

In the existing literature on the pre-Roman linguistic elements of Sardinia, the identification of potential pre-Roman suffixes has received significantly more attention than that of potential prefixes. This is possibly due to an Indo-European or Romance typological bias, since in these language families derivational morphology is predominantly suffix-based. For a non-attested language that was in all likelihood unrelated to Indo-European however, there is no reason to suspect *a priori* that it would have aligned typologically with Indo-European in general and with Romance in particular. In the pre-Roman Sardinian lexicon, there are in fact a number of recurring word-initial sequences that appear to exhibit the alternations indicative of substrate morphemes.

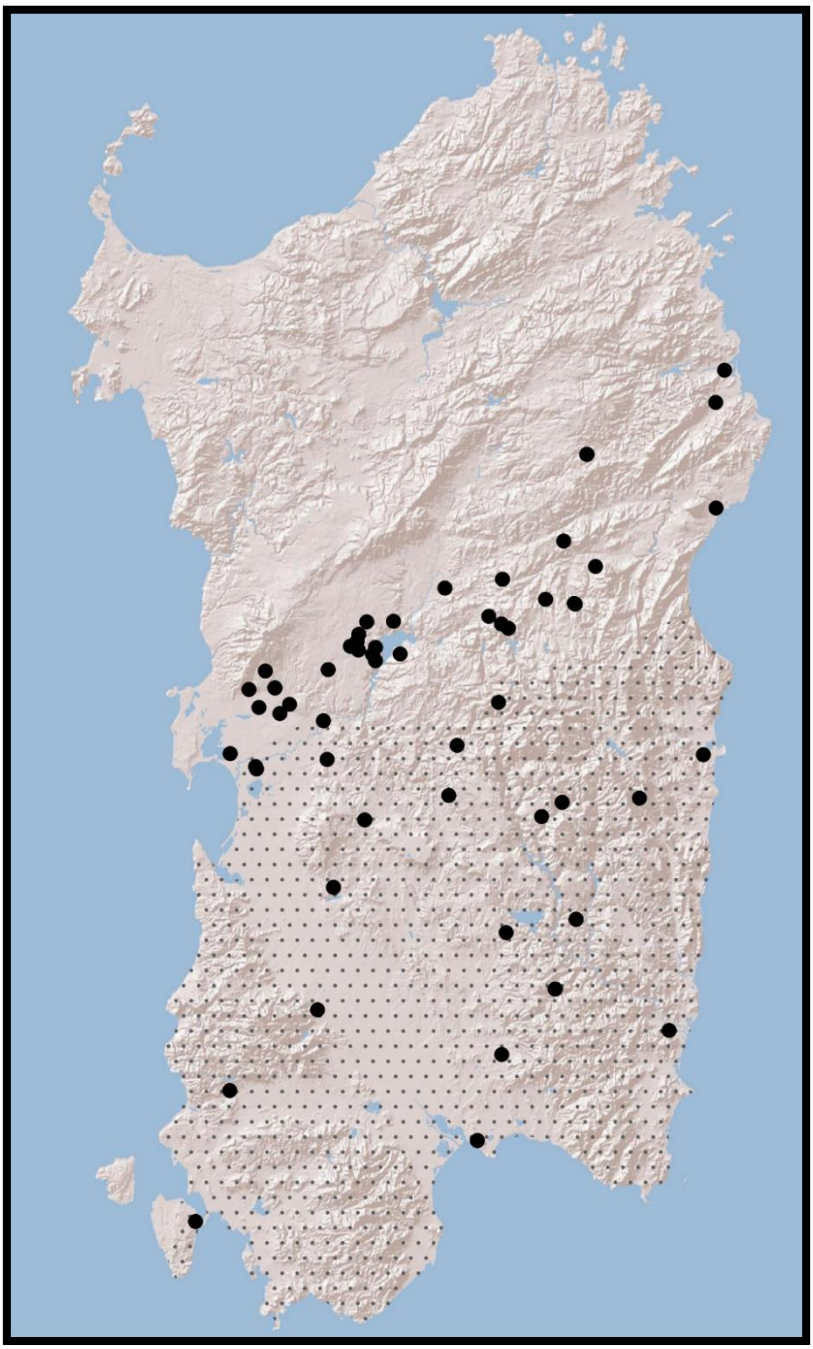

Figure 9.1.1: Distribution of forms containing **k(V)-*

9.1.1 **kV-*

First noted by Guarnerio (1904a: 58 fn. 2), there are words in the Sardinian lexicon that occur both with and without initial **k(V)-*. Some of the corresponding forms without **k(V)-* have other initial sequences, while others do not. There are six examples, all of which show an alternation.

	Meaning	Section	Form with **k(V)-*	Form without **k(V)-*	Reconstr.	Alt.
1	Celery, fool's watercress	§ 3.1.6	*kugúsa*	*ϑurgúsa, tseliɣúsa* etc.	**ku-gúsa*	✓
2	Mullein	§ 3.1.12	*kaðúmbulu* etc.	*túmbara*	**ka-túmb-*	✓
3	Pine tree	§ 3.3.12	*kampínğu* etc.	<< Lat. *pīneus*	**ka(m)-pinu̯*	?
4	Bed bug	§ 4.1.3	*kurústa*	*rústa*	**ku-rústa*	✓
5	Lizard	§ 4.3.2	*kalužèrta* etc.	*ϑilikèrta, aliɣèrta* << Lat. *lacerta*	**ka-la/ukerta*	✓
6	Marten	§ 4.5.9	*kassíβile* etc.	*assíle, síβile*	**k-assíbile*	✓

Table 9.1.1: Forms containing **kV-*

Especially notable is that two of the words that occur both with and without **k(V)-* are formed from inherited, Latin bases, i.e. Srd. *kampínğu* 'pine tree' < **kam-pínu̯* << Lat. *pīneus* 'of the pine' and Srd. *kalužèrta* < **ka-lukérta* << Lat. *lacerta* 'lizard'. Additionally, the sequence **k(V)-* alternates with **ϑ(i)-* in some forms (e.g. 1: *kugúsa* ~ *tseliɣúsa*; 5: *kalužèrta* ~ *ϑilikèrta*), which cannot be of inherited origin (cf. § 8.1.1; § 9.1.2). This is evidence that **k(V)-* was a pre-Roman prefix that could be added to Latin words (cf. Swanenvleugel 2024: 242–245). Figure 9.1.1 is an overview of the distribution of forms containing **k(V)-*. It has a clearly southern distribution, being absent from the northern portion of Sardinia (cf. also Swanenvleugel 2024: 244). This contrasts with the distribution of the pre-Roman prefix **ϑ(i)-* (§ 9.1.2).

9.1.2 **ϑ(i)-*

With regard to pre-Roman Sardinian, words starting in **ϑ-* are much discussed. This phone cannot be regularly inherited from Latin in this position (§ 8.1.1). From a semantic perspective, it has been noted that there are a substantial amount of words referring to small animals starting in **ϑi-* (Forsyth Major 1893: 154; Guarnerio 1904a: 57–58; Wagner 1932: 223–224; Wagner 1997: 263). The element has been compared to various phenomena in other languages, including the Berber feminine prefix **t-* (Wagner 1932: 223–224; 1997: 263). This is problematic because of a formal mismatch (cf. Blasco Ferrer 2011: 73). Pittau (1995:

197) compares **ϑi-* to the Etruscan demonstrative pronoun *ta/eta/ita*, which runs into similar formal problems, since Srd. **ϑi-* cannot directly go back to **t-*. Alinei (1984: 29) hypothesizes that all cases of **ϑi-* are originally from Srd. *ϑíu/tíu/tsíu* 'uncle', *ϑía/tía/tsía* 'aunt'; i.e. *ϑilikèrta* < **ϑía lakèrta* 'aunt lizard' (also Blasco Ferrer 2011: 73). This is semantically unconvincing, at the very least for the plant names like 'poppy' and 'celery, fool's watercress' that show evidence of **ϑi-* (see Table 9.1.2)(cf. Wolf 2011: 613 fn. 107). Like in the case of **kV-* (§ 9.1.1), there are some words that show an alternation between forms with and without **ϑ(i)-*.

	Meaning	Section	Forms with **ϑ(i)-*	Forms without **ϑ(i)-*	Reconst.	Alt.
1	Arum	§ 3.1.2	*ϑoϑoróyu*, *tattaróyu* etc.	Sic. *azzaru* etc.	**ϑ(-)aϑarói̯-*	?
2	Celery, fool's watercress	§ 3.1.6	*tseliɣúśa*	*ϑurgúśa*, *kugúśa* etc.	**ϑiligúsa*	✓
3	Poppy	§ 3.1.15	*ϑáṇḍa* etc.	*ánna*	**ϑ-ánda*	✓
4	Backswimmer	§ 4.1.2	*tsirifrúči*		**ϑilifurke*	×
5	Dragonfly, grasshopper	§ 4.1.9	*tsimpilíye*	[*kaḍḍ' e*] *pilíkke*	**ϑi(m)-pilíke*	✓
6	Earthworm	§ 4.1.10	*ϑilingròne* etc.		**ϑiling(u)lòne*	×
7	Grasshopper	§ 4.1.12	*ϑilipírke* etc.		**ϑilipírke*	×
8	Gecko	§ 4.3.1	*tilíbbu*		**ϑilikwu*	×
9	Lizard	§ 4.3.2	*ϑilikèrta* etc.	*kalužèrta*, *aliɣèrta* << Lat. *lacerta*	**ϑi-likerta*	✓
10	Skink, slug	§ 4.3.4	*ϑilikúkku* etc.	*alicúcu*	**ϑi-likúku*	✓
11	Kestrel	§ 4.4.5	*tilibríkku*, *at-tiliβríu* etc.		**ϑiliprí(kk)u*	×
12	Kite	§ 4.4.6	*ϑurulía*, *tirolía* etc.		**ϑurolía*	×
13	Bat	§ 4.5.2	*ϑiϑirri̯ólu*, *ϑuϑuréḍḍu* etc.	*tsirri̯ólu* etc.	**ϑi-ϑur(r)-*	✓
14	Neck	§ 7.1.4	*ϑúkru*, *ϑúɣulu* etc.		**ϑúkulu*	×

Table 9.1.2: Forms containing **ϑ(i)-*

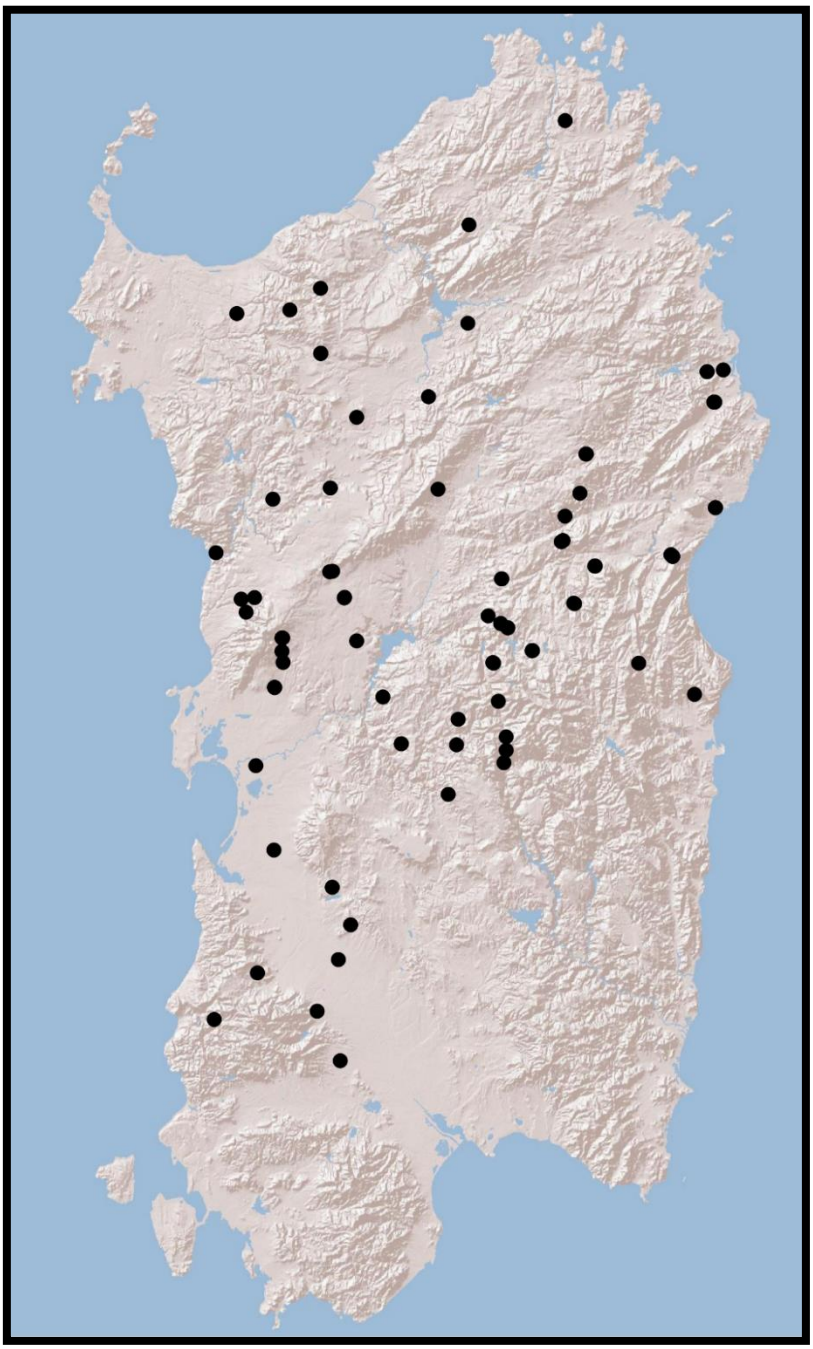

Figure 9.1.2: Distribution of forms containing **ϑi-* showing an alternation

Like **kV-* (§ 9.1.1), **ϑi-* appears to have been added at least once to a Latin stem: *lacerta* 'lizard' >> **ϑi-likérta* > Srd. *ϑilikèrta*. This, and its alternations in other words, e.g. *ϑáṇḍa* ~ *ánna* 'poppy', *ϑilikúkku* ~ *alicúcu* 'slug' etc., confirm that this was indeed a morpheme in a pre-Roman Sardinian language (cf. Swanenvleugel 2024: 256–257). Figure 9.1.2 shows the distribution of forms in which the morphemic status of **ϑ(i)-* is demonstrated by the existence of forms without **ϑ(i)-*. In contrast to the distribution of **k(V)-* (Figure 9.1.1), **ϑ(i)-* has a more northern distribution, being absent from the south-eastern portion of Sardinia (cf. also Swanenvleugel 2024: 258). The relation between **k(V)-* and **ϑ(i)-* is discussed in § 9.1.3.1.

9.1.2.1 **ϑVϑV-/*tsVtsV-*

A peculiar subset of words starting in **ϑ(i)-* show an initial sequence in **ϑVϑV-*, as already noted by Forsyth Major (1893: 154) and Guarnerio (1904a: 60). These forms all cooccur with forms that do not contain **ϑVϑV-*.

	Meaning	Section	Forms with **ϑVϑV-*	Forms without **ϑVϑV-*	Reconst.	Alt.
1	Snail, slug, beetle, cicada	§ 4.1.15	*sittsiɣórru*, *tiϑiɣórru*, *tsontsòrra* etc.	*kokòrra*, *piϑϑiɣórru* etc.	**ϑVϑV-(k)órnu*	✓
2	Skink, slug	§ 4.3.4	*sintsilúɣa*, *ϑaϑϑalúkka* etc.	*ϑilikúkku*, *ϑalakúkka*, *babbalúɣa*	**ϑVϑV-lúkka*	✓
3	Kite	§ 4.4.6	*čiččulía*, *sittsulía*	*tirolía*, *ϑurulía* etc.	**ϑiϑulía*	✓
4	Bat	§ 4.5.2	*tsintsimúrru* etc.	*tirṛiólu*, *ϑurrundéḍḍu* etc.	**ϑiϑiṛiólu*, **ϑiϑimúrru*	✓

Table 9.1.3: Forms containing **ϑVϑV-*

The examples are not uniform in nature. For Camp. *sittsiɣórru* 'slug, snail', DES (II: 422) proposes a compound of *sèttsiri* 'to put' and *kórru* 'horn'. This does not explain forms like *tiϑiɣórru* and *tsontsòrra*. It is in any case clear, however, that these words for 'snail, slug etc.' all contain the base *kórru* 'horn' < Lat. *cornu*, reshaped due to various sound-symbolic and folk-etymological processes (§ 4.1.15). Additional evidence for a more recent sound-symbolic origin for some of these forms is the fact that *-ts-* in Log. *tsintsòrra* etc. does not have a regular source (cf. § 8.1.4).

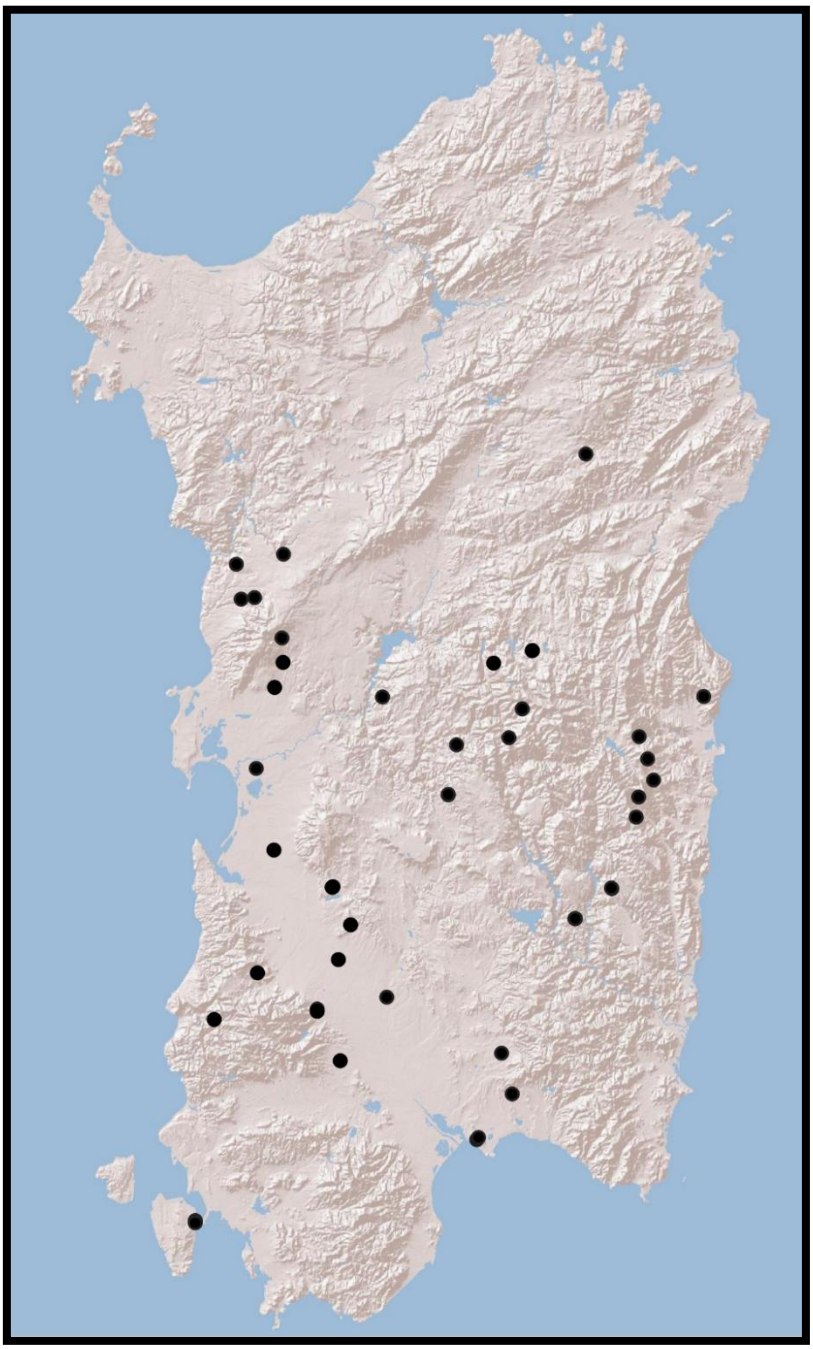

Figure 9.1.3: Distribution of forms containing **ə́Və́V-*

Moreover, we find a similar type of formation in a clearly onomatopoeic word like *ϑiϑilíkkos* 'tickles', next to *ϑakkulíttos*, *ϑeulíttos*, *tsangulíttas* etc. (DES II: 549). Similar explanations are attractive for the other listed words as well. Secondary insertion of **ϑVϑV-* could thus perhaps explain *ϑaϑϑalúkka* 'skink, slug', which corresponds irregularly to *ϑilikúkku*, *ϑalakúkka* (§ 4.3.4). Likewise, *sittsulía* 'kite' is nearly identical to more common *tirolía*, *ϑurulía* etc. < **ϑi/urolía* but with *-tts-* < **-ϑ-* instead of *-r-* (§ 4.4.6). Finally, *tsintsimúrru* 'bat' appears to be from the base **ϑi-ϑi/ur-* found in *ϑiϑiriɲólu*, *ϑuϑuréḍḍu* etc. 'bat', but with influence of *múrru* 'grey' or of homophonous *múrru* 'muzzle' (DES II: 556; cf. § 4.5.2).

Whatever the exact etymological details of these forms containing **ϑVϑV-*, they seem largely of secondary nature. As a consequence, there is no strong evidence that **ϑVϑV-* was ever a morpheme in any pre-Roman language. This is in line with the "diminutive" interpretation of this sequence proposed already by Forsyth Major (1893: 154). The distribution of forms containing **ϑVϑV-*, shown in Figure 9.1.3 suggests that the tendency of introducing **ϑVϑV-* is found predominantly in the southern half of Sardinia.

9.1.2.2 **ϑur-*

There is a single word that shows alternation between **ϑur-*, **kV-* and **ϑili-*:

	Meaning	Section	Forms with **ϑur-*	Forms without **ϑur-*	Reconst.	Alt.
1	Celery, fool's watercress	§ 3.1.6	*ϑurgúsa*, *ϑrugúsa*	*kugúsa*, *tseliɣúsa* etc.	**ϑur-gúsa*	✓

Table 9.1.4: Forms containing **ϑur-*

At face value, the alternations suggest that **ϑur-* was a distinct morphological element in the pre-Roman source language of this word. However, according to the criteria outlined in § 2.2.2, a single example does not constitute sufficient evidence to reliably identify a pre-Roman morpheme. Paulis (1992: 141) proposes a link between *ϑurgúsa* 'fool's water cress, wild celery' and *orgòsa*, *urgúsa* 'humid, marshy place', but this implies a separation of the word from all other forms denoting the same plants that also contain **-gúsa*, which is rather unattractive. Whether *ϑur-* in *ϑurgúsa* is a variant of **ϑi-*, or whether *ϑurgúsa* rose through association with *orgòsa*, *urgúsa* 'humid, shallow place', is difficult to establish on the basis of this example alone. Perhaps it is to be analyzed as **ϑ-urgúsa*, for which the form *uryúsa* (Orani) 'fool's watercress' (Blasco Ferrer 1988: 175) might be evidence.

9.1.2.3 **li-*

Many of the words that start in **ϑi-*, listed in Table 9.1.2, contain a sequence **-li-*, thus starting in **ϑili-*.

	Meaning	Section	Forms with **ϑili-*	Forms without **ϑili-*	Reconst.	Alt.
1	Celery, fool's watercress	§ 3.1.6	*tseliɣúśa*	*ϑurgúśa, kugúśa, atigúsa* etc.	**ϑeli-kúsa*	✓
2	Backswimmer	§ 4.1.2	*tsirifrúči*		**ϑilifurke*	×
3	Earthworm	§ 4.1.10	*ϑilingròne* etc.		**ϑiling(u)lòne*	×
4	Grasshopper	§ 4.1.12	*ϑilipírke* etc.		**ϑilipírke*	×
5	Gecko	§ 4.3.1	*tilíbbu*		**ϑilikwu*	×
6	Lizard	§ 4.3.2	*ϑilikèrta* etc.	*kalužèrta, aliɣèrta* << Lat. *-lacerta*	**ϑilikerta*	×
7	Skink, slug	§ 4.3.4	*ϑilikúkku* etc.	*alicúcu*	**ϑilikúku*	×
8	Kestrel	§ 4.4.5	*tilibríkku, at-tiliβríu* etc.		**ϑiliprí(kk)u*	×

Table 9.1.5: Forms containing **ϑili-*

In the case of *ϑilikèrta* 'lizard' << Lat. *lacerta*, *-li-* can be equated with the first syllable of the Latin form. The other etyma, on the other hand, do not have a Latin etymology. This raises the question whether **-li-* might in fact be a separate pre-Roman morpheme. There is a single form in which **-li-* demonstrably does not belong to the lexical stem of the form in which it is attested, namely South Log. *tseliɣúśa* 'wild celery' (Paulis 1992: 141). It seems to be related to forms like *ϑurgúśa*, *kugúśa* and *atigúsa* (Puddu 2023). The other etyma do not attest to any alternations. Whether the frequent cooccurrence of **ϑi-* and **-li-* is a matter of chance, or a petrified remain of pre-Roman morphology, is difficult to establish on the basis of the form *tseliɣúśa* alone, not least because its variant *ϑurgúśa* is not fully explained either (cf. § 9.1.2.2). Unsurprisingly, Figure 9.1.4 shows that the distribution of forms containing **ϑili-* falls within the distribution of forms with **ϑi-* (Figure 9.1.2).

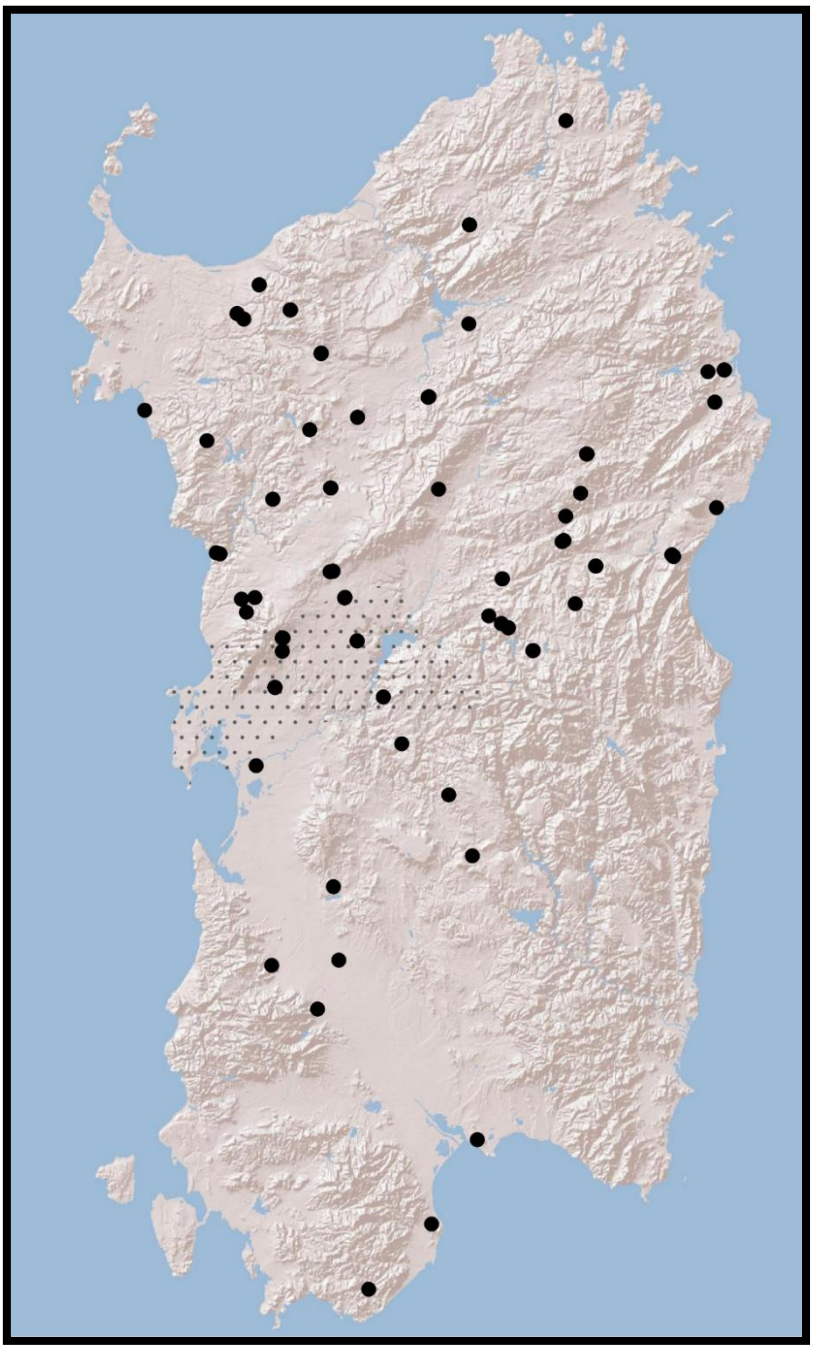

Figure 9.1.4: Distribution of forms containing **ϑili-*

9.1.3 Pre-Roman prefixes in Sardinian

In previous scholarship, there has been much attention on **ϑi-* as a potential pre-Roman prefix (§ 9.1.2). However, as we have seen, there is also evidence for the existence of a prefixed element **kV-* (§ 9.1.1). In addition, there are some indications, albeit much less strong, that there may have been a prefix **-li-* (§ 9.1.2.3). The sequence **ϑur-* does alternate with other sequences, but its single occurrence precludes any confident conclusions on its origin (§ 9.1.2.2). The identification of these apparent prefixes raises the question as to what their function was, and what they reveal about the morphology of the pre-Roman language to which they belonged.

9.1.3.1 The relation between **k(V)-* and **ϑ(i)-*

We have seen that the identified prefixes **k(V)-* and **ϑ(i)-* can occur on the same stems: e.g. *kalužèrta* ~ *ϑilikèrta* 'lizard', *kugúṡa* ~ *tseliɣúṡa* 'wild celery'. This suggests they were present in the same language and that they had a similar function. As illustrated in Figure 9.1.1 and Figure 9.1.2 **k(V)-* and **ϑ(i)-* have a different geographical distribution, with **k(V)-* occurring roughly in the southern half of Sardinia, and **ϑ(i)-* being more common in the north (cf. Swanenvleugel 2024: 259–261). Since Sardinian **ϑ-* in Latin sources goes back to palatalized *-tį̊-* and *-cį̊-*, **ϑ(i)-* may have been a palatalized variant of **k(V)-*. If one assumes this, multiple explanations are at hand for the variation between **k(V)-* and **ϑ(i)-* (Swanenvleugel 2024: 262–262). It could be conditioned by phonological factors, supported by the fact that **ϑ-* as a prefix is usually followed by the front vowel *-i-*. The variation could alternatively be due to dialectal variation in pre-Roman Sardinia, with **ϑ(i)-* being a variant of **k(V)-* in northern Sardinia. In any case, the proposed change from **k(V)-* to **ϑ(i)-* cannot have happened in Latin or Sardinian Romance, since inherited **ki-* does not palatalize in Logudorese and Nuorese, and palatalizes to *či-* in Campidanese, thus remaining distinct from **ϑi- > tsi-*.

9.1.3.2 The function of **k(V)-* and **ϑ(i)-*

By analyzing **k(V)-* and **ϑ(i)-* as variants of the same pre-Roman morpheme, the number of pre-Roman prefixes with sufficient evidence has been reduced to one (**ϑur-* and **-li-* being uncertain; § 9.1.2.2, § 9.1.2.3). In fact **ϑ(i)-* has been argued to originally not be a prefix at all, but a morphosyntactic element similar to an article (Wagner 1932: 223–224; 1997: 263; Pittau 1995: 197). The original grammatical function of **k(V)-* and **ϑ(i)-* is probably impossible to retrieve. Definiteness, noun class, number, size, proximity, pejorativity etc., all belong to the possibilities. This analysis comes closest to that of Pittau (1995: 197), although his com-

parison of **ϑi-* to the Etruscan demonstrative pronoun *ita/eta/ta* is formally problematic. Intriguingly, Etruscan had a functionally identical demonstrative pronoun *ica/eca/ca* (Wallace 2008: 59–63), which is formally a better comparison to Sardinian **k(V)-*.[266]

At some point in the history of Sardinian, **ϑi-* spread to other parts of the lexicon. It was secondarily introduced in inherited words; e.g. Log. *tilíbba* 'bean pod' < **ϑilikwa*, next to regular Camp. *siβíkkwa* < Lat. *siliqua* 'id.' (DES II: 417); *ϑilikèrta* 'lizard', next to *kalužèrta*, *aliyèrta* < Lat. *lacerta* 'id.'. It is furthermore found in such expressive nouns as *ϑiϑϑilíkkos* 'tickles' (DES II: 549). It is difficult to establish to what extent the spread of **ϑi-* was the result of analogy to pre-Roman words containing it, or of its productivity as an expressive marker. Serra (1956: 175) compares some Italian dialectal forms for 'slug', and 'snail' that seem to contain a prefixed *ca-*/*cia-* too; e.g. Garganic *calascertə* 'lizard' (Rodi Garganico) < Lat. *lucerta* 'id.', Abruzz. *cacozzə* next to *cozzə* (Città Sant'Angelo) 'slug', Campan. *ciammarruca* (Riardo, Versano) 'snail' etc. If and how these are related to Srd. **k(V)-* requires further research.

9.2 Suffixes

9.2.1 **-Ví*

Endings of the shape *-Ví* are common in Sardinian toponyms. They are found, for instance, in the toponyms *Ollolái*, *Orϑái* (It. Olzai), *Baunéi*, *Gavói* etc.[267] These were first identified as pre-Roman suffixes by Terracini (1927: 139). He argues that this pre-Roman *-Vi̯* may have had a function similar to Lat. *-ētum*, which forms collectives and is often used to denote places where specific plants grow; e.g. *pīnētum* 'pine grove' << *pīnus* 'pine', *vīnētum* 'vineyard' << *vīnum* (Weiss 2009: 293). This interpretation of *-Vi̯* is based on the observation that several toponyms containing this apparent suffix seem to have been derived from plant names of both pre-Roman and Latin origin; *Cannái* << *kánna* 'reed' (Terracini 1927: 139), *Tuvarai* << *túvara* 'heather' (Hubschmid 1963a: 151), *Colovrai* << *kolóvru* 'snake' etc. (Wagner 1997: 265).[268] Serra (1956: 189) attentively notes that various phonetic inputs could have yielded a sequence of the shape *-Vi̯*, and it is

[266] For the potential relatedness between Etruscan and a pre-Roman language of Sardinia, proposed by Pittau (1995), see § 10.4.

[267] For many more examples, see Blasco Ferrer (1984a: 10–11), Wagner (1997: 265) and Wolf (1998a: 53–55).

[268] Note that the form *Colostrais*, recorded in Terracini (1927: 139) and compared to Srd. *golóstri* etc. 'holly' by Bertoldi (1928: 231), is erroneous for *Tolostrai* (Serra 1956: 182–183).

therefore unlikely that all toponyms in *-*Vi̯* contain the same pre-Roman morpheme (cf. Wolf 1998a: 74–75 for examples).

Whereas Terracini (1927: 139) simply notes that *-ái*, *-éi* etc. could have had a function similar to Lat. *-ētum*, this has generally been taken to mean that *-Ví̯* was originally a pre-Roman collective suffix (Wagner 1997: 265; Hubschmid 1963a; Wolf 1998a: 53). Fact is however, that the pre-Roman Sardinian suffix *-Ví̯* is overwhelmingly attested in toponyms, many of which are semantically opaque (cf. also Serra 1956: 204–205). It is not fully clear to me why its identification as a collective is preferable over interpreting it simply as a suffix denoting a place. So, instead of analyzing *Cannái* and *Tuvarái* as collective 'bunch of reed' and 'bunch of heather' respectively, we may consider an analysis like 'place where reed grows', 'place where heather grows'. Such an interpretation is closer to the function of Lat. *-ētum*, and would also explain why *-Ví̯* is so frequent in toponyms. Furthermore, the fact that the few transparent placenames with *-Ví̯* are derived from plant names, does not imply that pre-Roman *-Ví̯* was attached to plant names only. The vast majority of toponyms ending in *-Ví̯* is semantically opaque, and may well have been derived from nouns in different semantic domains. Table 9.2.1 is an overview of the lexical evidence for pre-Roman *-*Vi̯*.

	Meaning	Section	Form	Reconst.	Alt.
1	Arum	§ 3.1.2	*sattsarói̯*, *tattaróyu*, *θoθθoróyu* etc.	**θaθarói̯*	×
2	Cockroach, darkling beetle	§ 4.1.7	*siśáya*, *seiśèi* etc.	**sisai̯a*, **sei̯sèi̯*	×

Table 9.2.1: Lexical forms containing *-Ví̯*

Only three lexical words discussed in § 3 – 7 exhibit an ending *-*Vi̯*, of which one (*golléi̯* 'plateau') is of Latin origin (§ 5.1.11). The two remaining examples are predominantly attested with a vowel following the sequence *-*Vi̯*-. This contrasts with what we find for toponyms in *-Ví̯*, which rather alternate with forms in final accented vowels; e.g. *Olloláis* ~ earlier *Ollala*; *Lodé* ~ earlier *Lotdé*, *Lodey* (Wolf 1988: 868–869). Because of a lack of related forms that do not contain *-*Vi̯*, there is no positive evidence that this sequence was ever a separate morpheme in these two words. Therefore, a connection with the hypothetical toponymic suffix *-*Ví̯* cannot be proven. As a consequence, the Sardinian lexicon does not provide evidence for the existence of a pre-Roman suffix *-Ví̯*, regardless of whether it had a collective or a locative function. Nevertheless, its preponderance in Sardinian toponymy still makes its morphemic status plausible.

9.2.2 *-*Vk*-

Endings of the shape *-*Vk*- are often found in toponyms; e.g. *Piaghe* (It. Ploaghe) < OSrd. *Ploauake*, *Plavaki*; *Carzeghe* (It. Cargeghe) < Osrd. *Carieke*; *Loʔomaʔe*; *Ortoiʔe*; etc. This sequence has been interpreted as a pre-Roman suffix (Wagner 1952: 17–18; Hubschmid 1963a: 165–167; Wolf 1998a: 74). In the lexicon, the same ending is notably present in the word *nuráke* 'nuraghe', which is almost certainly of pre-Roman origin.

A complicating factor for the identification of instances of pre-Roman *-*Vk*- is the fact that this sequence also has Latin sources. Primarily, it can be directly inherited for Latin words with suffixes *-āx*, *-īx*, *-ex* or *-ox*; e.g. Lat. *ferāx* 'fertile', *cīmex*, *-icem* 'bed-bug', *cornīx* 'crow', *ātrōx* 'fierce' etc. (cf. Weiss 2009: 305–307). Of these, especially Lat. *-āx* > Srd. *-áke*, *-áɣe*, *-áži* has had some degree of productivity; e.g. *preðáʔe* (Fonni) 'animal trap' << *prèða* 'stone' (Wagner 1952: 20). Other sources of Sardinian *-áke*, *-áɣe*, *-áži* are loans from Greek, Catalan, Spanish and Italian (Wagner 1952: 20). Unaccented *-́ike*, *-́iɣe*, *-́iži* has spread secondarily as well, first by accent shifts in inherited forms (e.g. Nuor. *préðike* 'partridge' << **perdíke* < Lat. *perdīx*), and later by productive suffixation (e.g. *lattúrike* (Bitti) 'spurge' << Lat. *lactoris*), particularly in the Nuorese dialects (Wagner 1952: 22–23). The productivity of these inherited suffixes raises the question whether a pre-Roman suffix *-Vk*- needs to be posited at all. After all, the semantic opacity of most pre-Roman toponyms hinders any confident identification of *-Vk*- as a suffix. Therefore, the acceptance of a pre-Roman *-Vk*- largely depends on the question whether the presence of this ending on lexical items of probable pre-Roman origin is original or due to productive extension of the same suffix from the inherited lexicon.

We will now turn to the lexical material discussed in § 3 – 7 whose stems end in *-Vk*- and which are therefore candidates for containing a suffix *-Vk*-. The material will be discussed separately according to the vowel in the ending.

9.2.2.1 *-*ák*-

All potentially pre-Roman Sardinian words ending in *-*ak*-, are stressed on the ending. This is in line with the behaviour of *-*ak*- in inherited words, which continue Lat. *-āx*. Excluding *surváke* 'horsetail' (cf. DES II: 450), which has been derived from *survare* 'to whistle' by Paulis (1992: 384), there are three candidates (Table 9.2.2).

	Meaning	Section	Form	Reconst.	Alt.
1	Oleander	§ 3.3.11	*neuláke, leonáržu, leonáǧi* etc.	**leonáke*	?
2	Cockroach, beetle	§ 4.1.6	*meláɣe, melogi* etc.	**meláke*	×
3	Nuraghe	§ 5.2.2	*nuráke, nuráɣe, nuráži, NURAC*	**nurák*(*e*)	×

Table 9.2.2: Forms containing **-ák-*

The obvious starting point for a discussion regarding hypothetical pre-Roman *-ák-* is the word *nuráke, nuráɣe, nuráži* 'nuraghe', which refers to the distinctive and typically Sardinian monuments pre-dating the Roman presence on the island. The word is actually attested in a Latin inscription as *NURAC* on a nuraghe itself. While some have analyzed **nuráke* of an **-ák-*derivation of a stem **nur-*, which is supposedly found in Old Sardinian toponyms such as *Nora, Nure* (Terracini 1927: 140; 1936: 55; Wagner 1952: 18; Hubschmid 1953: 45; Blasco Ferrer 2010a: 108–109, 115; 2011: 83), this analysis rests on formal similarity only.[269] The same goes for the few names of nuraghes starting in *nur-* (e.g. Nuridda; Hubschmid 1953: 45). As long as a semantic value of the element *nur-* cannot be established, it cannot be ruled out that **nurak-* was monomorphemic.[270]

The same issue affects the two other words containing **-ák-*, i.e. *neuláke, leonáržu, leonáǧi* etc. 'oleander' and *meláɣe* etc. 'cockroach, beetle'. The word for 'oleander' does exhibit an apparent alternation between **-áke* and **-áriu*, but *leonáržu* may have been reshaped from expected ***leonáži* < **leonáke*, rather than being formed independently from a root **leon-*. Paulis (1992: 419–420) proposes that *neuláke* 'oleander' is a derivation from inherited *néula* 'mist' by means of the supposed pre-Roman suffix *-áke*. As discussed in § 3.3.11, this does not satisfactorily explain other attested forms, including *leonáržu, leonáǧi* etc. Nevertheless, if Paulis is right, it is difficult to dismiss the possibility that *-áke* is in fact the suffix inherited from Lat. *-āx*, which was somewhat productive in Sardinian (Wagner 1952: 20). For *meláɣe* 'cockroach, beetle', there is no internal evidence for *-ák-* functioning as a suffix altogether. *Meláɣe* has been proposed by Paulis (1983: 52) to be of Byzantine origin, in which case it is irrelevant to the question whether **-ák-* existed as a pre-Roman suffix.

We are thus left with a single Sardinian word that is both undoubtedly of pre-Roman origin and in which the presence of **-ák-* is original, namely *nuráke*

[269] For a discussion of the proposed connection between Srd. *nuráke* etc. and *núrra* 'shaft; pile', cf. § 5.2.2.

[270] A connection between *-ák-* in **nuráke* and the Basque plural marker *-ak* (Blasco Ferrer 2010a: 115) is out of the question; cf. § 5.2.2.

'nuraghe'. The relevance of the next best candidate, *neuláke*, *leonáği* 'oleander', depends on one's interpretation of its etymology. Neither *nuráke* nor *neuláke*, *leonáği* offer compelling evidence for the view that **-ák-* was suffixal however. Without suffix-less bases of the type **nur-*, **neul-/*leon-*, there is no compelling reason not to treat *nuráke* 'nuraghe' and *neuláke, leonáği* 'oleander' as originally monomorphemic formations.

9.2.2.2 **-ik-*

There is some evidence for the existence of a pre-Roman ending **-ik-* (Table 9.2.3). We encounter forms with stressed *-ík-* as well as with unstressed *-́ik-*. Both of these also occur in the inherited lexicon, where they go back to Latin words in *-īx* and *-ex* respectively.

	Meaning	Section	Forms with **-ik-*	Forms without **-ik-*	Reconst.	Alt.
1	Poison hemlock	§ 3.1.11	*uḍḍúriɣu*	*buḍḍúri* etc.	**vullúri-ku*	✓
2	Holly	§ 3.3.7	*ʔolóstiʔe*, *golóstiʔe*, *olóstriɣe*	*golóstɨu* etc.	**golósti-ke*	✓
3	Maple	§ 3.3.9	*kòstike*, *kòstiɣe*	*kòsti*	**kòsti-ke*	✓
4	Spider	§ 4.1.14	*solóiɣa*, *soloíɣa*		**solo(C)ika*	×
5	Worm	§ 4.1.17	*tsarríɣa*, *tserríɣu*, *tsorroíɣu* etc.		**ϑVrroík-*	×

Table 9.2.3: Forms containing **-ik-*

The first three words in Table 9.2.3 denote plants. All three of them show an alternation between forms with and without unstressed **-́ik-*. This is good evidence that **-́ik-* in these words is of suffixal origin. Interestingly, in all three cases the suffix-less forms end in the vowel *-i*, making an analysis of this suffix as **-k-* more appropriate. All three phytonyms are generally taken to be of pre-Roman origin, which again suggests that **-(i)k-* was a pre-Roman suffix. However, Wagner (1952: 23) notes that in the Nuorese dialects, unstressed **-́ik-* is sometimes secondarily added to inherited bases; e.g. *lattúrike* (Bitti) 'spurge' < Lat. *lactoris*; Nuor. *gremédḍikes* (pl.) 'twins' << Lat. *gemellus*.

The details of this addition of **-́ik-* to inherited words are slightly different than those in *udḍḍúriɣu* (1), *ʔolóstiʔe* (2) and *kòstike* (3)(see Table 9.2.3). All instances of *-́ik-* in pre-Roman words are found in roots that ended in *-i*. The inherited examples of *lattúrike* and *gremédḍikes*, on the other hand, show that *-́ik-* could be added to inherited consonant stems as well as thematic stems. Nevertheless, it

still cannot be ruled out that the addition of *-(i)k-* to the originally pre-Roman words for 'poison hemlock', 'holly' and 'maple' is the result of the same secondary productivity of *-ík-*, perhaps aided by the fact that these words already ended in *-i*. As a consequence , they do not constitute compelling evidence for the existence of accented *-(i)k-* as a pre-Roman suffix. The remaining two words, which both refer to animals, show either stressed *-ík-* (5: *tsarríɣa*, *tsorroíɣu*), or an alternation between stressed and unstressed *-ik-* (4: *soloíɣa* ~ *solóiɣa*). This alternation has been argued to be secondary (cf. Wagner 1941a: 2–3; 1952: 23). At any rate, neither of these examples exhibits variants without *-ik-*, making the identification of *-ik-* as a suffix problematic. Note furthermore that *soloíɣa*, *solóiɣa* (4) 'spider' is probably related to Lat. *solifuga*, *solipuga* (§ 4.1.14), which clearly does not contain *-ik-*. For a discussion on the phonological discrepancies between these forms, see § 8.2.1.1.

9.2.2.3 On the existence of pre-Roman *-*Vk*-

On the basis of the forms discussed above, there is hardly any compelling evidence for the existence of a pre-Roman suffix *-Vk-*, whatever its vocalism. Whereas it is beyond doubt that there were pre-Roman words ending in such a sequence, most notably **nurak-* 'nuraghe', we cannot conclude with confidence that this sequence was an independent morpheme rather than a part of the lexical root. This also applies to the various toponyms ending in *-Vk-* listed by Wagner (1952: 17–18) and Wolf (1998a: 74). Conversely, for those words that do exhibit alternation between forms with and without unstressed *-ík-*, it cannot be ruled out that we are dealing with secondary productivity of an inherited morpheme.

9.2.3 *-*l*-

Forms ending in *-Vl-* are well-represented among pre-Roman Sardinian toponyms (Terracini 1927: 142; Hubschmid 1963a: 163–165; Wolf 1998a: 58–59, 64–65). In addition, the ending *-Vl-* occurs in various lexical words too. As a potential pre-Roman suffix, it has received less attention than *-*Vi̯* (§ 9.2.1) and *-*Vk-* (§ 9.2.2).

9.2.3.1 *-*al*-

Wolf (1998a: 58–59) records several Barbaricine toponyms ending in unaccented *-al-*. This is unlikely to go back to Latin, as in Latin unstressed short vowels in open syllables were largely reduced to *-i-* in open syllables, or to *-u-* before *l pinguis* (Weiss 2009: 116–117). As with all affixes discussed in this study, the question is whether *-al-* was originally a suffix in fact rather part of the stem. In the lexical

material discussed in § 3 – 7, there are two words that contain this sequence (see Table 9.2.4).

	Meaning	Section	Forms with *-*al*-	Reconst.	Alt.
1	Clothes moth	§ 4.1.5	*nástala, lanásta*	**nástala* (?)	×
2	Waterbasin, stream	§ 5.1.27	*ϑúrgalu* etc.	**ϑúrgalu*	×

Table 9.2.4: Forms containing *-*al*-

In the case of the word for 'clothes moth', there is some discussion whether *nástala* or *lanásta* is the original form of the word. If *lanásta* is original, then this word does not contain a suffix *-al-*. In any case, neither *nástala* 'clothes moth' nor *ϑúrgalu* 'waterbasin, stream' exhibit any alternation that can be taken as evidence for *-al-* being a suffix. On the basis of these data there is thus no reason to posit the existence of a pre-Roman morpheme *-al-*.

9.2.3.2 *-*el*-

The sequence *-él-* occurs in various Sardinian toponyms of plausible pre-Roman origin (Serra 1956: 203–204; Wolf 1998a: 64). A pre-Roman suffix *-él-* is posited in DES (II: 481) for a single lexical word: *tevèle* 'tilled land'. However, a similar ending is found in [*pan'*] *ispéli* 'acorn bread' (see Table 9.2.5).

	Meaning	Section	Forms with *-*el*-	Reconst.	Alt.
1	Tilled land	§ 6.1.8	*tèle, tevèle*	**t(ev)èle*	×
2	Acorn bread	§ 6.2.1	[*pan'*] *ispéli*	**ispéli*	×

Table 9.2.5: Forms containing *-*el*-

Wagner (DES II: 481) reconstructs *tevèle* as **tev-èle*, with *-èle* as an original suffix. This is based on the occurrence of various toponyms ending in *-èle*, *-éli*. However, without alternating forms of this word and without any other words containing *-èle*, the evidence for **-ele/*-eli* as a pre-Roman suffix is solely based on toponyms. This renders the identification of the ending *-èle* in *tèle*, *tevèle* 'tilled land etc.' rather speculative — the lexical base may well have been monomorphemic. The same applies to *ispéli* 'acorn bread', which does not offer any evidence for *-éli* being a suffix either.

9.2.3.3 *-*il*-

The sequence *-ile*, both accented and unaccented, is found in various Sardinian toponyms and lexical words (Table 9.2.6). It has been identified as a suffix and compared to ancient North-African and Iberian toponyms (Meyer-Lübke 1925: 77; Terracini 1927: 142; Wagner 1997: 257; Hubschmid 1963a: 152–153). Serra (1956: 203) argues that *-íle* was secondarily introduced in some inherited words, by

influence of pre-Roman "Afro-Ibero-Sardinian" words. Wolf (1998a: 59, 64) presents several toponyms that end in accented *-íle* or unaccented *-́ile*, but he does not offer direct evidence that these sequences are separate morphemes.

	Meaning	Section	Forms with *-*ile*	Forms without *-*ile*	Reconst.	Alt.
1	Bermuda grass	§ 3.2.1	*oroḍḍáṡile*	*oroḍḍáṡu*	*(*nodu-*)*ollás-ile*	✓
2	Weed	§ 3.2.6	*nuríle*		**nuríle*	×
3	Marten	§ 4.5.9	*kassíβile*, *assíle* etc.		*(*k*)*assíbile*	×
4	Plateau (etc.)	§ 5.1.13	*séttile*	*séttị̊a*, *séttị̊u*	**sétt*(*i*)*-ile*	✓
5	Secluded place	§ 5.1.24	*óspile*		**óspile*	×
6	Summit	§ 5.1.26	*težíle*		**tekíle*	×

Table 9.2.6: Forms containing *-*ile*

In two examples, the ending *-ile* is accented (2: *nuríle*, 6: *težíle*). In the other four, it is unaccented. We find an alternation between suffixed and un-suffixed forms in two words only: *oroḍḍáṡile* ~ *oroḍḍáṡu* (1) 'Bermuda grass' and *séttile* ~ *séttị̊u* (4) 'plateau (etc.)'. For the other forms, the status of *-íle/-́ile* as a suffix is less certain. Moreover, both Srd. *-íle* and *-́ile* are also inherited from Lat. *-īlis* and *-ĭlis* and form productive derivations in Sardinian (Wagner 1952: 40–44). For *oroḍḍáṡile* and *séttile* it is therefore probable that *-́ile* is in fact due to productivity of a suffix inherited from Latin.

There is thus no convincing lexical evidence for *-ile* being a pre-Roman suffix. For the majority of the relevant words it is impossible to judge whether *-ile* did or did not originally belong to the lexical stem. For *óspile* 'secluded place' (5) it may be noted that it has been compared to Bq. *ospel* 'shadowy place' (Wagner 1932: 227; DES II: 198), which according Trask (2008: 320) may contain the root **bel* 'dark'.[271] If this is correct, the *-́ile* in *óspile* cannot be an original suffix.

9.2.3.4 On the existence of pre-Roman *-*Vl*-

As in the case of *-*Vk*- (§ 9.2.2.3), the lexical data do not provide sufficient evidence for the existence of any pre-Roman suffix of the shape *-*Vl*-. The only words that do show an alternation are *oroḍḍáṡile* ~ *oroḍḍáṡu* 'Bermuda grass' and *séttile* ~ *séttị̊u*, but *-íle* and *-́ile* are in fact also inherited suffixes. The fact that the

[271] See § 10.3 for a discussion of the proposed Sardinian-Basque comparanda.

lexical material does not provide evidence for a suffix (or several different suffixes) *-*Vl*- does not preclude that it is a suffix in pre-Roman toponymic forms (Terracini 1927: 142; Hubschmid 1963a: 163–165; Wolf 1998a: 58–59, 64–65). It may well be that the lexical evidence simply is too scarce. There is however also a reasonable possibility that at least some of the attested sequences -*Vl*- are originally no suffixes, but integral parts of the stem, both in lexical and toponymic forms.

9.2.4 *-*n*

9.2.4.1 *-́*Vn*-

Various pre-Roman Sardinian toponyms end in unaccented -́*Vn*- (Hubschmid 1963a: 170; e.g. Wolf 1998a: 58). The same ending is found in a small number of lexical items (Table 9.2.7).

	Meaning	Section	Forms with *-́*Vn*-	Reconst.	Alt.
1	Galingale	§ 3.2.3	*sèssene* etc.	**sèssene*	×
2	Resin	§ 3.4.5	*tsònkine* etc.	**ϑònkene*	×
3	Bat	§ 4.5.1	*čížini* etc.	**kíkin-*	×
4	Border	§ 5.2.1	*lákkana* etc.	**lákkana*	×

Table 9.2.7: Forms containing *-́*Vn*-

None of the words in Table 9.2.7 show an alternation between variants with and without final *-́*Vn*-. The existence of a pre-Roman suffix *-́*Vn*- can therefore not be established on the basis of the lexical evidence.

9.2.4.2 *-*òne*

The sequence -*òne*, including its regular dialectal correspondents, is frequent in the Sardinian lexicon. It has various sources. Mainly, it continues the suffix of Latin nouns in -*ō* (cf. Weiss 2009: 309–314), which like in other Romance languages is productive as an augmentative suffix (Wagner 1952: 57–58). Terracini (1936: 59–60) notes however that there is a significant number of evidently non-native words ending in the same suffix in Latin sources. Among these are the animal names *lalisiones*, *musmones*, *theldones* attested in Pliny. This leads Terracini to suggest that all instances of the Latin suffix -*òne* were eventually borrowed from non-Indo-European languages that Latin was in contact with. This is too bold a statement, as it is generally held that Lat. -*ō*, -*ōnem* continues the IE -*n*-stems (Weiss 2009: 309). Nevertheless, it remains plausible that the increased productivity o *-*one* in the Romance languages is the result of a conflation of the suffix -*òne* in both inherited and non-inherited words. Table 9.2.8 shows the non-inherited Sardinian etyma ending in -*òne*.

	Meaning	Section	Forms with *-*òne*	Forms without *-*òne*	Reconst.	Alt.
1	Annual mercury	§ 3.1.1	*kaðòne* etc.		**katòne*	×
2	Celery, fool's watercress	§ 3.1.6	*turgusòne*	*ϑurgúsa*	**ϑurgus-òne*	✓
3	Smilax	§ 3.3.15	*titt̰ìone* etc.	*tétti*	**tetti-òne*	✓
4	Strawberry tree	§ 3.3.16	*oliðòne* etc.		**olidòne*	×
5	Strawberry tree fruit	§ 3.3.18	*liṡòne*, *biliṡòne*, *liṡiriòne*		**lis*(*ir̰i*)*-òne*	✓
6	Earthworm	§ 4.1.10	*ϑiling*(*r*)*òne*	*tilínğa*, *tilíngu*	**ϑiling*(*ul*)*-òne*	✓
7	Plover	§ 4.4.7	*kulurdzòne*, *kulirğòni* etc.		**kulVr̰ìone*	×
8	Robin	§ 4.4.10	*griṡôi*	*gríṡi*	**gris-òne*	✓
9	Mouflon	§ 4.5.10	*murvòni*, *muɣròne* etc.	*múrva*	**mufr-òne*	✓
10	Rock crevice	§ 5.1.20	*maraɣòni*		**marakòne*	×
11	Pile of rocks	§ 5.2.3	*marganğòni*		**marganı̯ìone*	×
12	Tangle/bundle of wood	§ 7.2.4	*barraṡòne*, *bariṡòne* etc.	*barraṡólu* etc.	**bar*(*r*)*Vs-òne*	✓

Table 9.2.8: Forms containing *-*òne*

Seven of the twelve words exhibit a morphological alternation that shows that *-òne* is indeed a suffix.[272] Because of the productivity of inherited *-òne* however, it is impossible to demonstrate that *-òne* was already present in the respective pre-Roman source words. In fact, words like *titt̰ìone* and *liṡiriòne* show that *-òne* was added to *tétti* and *liṡiri-* at a late stage, since the inherited clusters **-tt̰i̯-* and **-r̰i̯-* would be expected to yield ***-tt-* and ***-ğğ-* respectively in the dialects in which these variants are attested. Possibly, the addition of *-òne* was a strategy of incorporating non-inherited nouns into the native lexicon. Some of the words in Table 9.2.8, although probably not inherited from Latin, are attested with the same suffix already in Classical times: *kaðòne* (1; cf. Lat. *catone*), *oliðòne* (4; cf. Lat. *ūnedō*), and *murvòne* (9; cf. Lat. *mufron*). With the exception of Lat. *mufron* 'mouflon', which specifically refers to a Sardinian and Corsican animal, these words are not restricted to Sardinia and are thus not indicative of a specifically pre-Roman Sardinian suffix **-òne*. Despite the uncertainty of the origin of **-òne*

[272] Although both *liṡòne* and *liṡiriòne* 'strawberry tree fruit' contain *-òne*, the fact that the element *-iri-* occurs between *liṡ-* and *-òne* in *liṡiriòne*, suggests that *-òne* is a separate morpheme.

in individual words, its frequent occurrence on Sardinian words of probable pre-Roman origin, as well as on pre-Roman toponyms of Sardinia (Terracini 1936: 59–60; Wolf 1998a: 63–64), indicates that there may have been a morpheme *-*òn*- in pre-Roman Sardinian. In the process of language shift to Latin, this pre-Roman *-*òn*- merged with the various inherited and non-inherited sources of Latin and Romance *-*one* and became a productive suffix. Because of this conflation however, it is impossible to determine with certainty which words contain pre-Roman -*òne*, and which productively added *-*òne* of inherited Latin origin.

9.2.5 *-*nk*-

Suffixes of the type *-*nk*- have often been posited for toponyms and lexical words in other regions of the Mediterranean (e.g. Hubschmid 1963a: 157). There is one instance in which we encounter an ostensible alternation of forms with and without an apparent suffix -(*a*)*nka*. The element in question is *kalánka* 'rock crevice, precipice, cave' (§ 5.1.19), which may be derived from *kála* '(animal) shelter; sheltered place' (§ 5.1.3)(Table 9.2.9).

	Meaning	Section	Forms with *-*nk*-	Forms without *-*nk*-	Reconst.	Alt.
1	Rock crevice, precipice, cave	§ 5.1.19	*kalánka*	**kála* 'animal den' (§ 5.1.3)	**kalánka*	✓

Table 9.2.9: Forms containing *-*nk*-

Both *kála* and *kalánka* have wide-spread correspondents in the western Mediterranean Romance languages. The presumed suffix-hood of *-(*a*)*nka* is predominantly based on the semantic proximity of **kála* and **kalánka*, and on the existence of other non-inherited words ostensibly containing the same suffix, such as **barrank*- 'gorge', and **palank*- 'roller, beam' (FEW II: 56). However, the presence of both **barrank*- and **palank*- in Sardinian is due to borrowing from Spanish or Catalan (cf. DES I: 181, II: 207). Moreover, Romance **palanka* hails back to Gr. φάλαγξ, -αγγος 'roller, beam' (FEW VIII: 356). Besides the coexistence of phonologically and semantically similar **kála* and **kalánka* the only other lexical evidence for *-*nk*- as a suffix is found in formations like Log. *troḍḍiánkulu*, Camp. *troḍḍiánčulu* 'someone who farts' << *troḍḍiáre* 'to fart' and Log. *piβiánkulu* 'cuddly' << *piβíu* 'caress' (Wagner 1952: 113). In this type of formation, *-ank*- clearly has an affectionate meaning. A diminutive meaning is found for *-onk*-, in Camp. *pillónku* 'skin, film' << *píllu* 'layer' (Wagner 1952: 112). These uses of -(*a*)*nk*- and -*onk*- can hardly explain *kalánka* 'rock crevice, precipice, cave' as a derivation

from *kála* '(animal) shelter; sheltered place' and are likely unrelated morphological elements.

The sequence *-*nk*- is reported to be rare in Sardinian toponyms by Hubschmid (1963a: 157). It is not mentioned at all in the toponymic studies by Wolf (1998a) and Blasco Ferrer (2011: 82–85). This reduces the evidence of *-*nk*- as a pre-Roman derivational suffix to a single lexical word, which is not sufficient to substantiate its existence in any pre-Roman Sardinian language. One possible explanation for the coexistence of *kála* and *kalánka* is that they are in fact not etymologically related, but two distinct monomorphemic words **kal*(*a*) and **kalank*(*a*) that entered Sardinian from a pre-Roman source. Alternatively, if one does not want to give up the link between these two words, it is possible to assume that Srd. *kalánka* entered Sardinian in more recent times from one of the other Romance languages in which it occurs.[273]

9.2.6 *-*r*-

Endings containing non-geminate *-*r*- can be divided into accented *-*úri* (§ 9.2.6.1) and unaccented *-*V́r*- (§ 9.2.6.2). The latter in particular has frequently been discussed as a potential pre-Roman morpheme.

9.2.6.1 *-*úri*

The ending -*úri* occurs on two plant names recorded in DES (Table 9.2.10).

	Meaning	Section	Forms with *-*úri*	Forms without *-*úri*	Reconst.	Alt.
1	Poison hemlock	§ 3.1.11	*biḍḍúri*, *buḍḍúri* etc.	*búḍḍaru*, *ḍḍúḍḍulu* etc.	**vull-úri*	✓
2	Ropegrass	§ 3.2.5	*karkúri*, *krukkúri* etc.		**kalkúri*	×

Table 9.2.10: Forms containing *-*úri*

[273] Bottiglioni (1929: 58) suggests a similar scenario for Cors. *calanca* too, making Corsican an unlikely source for the Sardinian forms.

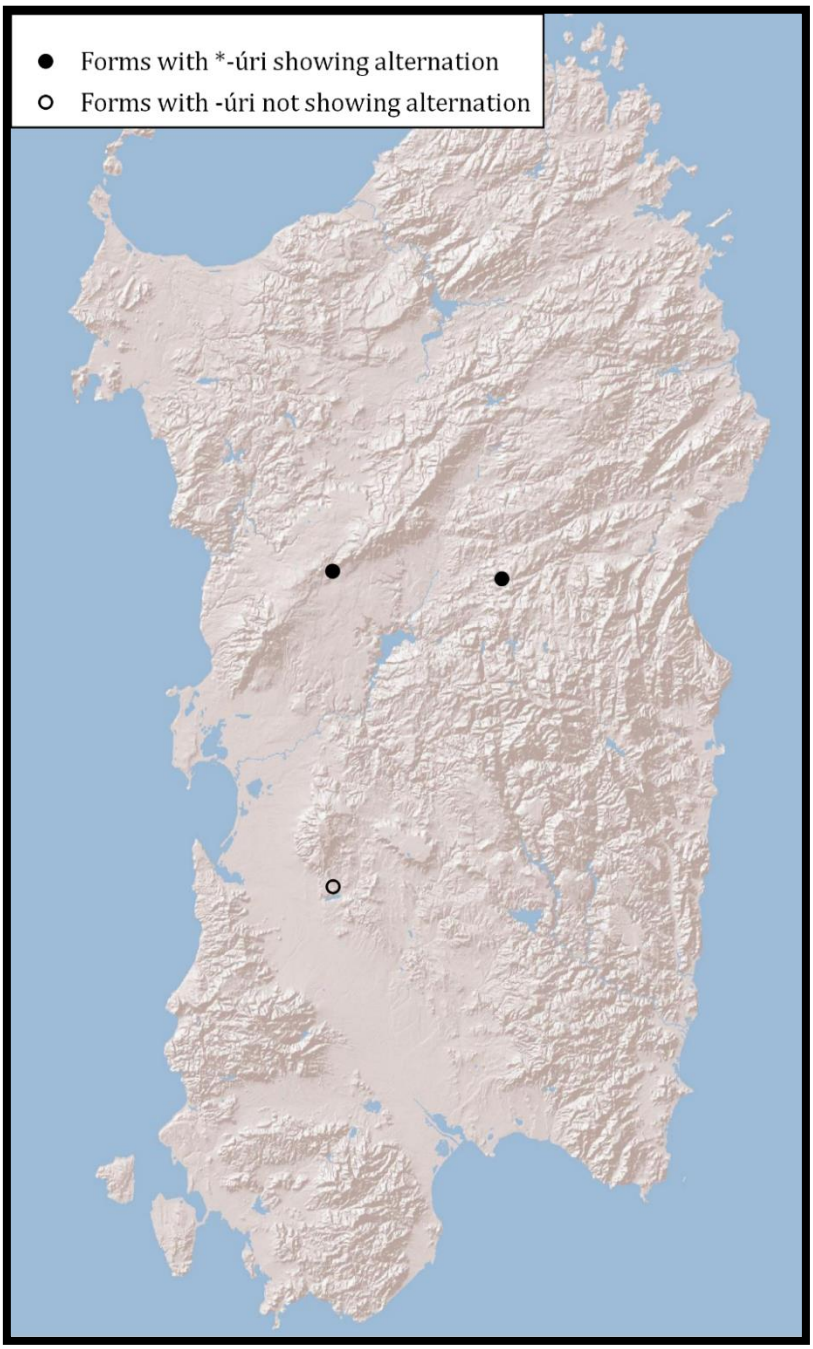

Figure 9.2.1: Distribution of forms with *-*úri*

The various forms for 'hemlock' are built from a root *buḍḍ-* < **vull-* with different suffixes: *buḍḍúri* < **b/vull-úri* ~ *búḍḍaru* < **búll-ar-* (cf. § 9.2.6) etc. This suggests that *-úri* was originally a distinct morpheme in the source language of this non-inherited word. In *karkúri* we do not find an alternation. It has been interpreted by Paulis (1992: 269) as a pre-Roman word that was folk-etymologically influenced by Camp. *krákkili*, *krákkiri* 'thick bush, dense thickets'. Paulis (1992: 269) further mentions the form *pistiḍḍúri*, a variant of *pistiḍḍòre* 'stinging nettle', of sound-symbolic origin (cf. DES II: 280).

Despite the scarcity of the relevant material, there appears to be sufficient evidence to identify *-úri* as an originally pre-Roman suffix. It is impossible to say anything about its function based on only two forms. Not much can be deduced from the geographical distribution of forms with **-úri* either (Figure 9.2.1). Wolf (1998a: 68) lists some Barbaricine toponyms in *-úri*, which may or may not contain the same element.

9.2.6.2 **-́Vr-*

Unstressed **-́Vr* has frequently been discussed with regard to pre-Roman Sardinian morphology. Terracini (1927: 139) first observed the existence of older forms of toponyms like *Mandara* for present day *Mandas*, and *Gennor* for later *Gennos*. Because of the replacement of this element *-́ar(a)/-́or* with the regular nominal plural suffix, he hypothesizes that *-́ar/or* may have been a plural ending. This interpretation is adopted by Wagner (1997: 264), Hubschmid (1963a: 175), Blasco Ferrer (1984a: 10; 2019: 39), Paulis (1985: 232a), and Pittau (1995: 196–197). Unstressed endings of the type *-́Vr* are common in other Sardinian toponyms as well, including in the longer sequence *-ÍnnVr* (Serra 1956: 184; Hubschmid 1963a: 174–175; Wolf 1998a: 59–61). In addition, many lexical words of non-Latin origin end in unaccented *-́Vr*. The question is whether these too are consistent with the analysis of *-́Vr* as a plural ending. Table 9.2.11 contains all etyma that end in unstressed **-́(V)r-*.

	Meaning	Section	Forms with **-́Vr-*	Forms without **-́Vr-*	Reconst.	Alt.
1	Bristly ox-tongue	§ 3.1.4	*ɡiòkkoro*, *sóčči̱ri* etc.		**ɡiokkVr-*	×
2	Poison hemlock	§ 3.1.11	*búḍḍaru*, *úḍḍuru*	*buḍḍúri*, *ḍḍúḍḍulu* etc.	**vúll-Vr-*	✓
3	Mullein	§ 3.1.12	*túmbara*	*kaðúmbu* etc.	**túmb-ar-*	✓
4	Poppy	§ 3.1.15	*tzàndhara*	*aɡáṇḍa*, *tɡáṇḍa* etc.	**ɡánda-r-*	✓
5	Wild teasel	§ 3.1.22	*billóttiri*	*billótti*	**bili̱ótti-r-*	✓

	Meaning	Section	Forms with **ˊ-Vr-*	Forms without **ˊ-Vr-*	Reconst.	Alt.
6	Watercress	§ 3.1.24	*ğúɣuru, ğúru* etc.		**ɟúgur-*	×
7	Knotgrass; horsetail	§ 3.2.4	*síntsiri, sintsurru*		**ϑínϑur*	×
8	Heather	§ 3.3.5	*túora, túvara, túvera* etc.		**túfVr-*	×
9	Rosemary	§ 3.3.14	*tsíppiri* etc.		**ϑíbbir*	×
10	Strawberry tree fruit	§ 3.3.18	*liṡiriòne*	*liṡòne* etc.	**lis-iri-òne*	✓
11	Yew	§ 3.3.23	*táṡaru, táṡuru* etc.	*táṡulu*	**tásVr-*	?
12	Juniper berry	§ 3.4.3	*bòḍḍoro, bòḍḍero*		**bòllVro*	×
13	Walnut	§ 3.4.8	*kòkkoro*	*kòkkolo*	**kòkkoro*	?
14	Grasshopper	§ 4.1.11	*pibittsíri* etc.	*piβiϑϑíu* etc.	**pipiϑí-r-*	✓
15	Robin, wagtail; hare	§ 4.4.9	*príncˇiri*	*brínčis, prinčóttu* etc.	**brink/č-*	✓
16	Fawn, lamb; female mouflon	§ 4.5.5	*bíttara, bíturu*	*bíta, bítti* etc.	**bitt-Vr-*	✓
17	Hare	§ 4.5.8	*lèppere, lèpporo, léppuri* etc.		**leppVr-*	×
18	Hillock	§ 5.1.6	*mòɣoro* etc.		**mòkor-*	×
19	Rock outcropping	§ 5.1.21	*tón(n)eri*		**tónneri*	×
20	Rocky plain	§ 5.1.23	*tsèppara*	*Theppage* (Top.)	**ϑéppar-*	?

Table 9.2.11: Forms containing unstressed **ˊ-Vr-*[274]

[274] The addition of *-òne* in this word must have taken place at a relatively recent date (cf. § 9.2.4.2).

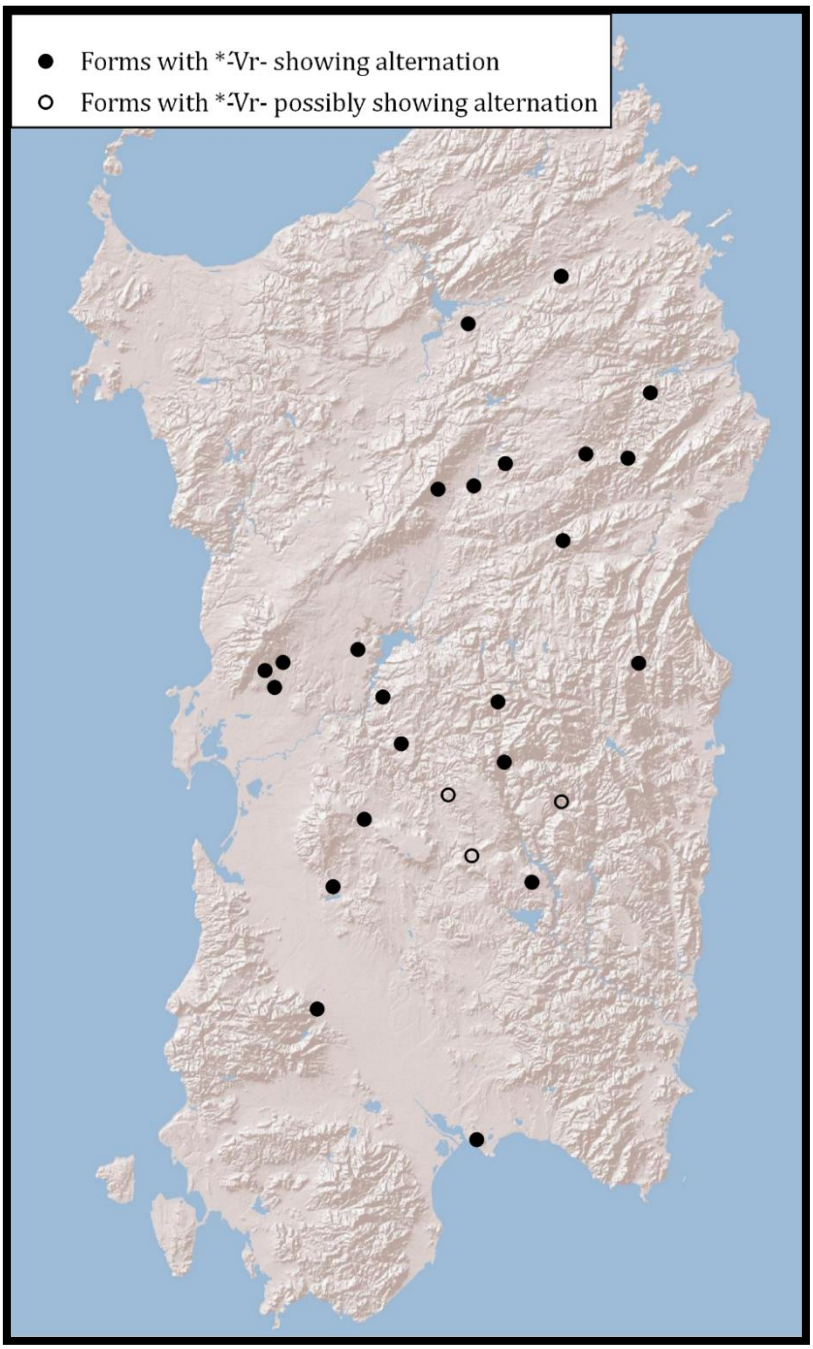

Figure 9.2.2: Distribution of forms with *-*Vr*- showing an alternation

At least two of the etyma ending in *-Vr* are of probable Punic origin: *síntsiri*, *sintsurru* (7) 'knotgrass, horsetail', cf. Pun. *senzur*, *zenzur* 'id.'; and *tsíppiri* etc. (9) 'rosemary', cf. Pun. *zibbir* 'id.' Since these forms were borrowed integrally from the language of the Punic colonists, it is evident that at least here the ending *-Vr* was not a separate morpheme and in general unrelated to the words presumably originating in the native pre-Roman languages of Sardinia.

9.2.6.2.1 Alternating *-Vr-

Of the remaining words, eight show an alternation between forms with and without *-(V)r-*. For a few others, the evidence for an alternation is less strong. The alternation *táṡaru* ~ *táṡulu* (11) 'yew' could be due to secondary replacement with *-ul-*; the same goes for *kòkkoro* ~ *kòkkolo* 'walnut'. In the alternation *tsèppara* ~ *Theppage* (20) 'rocky plain', the etymological relationship between the two forms is uncertain, due to the latter being a toponym. Figure 9.2.2 shows the distribution of forms in which the morphemic status of *-Vr-* is guaranteed by alternations; they occur across Sardinia.

9.2.6.2.2 Vocalism of *-Vr-

As for the vocalism of the suffix *-Vr*, we predominantly find *-ar-* (9x), less frequently *-or-* (6x) and *-ir-* (4x, excluding *síntsiri* and *tsíppiri* which are of Punic origin). The vocalisms *-er-* (3x) and *-ur-* (4x) cooccur mainly with other variants, suggesting an assimilatory or dissimilatory origin. In *piβiɣɣíri* and possibly in *tzàndhara*, the suffix is simply *-r-* without a vowel; cf. *piβiɣɣíu* and *ɣánda* respectively. In some cases the vowel in the suffix is identical to the preceding stressed vowel (e.g. 15: *príńčiri*), seemingly in line with the vowel harmony proposed for pre-Roman Sardinian (§ 8.4.2). In other cases, however, the vowel in the suffix is different from the stressed vowel (e.g. 1: *sóčči̱ri*, 4: *túmbara*). The available evidence does not allow for confident conclusions on the rules governing this suffix's vocalism. It must also be kept in mind that vowel changes are rather common in unaccented syllables within Sardinian, which may account for some of the observed variation (Wagner 1941a: 33–36). The word-final vowel is in most cases identical to the vowel preceding *-r-*. This points to a paragogic origin of the final vowels, and to a reconstruction of this suffix as *-Vr* (cf. § 8.4.1.2).

9.2.6.2.3 Function of *-Vr-

For all of the animal and plant names, borrowing of a plural form into Sardinian Latin is imaginable. The meaning 'rocky plain' of *tsèppara* also refers to an inherently plural or mass concept. However, none of these forms present unequivocal evidence that *-Vr* was a plural marker. The evidence for its function thus still

rests on the interpretation of the alternations found in toponyms like those discussed by Terracini (1927: 139).

9.2.6.2.4 **-́Vr-* outside Sardinia

Among the words that end in *-́Vr*, there are several that have been compared to words of non-Latin origin in other languages (Table 9.2.12).

	Meaning	Section	Sardinian	Non-Sardinian
1	Poppy	§ 3.1.15	*tzàndhara*	Lang. *ãndèr*
2	Juniper berry	§ 3.4.3	*bòḍḍoro, bòllero*	Sic. *bóḍḍaru,* Tusc. *bòllora*
3	Walnut	§ 3.4.8	*kòkkoro*	Tusc. *cóccoro*, Laz. *kùkkęrę*, Nap. *còccola*, Pg. *cócora* etc.
2	Hare	§ 4.5.8	*lèppere*, *lèpporo* etc.	Lat. *lepus*, Massiliot Gr. λεβηρίς, Pg. *láparo*, Fr. *lapéreau* etc.'
3	Hillock	§ 5.1.6	*mòɣoro* etc.	Prov. *maguelo*, Alb. *magulë*, Rom. *măgură* etc.

Table 9.2.12: Non-Sardinian comparanda to Sardinian forms with **-́Vr-*

In the cases of *bòḍḍoro* 'juniper berry' and *lèppere* 'hare', the *-́Vr*-sequence is attested in their proposed cognates. In the case of *mòɣoro* 'hillock', the *-r-* rather corresponds to an *-l-* elsewhere. For the words for 'juniper berry' and 'hare', this implies that *-́Vr-* was not a specifically Sardinian suffix. The question is whether the sequence belonged to the lexical root of the word, or whether a suffix *-́Vr-* found in pre-Roman Sardinian words was present in other pre-Roman languages of the Mediterranean region as well. An argument for the latter option are formations like Fr. *lapin* 'rabbit', Pg. *lapim*, Arag. *llapí* 'young rabbit' < **lappin-*, which contain the same root **lapp-/*lepp-* as the words for 'hare'. This is evidence in favor of a pre-Roman language affiliation between Sardinia and southern continental Europe (cf. § 11.4). A similar suffix -αρ- has also been identified in presumable pre-Greek words. Like in Sardinian it occurs most frequently on plant names, but its exact function is difficult to interpret from the lexical data (Furnée 1972: 257 fn. 36). If Srd. *kòkkoro* 'walnut' and its Romance comparanda go back to Lat. *coccum* 'scarlet oak gall' (DES : 356–357), it appears that unstressed **-Vr-* was added independently in multiple languages. Bertoldi (1937a: 167) interprets instances of **-́ar-* attested in various languages as original plurals, but because the words in question do not have clear comparanda in Sardinian, it is difficult to evaluate whether all examples are instances of one and the same pre-Roman suffix.

9.2.6.2.5 Secondary productivity of *-Vr-*

Secondary productivity of pre-Roman *-Vr-* in Sardinian words of Latin origin has been proposed for *túmbara* 'mullein' (§ 3.1.12), *ğúɣuru* 'watercress' (§ 3.1.24), *túvara* 'heather' (§ 3.3.5), and *táśaru* 'yew' (§ 3.3.23) (Paulis 1992: 245–246, 355, 410, 415). While not all of the etymologies proposed by Paulis can be accepted, the secondary productivity of *-Vr-* is demonstrated by forms like *píśiri* 'pea' << Lat. *pīsum* (Paulis 1992: 273; more examples in Serra 1960: 405). However, it is unclear whether the productivity of this suffix is a direct continuation of its hypothetical pre-Roman plural function, or whether it was added to other plant names analogically within Sardinian because of its frequent occurrence in phytonyms of pre-Roman origin.

9.2.7 *-Vrr-*

A suffix *-Vrr- has been posited for Sardinian pre-Roman linguistic elements. The evidence mainly consists of toponyms like *Ilarra*, *Motorra*, *Ludurru* etc. (Terracini 1927: 143; Wagner 1952: 107; Hubschmid 1963a: 150; Wolf 1998a: 70). It has been taken as evidence for prehistoric linguistic ties between Sardinia and the Iberian Peninsula, and to a lesser degree with Liguria and Etruria (Bertoldi 1928: 228–229; Hubschmid 1963a: 150). Terracini (1927: 143) additionally considers a North-African connection. Table 9.2.13 shows the forms discussed in § 3 – 7 that end in a sequence *-Vrr-.

	Meaning	Section	Forms with *-Vrr-	Reconst.	Alt.
1	Rush skeletonweed	§ 3.1.20	*lipòrra, limpòrra, lispòrra*	**liCpòrra*	×
2	Knotgrass; horsetail	§ 3.2.4	*sintsurru, síntsiri*	**ϑinϑur*	×
3	Caterpillar	§ 4.1.4	*kukúrra, kuɣúrra*	**kukúrra*	×
4	Eel	§ 4.2.1	*tsingòrra*	**ϑingorra*	×
5	Cheek	§ 7.1.3	*tutúrru*	**tuttúrru*	×

Table 9.2.13: Forms containing *-Vrr-*

None of the items in the Sardinian lexicon that end in *-Vrr- show an alternation of this ending. As a result, there is no convincing lexical evidence for the claim that a sequence *-Vrr- was a suffix in any pre-Roman Sardinian language (cf. Iribarren Argaiz 1997: 348–349). At face value, the words in Table 9.2.13 may have been monomorphemic. This is the case, at any rate, for *sintsurru* 'knotgrass', which was borrowed as such from Punic *zenzur* (§ 3.2.4). It should further be kept in mind that the Sardinian sequence *-rr-* can go back to both *-rr- and *-rn-, in Campidanese additionally to *-rl- when metathesized from *-rV̆l- (e.g. Camp. *méurra* < Lat. *merula* 'blackbird')(Wagner 1941a: 172–174; Wolf 1998a: 70; 1998b:

345–346). The etyma in Table 9.2.13 could thus represent three originally distinct sequences. As Wolf (1998a: 70) notes, toponyms in *-rr-* in Sardinian are not especially frequent, raising doubt about the interpretation of *-*Vrr-* as a suffix in toponyms as well. Without strong evidence for a suffix *-*Vrr-*, it cannot reliably be used as an argument for prehistoric linguistic relations between Sardinia and other Mediterranean regions, as Terracini (1927), Bertoldi (1928) and Hubschmid (1963a) do.

9.2.8 *-*s-*

A pre-Roman Sardinian suffix containing *-*s*(*s*)- has been posited on the basis of Sardinian toponyms like *Ulassai*, *Ussassai*, *Gonnesa*. These formations have been connected to ancient Iberian and Ligurian toponyms ending in *-issa*/*-essa* (Terracini 1927: 143; Bertoldi 1928: 242; 1931: 168–170; Hubschmid 1963a: 155). Hubschmid (1963a: 155) posits a possessive function for the putative *-*s*(*s*)-suffix in these toponyms. Bertoldi (1931: 167–171) cites toponyms containing a similarly shaped suffix in Basque, and interprets them as locative derivations. In the Sardinian lexicon, several words offer potential evidence for a putative suffix of the shape *-(*V*)*s*- Table 9.2.14.

	Meaning	Section	Forms with *-(*V*)*s*-	Forms without *-(*V*)*s*-	Reconst.	Alt.
1	Holly, butcher's broom	§ 3.2.1	*aláṡe*, *aláṡ̱u* etc.		**alás-*	×
2	Lizard; snake	§ 4.3.3	*tsorómpis*	*zorrómpi*	**ʒorrómpi-s*	✓
3	Viperine snake	§ 4.3.5	*lírčis*	*lúrtsi*	**lí/úrči-s*	✓
4	Robin, wagtail; hare	§ 4.4.9	*bríṅčis*, *bríṅčiṡi*	*bríṅči*, *príṅčiri* etc.	**brinči-s*	✓
5	Robin, wren	§ 4.4.10	*kiríṡi* etc.	*kiríu*, *kíri* etc.	**kiri-s-*	✓
6	Humid place	§ 5.1.7	*orgòsa*	*òrga*	**org-òs-*	✓
7	Tangle/ bundle of wood	§ 7.2.4	*barraṡòne*, *bariṡòne* etc.; cf. Cat. *barda* 'portable fence' etc.		**barr(-)Vs-*	?

Table 9.2.14: Forms containing *-*Vs-*

Among the seven etyma potentially possessing an *-*s*-suffix, five show an alternation between forms with and without *-(*V*)*s*- within Sardinian. The other two have comparanda in other languages that lack *-(*V*)*s*-. Srd. *aláṡe* < **alás-* (1) 'holly, butcher's broom' has been connected to Occitan and Italo-Romance words for 'broom' containing a base **ala-* (§ 3.2.1). Srd. *barraṡòne*, *bariṡòne* (7) 'tan-

gle/bundle of thorns etc.' has been connected to Ibero-Romance and Occitan forms going back to **barda/barra*, whose continuants denote various kinds of fences, barriers and hedges made of tangled-up plant material (§ 07.2.4). The alternation of this suffix in multiple etyma confirms the existence of a pre-Roman suffix *-(*V*)*s*-. The low number of examples hampers a functional interpretation of the suffix *-(*V*)*s*-. Bertoldi (1931: 167–171) assumed a locative function and Hubschmid (1963a: 155) a possessive, but neither seems imaginable for a suffix found mainly with words for plants and animals.

9.2.9 *-*st*(*r*)-

A suffix *-*st*(*r*)- has been posited by Bertoldi (1928: 231–233; 1930) based on substrate forms across the Mediterranean, and he argues that it formed collective nouns from plant names (Bertoldi 1930: 193). Krahe (1925: 68–71; 1929: 148) records a range of ancient place names containing *-st-*, to which he attributes an Illyrian origin. A suffix *-est*(*r*)*a*, *-ist*(*r*)*a* occurs in a number of Latin words; e.g. *genesta*, *genista* 'broom', *arista* 'awn', *lanista, lanistra* 'trainer of gladiators' etc. Herbig (1917: 165–179) argues for an Etruscan origin of *-est*(*r*)*a*, *-ist*(*r*)*a* in Latin. However, Breyer (1993: 100–102) notes that the Etruscan sequences of *-esta*, *-ista* can only be explained as the agglomeration of a genitive case ending with an enclitic demonstrative pronoun, rendering borrowing into Latin unlikely. The Sardinian continuants of Latin words ending in *-est*(*r*)*a*, *-ist*(*r*)*a* cannot inform us on the pre-Roman substrate of Sardinia and are therefore left out of consideration. There is nevertheless a small number of words in the non-inherited Sardinian lexicon that end in *-st*(*r*)- (Table 9.2.15).

	Meaning	Section	Forms with *-st(r)-	Forms without *-st(r)-	Reconst.	Alt.
1	Holly	§ 3.3.7	*golóstḍu*, *golóstri*, *olósti* etc.		**golósti*	×
2	Tree heather	§ 3.3.20	*giḍḍòstre*, *iḍḍòstro* etc.		**gillóstr-*	×
3	Clothes moth	§ 4.1.5	*lanásta*, *nástala*	*lána* (?)	**lanásta*	?
4	Lizard	§ 4.3.2	*luǧèstra*, *luǧǧèsti*	*aliɣèrta*, *kalužèrta* etc.	**luk-est*(*r*)-	✓

Table 9.2.15: Forms containing *-*st*(*r*)-

There are four words that potentially contain a suffix *-*st*(*r*)-. One of these is the word for 'lizard'. However, its ending *-èstra* etc. is likely secondary from inherited *-èrta* (< Lat. *lacerta*), which was remodeled under influence from the Latin pejo-

rative suffix *-āster* (Wagner 1952: 120; Weiss 2009: 286). *Lanásta* 'clothes moth' occurs next to *nástala*, and may have been metathesized under influence of *lána* 'wool' (§ 4.1.5).

The other two words do not show alternation. In addition, their endings do not fully correspond to each other. The forms of the word for 'holly' seem to go back to **-ósti*, with secondary introductions of *-r-* and *-u* etc (§ 3.3.7). The words for 'tree heather' (§ 3.3.20) on the other hand all contain **-óstr-* but lack the final vowel *-i* found in **golósti*.[275] What is more, none of the convincing comparanda to **golósti* 'holly' across the Mediterranean show any trace of an alternation of **-st(r)-*. The only potential evidence for the presence of a suffix in this Mediterranean word for 'holly' is the comparison to more northern European forms like PC **kolesno-*, PGm. **hulisa* 'holly', although a suffix **-t-* would suffice.

A similar issue applies to **gillostr-* 'tree heather'. It has been compared by Hubschmid (1953: 29) to Bq. *gillar*, *gilharre* etc. 'heather', which would demonstrate the suffixal nature of Srd. *-òstr-*. However, this Basque etymon has more recently been reconstructed as **inar* (Trask 1997: 306; Santano Moreno 2000: 170), which is phonologically too far removed from Srd. **gillostr-* for a plausible comparison.

In conclusion, following the criteria outlined in § 2.2.2, there is insufficient evidence to posit a pre-Roman Sardinian suffix **-st(r)-*. Within Sardinian there is no reliable case of an alternation that demonstrates its suffix-hood, nor do the proposed instances of the suffix correspond to each other. The elusive and diffuse nature of the presumed **-st(r)-*suffix in Sardinian are unexpected. Bertoldi (1928: 230–233) has shown that non-inherited formations containing **-st(r)-* are rather common in other languages across the Mediterranean. In fact, some pre-Roman Sardinian words lacking **-st(r)-* have plausible comparanda with **-st(r)-* in other languages, e.g. Srd. *aláṡe* 'butcher's broom, holly' vs. Sic. *alastra*, Lig. *arástra* 'spiny broom' etc. (cf. § 3.2.1). In light of these comparisons, a possibility is that a pre-Roman Sardinian suffix **-st(r)-* did exist, but that it did not survive by chance, with the possible exceptions of **golósti* and **gillóstr-*. On the basis of the available data however, this remains speculative.

9.3 Conclusion

In this chapter, the lexical evidence has been examined for the affixal nature of various sequences in the pre-Roman language(s) of Sardinia. Confident identifi-

[275] All other four vowels, *a, e, o, u*, are in fact attested in word-final position in this etymon.

cation of sequences as independent morphemes, rather than as parts of the lexical root, depends on the demonstrable presence of alternations (§ 2.2.2). For any non-inherited word, the pre-Roman provenance of the affix can only be confidently assumed if there is no inherited Latin affix that could have produced the same result. Although the presence of a hypothetical pre-Roman affix on toponyms cannot be used as strong evidence in favor of its morphemic status, toponyms can provide clues on the original function of the affix (e.g. § 9.2.6.2). Table 9.3.1 lists all discussed hypothetical morphemes along with the number of relevant etyma, how many of these etyma show an alternation, whether the sequence can be inherited from Latin, and whether the sequence is found in toponyms. The last column gives an evaluation of how much evidence the lexicon provides for the identification as a pre-Roman morpheme.

Affix	Section	Number of forms	Alt.	Inherited source	Toponymy	Pre-Rom. morpheme?
**kV-*	§ 9.1.1	6	5x	×	×	Likely
**ϑi-*	§ 9.1.2	14	6x	×	×	Likely
**ϑVϑV-*	§ 9.1.2.1	4	4x (?)	×	×	No evidence
**ϑur-*	§ 9.1.2.2	1	1x	×	×	Uncertain
**li-*	§ 9.1.2.3	8	1x	×	×	Uncertain
**-Vi̯*	9.2.1	2	×	×	✓	No evidence
**-ák-*	§ 9.2.2.1	3	×	✓	✓	No evidence
**-ík-/-ik-*	§ 9.2.2.2	5	3x	✓	?	No evidence
**-ʹal-*	§ 9.2.3.1	2	×	×	✓	No evidence
**-él-*	§ 9.2.3.2	2	×	×	✓	No evidence
**-íl-/-ʹil-*	§ 9.2.3.3	5	1x	✓	✓	No evidence
**-òne*	§ 9.2.4.2	12	7x	✓	✓	Likely
**-nk-*	§ 9.2.5	1	1x (?)	×	×	Uncertain
**-úri*	§ 9.2.6.1	2	1x	×	✓	Likely
**-ʹVr-*	§ 9.2.6.2	18	8x	×	✓	Likely
**-Vrr-*	§ 9.2.7	5	×	×	×	No evidence
**-(V)s-*	§ 9.2.8	6	4x	×	✓	Likely
**-st(r)-*	§ 9.2.9	4	2x (?)	×	×	No evidence

Table 9.3.1: Lexical evidence for pre-Roman morphemes

As Table 9.3.1 shows, there is good evidence for the pre-Roman origin of two of the five discussed elements preceding the lexical root: **kV-* and **ϑi-*. As discussed in § 9.1.3, these are likely originally variants of one and the same morpheme, which entered the Latin lexicon at various different times and places (Swanen-

vleugel 2024). For the elements **ϑur-* and **li-* there is some evidence, but both only alternate in a single form, and their occurrence seems to be restricted to words that are also attested with **ϑi-*. Without additional lexical evidence, or their identification in toponymy, their origin and function remains elusive.

Of the twelve suffixes discussed, only five can confidently be identified on the basis of the lexical data as actual morphemes of pre-Roman origin. For *-òne*, *-úri* and *-(V)s* we find alternations, indicating that they were at some point morphemes. All three are additionally attested in pre-Roman toponyms, strengthening this interpretation. For *-òne* it is difficult to decide which instances are of pre-Roman origin, and which from the inherited and productive Latin suffix *-ōnem*. Because the forms exhibiting an alternation generally do not show different meanings, their function is difficult to recover. This is especially the case for pre-Roman *-òne*, whose original functions were likely obfuscated by those of inherited *-òne*.

The difficulty in identifying the original grammatical functions of the morphemes *-òne*, *-úri*, and *-(V)s* demonstrates the paradox in recognizing and analyzing substrate morphology. We are only able to confidently identify an alternation of affixes in non-inherited words if the suffixed and non-suffixed variants do not differ too much in meaning. Otherwise, they may not be recognized, or the semantic distance renders the whole comparison too speculative. This means however that the affixes that can be identified are inherently difficult to assign a function to, due to their semantic "blandness". It is very much possible that the Sardinian lexicon contains forms that preserve pre-Roman derivational suffixes that significantly altered the meaning of the derivational base. However, if the suffixed and un-suffixed forms are semantically too far removed, we may not be able to convincingly identified them as cognates and to prove the morphemic status of the suffix.

The suffix **-́Vr* (§ 9.2.6.2) shows all possible lines of evidence allowing for its identification as a pre-Roman morpheme. It is found in alternation in seven cases, and cannot be from an inherited source. It is even attested in toponyms that allow us to infer its original function. Terracini (1927: 139) has shown on the basis of the replacement of this suffix in toponyms by the inherited plural ending *-s*, that *-́Vr* was likely a plural morpheme. Still, in the words ending in *-́Vr-* that do not exhibit an alternation, the sequence may have been part of the root. Moreover, there is evidence that *-́Vr-* gained some productivity within Sardinian (§ 9.2.6.2.5).

Finally, for many proposed pre-Roman suffixes, there is insufficient lexical evidence. The elements **-V́ị*, **-ák-*, **-́ik-*, **-él-*, **-nk-*, **-Vrr-* and **-st(r)-* have all been posited as pre-Roman suffixes, partly on the basis of toponyms. At some occasions, they have even been used to argue for a pre-Roman origin of certain words in which they occur. Yet, it is concluded that the available lexical evidence does not allow us to confidently identify them as suffixes.