CHAPTER 3

Reflexes of *r̥ in the Alphabetic Dialects

Introduction

This chapter discusses and evaluates the evidence for the regular outcome of *r̥ in the alphabetic Greek dialects other than Ionic-Attic.\(^1\)

The first aim is to determine under which conditions and in which dialects o-colored reflexes are regular. There is currently no consensus on this matter. The case for a-colored reflexes in dialects like Arcadian and Cypriot has been overstated: Morpurgo Davies (1968), though an influential treatment, suffers from a lack of clarity about Pan-Greek developments that yielded -αρ- at an early date, such as those involving laryngeals. This issue has been clarified by previous scholars (García Ramón 1985, Haug 2002) and will not be discussed in all its details here.

The second main aim is to determine, for each dialect, the regular place of the anaptyctic vowel. Surprisingly, only few previous discussions have paid attention to this issue: the main focus is usually on determining the vowel color of the regular reflex. There is a broadly-shared presupposition that the apparent hesitation between -αρ- and -ρα- in Ionic-Attic was also characteristic of other Greek dialects. In fact, some scholars suppose that in most lexemes the place of the anaptyctic shwa was fixed already in Proto-Greek; this shwa would have merged with /a/ or /o/ later, depending on the dialect and in some cases on further phonetic conditioning factors. However, in the previous chapter we encountered examples where the dialects have a diverging vowel slot in the same etymon, e.g. Hom. τέτρατος, Thess. πετροτος ‘fourth’ as opposed to Ion.-Att. τέταρτος, Arc. τετορτος. Moreover, we have seen that the regular Mycenaean reflex of *r̥ was either -or- or preserved -r-, and that there is no need to assume

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\(^1\) The inscriptional evidence for Ionic-Attic hardly adds anything to the picture obtained from literary sources, and will therefore not be treated separately in this chapter. In Western Ionic, the development of the syllabic liquids was identical to that in the rest of Ionic-Attic (cf. del Barrio 1991). The Euboean colonies in Italy yield the form σαφρας ‘assembly’ (Naples), which probably reflects a zero grade root, whereas the literary Ionic-Attic form έγερσις ‘mustering of an army’ (Hdt.) was rederived from the verb with an e-grade root. See the discussion of Arc. παναγορ(σ)ις in section 3.4.3. As for Attic, Threatte (1980) has no separate treatment of the syllabic liquids. An exceptional instance where Attic inscriptions add to the literary evidence is φαρχσαι (inscr.) beside φράξαι ‘to fence in, fortify’ (mss. of literary authors); it will be discussed in section 9.2.3.
a separate outcome \(*r > -ro-* for that dialect. The evidence for the vowel slot in the other dialect groups (West Greek dialects, Aeolic, Arcado-Cyprian) must be reconsidered in this light.

### 3.1 The Alleged Cretan Liquid Metathesis

The West Greek reflex of \(*r* is normally assumed to be identical to that of Ionic-Attic: -*ρα-* is regular, -*ρο-* arose by analogy with related forms. On Crete, however, we find a number of forms with -*αρ-* for which an analogical explanation is difficult to find. They are the following (for places of attestation, see Bile 1988):²

- δαρκμα 'drachm' (Knossos), also δαρκνα (Ion.-Att. δραχμή);
- καρτερος ‘prevalent’ (cf. Ion.-Att. καρτερός ‘strong’, Hom. κρατερός) and the following related words:
  - καρτος ‘force’ (cf. Ion.-Att. κράτος);
  - ΠΝς with -*καρτης and Καρται ‑ (cf. Ion.-Att. -κρατης, Κραται‑);
  - καρταιποδ‑ ‘cattle’ (cf. Pi. κραταιποδ‑);
  - προτεταρτον adv. ‘on the fourth day before’ (Lex Gortyn xi.53);
  - σταρτος ‘band; clan’, also in proper names (cf. Ion.-Att. στρατός ‘army; camp’).

Since Hirt (1901: 232–238), most scholars have accepted that -*ρα ‑, ‑ρο ‑ was metathesized to -*αρ ‑, ‑ορ‑ in Cretan.³ At first sight, this claim seems reasonable because of the Cretan forms πορτι ‘towards, against’ (cf. Ion.-Att. πρός , Hom. προτί) and Αφορδιτα (Ion.-Att. Ἀφροδίτη).⁴ If metathesis must be assumed for these forms anyway, Hirt’s reasoning goes, it follows that -*αρ ‑ may have developed through -*ρα ‑. The argument presupposes, however, that the o-vocalism of προτί and Αφροδίτη is old and did not develop from \(*r*. As I will show below, this is not evident at all.

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² Cret. καρπος ‘yield, revenue’ could be the regular reflex of its pre-form, PGr. “κηρό‐”, but since this word shows -*αρ-* in all dialects where it is attested, its evidential value is limited.

³ In the words of Bechtel (1921–1924, ii : 710–711), “In einigen Wörtern und Wortfamilien werden die Lautgruppen ρα, ρο zu αρ, ορ umgestellt. Wie weit dieser Vorgang rein lautlicher Natur sei, wie weit analogische Wirkungen ihn begünstigt haben, kann nicht immer entschieden werden” Cf. also Thumb-Kieckers (1932: 160), who think that the same phenomenon is found in Argolic, Elis, Pamphylian, and Arcado-Cypriot.

⁴ For the compounded names in -μορτος, which are well-attested in Cretan and correspond to -βροτος in most other dialects, see section 3.1.2 (with further discussion). Another piece of evidence cited by Hirt is Pamphylian περτι, which allegedly reflects *preti and is related to προτι, προς. However, the dialectal affiliations of Pamphylian are unclear, and the same holds for the regular reflex of \(*r* in this dialect (see section 3.5).
The major problem with the assumption of liquid metathesis in Cretan is the existence of forms with -ρα- and -ρο-, such as the following:

- pres. inf. αποτραχεν ‘to run away’ (Olous, 3rd c., cf. Class. τρέχω ‘to run’);
- pres. opt. τραποι (Eleutherna, 6th c.), inf. τραπεν (Lex Gortyn iii.49), impv. 3pl. τραφοντων (3rd c.), all from τράφω ‘to feed’ (cf. Class. τρέφω ‘id.’);
- pres. γραφω ‘to write’ (= Class. γράφω ‘id.’);
- κρονος ‘time’ (Class. χρόνος ‘id.’);
- τετρα- ‘four’ in compounds such as τετραποδ- ‘cattle’ (IC iv 41, iii 8–9);
- τετραδ- ‘fourth day’ (= Class. τετράς);
- δρομος ‘course; race track’ (= Class. δρόμος) and δρομευς ‘young adult’.

Hirt (1901: 235) discusses some of these examples. He notes that τραφω may have been influenced by the full grade τρεφ-, and that γραφω, as a technical term, does not carry much weight. Furthermore, he does away with κρονος and δρομος with the remark that liquid metathesis never operates on a fully regular basis, and makes the ad hoc suggestion that they were borrowed from another dialect. This is clearly unsatisfactory. Bile (1988: 125) proposed that -ρα- and -ρο- were metathesized in open syllables, but preserved as such in closed syllables. This idea is contradicted by the forms just listed, as well as by δαρκνα / δαρκνα.

Thus, there is no satisfactory explanation of the fluctuations.5 It is true that the present stems τραχω and τραφω can be explained as secondary (see below), and that γραφω is a problematic form on any account.6 However, the forms κρονος, τετραποδ-, τετραδ-, and δρομος cannot all be done away with as mere “exceptions” (Bile 1988: 125); they strongly militate against the idea of liquid metathesis. Moreover, if some form of liquid metathesis was operative, one would expect to also find examples of ρε, ρι, ρυ appearing as ερ, ιρ, υρ in Cretan. There is no apparent reason why the metathesis would have been restricted to back vowels.

In view of these problems, let us now investigate whether -αρ- and -ορ- in Cretan can be viewed as the regular outcomes of *ɣ.

5 O’Neil (1971: 43–44) posits a liquid metathesis in Central Cretan only before dental or velar stops, but not before labial or (original) labiovelar stops. This is phonetically unmotivated and also contradicted by αποτραχεν ‘to run away’.

6 The Pan-Greek a-vocalism of γράφω speaks against a reconstruction PIE *grbʰ-e/o-. Moreover, there is evidence for an o-grade in nominal formations like γροφεύς ‘scribe’, and it cannot be excluded that γράφω obtained its vowel slot from a (no longer existing) verbal form with *grepʰ- or *gropʰ-. See section 9.2.2.
3.1.1 Cretan -αρ- < *r̥: Evidence and Counterevidence

Positing a regular Cretan development *r̥ > -αρ- immediately explains the following forms: καρτέρος < *kṛteró-, σταρτός < *str̥t̥ō-, and προτεταρτόν < *kʷet̥r̥to-. The retention of δρομός ‘track’ and κρονός ‘time’, forms with an original o-vowel for which an analogical explanation seems out of reach, also finds a natural explanation. It remains to account for the Cretan forms with -ρα-.

The reflex seen in τετρα-ποδά ‘cattle’ and other compounds seems to contradict that of the ordinal τέταρτος. However, just as in Ionic-Attic, the linking vowel of τετρα- may have been taken over from the higher numerals ἑπτά-, ἕνεκα-, δεκά- (see section 2.7). The collective numeral τετραδ- ‘quartet’ (which also exists in Ionic-Attic) has a suffix -άδ‑ that originated in δεκάδ‑ ‘group of ten’ and derives from a pre-form with syllabic nasal, PIE *deḱm ̥ -t‑.8

The remaining counterevidence concerns the so-called “Doric presents” of the type τράχω, corresponding to class. τρέχω. There are four such verbs in Cretan (see Bile 1988: 124). A zero grade thematic present stem is directly attested in forms of τραφω and τραχω (see above). In addition, the formation seems reflected in the ΡΝ Στραψιμενης (Pylorus, 2nd c.; cf. class. στρέφω) and the future [ε]πιτραψιω (Lyttos; cf. Class. τρέψω ‘will turn’).9 The corresponding Ionic-Attic verbs have an e-grade present stem and sigmatic aorist, as opposed to a-vocalism in the η-aorist. A possible scenario would be reconstruct a zero grade root for the thematic root present, i.e. pres. *dhr̥ǵh-e/o‑, beside an e-grade root in the aor. *dhr̥ǵh-s‑. If so, Cretan and other West Greek dialects then generalized the a-colored reflex throughout the verbal paradigm, while Ionic-Attic extended the e-grade root to the present stem.10

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7 The form καρπος could also be regular from *kr̥pó-, but it must be conceded that this word has the same form in all dialects where it is attested. As for δαρχμα, δαρχνα (if from PGr. *dr̥khmnā), there are various problems in the reconstruction of this word; cf. below on the dialect of Elis.

8 In Van Beek 2017b, I have argued that the δ in -άδ‑ can be due to voicing of an accented after an accented Proto-Greek syllabic nasal. Cf. also Olsen (1989).

9 Comparable epigraphic forms from other West Greek dialect areas are aor. αποστραψαι (Delphi, CID 2:34, col. 11, 31; 4th c. BCE) and εξεστραφεται (SEG 30:380, no. 6, l. 1, Tiryns, ca. 550–500 BCE?). There is also evidence from literary sources: in Aristophanes (Ach. 788), τρέχω for τρέφω is reputed to be Megarean, and the form is also well-attested in Pindar and perhaps in Theocritus (ἔτραχεν Theoc. 3.16, but with v.l.). Moreover, Pindar uses both τράχω and τρέχω, and ἔτραχεν occurs at Theoc. 2.147 (with v.l. ἔτρεχον).

10 See Letoublon & Lamberterie (1980: 324–325) for further discussion, also on the aspectual status in PIE of formations like *dhr̥ǵh-e/o-. Willi (2018: 351–355) now argues against the antiquity of zero-grade thematic root presents in Greek, and in Indo-European more generally.
In sum, the Cretan evidence for -ρα‑ < *↕ is easily reconciled with a regular development to -αφ‑ in that dialect. It is unnecessary to assume that -ρα‑ underwent liquid metathesis on an irregular basis. In order to further strengthen this conclusion, let us now consider the three forms with -οφ‑ for which liquid metathesis has been assumed.

3.1.2 **Cretan -οφ‑ < *↕ after a Labial Consonant**

Must Cretan πορτι ‘towards, against’ and Αφορδιτα really have developed by metathesis from the forms προτί and Ἀφροδίτα as attested elsewhere, or might they directly reflect forms with *↕? As we have just seen, Cretan δρομος (δρομευς) and κρονος never contained *↕, and therefore speak against the assumption of metathesis. Therefore, even if only a plausible case can be made that πορτι and Αφορδιτα may have a pre-form with *↕, it is attractive to think that *↕ became Cretan -οφ‑ after labial consonants, but -αφ‑ in all other positions.

The evidence for the alleged pre-form PGr. *proti consists of Ion.-Att. and Lesb. πρός, Hom. προτί, and Central Cretan πορτι.11 On the other hand, PGr. *poti is reflected in Thessalian and Boeotian, perhaps in Arc. πος and Myc. po-si,12 as well as all in West Greek dialects other than Central Cretan. Wyatt suggested that Ion.-Att. πρός might reflect the prevocalic outcome of *poti contaminated with the -r‑ of πρό. In Wyatt’s view Homeric προτί arose in the same way; he also shows that πορτι only occurs in Central Cretan, whereas the rest of Crete (like West Greek generally) has ποτι. He accounts for Cretan πορτι by assuming that it represents a contamination of ποτι with περί (Wyatt 1978: 121 n. 78), and concludes that Proto-Greek had only *poti.

At first sight, Wyatt’s scenario offers an attractive reduction of the West Greek situation. However, it is unlikely that Proto-Greek had only *poti because in Homer προτί cannot be secondary beside ποτί. A fuller treatment of the Homeric evidence (including muta cum liquida scansiones in πρός and related forms) will be given in section 7.2.5. Anticipating the conclusions to be reached there, the Homeric evidence favors a reconstruction *p̥rti, and the precursors of πρόσω ‘forward’ and πρόσωπον ‘face’ also continue a form starting with *p̥rti-. This means that Proto-Greek had both *poti and *p̥rti,13 and that Central Cretan πορτι can be a retained archaism. The reconstruction *p̥rti also accounts for the

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11 The existence of προτί in Argolic is doubtful (cf. Wyatt 1978: 89 n. 1).
12 However, Mycenaean po-si could also represent /ɔrsi/ or /ɔ̞rsi/, and Arcadian πος could be the regular reflex of *πος before a consonant. To my knowledge, this has not been noted before.
13 And possibly also orthotonic *préti, but that is irrelevant here.
scansion of πρός and related forms in Homer, while the form πρός in Ionic and Attic prose may be ascribed to the influence of another local adverb, either πρό or *poti, on the vocalization of *pr̥ti. Furthermore, a zero grade *pr̥ti could also account for a related adverbial element in Hittite, parza ‘-wards’.

The assumption that Aphrodite’s name contained *r̥ may come as a surprise, as it has no established etymology. However, positing a pre-form with *r̥ would be the only reasonable way of accounting for the structural muta cum liquida scansion of Αφροδίτη in Epic Greek, since that metrical license is extremely rare in word-internal position, especially when plosive plus liquid does not follow a synchronic morpheme boundary.

A third potential instance of a Cretan development -or- < *r̥ after labials are the proper names in -μορτος, which are especially frequent on Crete, but also appear in Lesbian and two West Greek dialects (Theran, Aetolian). Nothing crucially depends on including or excluding this example, but the evidence is suggestive. The simplex is attested only in post-classical sources:

- μόρτος· ἄνθρωπος, βηητός, μέλας, φαιός, οἷ δὲ μορτόν φασι “human being, mortal; dark, grey; others; mortón” (Hsch.);
- Call. fr. 467, taken from Ammonius’ (5th c. CE) commentary to Aristotle’s De interpretatione (38.16): διὸ καὶ τὸ “ἐδείμαμεν ἀστεά μορτοί” φησιν ὁ Κυρηναῖος “therefore the Cyrenaean poet says: we mortals have built cities”.

The evidence as regards the accentuation is conflicting, and it is possible that the gloss in Hesychius refers to more than one attestation. Still, the Callimachus fragment confirms the existence of a word meaning ‘mortal, man’. Is it possible that both βροτός and this μορτός (if that was its accentuation) continue PGr. *mr̥tó-? This depends on the evaluation of the names in -μορτος and Μορτο-, the evidence for which was collected and discussed by Masson (1963: 219):

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14 Kloekhorst (edhil, q.v.) already reconstructs the Hittite form as PIE *pr̥ti, directly comparing Cretan πορτι but without accounting for Ionic-Attic πρός; the analysis proposed here and in chapter 7 may justify this idea.

15 In section 7.2.8, I argue that Aphrodite must be an inherited Greek epithet of the planet Venus (the evening and morning star), and tentatively propose to reconstruct PGr. (or common Greek) *aphr̥-dītā ‘who appears forthwith’ (at sunset). The reconstructed compound consists of the precursor of the adverb ἀφαρ ‘forthwith’ and a derivative in -to- of the PIE root *dih2- ‘appear’, otherwise preserved in the Homeric aorist δέατο ‘appeared’. On the Pamphylian forms Αφορδισιιυς, Φορδισιιυς, see section 3.5.

16 The grammarian Orion (5th c. CE) cites the fragment as ἐδείμαμεν ἀστία μορτοί. If the lectio difficilior ἀστία is the genuine Callimachean form, it would show the common dialectal change ε > ι before a vowel and a different accent (secondary, or directly from *ἀστία?).
- Ἀγεμόρτος (Lesbos, 4th c. BCE+);
- Κλεομόρτος (Aeolis, 2nd c. and Cyclades, 3rd c. BCE);
- Μνάσιμόρτος (probably a Cretan mentioned on Abydos);
- Χαριμόρτος (Lato, IC 1, 16, 34); name of an Aetolian (3rd c. BCE);
- Μορτονᾶσος (Thera, early 5th c. BCE).

Starting from the assumption that -μορτος can only be an Aeolic reflex of *-mytó-, Masson reconstructs a pre-form *mórto- beside *mytó- for Proto-Greek in order to account for the West Greek names. This would imply that Greek preserved more than one inherited word for ‘mortal’ from this root. Now, the PIE words for ‘mortal’ and ‘dead’ are notoriously hard to reconstruct, but Masson’s identification of -μορτος and Ved. márta- is not evidently correct. It has been submitted that Ved. márta- derives not from *mórto-, but from *mérto-; but in any case, there is no unambiguous evidence pointing to PGr. *mórto- (or *mortó-) rather than *mytó- among the forms just discussed. Masson claims that the names in -μορτος are general Aeolic and West Greek, but all secure examples of these names are attested in Lesbian, Theran, and Cretan.

It is therefore attractive to suppose that -μορτος is the regular outcome of *mytó- in Cretan and Theran. One might then think that the simplex μορτός in Callimachus stems from the dialect of his native town Cyrene, a colony of

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17 Masson concludes (1963: 221): “… on ne saurait plus affirmer comme jadis que μορτός est une forme exclusivement éolienne, soit chez Callimaque, soit dans l’onomastique. En effet, l’existence des formes de noms propres en dorien et au nord-ouest assure que μορτός n’est pas un simple doublet de *μ(β)ροτός, βροτός, qui comporterait lui aussi un traitement éolien à partir d’un modèle i.e. *mytό-, mais avec ρé au lieu de ρφ. La forme correspond plutôt à un i-e. *mórtο-, avec vocalisme o de la racine *mer-.” Masson’s judgment is followed by Delg (s.v. μορτός) and was already anticipated in Boisacq 1916 and Gew (both s.v. βροτός).

18 Indo-Iranian has three forms for ‘mortal’: (1) Ved. márta- and OAv. (hapax) maśa- < PIIr. *márta-, (2) OAv. marata- < PIIr. *martá-, and (3) Ved. máṛtya-, Av. maśiia-, OP marṭiya- < PIIr. *mártia- (cf. EWAia s.vv. MAR and máṛta-). Furthermore, Ved. mṛtá- and Av. mṛata- mean ‘dead’, not ‘mortal’. However, since Indo-Iranian preserves the verbal root mar- ‘to die’, it cannot be excluded that at least some of these formations were later derivations. See further the discussion in Mayrhofer, EWAia s.v. máṛta-.

19 Katz (1983) argues that Finno-Ugric borrowings from Indo-Iranian point to a pre-form (early) PIIr. *mértó- (where PIIr. *o notes the outcome of PIE *o in closed syllables), to be equated with (later) PIIr. *márta-. This would imply that PIIr. *márta- < PIE *mértó- cannot be directly compared with the putative Proto-Greek *mórtο- assumed by Masson. See further the discussion in Mayrhofer, EWAia s.v. máṛta-.

20 The Aetolian attestation cited by Masson (1963: 220) is found in an inscription from Egypt, and refers to an officer serving under Ptolemy Philopator (reigned 221–205 BCE). The same person is mentioned by Strabo and Polybius. Even if this relatively late piece of evidence is taken into account, one wonders whether enough is known about reflexes of the syllabic liquids in Aetolian to accept Masson’s conclusion that PGr. had a separate form *mórtο-.
Thera.\textsuperscript{21} As for the Lesbian names in -μορτος, an o-colored reflex of *\(\gamma\) needs no further explanation, but the vowel slot is awkward (because *\(\gamma\) > Aeolic -ρο-, see section 3.3). One would then have to assume influence of the verbal root *\textit{mer}- on the vocalization to -μορτος for a pre-stage of Lesbian.\textsuperscript{22} In this context, the gloss ἔμορτεν· ἀπέθανεν (Hsch. ε 2399) deserves attention, as it shows that a reflex of the verbal root *\textit{mer}- was indeed preserved in some (probably poetic) form of Greek.\textsuperscript{23}

In sum, since reconstructing an additional form *\textit{mórto}- ‘mortal’ (beside *\textit{mr̥tô}-) for Proto-Greek would be uneconomical, Cretan names in -μορτος could be an additional argument for a conditioned reflex -ορ- < *\(\gamma\) in Cretan.\textsuperscript{24} The conditioning factor “after labials” for the reflex -ορ- would make good sense from a phonetic point of view.\textsuperscript{25}

### 3.2 Other West Greek Dialects

In this section, we will turn our attention to Laconian and its colonies (especially Theran and Cyrenaean, section 3.2.1), then consider the evidence from Literary Doric (section 3.2.2), and finally make some remarks on the dialects of Elis (section 3.2.3) and the Argolid (section 3.2.4). I have found no noteworthy details for the dialects of Megara (and colonies), for Cos, Rhodes, Karpathos and the other Doric-speaking islands in the Dodecanese, nor for Messenia. For other regions (Achaea, North West Greek), the details are not very interesting

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\item \textsuperscript{21} It is, of course, impossible to establish the dialectal provenance of μορτός in Callimachus with certainty. It is also difficult to draw a conclusion from the gloss μορτοβάτιν· ἀνθρωποβάτιν ναύν (Hsch.), in view of the absence of a dialect identification.
\item \textsuperscript{22} For analogical -ορ- in Lesbian, cf. Alc. ἐμμόρμενον ‘having as a share’ corresponding to Ion.-Att. ἐμμέρμενον.
\item \textsuperscript{23} According to Klingenschmitt \textit{(apud LIV² s.v. *\textit{mer}-)}, ἔμορτεν reflects an older middle in *\textit{-to} that was reinterpreted as an active form.
\item \textsuperscript{24} For the outcome of *\(\gamma\) in Cretan, see section 10.6. The conditioning of the distribution between a- and o-vocalism in Cretan could be challenged by the PN Θορσυς (\textit{VC} II, 23-37 and 53, Polyrrhenia, dated between the 3rd and 1st c. BCE) and Θορσυταρτω (\textit{VC} II, 13.7, Elyros, 2nd c. BCE). But in Masson’s view (1972: 292, accepted by Leukart 1994: 191), these names with Θορσυ- are an “élément … du substrat pré-dorien ou ‘achéen’ en Crète”. That would presuppose, however, that Mycenaean (or its continuation in the sub-Mycenaean period) had an o-colored reflex also in a non-labial environment, which is possible (cf. the Arcadian reflex in τετορταυ). On the possibility that Myc. PN to-si-ta reflects /\textit{Thr̥sitās}/ vel sim. < *\textit{dhr̥si}-, see section 2.3.1.
\item \textsuperscript{25} A similar conditioned reflex has been proposed for Mycenaean and Arcado-Cyprian (e.g. Morpurgo Davies 1968, see section 3.4 below).
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either, as appears from the respective dialectal grammars. I will not present a complete overview for all West Greek dialects, but merely try to illustrate the precarious nature of the evidence.

3.2.1 Laconian and Colonies

The dialect of Sparta itself is not very well documented in the (pre-)classical period, but its colonies have produced more inscriptions. In Magna Graecia, Heraclea and Tarentum have yielded important epigraphic material; in the Eastern Mediterranean, Thera was probably colonized by Laconians, and Theran settlers then founded Cyrene in Libya.

The evidence for Theran consists mainly of personal names. As far as names are trustworthy evidence, they may provide evidence for the vocalization to -αρ- (and perhaps also -ορ- after a labial consonant) that we just established for Cretan:

- Θαρυπτολεμος (IG xii,3 787) and Θαρρυμαχ (IG xii,3 814), both from the archaic period.
- Καρτι- is attested in Καρτιδαμας (passim) and in Καρτινικος (IG xii,3 419, 3rd c.), see Bechtel (1917: 256).
- Σαρτο- in Σαρτοφοσ (IG xii,3 330, 2nd c.).
- Μορτο- as a first member in Μορτονασος (IG xii,3 Supp. 697, early 5th c.).

Masson (1963: 220) takes this as the outcome of PGr. *morto-, but in view of reasons given above, it seems more likely that PGr. had only *μρτο-.

Θαρρυ- may be the regular outcome of *θρ̥su- or it may have an analogical full grade, so it is not entirely probative. The forms with Καρτι-, Σαρτο-, and Μορτο-, however, are absent from most other Greek dialects. The fact that attestations of these forms are concentrated in Cretan and Theran could suggest a common development of these dialects, but it could also be due to language contact or migrations of the bearers of these names.

The inscriptions from Cyrene, a colony founded by Theran settlers, have been edited by Dobias-Lalou (2000). She discusses the outcome of the syllabic

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26 For North-West Greek, see Méndez Dosuna (1985); for the colonies in Magna Graecia, see the various dialect grammars by Arena and Dubois.
27 That -αρ- was regular in Theran was already suggested by Bechtel (1921–1924, II: 534 and 556).
28 These forms show that Theran underwent the development -ρσ- > -ρρ-. The -ρσ- found in Θαρσικρατης on another Theran inscription is probably a Koine form. Generally speaking, forms with Θαρσι- may replace older forms with *Θερσι-, as in Hom. Θερσίλοχος.
29 As a second member, Καρτι- is perhaps found in Λας[α]ρτος (IG xii,3 1324).
30 See chapter 4 for further details.
liquids on pages 34–35. Not too much can be deduced from the evidence in apppellatives:

- The noun καρπος ‘harvest, yield’ (frequent from the 5th c. onwards, Dobias-Lalou 2000: 195) has the same form in all other dialects; therefore a Koine form or an early borrowing cannot be excluded.

- In view of its special meaning ‘chaff’ in Cyrenaean, καρφος could well be a genuine dialectal form (Dobias-Lalou 2000: 195–196). For the reconstruction of *ᵣ in the root καρφ-, see section 9.6.6.

- The form γροφευς ‘secretary’ (SEG 9.13, 16) is otherwise peculiar to the Peloponnese and Crete, but it probably does not reflect a pre-form with *ᵣ (see section 9.2.2). The verbal root is γραφ- in Cyrenaean, like in all other Greek dialects.

- The title στραταγος and the denominative verb στραταγεω have the same form as elsewhere in West Greek, with the exception of Theran and Cretan. Many of the personal names attested in Cyrenaean may show the influence of Koine or Epic Greek.31 This does not apply, however, to the first compound member Καρτι- (Dobias-Lalou 2000: 34) in Καρτισθενης,32 Καρταγορας,33 and Καρτιμαχος.34 With the exception of Theran, names with Καρτι- are not found in other Greek dialects, not even in Cretan.35 They could therefore contain information about the regular Theran and Cyrenaean development of *ᵣ, and they outweigh στραταγος, because that form could easily be due to Koine influence. Since Cyrene was colonized from Thera, the vocalization *ᵣ > -αρ- would have taken place before the settlement of Cyrene. Cyrenaean provides no further counterevidence to this assumption. It is true that evidence gained from personal names must be used with caution, but it is not unlikely that the names in Καρτι- constitute an archaism, as opposed to Cretan Καρται- and Ionic-Attic

31 Κρατης (2 ×, 3rd c. BCE and later), -κρατης, (frequent in all periods), Θρασυ- (frequent from the middle of the 4th c. BCE, Dobias-Lalou p. 35), as a simplex Θρασων and Θαρσων (both 3rd c. BCE and later), Στρατο- (SEG 20.735, Dobias-Lalou p. 14) and -στρατος, Άρπαλέα (4th–3rd c., CIG 5155 and 3rd c., SEG 9.92).

32 Frequent from the 4th c. BCE–2nd c. CE. Bechtel (1917: 256) could only ascribe it to the Imperial period.

33 In SEG 9.45, 48 (5th c. BCE) and SECier. 244 (4th c. BCE).

34 Attested in two lists of temple servants, around the beginning of the CE. The sequence -αρ- is also found in the festival name Καρνεια, as attested in the PNS Καρνηιαδας (4th–3rd c.), Καρνηαδας (4th c.), and Καρνηδας (highly frequent from the 4th c. onwards); for attestations see Dobias-Lalou (2000: 49). The festival belongs to the Laconian heritage of Cyrenaean, but it is unclear whether -αρ- reflects a syllabic liquid in this word.

35 Names with Κρατι- are attested sporadically in other dialects: Κρατιππιδας (IG v,1 1385.22, Thuria, 2nd c. BCE), Κρατι-δημος (Erythrae, No. 57, 5th–4th c. and No. 60, early 3rd c. BCE, cited from McCabe, Erythrai inscriptions, text and list).
Κραται-, both reflecting a remodeled form *kṛtai-. 36 A regular Cyrenaean reflex -αρ- is possibly confirmed by the form καρφος 'chaff'.

### 3.2.2 Literary Doric

How to evaluate the outcome -αρ- (and perhaps -ορ-) in Cretan and Theran with regard to the vocalization in other West Greek dialects? The main question is whether there is any evidence at all for the outcome -ρα- in these dialects. Unfortunately, it is difficult to reconstruct even scraps of the situation in most of the West Greek dialects.

For Laconian, the closest relative of Theran, the epigraphic material is sparse, but the literary evidence may perhaps offer some clues about the dialectal reflex. In Alcman (worked in Sparta, late 7th c.), Epicharmus (worked in Syracuse, a colony of Corinth, early 5th c.), Sophron (Syracuse, 2nd half 5th c.) and some other literary sources, we find the comparative κάρρων 'better'.37 In Cretan, this comparative has been restored as καρτον-. 38 Apparently, the zero grade of the positive καρτερος has been introduced into the comparative both in Cretan and in the dialect(s) underlying κάρρων. But from which specific dialect(s) was κάρρων taken?

It is likely that κάρρων was not the regular outcome of *kṛtiōn in all Doric vernaculars. The Syracusan mimographer Sophron used a middle perfect ptc. ἐμβραμένα· εἵμαρμένα (fr. 114 K-A, acc. to EM 334.10, cf. ἔμβραται· εἵμαρται Hsch. ε 2313) as well as an aorist 2sg. ἔπραδες 'you farted' (fr. 136 K-A, contrast ἔπαρδον in Attic comedy). This could suggest that Syracusan has a regular reflex *r > ‑ρα-, and that κάρρων was taken from another Doric dialect to become the form of the literary Koine. This dialect may have been Laconian, given that the oldest literary attestation of κάρρων is in Alcman, and given the prestige of his poetry. According to Hinge (2006: 38), a Laconian context is also suggested by two other sources for κάρρονες.

If this is correct, Laconian would agree with the Spartan colony Thera (and with Cretan) in having the vocalization -αρ-, and differ in this respect from

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36 A first member Κραται- is attested in inscriptions from various regions. The name Κραται-μένις occurs in Athens, Euboea, Ionia, and in an early example (SEG 22.345, 6th c.) that is perhaps from an Achaean colony in Magna Graecia; Κραταιβιος occurs on Delos. Cretan has Καρταιδαμας (Bile 1988: 183 n. 133) with the expected reflex -αρ- (contrast Theran Καρτιδαμας; the Cretan form with ‑αι‑ is due to a specifically Epic metrical lengthening). In section 5.2.11, I propose that Καρτι‑ < *kṛth‑i‑ is the old compounding allomorph of καρτερός, and that the latter reflects *kṛth‑rό‑.

37 For further attestations of κάρρων, see LSJ s.v. and Forssman (1980: 194 n. 77).

38 See section 5.2.1.
at least Syracusan (colony of Corinth).39 The occurrence of κάρρων in the two Syracusan poets Epicharmus and Sophron is not decisive for the development in that dialect. In the glosses ἐμβραμένα and ἔπραδες taken from Sophron, -ρα- may well be the genuine Syracusan (and therefore Corinthian) vocalization.40 Once again, all this is quite uncertain in view of the limited evidence.

3.2.3 The Dialect of Elis

There is some evidence for *τ > -ρα- also in the dialect of Elis, but it is slight. Most of the evidence in the recent dialectal grammar by Minon (2007) cannot be used to determine the reflexes of *τ. For instance, it is impossible to determine whether θαρρεν (Minon No 20.1) derives from *thers- or from *thrs-, because -ρα- may reflect *-ερ- in Elis. As in other dialects, the verb γράφω and its derivatives appear (cf. section 9.2.2 for further discussion). The value of most Elean glosses in Hesychius (discussion in Minon 2007: 549–560) is unclear.

There is, however, one good pair of candidates to show the regular reflex in Elis. The gloss βρατάνναν· τορύννην. Ἠλεῖοι (‘stirring ladle’, Hsch.) must be an instrument noun in -άνη derived from a root *u̯rat- 41 In view of the meaning ‘stirring ladle’, a derivation from the root *u̯ert- ‘to turn’ suggests itself. The same root is attested in the gloss βρατάναν· βαίζει ἀπό νόσου. Ἠλεῖοι (‘recovers from illness’, Hsch.), if we suppose that the meaning developed from “turns better” (Minon 2007: 554). This present formation in -άνω probably presupposes the existence of a thematic aorist *u̯rate/o- (cf. βλαστάνω : βλαστεῖν, ἁμαρτάνω : ἁμαρτεῖν). It is conceivable that a causative s-aorist *u̯ert-s- (presupposed by Hom. ἀπόερσε ‘drove off course’)42 coexisted with an intransitive thematic aorist *u̯r̥t-e/o- in Proto-Greek. If so, the latter form developed into *u̯rate/o- in Elean, and the noun βρατάνα was also built on the zero-grade root allomorph.

If these two glosses are considered reliable evidence, *τ may have yielded -ρα- in Elis even after a labial glide. The disagreement with the treatment in Cretan would be remarkable: the latter dialect has the outcome -αρ-, and probably -ορ- after labials. However, since the evidence comes from just two glosses, we

39 The reflex -αρ- was perhaps also regular in Argolic, given forms like φαρξις (on which see section 3.2.4 and 9.2.3).
40 I have found no relevant examples in the evidence for non-Attic vase inscriptions (Wachter 2001).
41 Also attested as βρατάναν· τορύναν (Hsch.), without dialect identification, but clearly not from Ionic-Attic.
42 As argued by Forssman (1980), in Ionic-Attic this root may be reflected in Homeric ἔρω ‘to be lost’ < *u̯ert-i̯e/o-. The verb is attested in many dialects (in Elean as παρρω, with secondary lowering of er).
must be careful. It must also be taken into account that the word for ‘drachm’ is attested in Elis (Minon 2007: 355): several times as δαρχμα and once as δαρχνας, possibly reflecting a pre-form *δραχμα‑. However, the word for ‘drachm’ could well be an inter-dialectal loan. Under these conditions, it would not be wise to base any firm conclusions on the evidence at our disposal.

One epigraphic form from Elis is highly relevant for the development of *l: αφλανεο̄ς ‘completely, all together’ (Minon No. 4.4 and 8.3). The same form is attested in the gloss ἀλανέως· ὁλοσχερῶς. Ταραντῖνοι (‘entirely, completely’, Hsch.), proving that this form is old in West Greek. As I will argue in section 10.6, these forms show that *l yielded ‑λα‑ in Elean and Laconian even before nasals. Moreover, since the Cretan outcome may have been ‑λο‑ after a labial consonant (cf. sections 10.3.1 and 10.6.1), it is possible that Proto-West-Greek preserved not only *r, but also *l.

3.2.4 The Dialects of the Argolid

The evidence for the development of the syllabic liquids from Western and Eastern Argolic is presented in full detail by Nieto Izquierdo (2008: 145–151 and 380–381). It comprises the following forms:

– The verb γραφω ‘to write’ (e.g. impf. [ε]γραφε, ptc. γεγραθμενος) and the derivative γραθμα / γρασσμα ‘letter’ < *graphma;45
– The nouns γροφευς ‘scribe’, γροφις ‘stylus’, and deverbal forms such as γροφα, αγγροφα, εγγροφα, συγγροφος, etc. (see section 9.2.2 for further analysis, especially of the o-vocalism);
– WArg. εξστραφεται (Tiryns, SEG 30:380, no. 6.1, ca. 600–550 BCE(?)) corresponding to Att. ἐκ-στρέφω;
– Epid. χραμασαι (IG iv2, 1122.3, ca. 320 BCE) corresponding to Att. χρέμασαι ‘to hang’;
– The root στρα‑ ‘army’ in στρατηα ‘army, expedition’ (Del.3 84, Tylisos, 460–450 BCE), στραταγος ‘general’ (SEG 29:361, Argos, appr. 400 BCE), and often in personal names;
– EArg. τραπεζιτας ‘money-changer’ (Epidaurus, 3rd c. BCE);

43 All the relevant inscriptions are dated to slightly before or after 500 BCE, so it is impossible to tell whether the form with ‑μ‑ or ‑ν‑ is older.
44 The noun χαρπός ‘harvest’ is also attested twice in Elis, but it has the same form in all dialects where the word appears. Therefore, we cannot be certain that it reflects PGr. *κρό‑.
45 With Lejeune (1972: 76) and against Nieto Izquierdo (2008: 381–382), I prefer to view Arg. γράμμα and γεγραθμενος as due to dissimilation of *‑phm‑ at a morpheme boundary. As Nieto Izquierdo shows, attestations of the Koine form γράμμα are later than those of γρα‑θμα, γεγραθμενος and γρασσμα.
– WArg. φαργμα ‘fence’ (Del.3 89.8, cf. SEG 37:279, Argos, ca. 350 BCE);
– EArg. φαρξιν ‘fence’ (Epidaurus, IG iv2,1 102 B, l. 75, 400–350 BCE);
– EArg. φαρχματα ‘id.’ (Epidaurus, ibid. l. 253);
– EArg. διαφραγμάτων (Epidaurus, IG iv2,1 115, l. 22, cf. SEG 25:393, ca. 330–300 BCE).

The forms with a root φαρχ‑ have older attestations than διαφραγμάτων; hence the latter must represent a Koine form. This is confirmed by the unassimilated root-final stop of φαρχματα in Epidaurus. Likewise, the form τραπεζίτας may well be a Koine form, as it is attested relatively late and is a normal word in the Koine. Both γράφω (and derivatives) and forms with γροφ‑ are genuine Argolic dialect forms, and the same probably holds for εξστραφεται, κραμασαι and the forms with στρατ‑.

With these reductions in mind, it appears that Argolic has a reflex -αρ‑ in φαρξιν, φαργμα, φαρχματα, as against -ρα‑ in κραμασαι, γραφ‑, στρατ‑ and στραφ‑. Clearly, κραμασαι and στραφ‑ may have an analogical vowel slot (cf. Att. κρεμάσαι, στρέφω), and the same may be true of γραφ‑ (beside γροφ‑). The reflex στρατ‑ cannot be analogical and therefore seems to prove a regular reflex -ρα‑ in this dialect. However, it must be taken into account that all Greek dialects except for Cretan and Cyrenaean use the root στρατ‑, so some caution is in order. In the case of φαρξιν, φαργμα, φαρχματα, much depends on the reconstruction and etymology of the verb φράσσω, which will be discussed in section 9.2.3.

Thus, no definite conclusion concerning the regular place of the anaptyctic vowel can be drawn for the dialects of the Argolid.

3.2.5 Conclusion on the West Greek Dialects

The only West Greek dialect for which we have clear-cut evidence is Cretan. In this dialect, *r̥ yields -αρ‑, and perhaps -ορ‑ after a labial consonant. There is slight evidence for a regular outcome -ρα‑ in glosses from Elis and Syracuse, and for -αρ‑ in Theran and Cyrenaean onomastic material. If the evidence for -ρα‑ in the former two dialects is taken seriously, the divergence with Cretan would show that Proto-West Greek, and even Proto-Doric, kept *r intact. If so, the vocalization may well have taken place during the Dorian migrations in the early Dark Ages. The different reflexes can be ascribed to the different situations of linguistic contact between speakers of West Greek and the earlier populations in the regions where they settled.
3.3 The Aeolic Dialects

Our ability to reconstruct the prehistory of the Aeolic dialects is hampered in several respects. The most abundant sources of examples are the Lesbian poets Sappho and Alcaeus, but the status of this evidence is not always clear, because a number of forms may be hyper-Aeolic or of epic origin. Epigraphic material from Lesbian has already undergone considerable Koine influence at a time when inscriptions start to become numerous. Most Thessalian evidence is also late and much of it suffers from the same problem. Boeotian is a mixed dialect which contains many West Greek features. Finally, a large part of the evidence consists of personal names, where influence of other dialects or even the poetic language is a factor to be reckoned with.

In addition to these factual problems, there are practical ones. As yet, there is no comprehensive grammar of the Thessalian dialects, nor of Boeotian. The generative description of the Aeolic dialects by Blümel (1982) is of some use, but has no separate treatment of the reflexes of *r̥*

Notwithstanding all these problems, the combined evidence of our sources does allow us to draw a definite conclusion: the regular reflex was -ρο- without further conditioning, in all Aeolic dialects. I will now first review the epigraphic evidence, and after that turn to the extant fragments of Sappho and Alcaeus. Homeritic words with -ρο- will not be discussed here, but in chapter 7, as their Lesbian or Aeolic provenance is not certain.

3.3.1 The Numerals in the Aeolic Dialects

Let us start with the variation between ρα/αρ and ρο/ορ in numeral forms in the Aeolic dialects. The attestations are conveniently listed in Blümel (1982: 271–275). Concerning the variations in form, he notes that “die Einzelheiten der Abgrenzung zwischen phonologischen und morphologischen Ursachen sind noch nicht übereinstimmend geklärt” (Blümel 1982: 52–53).

In section 2.7, it was proposed that the numerals in Aeolic dialects underwent analogical modifications similar to those taking place in other dialects. For instance, the Boeotian forms πετρατος and πετρα- are usually explained as contaminations of original Aeolic *πετροτος, *πετρο- with Attic or West Greek forms (e.g. Waanders 1992: 379), but it is more likely that they underwent the...
same analogical influence of higher numerals (such as ἑπτά-, δεκά-) that yielded Ionic-Attic τετρά-. Another parallel for this influence is Arcadian πεντάς ‘fifth’, which was clearly reshaped on the basis of δεκάς ‘tenth’ and ενατός ‘ninth’;48 Note that the forms δεκατός and ενατός are actually attested in Boeotian inscriptions, contrasting with δεκάς and/or ενατός as attested in Lesbian and Thessalian inscriptions.

The same explanation can be applied to the Thessalian forms πετρο-ετηρίδα and πετρατός. In the ordinals, Thessalian has δεκάς with a medial ο-vowel that may have spread from ‘nine’ or even ‘eight’ (cf. the shortened form σκότο in Boeot. and Lesb.). In compounds, Thess. εξόμεινον ‘period of six months’ (IG ix,2 506.4) is another clear instance of the spread of -ο- as a linking vowel, comparable to the spread of -α- in Ionic-Attic πεντα-, ἑξα- (after ἑπτα-, ..., δεκα-).49 Therefore, it is not completely certain that Thess. πετρο- is the regular outcome of *kʷetr̥- before consonants.

3.3.2 Epigraphic Evidence (Boeotian, Thessalian, Lesbian)
I start from the forms given in the dialect grammars.50 Most discussions of the Boeotian reflex of *r̥ cite just two forms: the compound elements -στρατός and Βροχ-, which are widespread in proper names from the region.51 Importantly, the word for ‘army; campaign’ does not only appear in names, but also in the verbal form εσστρατεύομαι (IG vii, 3174 and passim).52 Boeotian also has instances of a-vocalism such as πετρα- and πετρατός, but as we have just seen, these forms may be analogical. Thus, although Boeotian does not offer much information, στρατός definitely speaks in favor of a regular development *r̥ > ρο.

As for Lesbian, a first important piece of evidence is στρατάγος, denoting a magistrate. As Hodot (1990: 56) remarks, this title is in the process of being replaced by στρατάγος, a hybrid form consisting of dialectal (-αγος) and Koine

48 The Arcadian form ενατός has recently come to light on an archaic festival calendar (Carbon-Clackson 2016).
49 Thess. πετραγουνός (Larisa, late 3rd c.), corresponding to Class. τετράγωνος ‘rectangle’, may be ascribed to Koine influence.
50 Bechtel (1921–1924, i: 242–243), Thumb-Scherer (1959); Blümel (1982); Hodot (1990).
51 E.g. Βροχυλλός (IG vii, 1908, Thespiae, 450–400 BCE). In the overview of Boeotian characteristics by Van der Velde (1929), the attestations of these forms are presented per locality; see also García Ramón (1975: 62–63). A third form usually mentioned in this connection is εροτής (plus names in Εροτό-, corresponding to Ionic-Attic Ἐρατό-), but this word does not derive from a pre-form with *r̥, and the difference in vocalism must have another cause. The alleged πν Θρόσιοστρατός is based on a false reading (see Masson 1972: 293).
52 This is the 3pl. pf. mid. of a verb στρατεύομαι, with the athematic ending -αθή < *-αται (with secondary -θ- and monophtongization of ai).
(στρατ-) elements. The real Koine form στρατηγός, with Ionic -η-, never occurs in Lesbian inscriptions. Other forms derived from this lexeme introduced α-vocalism much earlier, e.g. στρατεια (Hodot, NAS 01, 4th c.). In the literary tradition, στράτος is attested in Sappho. Apparently, in the classical period the genuine dialectal form στράτος was preserved only in the title στρατηγός.

The second important epigraphically attested form is αμβροτην ‘to transgress’ (IG xii,2 1.5), which again has a counterpart in literary Lesbian, ἀμβροτε (on which see below). There is no further relevant evidence: the root γραφ- (in forms like αντιγραφευς, γραφην) is well-attested, as it is in all other dialects, but it need not have contained *r. The attestation of σαρξ (Hodot 1990, MAT 03.11 and 05.16, 21, end of 3rd c.) is relatively late, so it could be a loanword from Ionic. In conclusion, both στρατηγός and αμβροτην are trustworthy evidence for the development *r > ρ in Lesbian.

In Thessalian, the root *mr̥kh- ‘short’ is attested as a personal name Βροχυς (IG IX,2 460.13, Krannon, Pelasgiotis, 2nd c.) and in its older form in the female name Μροχο̄ (SEG 24.406, Perrhaebia, 500–450 BCE). The name Βορχιδας (SEG 26, 672.32, Larisa, Pelasgiotis, early 2nd c.) may be due to a later metathesis, if it is indeed related. As we have seen, Βροχυ- is also found as an onomastic element in Boeotian.

A regular Thessalian outcome -ρο- is often thought to be supported by πετρο-ετηριδα (RPh. 1911, 123.26, Larisa, 1st c.). Since this form has an unexpected spelling ⟨η⟩ of the outcome of *e (which is otherwise spelled as ⟨ει⟩ in this dialect), and since the inscription has a number of Koine features, the evidential value of this form used to be questioned. Later, however, the form πετρο- has been confirmed by πετροετειριδα (SEG 17.288 passim, Larisa, 1st c. BCE or later) and by the ordinal πετροτος (SEG 43.311, Skotoussa, Pelasgiotis, early 2nd c.).

Nevertheless, it is not completely certain that these forms contain a reflex of *r: we must take into account that Myc. qa-to-ro- and Class. τεταρτο- may be remodellings of the older form PIE *kwetru- based on the compositional form of ‘ten’ (see sections 2.7 and 3.3.1). The same could be true of Thess. πετρο-, as a linking vowel -o- also occurs in Thess. εξομεινον ‘period of six months’ (IG IX,2 506.4). Moreover, an o-vowel is attested for the ordinals δεκοτος ‘tenth’ (at Larisa and Skotoussa, SEG 27.202, passim) and ενοτος ‘ninth’ (SEG 43.311, Skotoussa). Therefore, given the model of the 1st compound members πετρο-, εξο-, it cannot be completely excluded that an older form *πετορτος was changed into πετροτος.53

53 This was not a necessary development, however: Ionic-Attic preserves τέταρτος, πέμπτος,
Another Thessalian piece of evidence has been adduced by García Ramón (1999: 11–13): he argues that Ὁροσία, an epiclesis of Artemis at Atrax and Larisa in the Hellenistic period, is derived from *θρόσις < *dhr̥-ti‑ ‘support’. In his opinion, Ὁροσία refers to Artemis in her function as a supporter and protector of youngsters in a rite of initiation. An alternative derivation from the root *dhrs‑ of ὄρασις has been proposed (see e.g. LSJ), but García Ramón objects that this adjective was continued in Thessalian as ὄρες (with full grade root) on account of a different epiclesis, Ἀθάνα Ὀρεσίς. In either case, whether the underlying etymon is *dhr̥-ti‑ or *dhrs-, Ὁροσία would be an example for the vocalization of *r. Being a name, however, the form must be handled with due caution.

For García Ramón, Ὁροσία is an important form because it would show that the o-colored reflex in Thessalian occurs not only in contact with labial sounds. He also refers to the (as yet unpublished) Thessalian form ὀρσεν ‘male’, which contains no initial digamma and derives from the zero grade also reflected in Hom. ἔρσην. I would add that, contrary to what is often stated, the *r in πετροτος did not stand in a labial environment either: the simplification *tu̯r̥ > *tr̥ took place early on (section 2.6).

We may conclude that there is secure evidence for o-coloring of the Thessalian reflex, but the regular vowel slot is less clear than in Boeotian or Lesbian. The only direct piece of evidence for -ρο‑ is the epiclesis Ὁροσία. The names Μροχός, Βροχύς may have a levelled vowel slot (PGr. *mrek‑, cf. section 4.3.3), and for πετροτος we cannot exclude that it was influenced by the compounding form πετρο‑, which itself may have taken its o-vocalism from higher numerals. In the unpublished form ὀρσεν, ὀρ‑ may be an inner-paradigmatic restoration from ῥο‑ after the full grade seen in ἔρσην, or it could show a special development of *r in word-initial position (see section 9.1.7 for further discussion).

Thus, although the evidence does not completely exclude -φο-, the word-medial reflex in Thessalian was most probably -φο-, as in Lesbian and Boeotian.

54 Cf. also García Ramón & Helly (2007: 305–306).
55 In my view, this objection is not cogent. As García Ramón himself remarks, Ὀρεσίς is a substantivized feminine ‘the bold one’, “Her Boldness” of the archaic type ἴθῡ́ς (f.) ‘course’ beside ἴθύς (adj.) ‘straight’ (see Lamberterie 1990: 887–888). If the u-stem adjectives had root ablaut in Proto-Greek (see section 4.1.1), this substantivized form may have been derived from the full grade stem at an early date, before the adjective generalized the zero grade reflex.
56 “lässt sich der o-Vokalismus bei der Vertretung von *r als nicht durch die phonetische Umgebung bedingt erkennen.” (García Ramón 2007c: 106).
3.3.3 The Relation between Lesbian Lyric and Ionian Epic

Linguistic evidence from the poems and fragments of Sappho and Alcaeus is to be used with caution for more than one reason. As remarked above, this material may not only contain Ionic words with a-vocalism; it may also have undergone hyper-aeolicization at the hands of later editors or copyists. After the work of Lobel, it was thought for some time that Sappho composed her poems not in a literary dialect, but in the Lesbian vernacular (cf. the discussion in Bowie 1981: 60 ff.). In order to maintain this thesis, Lobel had to reject a number of Sapphic fragments as un genuine, and to assume a large number of emendations in the other fragments. As Bowie remarks, however, some fragments that were declared non-Sapphic by Lobel had the same metre as others that he did consider genuine. Thus, Lobel’s criteria for emending forms or rejecting entire fragments lacked a solid basis.

Since the monographs by Hooker (1977) and Bowie (1981), two things have become much clearer. First of all, there has been substantial Ionic influence on the language of Sappho and Alcaeus. This influence can be ascribed, to a large extent, to the epic tradition, but it is equally possible that vernacular Lesbian vocabulary used by Sappho and Alcaeus had been influenced by that of the neighboring Eastern Ionic vernaculars (Bowie 1981). Secondly, Sappho and Alcaeus used a literary dialect for their genre which had a tradition of its own, as follows from the meters they use. Aeolic lyric may owe part of its vocabulary and phraseology to this tradition, but it is unclear what exactly the Lesbian contribution was.57

The influence of Ionic on the language of the Lesbian poets was clearly substantial. In practice, it is often difficult to decide whether a given Ionic form is due to epic influence or to borrowing from the Ionic vernacular, but that is irrelevant for present purposes.58 Both Lesbian poets make use of a fair number of epic lexemes and grammatical characteristics, especially (though not exclusively) in poems with epic subject matter. Convincing cases of Ionic or epic influence include the following:59

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57 In the words of Bowie (1981: 177), the lexicon of Sappho and Alcaeus “shares the characteristics and components of the poetic dictions of the other early Greek poets, both epic and lyric”.

58 Bowie is reluctant to explain words that occur both in Lesbian poetry and in Homer as epicisms. The fact that a word is shared by Lesbian poetry and the epic language may mean two things. Either the word is inherited from an earlier, Common Greek poetic language, or one of the poetic languages borrowed the word from the other.

59 In what follows, fragment numbers refer to Voigt’s edition of Sappho and Alcaeus (Voigt 1971).
– the long vowel -aorist subjunctive (e.g. φαρξώμεθα, Alc. 6.7), which is typical for Ionic-Attic;
– ἀδελφέα 'sister' (Sapph., Alc.) < *ha-g^elpehā-, with a dental reflex of the labiovelar (Bowie 1981: 89–90);
– the form Πέραμος (Sapph. 44.16), a compromise between the Lesbian form Πέρραμος and the metrical structure of Homeric Πρίαμος (Bowie 1981: 58).
Bowie (1981: 137) further mentions as epicisms the forms περιτέλλεται, πιλανται, γαία (vernacular Lesbian γά), ρῆα (for Hom. ῥεία, contrast vernacular Lesbian βρᾶ), ἀμφί governing the dative, ποτέονται (with thematic contract verb inflection), and ἐστυφέλιξε (velar flexion of the -aorist). This list could easily be extended.60 As candidates to have been borrowed from spoken Ionic into the Lesbian vernacular, i.e. forms for which it is unnecessary to assume epic influence, Bowie (1981: 136) mentions ἴερος, τοιαύτα, κάρτερος, the 3pl. ind. aor. ending -σαν, the pf. ptc. ἐοίκοτες (in Aeolic, one would expect -οντες), and ἤπερ (enclitic -περ is otherwise absent from Lesbian).

Like φαρξώμεθα, a number of forms with ρα/αρ < *f that are found in Sappho and/or Alcaeus may stem from Ionic (for a full list, see section 3.3.5 below). For this reason, I disagree with O’Neil (1971) and Wyatt (1971) that ρα/αρ is the regular reflex in Lesbian under certain conditions.

3.3.4 Evidence for o-vocalism in Literary Lesbian
The only potential evidence for the reflex of *l is ἀόλλεες (Alc. 348.3) This form may be either an epicism or an instance of *l > -ολ‑ before nasals; see section 10.5.4 for further discussion. I will therefore focus on the reflex of *f.

The following forms from Sappho and Alcaeus, in alphabetical order, must be considered as potential evidence for ‑ρο‑ as a regular reflex (and ‑ορ‑ as analogical):
– βρόχε (α) (Sapph. 31.7)61
– δρόμωμεν (Alc. 6.8)
– δρόπωσιν (Alc. 119.15)
– ἐμμόρμενον (Alc. 39a.7)
– πρόπην (Alc. 70.9), ὀνέτροπε (Alc. 72.8), πεδέτροπε (Alc. 75.11)
– στρότον (Sapph. 16.1, Alc. 382.2).62

60 For instance, the productive epic adjective suffix -άλες (cf. section 4.2.2) is found in ὀτράλέως (Sapph. 44.11), and Alcaeus is fond of ἀργαλέος 'painful'.
61 The form βραχη[ in Alc. 300.9 (cited by O’Neil 1971: 24, but of unclear interpretation) need not belong here: it may be from a completely different lexeme, e.g. that of Hom. έβραχε 'resounded'.
62 Perhaps also in ν στρότ[ (Alc. 300.1).
The following forms are well-attested in Epic Greek and can be analyzed as epicisms in Lesbian lyric. For this reason, they cannot be used as secure evidence in the present discussion (even if the form ἄμβροτε is confirmed for Lesbian by epigraphic evidence: see above):

- ἄμβροτε aor. 3sg. (Sapph. 5.5), cf. Hom. aor. ἠμβροτε;
- ἄμβροσίας (Sapph. 141.1), cf. Hom. adj. ἄμβροσιος;
- Ἀφροδίτα (Sapph. 1.1 and passim), cf. Hom.+ Ἀφροδίτη;
- βρόδων (Sapph. 55.2), βράδοισι (Sapph. 2.6), βροδοπάχεες (Sapph. 53; 58.19), βροδοδάκτυλος (Sapph. 96.8): cf. the traditional epithets ῥοδοδάκτυλος (Hom.+ ) and ῥοδόπηχυς (Hes.+).

I also leave aside the following forms:

- ὄρπετον ‘beast, creature’ (Sapph. 130.2) beside Ion.-Att. ἑρπετόν: the original vocalism of the Lesbian form is unclear. In his monographic treatment of this form and the suffix -ετό-, Vine (1998: 74) concludes that ὄρπετον may have been contaminated with a form ἄρπο- ‘creeper’ that is perhaps also presupposed by ἄρπηξ ‘young shoot, sapling’;
- μόλθακος ‘soft’ (Sapph. 46.1, Alc. 338.8) has no convincing etymology, see section 10.1.7;
- the forms γρόππατα and γρόπτα (Balbilla) are probably hyper-Aeolisms in view of the universal occurrence of γραφ- in Lesbian inscriptions;
- The sequence ἄπ.τροτ ἄπσιδαρ[ (Alc. 179.12) may well contain the Aeolic form corresponding to epic ἀστράπτω ‘to flash (of lightning)’, but the reconstruction of this etymon is uncertain;
- ποικιλόθρον ‘ (Sapph. 1.1) probably contains the word θρόνα (to be kept distinct from θρόνος ‘throne’): cf. the discussion in section 2.5.2.

Returning to the potential evidence, the forms βρόχεα, ἐμμόρμενον, στρότον, and the thematic aorists δρομε/ο‑, δροπε/ο‑, and τροπε/ο‑ cannot be due to epic influence, as Homer attests these forms in a shape with -ρα‑ or -αρ‑. These words with a reflex -ρο‑ were at home in the Lesbian poetic tradition, and they probably entered this tradition as Lesbian vernacular forms. Indeed, the following forms with -ρο‑ are backed up by epigraphic evidence from Lesbian or other Aeolic dialects:

- ἄμβροτε (αμβροτην ΙΓ XI1,2 1.5);
- βρόχεα (Thess. Μροξα, Boeot. Βροχύλλος, see above);
- στρότος (Lesb. στροταγος, Boeot. έστροτευμαθη, names in -στροτος).

Note also ἄολλεες (= Epic ἄολλεες).

On ἄνοιρος (Sapph.), see the next section.
As has already been noted, στρότος (beside Homeric and class. στρατός, Cret. σταρτος) shows that the ő-colored reflex was regular also in a non-labial environment.

What does this evidence teach us about the regular place of the epenthetic vowel in Lesbian? In order to answer this question, let us now discuss some of the attested forms in more detail:

– Like Ionic βραχύς, Aeol. βρόχα and Thess. Βροχυς (IG ix.2 460.13) may have leveled the old full grade slot (attested in Lat. brevis; cf. section 4.1.1 and 4.3.3).
– There are three examples of thematic aorists with ő-vocalism in Lesbian poetry. Of these, τρόπην is well-attested (prefixed forms ὀνέτροπε, πεδέτροπε); besides, δρόπ̣[ω]σιν and the restored form δρό[μωμεν also clearly speak in favor of ő-vocalism. Clearly, the vowel slot of τροπ- could be analogical: cf. fut. ὄντρεψε, pres. inf. ἐπιτρέπην. The same goes for the vowel slot seen in δρόμωμεν and δρόπωσιν.
– As for ἐμμόρμενον, the corresponding Attic form εἱμαρμένος guarantees the antiquity of the formation, a middle perfect *he-hmr̥-toi with zero grade root. However, ἐμμόρμενον does not constitute compelling evidence for a regular alternative treatment *r > -ơ- in Lesbian, because in Homer we also find the older active perfect ἔμμορε (normally viewed as an Aeolism). Since the substitution of middle for older active perfect forms is widespread (cf. τετυγμένος beside older Myc. te-tu-ku-wo-α₂), the vowel slot of Aeol. ἐμμόρμενον may have been influenced by that of ἔμμορε.

The remaining forms clearly show that the regular Lesbian outcome of *Cr̥T- was CroT-. The clearest instances are ἀμβροτε (epigraphic αμβροτην), στρότος (epigraphic στροταγος), and the thematic aorist forms (ὀνέτροπε, πεδέτροπε). The epenthetic vowel regularly appears after the liquid in the isolated forms ἀμβροτε, αμβροτην, and στρότος. This reflex -ro- is a clear characteristic of Lesbian and Aeolic generally. In this respect the Aeolic dialects differ from Mycenaean, and also from Arcadian, where the regular reflex was -or- (as we shall see below).

### 3.3.5 Evidence for a-vocalism in Literary Lesbian

The following list contains all potential evidence for an a-colored reflex of *r and *l in literary Lesbian:

– βράδινος ‘supple’ (Sapph. 44A(b).7, 102.2, and 115)
– ἔαρος ‘spring’ gen. (Alc. 296b.3), contracted ἦρος (Sapph. 136, Alc. 367)

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65 On the relation between middle-passive and active perfect forms and the replacement of active perfects, see Van Beek and Migliori (2019).
66 The vowel slot of thematic aorists like ὀνέτροπε may, of course, be analogical.
- καρδία 'heart' (Sapph. 31.6, Alc. 207.9)
- κάρπος 'harvest' (Alc. 119.10)
- κάρτερος 'strong' (Alc. 119.19; probably also Alc. 302 (col. 2).19)
- ἐμαρψε 'seized' (Sapph. 58.21), μαρψαι[ (Alc. 61.14)
- νέκταρ 'nectar' (Sapph. 2.15 and 96.27)
- δναρ 'dream' (Sapph. 134)
- δνηαρ 'benefit' (SLG, S286(2).10)
- πάρθενος 'maiden' (Sapph. 56 passim, Alc. 42.8)
- τάρβημι 'to be scared' (Alc. 206 and 302.12)
- τράγος 'he-goat' (Alc. 167.5).

A number of these forms must be left out of consideration: ἐμαρψε and πάρθενος are pan-Greek forms without a convincing etymology (cf. section 9.7.2). For τράγος, a pre-form with *r̥ is uncertain as we might be dealing with a secondary zero grade beside the present τρώγω, from a root *treh3g- (section 9.1.4). The epic verb ταρβέω was also utilized in Lesbian poetry and in the Attic tragedians; its a-vocalism may point to an Ionic-Attic origin, if the derivation from a zero grade of PIE *tergʷ- is correct (cf. section 4.2.1). Furthermore, κάρτερος is certainly a borrowing from Ionic, whether from the vernacular or from Epic Greek; see the arguments adduced by Bowie (1981: 99–100).67 It is also conceivable that Aeol. κάρπος is of epic or Ionic origin, but this word is difficult to evaluate in any case, as it has the same form in all dialects where it is attested.

Examples for -αρ as the word-final treatment of *r̥ are ὄναρ, νέκταρ, δνηαρ, and ἔαρος. Given that it displays the change *ā > η, δνηαρ must be a borrowing from Ionic.68 The three other forms also occur in Homer, and especially δναρ and νέκταρ are liable to an analysis as epicisms. The gen. sg. ἔαρος is commonly thought to have been built on the nom. ἔαρ (Hom.+) < PIE *u̯es-r̥. The two instances of contracted ἦρος may be of Ionic origin, and uncontracted ἔαρος may be an epicism. Thus, there is no direct evidence for the Lesbian vernacular development of *r̥ in word-final position.69

67 Bowie's analysis, however, is misguided to some extent by O'Neil's (1971) poor linguistic treatment of the evidence.
68 On Aeol. η corresponding to Ionic ει in prevocalic position, see Slings (1979: p. 251 n. 36 on δνηαρ).
69 Ruigj (1961) proposed that the regular Lesbian (and also Achaean) outcome of *r̥ in word-final position was -αρ, adducing ἦτορ 'heart' and ἦνοιρος 'dream' (Sapph. fr. 63.1) as examples. In fact, the attestation of ἦτορ in Lesbian (Alc. fr. 6.20) is highly uncertain (cf. the edition by Voigt), so that only the Sapphic form ἦνοιρος would remain as an indirect piece of evidence for the Lesbian development. This form has been compared to Arm. anurj 'dream' and derived from *onurjjo-, a reconstruction that is not without problems. However, the idea that ἦνοιρος is a contamination between ἦνοιρος (the normal Greek form) and Lesb. *δνορ < *onr̥ deserves full consideration. Cf. section 9.5 on word-final *r̥.
Two remaining forms require a more elaborate discussion. Both Lesbian poets use καρδία as a word for ‘heart’. On account of στρότος beside Ionic στρατός, which is a secure example, it can be excluded that καρδία contains the regular reflex of *γ in Lesbian. Since καρδίη was certainly the regular vernacular form in neighboring Ionic dialects, we must assume that this form was borrowed into Lesbian. There is another possible, but rather uncertain attestation κὸρδίαν (Alc. 130A.4, initial κ suggested by Diehl). If this is indeed the correct reading, it could be a hyper-Aeolic form, as the vocalization -ο- would be at odds with the otherwise clear evidence for -ο- as the Lesbian reflex.

The adjective βράδινος occurs three times in Sappho, and its β¬ certainly represents earlier *υ¬ (see the discussion in Bowie 1981: 80–84). The word has two main types of referent: (1) soft or supple body parts of women, e.g. feet, hands, cheeks, and also Aphrodite herself; (2) shoots, branches, and a whip that are ‘supple, tapeable’. An etymological connection with Ved. vrad ‘become soft’ could therefore be envisaged, but this remains uncertain as the suffixation in -ινος remains without a good parallel. There are two options to explain -ρα- in this clearly poetic word. First, it is conceivable that βράδινος stems from the Ionian epic tradition. Secondly, since βράδινος has no secure etymology, it can be argued that a pre-form with *γ is not ascertained. In this case the word could be genuine Lesbian or belong to the Aeolic poetic tradition.

3.3.6 Evidence for Aeolic o-vocalism in Ancient Grammarians
As various previous authors have noted, much of the evidence from the ancient grammatical tradition cannot be relied upon. In many cases, there is no dialect indication: for instance, a gloss like μορνάμενος· μαχόμενος (Hsch., cf. μάρναμαι ‘to fight’) need not be Aeolic, but could instead stem from Arcadian or Cyprian.

70 The Cyprian reflex of this word is attested as κορζία, in a gloss in Hsch. ascribed to the Paphians (see section 3.4.1).

71 In a number of cases (e.g. βροδοπάχεες Sapph. 53, and βρόδων 55.2), β- has been added by modern editors. In all three instances of βράδινος, however, the mss. or papyri have initial β- (reflecting digamma). Bowie criticizes Hooker’s view (1977: 28) that the β- was a device to indicate that a short syllable was lengthened due to prevocalic initial ρ-. In fact, only in half of the cases in Sappho does the β¬- close a final syllable that is short by nature (thus in δραματικοῦ βράδινῳ Sapph. 115; in Alcaeus, both cases of β¬- generate a heavy syllable). Bowie thinks that words spelled with β¬- are poetic archaismes of Lesbian: they preserve a reflex of *υ- insofar as this was metrically useful, while in the vernacular, *υ- had already developed to r- by the time of Sappho.

72 See Chantraine (1933: 200–201) for the suffix -ινο-, and Mayrhofer (EWAia s.v. VRAD) for the suggestion to compare this with ῥαδινός, Aeol. βράδινος.
In other cases, the sources of the ancient grammarians cannot be determined. For instance, the adverb ἰροσέως and the noun πτόρμος (for πταρμός ‘sneeze’) are cited as ‘Aeolic’ in the Compendium περὶ διαλέκτων attributed to Johannes Grammaticus, and they do not contradict the conclusions obtained so far: ἰροσέως has the expected Aeolic reflex of *r̥, and if πτόρμος is a real form, various accounts are conceivable.73 The middle perfect forms τέτορθαι, μέμορθαι and ἔφθορθαι (wrongly referred to as ‘Homeric’ by O’Neil 1971: 26) are cited as Aeolic in (pseudo-)Herodian’s On Iliadic Prosody 67.74 If such forms indeed once existed, the analysis of ἔφθορθαι is clear enough, but τέτορθαι and μέμορθαι are difficult to interpret etymologically. Now, ἔφθορθαι may have an analogical vowel slot (φθερ‑, φθορ‑, φθαρ‑) and does not speak against a regular development to ‑ρο‑ anymore than does ἐμμόρμενον in Alcaeus (cf. above); the same may be true of τέτορθαι and μέμορθαι, whatever their etymology is.

Having said that, one pair of glosses attested in Hesychius clearly supports the Aeolic development of o-vocalism that we have just established on the basis of the literary and epigraphic evidence: πορνάμεν· πωλεῖν ‘to sell’ and πορνάμεναι· κεντούμεναι (Hsch. π 3042 and 3043).75 The forms reflect the nasal present-stem *pr‑n‑h₂‑ that is also continued as Ionic πέρνημι ‘to sell’, with the difference that in the latter form, the root vowel was secondarily adapted to that of the aorist περάσαι.76 In πορνάμεν, the o-vocalism in combination with the infinitive ending ‑μεν clearly suggests an Aeolic origin. The vowel slot ‑ο‑ could be conditioned by the following nasal, or be analogous after the aorist περάσαι.77

3.3.7 Conclusions on Aeolic

The forms στρότος ‘army’ and αμβροτην ‘to err’ provide clear evidence for the development of an anaptyctic vowel -o‑ after the liquid in Aeolic dialects. This development is shared by at least Lesbian and Boeotian. Furthermore, στρότος

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73 For instance, the o-grade root could be original, or an onset /ptro-/ (with the expected Aeolic reflex) may have been avoided.

74 These forms are adduced in the context of a discussion of the accentuation of the Homeric middle perfect infinitive ἐγρήγορθαι, and are intended to serve as parallels for an infinitive ending in -ορθαι with proparoxytone accent (instead of the expected paroxytone). According to (pseudo-)Herodian, such an accentuation is seen only the forms τέτορθαι, μέμορθαι, ἔφθορθαι in Aeolic (τῇ Αἰολίδι).

75 In 3042, the codex has the accentuation πόρναμεν; in 3043, the gloss κεντούμεναι probably belongs elsewhere.

76 The -o‑ in the gloss πορνάμεν may have been long or short: the acute accentuation need not be original.

77 For further discussion, see section 9.4.
proves that the o-coloring was not conditioned by a neighboring labial sound. The Thessalian evidence is somewhat less straightforward, but all attested forms are compatible with the development established for Boeotian and Lesbian: Θροσια and πετροτος render this likely. We may therefore reconstruct *r > -ρο- for Proto-Aeolic.

It is important to state this conclusion in clear terms, especially given the discussion of the reflexes of *r in the Aeolic dialects by Parker (2008: 446–447). Parker’s general tenet is that the Aeolic dialects have no shared innovations: he describes most of the typical Aeolic features as choices made independently by Boeotian, Lesbian and/or Thessalian. However, García Ramón (2009) has shown convincingly that Parker’s arguments are misguided. Not only are there at least two shared innovations between Lesbian and Thessalian, but the three dialects in fact share a bundle of features (often non-trivial choices between alternatives) that cannot be due to language contact at a recent stage, as the dialect regions are geographically non-contiguous.

Now, the development *r > -ρο- is perhaps the most salient of all common phonological innovations of the Aeolic dialects, especially now that it has been shown that the vowel /o/ regularly follows the liquid only here, not in Mycenaean (cf. chapter 2) or in Arcadian (section 3.4). When Parker states that “*r > ρο/ρα is a comparatively late change in various Greek dialects” (2008: 447), I agree that *r may well have been retained until the late (or sub-)Mycenaean period in many dialects, including Ionic-Attic (cf. chapters 6 till 9) and West Greek (sections 3.1 and 3.2). However, this does not imply that the change is “not very important for grouping Greek dialects”, as Parker states with a misleading reference to Cowgill. Apart from Boeotian, Lesbian and probably Thessalian, there is no other dialect for which we know for certain that the reflex of *r was -ρο-. Moreover, it is uncommon in other IE languages for the anaptyctic vowel to develop after the liquid: the only clear example of such a treatment is Celtic, where *Cr̥T- developed to *CriT- (cf. OIr. cride ‘heart’ < *kr̥di̯o-). Given that Thessalian, Boeotian and Lesbian are not geographically contiguous, the only logical conclusion is that the isogloss *r > -ρο- is an innovation of their common ancestor, which we may call Proto-Aeolic.78

78 According to García Ramón (1975: 63), who starts from the position that *r was still intact in Mycenaean, “la conclusion s’impose d’elle-même: le proto-thessalien a développé *r > ρο, ρα à une époque où les Béotiens ne s’étaient pas encore séparés de la Thessalie, mais postérieure en tout cas à ca. 1200.” Note, however, that the regular vowel slot was not a relevant issue for García Ramón. For a discussion of further phonological and morphological arguments in favor of positing a Proto-Aeolic stage, see García Ramón (1975: 60–68) and (2009: 232–234).
It is difficult, however, to determine the date of this Proto-Aeolic vocalization to -ρο- more precisely. In my view, it is likely that the change took place before the end of the Mycenaean period: this allows us to understand why the Aeolic dialects did not develop an a-colored reflex, as Ionic-Attic and neighboring West Greek dialects did. Another important common Aeolic innovation, the generalization of -εσσι as a general 3rd declension dative plural ending (except in the s-stems), may also have taken place in the Mycenaean period, as I hope to show elsewhere.

3.4 Arcado-Cyprian

Fraenkel (1911: 250–251) was one of the first scholars to explicitly state that the o-colored outcome is regular in Arcado-Cyprian. He adduced the forms παναγορσις, εφθορκως from Arcadian, and “cypr. πλάτει (...) das sich dem Sinne nach mit sonstigem πλάτει deckt”. This thesis was quickly taken up by the handbooks, and it remained the standard view until Morpurgo Davies proposed that the instances of o-coloring were conditioned by a preceding u-. In her words, “both in Arcadian and Cyprian the reliable instances of aR/Ra considerably outweigh those of oR/Ro. This amounts to saying that the data definitely favour the suggestion that aR/Ra and not oR/Ro is the regular treatment of R̥ in these dialects” (1968: 808).

Since then, scholars have occasionally doubted that o-vocalism was the only regular outcome in Arcadian and/or Cyprian. For instance, Egetmeyer (2010: 144) remarks that the Cyprian outcome is uncertain because of a lack of clear examples. However, much of the alleged evidence for a-vocalism in both dialects was adduced for incorrect reasons, notably in Morpurgo Davies (1968). In my view, scholars like García Ramón (1985) and Haug (2002: 49–67) are right to insist that only the o-colored outcome is regular in Arcadian and Cyprian. Nevertheless, whether the two dialects underwent a common development of *R̥ remains, in my opinion, an open question.

The evidence below has been collected from Morpurgo Davies (1968), Haug (2002) and the dialectal grammar by Egetmeyer (2010: 144–147).

3.4.1 Cyprian: Evidence for o-vocalism

There are five more or less reliable forms with o-vocalism in Cyprian, three of which are attested in glosses ascribed by Hesychius to the dialect of Paphos (εὐτρόσσεσθαι, κορζία, and στροπά), against two forms attested in the syllabary (ka-te-wo-ro-ko-ne, to-ro-su-ta-mo-se). Another form that was previously adduced (δόρναξ· ὑποπόδιον Hsch.) has no bearing on the discussion.
– *ka-te-wo-ro-ko-ne* /kat-ēwrogon/ or /kat-ēwrogon/79 ‘they besieged’ (ICS² 217.1, Egetmeyer 2010: 481) is a zero grade thematic 3rd pl. from the root of εἴργω (Hom. εἴργω) ‘to shut in; keep away’. According to the traditional interpretation, this form is an aorist (cf. GEW s.v. εἴργω).80 Morpurgo Davies (1968) doubted whether the form reflected a zero grade root with the argument that there is no independent evidence for a thematic aorist from this verb, and she followed a suggestion by Schwyzer (1939: 777) to compare it with ἕως, a thematic pluperfect found in the next line of this inscription (a-no-ko-ne ‘they ordered’ ICS² 217.2). However, since ἕως is clearly an exceptional case and is also attested in Homer, the interpretation of *ka-te-wo-ro-ko-ne* as a thematic aorist or imperfect must be preferred. Thus, the form serves as reliable evidence for an o-colored reflex.

– A PN to-ro-su-ta-mo, either /Th rosu-dāmō/ or /Th orsu-dāmō/, occurs in an inscription from Paphos that was dated to 750–600 BCE (cf. Neumann 2004: 138–139 for the reading). The antiquity of the inscription suggests that we are dealing with a genuine reflex of *r̥* in Cyprian. Egetmeyer (2010: 146) argues that /Throsu-/ is the correct interpretation of the first member, but as Neumann (l.c.) remarks, there is no way to exclude /Thorsu-/.

– The gloss εὐτρόσσεσθαι· ἐπιστρέφεσθαι. Πάφιοι (Hsch.), ‘to turn around or towards’, is mostly thought to derive from a yod-present *‑tr̥kw‑o‑*81 Although scholarly opinion is still divided concerning the assumed equivalence of Cypr. εὐ‑ (as a preverb) and Ion.-Att. ἐπ‑,82 the most widely accepted interpretation of εὐτρόσσεσθαι recognizes in it the root *tr̥k‑* underlying

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79 On the basis of the syllabary, all four interpretations are possible, though a long vowel (an augmented form of the root *euerg‑*) is in my view more likely.

80 Tichy (1983: 287 n. 165) views ka-te-wo-ro-ko-ne as the imperfect of a root PGr. *uerg‑* ‘to shut in, lock up’, which she distinguishes (1983: 286–288) from PGr. *euerg‑* ‘to shut out, drive away’ < *h₂uerg‑* (Skt. vṛṇākti, āvṛnak). Together with Att. ἕργω, ἐργῶ (forms with a short root vowel) and the Avestan opt. varzūyān ‘to fence in’, she derives the Cypriot form from an ablauting athematic root present. Whether this is correct or not is not directly relevant for present purposes, because ka-te-wo-ro-ko-ne would have a zero grade root also in Tichy’s interpretation.

81 See e.g. Egetmeyer (2010: 146).

82 For extensive discussion and further literature on Cypr. εὐ‑, ὑ‑, cf. Egetmeyer (2010: 450–452). The best piece of evidence for *‑ud‑* as a relic alternative form of ἐπ‑ is u-ke-ro-ne (ICS 217.4 5, 15, interpreted as a gen. pl. /u-kʰerōn/ lit. “what is on the hand”, i.e. ‘supplementary payment’. This interpretation is attractive in view of ἐπίστειρα: τὰ ὑπὲρ τὸν μισθὸν δίδομεν τοῖς χειροτέχναις “what is given to craftsmen on top of their wages” (Hsch. ε 5418). It remains unclear to me, however, how ὑ‑ < *‑ud‑* would relate to εὐ‑ in the glossed form εὐτρόσσεσθαι.
Morpurgo Davies (1968: 800) claimed that “in the absence of any other evidence a denominative formation on an -o-grade substantive cannot be excluded”, but this seems highly unlikely: in all other Greek dialects, denominatives from o-grade thematic nouns are in -έω. The most plausible reconstruction remains *-tr̥kw-je/o-., even if some doubts persist concerning the analysis of ευ- as a preverb. The vowel slot of εὐτρόσσεσθαί may be analogical, cf. τρέπω.

The gloss κορζία· καρδία. Πάφιοι (Hsch.), a betting reading than κόρζα, was disqualified by Morpurgo Davies (1968: 801, 812) with the remark “but this is a gloss attested only in Hesychius”. If the other available evidence spoke against o-vocalism, this would perhaps be a legitimate way of arguing, but since there is no compelling evidence for a-vocalism in Cyprian (see below), it is best to take the gloss seriously, especially given its remarkable ⟨ζ⟩.

– στροφά· ἀστραπή. Πάφιοι (Hsch., Hdn.) ‘flash of lightning’. The related gloss στορπά· τὴν ἀστραπήν (Hdn., Hsch., without dialect indication) might well be Arcadian in view of Διος Στορπαο in an Arcadian inscription (gen.sg., IG v,2 64, 5th c.). The aspirated stop in the gloss στροφά· ἀστραπαί (Hdn., Hsch.) might be folk-etymological after στρέφω. As for the real etymology, Beekes (1987) has convincingly criticized the reconstruction *h2str-h3kw- “star-eye”, which is not evident semantically and, even worse, does not explain the forms without prothetic vowel or the lacking reflex of *h3. Still, since forms with o-vocalism appear precisely in Arcadian and Cyprian, a reconstruction with syllabic liquid might be considered. One would then have to reconstruct a Proto-Greek root *strp-ā, of unknown etymology, with a variant *astrp-ā continued in the Classical form ἀστράπτω. In this case, the reflex -ρα- in the Classical Attic form would be difficult to rhyme with the claims made in this book. However, the
word may well be of non-Indo-European etymology: the variation between forms with and without prothetic ἀ-, and the difference in vocalism between Homeric στεροπή, ἀστεροπή and ἀστραπή (with ‘reduced’ vocalism) are both typical substrate phenomena (Beekes l.c.; Schrijver 2001: 419). Furthermore, it cannot be excluded that contaminations took place between two or more different pre-forms. In view of this, no conclusions can be based on these forms.88

– The gloss θόρναξ· ὑποπόδιον ‘footstool’ (Hsch. θ 647 Latte) at one point received the addition Κύπριοι (thus e.g. GEW), but Latte no longer prints this because he thinks the ethnicon was wrongly taken over from the preceding gloss (cf. Egetmeyer 2010: 147). The word is clearly derived from Myc. to-no /thornos/, alph. θρόνος, but its pre-form may not have contained *φ at all (see chapter 7).89

### 3.4.2 Cyprian: Evidence for a-vocalism

Morpurgo Davies (1968: 799–801) and Egetmeyer (2010: 145) list several pieces of evidence for a-vocalism, but none of them is compelling.

First of all, as explained in section 1.2, we must leave aside all forms where *φ may have been vocalized as part of a Common Greek development, e.g.:

– Cypr. a-u-ta-ra /autar/ < PGr. *autr (Hom. αὐτάρ);
– Cypr. ka-i-re-te /kʰairete/ < PGr. *kʰarje/o- < PIE *ǵhje/o-.

Forms for which there is no clear reason to reconstruct a syllabic liquid can also be disregarded:

– the gloss ἔαρ· αἷμα. Κύπριοι (Hsch. ε 31), which derives from PGr. *ehar < PIE *h₁esh₂r (cf. Hitt. ešar ‘blood’);
– the verb μάρπτω (Morpurgo Davies 1968: 801) appears in the γλῶσσαι κατὰ πόλεις in the form Κυπρίων. ἔμαρψεν· ἔλαβεν. However, the word also occurs in both epic and Lesbian lyric, and has no clear etymology (see section 9.7.2).

Some of the Cyprian forms with -ar-, -ra- look like imports from Ionic-Attic:

– Personal names in -κράτης are also attested in Ionic-Attic and appear only late in Cyprian; they must therefore be borrowings (see Egetmeyer 2010: 327–330 and already Morpurgo Davies 1968: 800);

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88 Thus also Haug (2002: 60). Note that the interpretation of Myc. to-pa-po-ro-i as /stor-pā-phoro/i ‘for the torch-bearers’ (thus e.g. Waanders 2008: 37, Egetmeyer 2010: 146) is uncertain; for an alternative interpretation /torpā-pʰoro-/ connecting Att. τάρπη denoting a type of basket, see chapter 2.

89 Compare the skepticism of Egetmeyer (2010: 147) on this gloss; I disagree with him, however, on the inclusion of ἰφόνα ‘varicolored embroideries’ among the Cyprian evidence for *φ (on this word, see section 2.5.2).
- κάρπωσις· θυσία Αφροδίτης ἐν Αμαθοῦντι ‘festival of Aphrodite in Amathous’ (Hsch.) is derived from the problematic word καρπός, which has this very shape in all Greek dialects where it is attested.
- The form ταρβεῖ is ascribed to Cyprian by the γλῶσσαι κατὰ πόλεις (cf. Ruijgh 1957: 163). However, in spite of Bowra (1959), this list of dialectal words is in my view not fully trustworthy as a source for the spoken dialects of Ancient Greek. The verb ταρβέω is frequent in Homer, but also in the tragedians; it is therefore not excluded that the word is of Ionic-Attic origin. The reconstruction of the root as PIE *tergw- (with ταρβέω reflecting *tr̥gw-eh₁-) is possible, but not compelling.

There are two Cyprian forms containing a sequence ⟨Ca-ra⟩ for which a pre-form with syllabic nasal may be reconstructed:
- As I will argue in section 9.1.4, the imperative ka-ra-si-ti /grastʰi/ ‘eat!’ can be the regular outcome of a pre-form *grns-dʰi.
- The form ta-ra-ka-ma-ta /dragmata/ ‘sheaves; first fruits’ (ICS² 318 A 111, 2) corresponding to alphabetic δράγματα belongs to the root of δράσσομαι, which did not have ablaut and whose -α- may reflect a vocalized nasal (see section 9.2.1).

3.4.3 Arcadian: Evidence for o-vocalism
The epigraphic evidence unambiguously proves that Arcadian had an o-colored regular reflex, independent of the preceding consonant. This was already argued clearly by Haug (2002: 60); moreover, two forms that were recently discovered in an archaic Arcadian festival calendar (editio princeps: Carbon-Clackson 2016) must be added to the dossier. The forms are discussed in alphabetical order.
- Arc. βροχυ [ (Dubois 1988: 43 with n. 212). Morpurgo Davies doubts the Arcadian origin of the form. Dubois could not find the stone in the museum of Dimitsana, but as he remarks (ibid., n. 212, cf. also Haug 2002: 60), “il est peu probable qu’il y ait eu dans ce musée beaucoup de pierres errantes éoliennes.” The place of the vowel in βροχυ can be analogical after the full grade in the forms of comparison, like that of Class. βραχύς (cf. section 4.3.3).

90 Leumann (1950: 273) thinks that the ascription Κυπρίων of glosses (e.g. those in the κατὰ πόλεις list) may conceal the fact that these words occurred in the epic poem with the title Cypria. Although some of Leumann’s views are in my view far-fetched, a skeptical attitude towards the glosses marked as ‘Cyprian’ seems in order.
91 For further discussion of ταρβέω and cognates, see section 4.2.1.
92 Unfortunately, the more precise provenance of this text within Arcadia is unknown.
According to Morpurgo Davies (1968), following Chantraine and Wackernagel, the Arc. form ἐφθορκως (IG v,2 6.10–11 = Del. 3 656) may have been influenced by the older root perfect (Att. δι-ἐφθοραχ). However, as Haug (2002: 60) remarks, the classical κ-perfect was normally derived from a middle perfect (cf. Attic ἐφθαρκα from ἐφθαρμαί). Moreover, in Ionic-Attic one never finds intrusion of the o-vowel from the active into the middle perfect. Therefore, I agree with Haug and with Dubois (1988: 44) that ἐφθορκως probably implies the existence of an Arcadian middle perfect *ἐφθορμαί, with an o-colored reflex of *r.

Θορσυλόχου (Dubois 1988: 11, 171) is attested on a 3rd c. proxeny decree from Orchomenos. Morpurgo Davies (1968: 794) remarks that the name refers to a person from Achaea and excludes the form as evidence. Haug (2002: 60) prefers to see in Θορσυν- the regular development of a zero grade, and Dubois (ad loc.) follows Masson (1972) in seeing in this form an element of the pre-Doric substrate in Achaea. Note, in this context, the Cyprian man’s name to-ro-su-ta-mo (see above) and the Cretan PNs Θορυσταρτος and Θορσυς (Masson 1972, Leukart 1994: 191). It is hard to base any conclusions on this form, because it is a name.

Arc. παναγορσις name of a festival, lit. “all-gathering” (IG v,2 3.26 = Del. 3 654), also in the month name παναγορσιον (ibid. 3.3), τριπαναγορσιος (ibid. 3.7). The word is now also attested in its expected dialectal form παναγορι (Carbon-Clackson 2016) with simple spelling of the geminate resulting from the dialectal development ρσ > ρρ. Finally, cf. also ἄγορρις· ἀγορά, ἄθροισις ‘gathering’ (Hsch., without dialect identification). A zero grade reflex is also attested in the form σαγχρις ‘meeting’ (IG xiv, 659, lines 12 and 16) found in a Western Ionic colony.93 As a comparison between Arcadian and Western Ionic confirms, the original form was *agr-ti-.94 As Dubois remarks, Eastern Ionic ἄγερσις (Hdt.+) and epigraphically in Miletus) must contain the restored root of ἄγειρω, while Arcadian παναγορσις / παναγ(ρ)ις and Western Ionic σαγχρις show the etymologically expected zero grade root. The form σαγχρις was discarded as “doubtful evidence” by Morpurgo Davies (1968: 794), for the reason that it occurs in a “late inscription, in which the only other dialect formations are φερτρία and its derivatives”. In her view, it

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93 In Van Beek 2013 I suggested that the Mycenaean month name a-ma-ko-to me-no /ham-agortô mē(n)nos/ “in the month of the assembly” (cf. Taillardat 1984) reflects PGr. *sm- plus *agr-to-. However, the underlying form could also be an o-grade formation PGr. *ágor-to- of the type νόστος.

94 Of course, the vowel slot of σαγχρις could theoretically be analogical after the full grade of the verbal root. For the vocalization of *-r̥s-, see section 9.1.
is “quite possible” that αγαρρις arose by vowel assimilation from ἄγερρις, but this is clearly an ad hoc assumption.95 The fact that both αγαρρις and φρητρια seem to denote institutions peculiar to this colony suggests that the form αγαρρις preserves older morphology. Moreover, as Dubois (1995: 86) remarks, αγαρρις shows the expected result of ‑ρσ‑ in Western Ionic and cannot therefore be a Koine form. Finally, as Haug (2002: 60) remarks, an o-grade root is excluded in an abstract noun in ‑σις.

– The Arcadian form of the word for ‘male’ (with ρρ < ρσ) has been known for a longer time in a form with crasis, τορρεντερον (Mantinea, 5th c., Dubois II, 94 ff. and 105). It remained unknown, however, whether this form had resulted from *το αρρεντερον or *το ορρεντερον. This question may now finally be resolved after the appearance of ορεν, with single spelling of the geminate, on a newly published festival calendar (Carbon-Clackson 2016). The form αρσενα (Tegea, 4th c.) must be a Koine form: see below.

– As for Arc. Στορπαο, epithet of Zeus, see the discussion of the Cyprian gloss στροπά above. It remains uncertain whether the pre-form contained *;r.

– Arc. τετορτος (Dubois 1988: 42–43). The form is attested twice as a gen. sg. τετορτκω and probably once in a broken attestation as a nom. τετορτα. As a man’s name, Τεταρτος is attested only once. As with Attic τέταρτος, Arcadian τετορτος cannot be explained by analogy, because the cardinal form is τεσσερες.96 I cannot accept the reasoning of Morpurgo Davies (1968: 795) that the single ‑τ‑ (from *‑τυ‑) in τετορτος can only be explained from an earlier form *τέτροτος or *τέτρατος. As argued in section 2.6, *‑τυ‑ was simplified before *r in this word prior to the vocalization of the syllabic liquid.

3.4.4 Arcadian: Evidence for a-vocalism

As Haug (2002: 59–61) makes clear, the counterevidence to a regular vocalization *r > ‑ορ‑ in Arcadian merely consists of the forms δαρχμα, γραφω and στραταγος. There are two possible ways to explain these forms: either they are non-dialectal words, or they have -σφ- or -σα- for some other reason.

– As was already remarked e.g. by Ruijgh (apud Morpurgo Davies 1968: 813), στραταγος could well be a borrowing from Doric. He compares the military term Att. λοχαγός, where the long ‑α‑ excludes a native Ionic-Attic word, and which is generally accepted to be a Doric borrowing.

95 See Van Beek (2011a) for a criticism of “vowel assimilations” in Greek, and cf. also the doubts expressed by Dubois (1988: 44 with n. 219).

96 Note, in this connection, that τετόρτας (Theoc. 33.2) is inadmissible as evidence for a Lesbian form τέτορτος*. The form in Theocritus (of unknown dialectal origin) may be analogical and based on the Doric cardinal τέτορες.
The root of γράφω has a-vocalism in all Greek dialects, except in the agent noun γροφεύς ‘scribe’ attested in various dialects, mainly on the Peloponnesian (see section 9.2.2 for a discussion of the details). Arcadian has γραφεύς (IG v,2 343.31–32), συγγραφού (IG v,2 6.53), and γραφης (IG v,2 8.4), whereas γροφεύς is only known from Koine texts.97 The a-vocalism of γράφω could be the reflex of a vocalized nasal (section 9.2.2).

It is hard to utilize δαρχα as evidence: as a word designating a monetary unit, it may have easily been borrowed from another dialect. Indeed, the same form is found in the neighboring West Greek dialect of Elis, as well as on Crete. Moreover, the Boeotian dialect of Thespiae also offers instances of δαρχα (Roesch, IThesp. 38 and 39), which cannot have the genuine reflex of *r in Aeolic, as we have seen above.98

The form ἀρσενα ‘male’ (Lex sacra from Tegea, 4th c., Dubois I, 80; II, 34ff.) cannot be used as evidence, because the genuine Arcadian form with -ρρ-< -ρσ- is reflected in τορρεντερον and ὀρεν (see above). Consequently, ἀρσενα must be a literary or Koine form.99

3.4.5 Conclusions on Arcado-Cyprian and Achaean

As Haug (2002) has convincingly shown, Morpurgo Davies was mistaken in positing a regular vocalization *r > -αρ-, -ρα- for Arcadian. The forms παναγορ-σις and τετορτος, and now also παναγορι and ορεν in the festival calendar, clearly show that the o-colored reflex was regular in this dialect also in non-labial environments. The o-vowel of εφθορκως further supports for this conclusion. The situation in Cyprian is a bit less clear, but here too, the gloss κορζία and the verbal form ka-te-wo-ro-ko-ne point to regular o-coloring. The gloss εὐτρόσσεσθαι and the PN to-ro-su-ta-mo support this conclusion.

As for the vowel slot, Arcadian τετορτος can only point to a regular and unconditioned vocalization to -ορ-. The same outcome is found in παναγορ-

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97 According to Minon (2007: 301–302), the Elean alphabet was taken over from the Laconians. This would explain why γροφεύς is found in that dialect. Is a similar explanation possible for the occurrence of γροφεύς in Arcadian?

98 Haug (2002: 61) proposes to assume influence of the present stem of δράσσομαι < *dr̥gh-, on δαρχα in Arcadian and Aeolic, but this does not explain the deviating vowel slot in comparison with Class. δραχμή. One might therefore think that δραχμή underwent the influence of the present stem, while δαρχα, δαρχα contain the regular outcome of PGr. *drukhnā. See section 9.2.1.

99 Pace Morpurgo Davies (1968: 796), whose speculations on geographically different treatment of -ρς- are not supported by the evidence; cf. Dubois (1988: 80–83), who argues that -ρρ- is found until the late 5th c., and that it later developed (from the 4th c. onwards) into a form with compensatory lengthening.
σις (*παναγορις), ὄρεν (*τορρεντερον) and Στορπαο, although it must be noted that Στορπαο has no clear etymology, that ὄρεν is a unique example for *γ- in word-initial position, and that the vowel slot in παναγορ(σ)ις may have been influenced by that of the full grade form. In order to determine the regular vowel slot in Cyprian, we have to rely on glosses in view of the nature of the Cyprian syllabary. The evidence is meagre: κορζία points to -ορ-, and εὐτρόσσεσθαι to -ρο-, but the latter form might be analogical.

Although the evidence is less extensive, the situation in Arcado-Cyprian is similar to that in Mycenaean. There is no clear evidence for an a-colored outcome, and there is some reliable evidence for o-vocalism. In view of these similarities, one could be tempted to reconstruct a Proto-Achaean vocalization *γ > -οr- (the Arcadian reflex was clearly -ορ-), but we have to be careful. While a vocalization to -ro- can be excluded for Mycenaean, this dialect may have preserved *γ (chapter 2), and the forms tu-ka-ṭạ-sị and a-na-qo-ta perhaps support this (cf. section 2.4). Furthermore, a Cyprian outcome -ro- cannot be completely excluded on the basis of our evidence. It thus remains unclear whether Mycenaean and Cyprian had an outcome -οr- in the first place.

If Mycenaean did preserve *γ, the Arcadian reflex -ορ- may have come into being in the sub-Mycenaean period, before speakers of West Greek dialects established themselves on the rest of the Peloponnese. The Cyprian reflex (if it was indeed -οr-) may then be an isogloss with Arcadian, but since a development to -οr- is phonetically more natural than a development to -ro-, an independent vocalization in both dialects is difficult to exclude.

3.5 Pamphylian

The view that Pamphylian, like Cretan, could undergo liquid metathesis has been codified in Brixhe’s grammar (1976: 61–63). He adduces five items as evidence:

- ΡΝ Αφορδισιυς, Φορδισιυς ~ Hom. Ἀφροδίτη, Cret. Αφροδίτα;
- ΡΝ Πορσοπα, corresponding to a hypothetical Ionic name *Προσώπης ‘Face’;
- Προις, Πρειϝυς, Πρεεως ~ Ion. Πέργη;
- περτ- ~ Ion.-Att. πρός, Hom. προτί, Cret. πορτί;

100 The regular outcome of *γ is unclear in all three dialects.
101 Brixhe’s comment, “qui sans doute est une forme partiellement extra-dialectale pour *Προσώπα” (1976: 61), is difficult to understand. Does he mean that the liquid metathesis points to extra-dialectal origin?
– Στλεγιιυς, Εστλεγιιυς, supposed to derive from a pre-form *sleg- with t-epenthesis ~ non-Pamph. Σέλγη.102

In Brixhe’s view, these five forms show that liquid metathesis may work in both directions, and that the phenomenon affected not only the outcome of */r/ or */l/, but also other sequences consisting of a vowel and liquid.

Upon closer consideration, however, these claims appear to be unfounded. The toponym Pamph. Πρειια < *Πρεγα alternates with Πέργη in Ionic, and the ethnic designation Στλεγιιυς denotes an inhabitant of the town called Σέλγη in Ionic. Rather than proving metathesis, the alternations suggest that the Anatolian place names contained syllabic liquids in the donor language, and that these sounds were vocalized in two different ways in the Greek dialects in Asia Minor. This scenario is confirmed by the reflexes of the self-designation of the Lycians, not cited by Brixhe in this context. The Lycian form τριμιλίς- probably represents /tmili-/, at least originally.103 The Ionic counterpart is Τερμίλαι (Hdt. 1.173, 7.92, a form also attested epigraphically in Pisidia), but Pamphylian also shows the form Τρεμιλάς in a PN derived from the ethnonym. This exactly mirrors the distribution found in Pamph. Πρειια ~ Ion. Πέργη and in Pamph. Στλεγιιυς ~ Ion. Σέλγη. Thus, certain sounds in names of Anatolian origin are reflected as -ερ-, -ελ- in Ionic, but as -ρε-, -λε- in Pamphylian. Moreover, since an Anatolian pre-form with */r/ is ascertained in Lycian τριμιλίς-, we may hypothesize that the other toponyms were also borrowed from a language with syllabic /l/ and /r/. I propose the following scenario.104 When the borrowing into Pamphylian and Ionic took place, inherited PGr. */l/ and */r/ had already vocalized in these dialects. The sounds /l/ and /r/ from the donor language were initially rendered as [əl], [ər] in Ionic, but as [lə], [rə] in Pamphylian. Subsequently, the shwa in these renderings was identified as the phoneme spelled ⟨ε⟩ in both dialects.105

102 Brixhe (1976: 62) further mentions the forms κεκραμενος, Τρεκουδας, Θρεκουδας, and Στρατοκλίτους. An uncertain piece of evidence is the gloss κοράφοις· ⟨κροτάφοις⟩ ὑπὸ Περγαίων (Hsch. κ 3659 L-C), which is an emendation by Latte of κοράφοις ὑποπαργαίων in the codex.
103 Melchert (2004: 595) thinks that an anaptyctic vowel had developed before syllabic nasals and liquids in attested Lycian spellings like hrppi [hərp.pi], as this would explain the use of a geminate spelling -pp-.
104 This scenario was proposed also in Van Beek 2013. Skelton (2017: 113), apparently without having seen my dissertation, also concludes from the forms Πρειιας, Στλεγιιυς, and Τρεμιλάς that they were taken from a Lycian-like Anatolian language with syllabic liquids. However, her claim that Pamphylian speakers still pronounced these syllabic liquids, and that ρε is an attempt to render this in Greek alphabet, is clearly untenable: in this way one cannot explain the emergence of an epenthetic stop in Στλεγιιυς.
105 This may also explain the reflex -ρε- in the PNs Τρεκουδας, Θρεκουδας, which are the Pamphylian reflexes of a borrowed Lyc. trqqnit- ‘Storm God’ (cf. Hitt. tarhunt’).
Leaving aside these ethnonyms and toponyms, the potential evidence for inherited Greek *r̥* consists of the forms περτ-, Ἀφορδίσιον, and Πορσοπα. As we have seen in our discussion of the Cretan material, it is conceivable that both πορτι and Αφορδίτα derive from a pre-form with syllabic liquid; and in chapters 6 and 7 we will encounter metrical evidence that supports this claim. This means that the outcome of *r̥* in Pamphylian (at least after labials) was -ορ-. However, in this way the form περτ- for πορτι would remain unexplained. Assuming liquid metathesis from PGr. *preti*, as per Brixhe, has the disadvantage that an e-grade form of this preposition is not directly attested anywhere else in Greek. Bechtel (1921–1924, II: 820) proposed that περτι reflects *porti* < *pr̥ti* in proclitic contexts, which deserves consideration. Wyatt (1978) suggested that περτι might be a cross between περί and ποτι.

In sum, there is not enough evidence to draw firm conclusions about the outcome of *r̥* or *l̥* in Pamphylian. If my scenario for the origin of Homeric muta cum liquida scansion (chapters 6 and 7) is correct, Αφορδίσιον and Πορσοπα are suggestive of a development *r̥* > ορ at least after labial consonants. However, the difference in vocalism between περτ- and Πορσοπα would still remain problematic (there is no compelling reason to assume that the former reflects *preti* with liquid metathesis); in general, the inherited material is too scanty to allow for a definite conclusion. It is clear, on the other hand, that syllabic liquids in words borrowed from Lycian and related Anatolian languages are reflected as -ρε- and -λε- in Pamphylian.

### 3.6 Conclusions

In chapter 2, it appeared that either -ορ- or preserved -r̥- is the regular reflex of *r̥* in Mycenaean. A scrutiny of the epigraphic evidence for the first millennium dialects (with the exception of Ionic-Attic dialects) has yielded the following results:

- Arcadian τετορτος ‘fourth’ shows that this dialect has an o-colored reflex even in non-labial environments, and that the anaptyctic vowel regularly devel-

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106 Skelton (2017: 113) suggests that the spellings περτ’ and Ἀφορδίσιον may actually ‘represent an attempt to write a syllabic liquid’, but this seems risky in view of the scanty evidence. She also asserts that the forms “could very well have come from Cretan”, which would fit the foundation myth reported by Herodotus (1.173) “that the Lycian Sarpedon led a group of Cretans to settle in Lycia.” (Skelton 2017: 110). However, as she equally admits, the difference between περτ’ and Cretan πορτι “requires some explanation”.

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ops before the liquid. As far as the vowel color is concerned, this conclusion is corroborated by the forms παναγορ(σ)ις ‘assembly’ and ορεν / τορρεντερον ‘male’.

– In Cyprian, the verbal form ka-te-wo-ro-ko-ne ‘they beleaguered’ and the personal name to-ro-su-ta-mo-se display a regular o-colored reflex, the latter in a non-labial environment. The vowel color is supported by the forms χορ-ζία ‘heart’ and εὐτρόσσεσθαι attested for Paphos in Hesychius, and there is no secure evidence for an a-colored outcome. However, the regular vowel slot remains uncertain in view of the orthographical ambiguity of the syllabary.

– The Aeolic dialects have regular o-coloring and develop the vowel after the liquid. This appears most clearly from Lesbian and Boeotian. The conclusions for Lesbian rely heavily on evidence from literary sources, but this is relatively clear-cut and is backed up by evidence from inscriptions. The Thessalian evidence is less conclusive: πετρότος ‘fourth’ may point in the same direction, but numeral forms are generally difficult to evaluate because analogical remodeling may have played a role.

– Central Cretan did not undergo a liquid metathesis, as is widely believed, but developed the vowel before the liquid. The regular reflex in Cretan dialects is -αρ-, and probably -φ- after a labial consonant. The situation on Thera (and in its colony Cyrene) seems to be similar, but the evidence is slight and consists mainly of personal names.

– The situation in most other West Greek dialects is similar to that in Ionic-Attic (general a-coloring), but the precise details may differ per dialect, and the evidence is often too scanty to allow for solid conclusions. In Elis (βρατάναν ‘ladle’, βρατάνει ‘stirs’ in Hesychius) and Syracuse (middle pf. ἐμβράταται ‘is fated’, aor. ἐπράδεξ ‘farted’) there is some evidence for -αρ- as a regular reflex. The divergence between Central Cretan on the one hand, and the dialects of Elis and Syracuse on the other, shows that *r̥ had not yet vocalized in Proto-West Greek. The situation in other West Greek dialects could benefit from a more detailed investigation.

– There is no clear evidence for the outcome of PGr. *r̥ in Pamphylian, nor any compelling evidence for liquid metathesis in this dialect.

More generally, the results of this chapter can be summarized as follows. First of all, not all Greek dialects developed a vowel after the liquid, nor was there a fluctuation between both positions. Rather, the evidence suggests that in each
individual dialect, there was only one regular position where the anaptyctic vowel developed. It developed after the liquid in Proto-Aeolic and some West Greek dialects, but before the liquid in Central Cretan and Arcadian. Secondly, Aeolic, Arcadian and Cypriot have unconditioned o-colored reflexes, but Central Cretan probably shows a conditioned outcome (ορ after labial sounds, αφ elsewhere).