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sures, a base also, giving the appearance of a very ancient compound. It is
the zero-grade (thematized) of *H₂h₂kʰ:- 'eye, face', seen in ἄγαθος, ἀθή, ἀπό- and their many cognates. Immediately we find our o-coloured laryngeal
vindicated, although it was originally postulated solely on the basis of the
phonetics demanded by the word under discussion. This gives one more cer-
tification of the correctness of the analysis that has long been advanced for
the element whose structure we now wish to connect this second portion.

Regardless of the origin, which no one doubts, of this second element as
a base entering as second element in compounds, it is clear that already in
Indo-European the zero-grade had assumed the role of a suffix of weak-
ened semantic force.² The Sanskrit formations प्रायविहीर, प्रायप्रति, युक्तिकौ, आनुविहीर, आनुप्रति, etc. are well known; see, for example, M. Mayrhofer,
Sanskrit-Gramma Politis, Berlin 1985, 52, and the references there cited. In these
suffices the length of the vowel plus e go back to *h₁k₁ < *H₂k₁ < *H₂h₂kʰ. This
suffice seems to mean simply appurtenance or orientation, and it was clearly
established in IE times.

*Διπηρήκατος* < *H₂ur-H₂h₂kʰo* therefore meant something like 'man-ish'.

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² Devoto (Scritti minori 1958, 239 – IF 60:63-7, 1949) has δηλομενος as a more
recent form of the same compound seen in the Hesychian δηλοι δηλων. I would reverse
the chronology. If we start from *H₂ur₁h₂kʰ₁*, the following possible sandhi forms may
be predicted: "*H₂ur₁h₂kʰ₁* > *h₂ur₁kʰ₁ > *h₂ur₁kʰ₁ > *h₁k₁ > *h₁k₁.
Since none of these fits, let us try *H₂ur₁kʰ₁*. We then arrive at *H₂ur₁kʰ₁ > *h₁k₁.
> *h₁k₁ > *h₁k₁. Now phonologically *H₂ur₁kʰ₁* is equivalent to *H₂ur₁h₂kʰ₁*. We there-
fore can have in δηλοι only a later compound.

This fits in with the later adjective formations in -ομεν, which became productive
(see Scritti minori 240) in place of the old zero-grade, as I should claim.

Devoto (239) has three steps of development: a) the compound adjective, b) the
derived adjective, c) nominalisation. Now we need assume only two. There is no more
problem with the accent, and the need vanishes for western or northern dialect
variants (241) or consonant substitutions based on dialectal bilingualism.

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THE TREATMENT OF *γ* AND *γ*

IN MYCENAEAN AND ARCADO-CYPRIAN

1. The relationship between Mycenaean and Arcado-Cyprian has been
the object of a number of discussions and studies. However, though the
Mycenaean evidence has been thoroughly investigated, often in the most minute
detail, the same cannot be said for the Cyprian and especially the Arcadian
material. The latest complete assessment of the evidence is in Bechtel's manual
(1921); though much more recent and up-to-date, Buck's (1950) and Scherer's (1959) descriptions suffer from the restricted space limits allowed
by a short handbook.¹ Moreover in the recent years our information on Cy-
prian has been considerably improved by the publication, at long last, of
a reliable edition of the texts,² while the years between 1921 and now have
seen the appearance of a few archaic inscriptions from Arcadia, which have
given us, inter alia, a new view of the dialect differences within the bounda-
ries of Arcadia itself.³ More important, however, Mycenaean now induces
us to look at both dialects from a different angle and calls for a fresh exami-
nation of the linguistic evidence.

In what follows I shall concentrate on a single problem, that of the
treatment of the IE liquid sonants *γ* and *γ* in Linear B, Arcadian and Cy-
prian. I shall not discuss here the nasal sonants, partly because I have writ-
ten on them elsewhere,⁴ and partly because I find myself entirely in agree-
ment with Rutigliani ⁵ in assuming that the treatment of the nasal and liquid
sonants constitute two altogether different problems, to be discussed separa-
tely.

2. The standard view of the treatment of the liquid sonants in Greek
is well known: according to it, IE *γ* and *γ* are continued by ap'po, o'po in
the majority of the dialects, but by ap'po, o'po in Arcolic and probably in

¹ See for the references my article in PaP 1964, 346-54.
³ See his article "Le traitement des sonantes voyelles dans les dialectes grecs et
la position du mycénien" Mnemosyne 1961, 193 ff. (Rutigliani Mnemosyne) and more
recently his book Études sur la grammaire et le vocabulaire du grec mycéniens, Amsterdam
1967, 69 ff. (Rutigliani Études).

⁴ Here and elsewhere reference is made to F. Bechtel, Griech. Dialekt. I, Berlin 1921;
C. D. Buck, The Greek Dialects, Chicago 1956; Thumb-Scherer, Griech. Dialekt., II, Hei-
delberg 1959.
Arcado-Cyprian. Some complications arise when an attempt is made to define the conditions which determine the treatment of γ vs. ρ or α vs. ι, but these need not detain us here. An additional problem is created by those clusters in which a liquid follows a pause or a consonant and precedes a vowel (CRV)?. In this case the treatment of the cluster is often such that the liquid appears to behave as if it were vocalized and is replaced by ρ or ι etc., though scholars sometimes prefer to reconstruct an original CRV type of cluster?

Philologists diverge, though not substantially, in their statements about the treatment of *R in Linear B. The possibility of a development *r or *l > ρ or ι, α or αι appears to be generally admitted, though opinions differ more radically when it comes to the point of deciding if this is the ‘regular’ treatment of the liquid sounds or is only one of the treatments along with ρ or ι, α or αι. Any discussion on this point is apt to use as a supporting comparison with Arcado-Cyprian, though, in its turn, the Mycenaean evidence tends to be adduced in support of the ‘regularity’ of the treatment of ρ or ι etc. in Arcado-Cyprian. The danger of circularity is apparent and is in itself a strong argument in favour of a new and independent examination of the information provided by the three dialects in question. However, before embarking on this, it is necessary to point out a number of preliminary difficulties which arise in the process of evaluation of the material available. All too often in Aeolic and in Arcado-Cyprian — and now in Mycenaean — a sequence (C)Ra(C)/CaRa(C) alternating (or even not alternating) with an Attic sequence (C)Ra(C)/CaRa(C) is taken as derived from *C(R)C. But one should not forget that it is also possible to think of an original ρ or ι grade of the root. In support of this possibility it may be useful to quote the alternations of the type γηρατ-; γηρατ- found in a number of dialects and attest the existence of both a zero grade and a full grade in parallel formations. A peculiar example of this phenomenon — and this time with an alternation of zero grade and ρ grade — has been recently isolated by Masson of the proper names of the type Αγιόπρωτος (Lebokos), Παναγιόπρωτος (Crete) etc.11. In spite of the presence of these names in an Aeolic dialect, we do not have here a phonetic doublet of βρωτός with *ροτ- from *ρ. The names occur also in non-Aeolic territory and Masson has convincingly demonstrated that we are dealing here with an ρ grade of the root, presumably belonging to an original substantive *muthos. The analogy with βρωτός must have brought about a general leveling together with a probable alternation of the accentual pattern.

Even more complicated questions of interpretation arise when it is necessary to decide if a given form must be considered as an ‘authentic’ dialect formation or can be taken as an hetero-dialectal borrowing. Once more the tendency here is to assume that in Arcado-Cyprian a sequence (C)Ro(C) continuing a postulated *C(R)C is sufficient guarantee of the ‘authenticity’ of the form, while a sequence (C)Ra(C) automatically reveals the form as a borrowing. In actual fact, though it is true that most Arcado-Cyprian inscriptions belong to a period in which Ionic-Attic or Doric influences are conceivable, the argument is valid only if the ‘regularity’ of the Ro treatment is proved by an overwhelming majority of examples. Otherwise, the risk is once more that of circularity. Moreover, the same type of ‘puristic’ considerations can hardly be applied to Mycenaean and, as we shall see, the situation there does not appear to be very different from that Arcadian and Cyprian.

Finally a third type of difficulty arises from our imperfect knowledge of the etymology of a number of words and roots. In particular we shall have to mention below cases like that of βρωτίς in which the presence of an initial laryngeal may or may not have influenced the phonetic development.

3. I shall now list and discuss the evidence available in the three dialects considered. It may be useful to point out at this stage that in none of them there is any non etymological limitation to the occurrence of clusters of the type (C)Ra(C) or (C)aro(C), (C)Ra(C) or (C)aro(C).

Arcadian:

a) Clusters of the type (C)Ro(C), (C)aro(C).

b) Clusters of the type (C)Ra(C), (C)aro(C).

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1 See e.g. Schwyzter Gr.Gr. I 343 f., Buhl, op. cit., 26.
2 Here and in what follows C indicates any consonant, R indicates r or l and V any vowel.
3 See for instance Lejeune, Traité de Phonétique grecque, Paris 1955, 177 f., who speaks of “voyelles d’appui” which arise in some consonantal clusters at any moment in the history of the language. For IE, however, any discussion on the sonants in proso- cotic position must take into account Edgerton’s articles in Language 1934, 223-55 and 1943, 83-124; see also Hoeringwald Language 1955, 286 f. In what follows I shall concentrate on clusters of the type CRC but I shall mention occasionally the type CRV.

4 For Dąbka (e. g. Mennskyer p. 202) the ε treatment is the only one possible in Mycenaean; he is now followed by Risch, Proceedings of the Cambridge Coll. in Myc. Studies, Cambridge 1998, 152. L. R. Palmer, The Interpretation of Myc. Greek Text, Oxford 1983, 41 f. seems to think that an α treatment is usual in initial position, but an ρ treatment is possible elsewhere.

5 See below § 5.

6 See Masson RPh 1963, 218 f. and 221.

7 W. P. Lehmann Language 1981, 13-17 dismisses altogether the possibility of an initial r in IE. Whenever this is not preceded by s or y he prefers to assume the presence of an initial laryngeal.
parison with West Ionic ἀγρός (IG XIV 759: Naples) 13. Earlier Ionic forms show an ε grade: ἀγρός, ἀγρόματος etc.; this is to be expected in view of the verbal form ἀγρόω and the formation is in all parallel to that of Arcadian (and Ionic) ἀντίγραφος (ἀντίγραφον) vs. the present νεός. In itself ἀγρός offers a very doubtful type of evidence: it belongs to a very late inscription, in which the only other dialect formations are φυλακὴ and its derivatives. It is quite possible that ἀγρός is an assimilated form from ἄγραφος / ἄγραφον. Also, it seems unlikely that our formation (ἀγρός) is so old that it can go back to a form *ἀγκρο: it is probably easier to assume that its vocalism is analogical on the grade of the Tegean παναγραφή, which, though attested in a fourth century inscription, can hardly be borrowing considered that the word does not belong to any other dialect 14.

[θρόκος]: IG 500 (fourth century). The form is quoted here only for reference. It is written on a stone of unknown origin and of which only this fragment is preserved. It is impossible to say if [θρόκος] is a proper name or an adjective corresponding to the Attic [θροκός]; what is even more important, it cannot be established if the form is authentically Arcadian or not. For the second possibility see below s. v. Θροκός and cf. also Θροκός.

[ἐφθοράς] Tegea IG 66 (fourth century). *ἐφρο - would continue ἐφθοράς only on the assumption that the -e- perfect is a new formation on the middle *ἐφθοράς in the same way as the Attic ἐφθοράς is formed on ἐφθοράς. But a recharacterization of ἐφθοράς is at least as possible and this explanation is that accepted by Bechtel and Chantry 14. It is also possible that forms like δέθφορα in which the -e- belongs to the root may have played some part in the formation of the Arcadian perfect.

[Θροκός]: The form is quoted here only for reference. It appears in a papyrology decree found at Orchomenos (BCH 1914, 464) as the name of the father of Ἀδριανᾶς Παλασίης. Obviously we are not dealing with an Arcadian, but with an Achaean and the form Θροκός is irrelevant to our problem.

Στέρος Gen. Tegea IG 64 (fifth century): ephebenon of Zeus. It is frequently quoted as an example of *-φο- from *-φο- comparing ἡγεσις, ἀστρον, ἀστρατης, Πάφος and the Greek words ἀστρεφθα, ἀστριετθα etc. However, the etymological dictionaries (Frisk s. v., Boisacq s. v.) tend to agree in considering ἀστρεφθα an obsolete compound form in which the first element is connected with ἀστρα, ἀστρον and the second with the well known root of ἀνά, ἀνα- 'up, face, ' and which is re-determined by the compositional suffix -φο-. If so, the problematic form is ἀστραγῆς and not ἀστροφάς or the adjectival ἀστροφής, where -φο- is due to a metathesis of -φο- and the -φο- is expected 14. The absence of the prothetic vowel is peculiar, but it does not concern us here. Yet, I cannot help feeling that the standard etymology is not very satisfactory: ἀστραγῆς, ἀστροφής look very much more like new formations due to popular etymology and based on a supposed connection with ἀστρα, ἀστρα. Even without indulging in etymological speculations, it would appear preferable to start from στεροφάς and take it at its face value as an *-φο- grade formation of the type of ἀστρα, ἀστρα etc. Στέρος would then be the normal derived adjective 17.

Στερός Tegea IG 64 (fourth century), 7, 33. The form is first attested in the fourth century at a date not very distant from that in which we find again in Tegea the proper name Τέρας (IG 36). The normal assumption that Τέρας is due to Doric or Attic influence and Τέρας is the 'correct' form cannot be accepted a priori, but is supported by the presence of Τέρας in a few Mantinian inscriptions written almost in Doric koina. Unfortunately we do not know the form of Τέρας in Arcadian; apart from Τέρας, Τέρας, Τέρας, Τέρας etc., Greek knows also the form τέρας, which if we follow Szemerényi’s recent conclusions, has a good chance of being archaic and should be brought back to an *-φο- grade *τέρας(ό). However this may be, we expect for the Arcadian ordinal an original *τέρας(ό) (or Τέρας) because otherwise it would be impossible to justify the presence of a single τ instead of the geminated -ττ- expected as a treatment of the cluster *-ττ-, -φο- is then due to a metathesis of -φο-. If so, we come to realize that, though -φο- can be a direct continuation of *-φο-, there is an equally good chance that the whole suffix -φο- is analogical on that of the other ordinals and has replaced the original -φο- of ἀστρα, ἀστρα, ἀστρα, ἀστρα etc. It would then be possible to argue that the proper name Τέρας represents an archaism, not subject to the morphological levelling which repatterned the series of the ordinals, because of its status as a proper name. As always in this type of argument it is almost impossible

13 SGDI 5752, Guarducci Mem. Att. I.1938, 168 ff. and Appendix, Morfil-Nenci FdP 1952, 386 f. The comparison with *ἀγκρο- is first suggested by Solmsen, BEr. x. grie, Wort, 16 note 2; cf. Ernst Fränkel IP 1911, 260 f.
14 Bechtel’s (1.347) statement on μεδόγρας etc. is in cryptic: he finds in medóγρας the equivalent of Ion. ἀγρός with the form expected in the second element of a compound; does he mean a zero grade?
15 Bechtel 1.305, Chantry, Histoire du parfait grec, Paris 1927, 204. δέθφορα is attributed to Arcadian (and to Clitus in particular) by the γλώσσα καθιστή (see below note 38).
16 There is some inconsistency in Schwizer’s position. In his Gr. Gr. 1 88, 344 he quotes Στέρος as evidence for -φο- < *φο-, but ibid. 250 he accepts Meißel’s etymology quoted above.
17 I have not been able to see Winter, Prophet. Vokat. 35 quoted by Frisk s. v. ἀστρεφθα.
to establish what was the starting point of the chain reaction and therefore the final assessment of the origin of τηρός remains somewhat uncertain. 18.

4. b) Clusters of the type (C)Ra(C) / (C)aR(C).

τηρός, τηρόν. The first form belongs to a Tegean inscription of the fourth century 19, the second to a text from Mantinea of the fifth century 20, the different origin accounts for the different treatment of the cluster -τηρ-. Though the vocalism of the second form may be ambiguous, at least in the first case the word begins with τηρ. The comparison with e.g. Skt. पाखुषa points to τηρ- from *τηρ-. 21

γάφια. Forms of this verb or words connected with it appear in a number of inscriptions including Orchomenos IG 343 22 (fourth century), Tegea D passim (fourth century) 23, 16, (third century) etc. Forms with -γάφια instead of -γάφια are known in Doric and West-Greek territory, where presumably they represent an -γάφια grade of the root. If so, they strongly suggest that -γάφια goes back to *γάφ-. However, it should be pointed out that the etymology is not altogether clear.

δίγαφι. The word is found in a number of epigraphical texts. The evidence begins in the sixth century with SEG XI 1112 (ca. 525 B. C.) 24 and continues in the fourth century with IG 3 etc. If, as is likely, the form goes back to ἀδιγάφια or ἀδιγάφια, we have here an example of *γάφια > ἀδιγάφια. Obviously the word belongs to a category, that of commercial words, whose rate of diffusion among dialects must have been very high, but on the other hand its presence both in a very early text and in an inscription like IG 3, which is not suspected of external influences, makes a case for its 'authenticity'.

στρατεύς. The word is found only in relatively late (third century) inscriptions (Tegea IG 6, 14, 416a, 514). If the form really belonged to the dialect, it would be a probable example of *στρατεύς from στρατεύς (στρατεύς < στρατεύς), but one should not be too much weight.

στρατεύς. The word is attested in the fourth century (Tegea IG 6, D etc.). Its case cannot be judged separately from that of the numerous names in which the form -στρατεύς appears (see below § 5). Even if it is possible that

στρατεύς is an international word in Greece, this seems hardly possible for the second element -στρατεύς which appears in proper names. However, if so, -στρ- is from *στρ-.

5. The words quoted in this paragraph are all proper names: as such, the evidence they provide is necessarily ambiguous and they are quoted with reserve. They all belong to the type discussed in § 4 with (C)Ra(C) or (C)aR(C).

'Αρχάμαντος; Orchomenos, ca. 369 B. C. (Schwyzer DGE 664). The name seems to be connected with τάραμα, ταραμεύς etc.; -στρατεύς is probably from *στρατεύς.

Θρακίλας. The name is first attested in Tegea in the fourth century (IG 6 31) and later again in Tegea (IG 258). It is obviously connected with βρακίλας. 25

στρατεύς SEG XVIII 187. This is quoted here as the earliest example in Arcadia of a very large series of names formed on θρακίλας, θρακιλάς. 26. There are no doubts that the -στρατεύς of θρακίλας goes back to *στρατεύς, but a problem arises about the status of these names in Arcadian. Quoting the form θρακίλας (cf. e.g. IG 96 36) and comparing it with θρακίλας (cf. IG 38 104 and 104), Ruijgh 27 asserts that the 'unauthenticity' of the first name is obvious: the 'genuine' Arcadian name is formed from the full grade *θρακίλας and not from the zero grade *θρακίλας. Though attractive, this may be an oversimplification. Common Greek must have known a substantive θρακίλας with the expected ε grade of the root and an adjective *θρακίλος with the zero grade. Analogical levelling was likely to occur at any stage and it did occur in Attic and elsewhere (cf. θρακίλας and θρακίλας) 28. But whenever the two forms coexisted it is probable that a double set of names was created according as they were derived from the adjective or from the substantive. Thus the zero grade might be expected both in the derivatives of θρακίλας and in the compounds of the type Δάρκαλης. 29. In Arcadian θρακίλας is good evidence for the existence of some time or other of a substantive θρακίλας, but it does not prove that θρακίλας is a borrowing from another dialect. In particular, the name quoted as heading of this paragraph belongs to a fifth century inscription found near Glanitsa: the text Σικάκα θρακίλα Ποταμίου (sic) 30 guarantees that the name belongs to an Arcadian and not e.g. to a prokomylos (see above § 3 a propos of θρακίλας).

18 Ruijgh Мεσομοσσονίκα 199 fs. is certainly right in stressing the importance of analogical change in the series of numerals, but a point I do not feel ready to follow him all the way when he assumes that τάματος and δάμας are analogical but τάματος has a 'regular' -τα.-

19 IG 4 = SEG XXII 315.

20 IG 296.

21 D = IG pp. xxxvi f. (for a better edition see Plassart BCH 1914, 101 ff. and for other readings SEG I 211, XI 1169, XV 227 and Tod GHI II 902). IG 343 is now known in a fuller edition thanks to Plassart, BCH 1915, 98 f. (= Schwyzer DGE 666, Buck 21).

22 See now SEG XXII 316.

23 They are all easily traceable in the index of IG V 2 a. v. θρακίλας, θρακίλας, θρακίλας. Add Δάρκαλης in BCH 1914, 459 (Orchomenos, third century) and Θρακίλας AE 1997, 139-46 (Tegea fourth-third century: name of a prokomylos from Orchomenos).

24 Мακρόμενος 196.

25 For the ε grade in the root of the -στρ- stems see Chantraine Formation des noms, 414 f.

26 Сee e. g. Brandsch IF 1911, 251.

27 See a. e. Потамий SEG 445.
-κρατής. The heading refers to those compound names in which -κρατής appears as the second element (Δωροκρατής, Τυμωνόκρατής etc.). They are easily identifiable through the Index of IG V 2 (add Πολυκράτης, in BCH 1914, 462). As in the case of Θαρσοκρατής, forms in -κρατής are found in parallel with those in -κράτης; -κράτης has a large majority but I have counted at least 13 different names with the -κράτης vocalism. Our texts do not allow us to establish any chronological priority of the one or the other form; both are attested in the fourth century (e. g. in IG 6) but not earlier. Once more, I do not see any reason to assume that -κρατής is local and -κράτης imported, especially as -κράτης is the form expected in the second element of the compound.44

-στρατής. The heading refers to a very large number of names which have -στρατής either as first or second element in the compound. The form -στρατής never appears, though it is well known in the Aeolic dialects. The earliest evidence for -στρατής belongs to the first part of the fourth century (Τύμωνοκρατής in Schwzyrer DGE 664a; Orchomenus ca. 369 B. C.) and obviously must be connected with that for the word στρατηγός discussed above in § 4. It all the names including -στρατής are not borrowed — which seems unlikely — we have here an example of -πρα- from *-πρά-.

6. There is a certain number of words for which the etymological evidence is not altogether satisfactory, but which appear in Arcadian with -κρατής or -κράτης corresponding to a possible or suggested Common Greek *ΚΡ. I shall mention them in the brief list which follows, together with a few examples of ΑΡ arising in the cluster [Κ]ΡV.

-κρατία ΙΓ 514/s. Etymology uncertain: -κρατία < *-κρατέ? (cf. note 28). Αργών Tegae IG 63a (fourth century). If the word is at all connected with -κρατής, one may compare Skt. pārā etc. (see below § 9 s. v. pārā-lo), but obviously enough the comparison with Skt. arjuna, Lat. argentum is against -κρατία < *-κρατέ.

-κρατία ΙΓ 32 (early fourth century). If the comparison with Skt. pārā is correct (see Mayrhofer Et. Wbs. des Althid. s. v.), -κρατία may go back to *-κρατέ. As always in initial position the presence of a laryngeal cannot be excluded (see above note 12).

-στρατής The heading refers to those names which somehow include the element -στρατής: in their formation (Δραχύδρα, Πατρίκρατής, Νυκτόλος etc.). The earliest evidence goes back to the fourth century. It is possible that the -δρα- of Δραχύδρα represents a Common Greek *-δρά-, but the etymology is not certain. See below § 11 s. v. ο-δρα.

καθρέφτης, καθράφα: Tegae IG 4 (= SEG XXII 315) fourth century. The etymology is obscure: -καθρέφτης may well have arisen in the cluster *-καθ-κρά-.

44 See above and cf. note 28. There seems to be a concentration of the -στρατής type of names in Tegae and Mantinea, but there is at least one example in Locrid (IG 388a: fourth-third century).

καθαρής Tegae IG 3 (early fourth century). The etymology is not certain: -καθαρής may well be from *καθαρέ (with the usual reserves about initial κ-). Καθαρή The first occurrences of the preposition are in the early fourth century (Tegae IG 3). There are few doubts that -καθαρής is IE *καθαρέ; if one could assume the priority of the form with apocope, it would be easy to establish -καθαρά < *καθαρέ-; otherwise -καθαρής must have arisen in the cluster *καθαρέV.

καθήκοντας Mantinea IG 262 (fifth century). Etymology uncertain: -καθήκοντας < *καθήκοντας. 7. The Cyprian evidence is very disappointing. It can be summarized in a short list of forms, of which only a few can be used with confidence as in most cases either the reading or the interpretation or the etymology are uncertain.45

Αρρίγης 327/s. Though the final consonant is restored, reading and interpretation appear reasonably certain and are accepted both by Masson and by Mitford (see Masson, op. cit., Addenda p. 402 f.). The word is attested elsewhere (318) in the Nom. Acc. plur. and in the Dat. sing. (Αρρίγης, Αρρίγης, Αρρίγης) and is found in Arcadian (Nom. Acc. plur. in IG 5 and 326). No doubt, here -καθαρής is from *καθαρέ-; in the other forms -καθαρής is from *καθαρέ-.

Αρρίγης, Αρρίγης (for the references see Masson, op. cit., Index p. 420). The etymology is not certain: see above § 6 s. v. καθαρής.

Αρρίγης This word and its derivatives appear more than once in the Cyprian inscriptions (cf. e. g. 217). For the etymology see above § 6.

Αρρίγης 2, 3; cf. also the names of the type Τύμωνοκρατής etc. The etymology is obscure: see above § 6.

Αρρίγης 235b, 256b, 246b. The presence of this word in Cyprian and its implications for the language of the epics are discussed by Ruijgh Eldemant 20 ff. The standard etymology recognizes in Αρρίγης an element -καθαρής identifiable with the particles δρα, δρα, δρα found in the epic language. -καθαρής itself is

For the evidence see my article in Proceedings Cambridge Coll. 1914. The verbs beginning with καθαρίζω should be added to the list: see R. v. Velzen, De Gotterum Arcadian faciisse et copia verborum, Berlina 1917, Index p. 69.

The only index verborum available for Arcadian is published by R. v. Velzen in the dissertation quoted above note 31. I have relied heavily on it for all the inscriptions edited in IG V 2.

All the references are to Masson op. cit. (see above note 2).

For δρα see Ruijgh, "L'édiment achêdon dans la langue épique", Asson 1957 [Ruijgh Eldement], 120 ff.
probably from *γ (see Friis a. v. and Hoenigswald Language 1958, 289 ff.; cf. also Grimm Glosa 1962, 4 f.).

τῷαθ. The word occurs in 234 and some cognate forms (γαθ, καθαθ(κ)) are glossed by Hesychius who establishes their Cyprian origin. If Friis (s. v.) is right in suggesting that *γαθ from *γραθ, we might have here -αθ from *γαθ."

Thoasm. 318 A in 2. If Masson is correct in reading αθ διαθγαθατα it is possible that we have here another word connected with the root *αθ- or *θαθ- (see above § 4 s. v. διαθγαθα). The suggestion is attractive, but one must confess that the context is obscure and it is impossible to give the reading for certain.

Thaum. 455. If the reading is correct (but see Masson ad loc. and Syria 1957, 66) the second element of the compound is to be compared with that of Arcadian διαθγαθας and with θαρος, θαρας (see above § 5). We would then have -αθα < *αθα.

καθαραθαν 217. The word is usually taken as the aorist of *καθαρθαν. If so, it is likely that -αθα is from *αθα. However, we have no independent evidence for a strong aorist of this verb and Schwyzer (Gr. Gr. I 777 note) has pointed out that καθαρθαν could be a pluperfect parallel to διαθγαθα found in the same context. Obviously enough, if that were so, the -αθα grade of the root would be at least as conceivable.

-αθας Cyprian knows only a few names formed on the stem -αθας (and not -αθας) and all they appear to be late. In contrast to Arcadian the evidence does not inspire much confidence and probably should not be taken into consideration. On the whole it looks as if Cyprian had generalised the -αθα grade of the form at a relatively early stage.

8. Some other forms are known only through glosses; it is not clear how far their origin and even more their vocalism can be taken as established. ἀποτάσ: Schol. Towal. ad T 67, Hesych. As in the case of διαθγαθα we have here an aor stem: -αθα is from *αθα (*αθα). The comparison with Hitt. ἀθα suggests that the sonant was preceded by a laryngeal. όραμασ: ὀραμαθα, Ὀραμα (Hesych.). It is possible that the verb is formed on the zero grade of the root, but in the absence of any other evidence a denominative formation on an -αθα grade substantive cannot be excluded.

26 Lejouan PAP 1962, 411 tentatively recognizes the same root in Mycenean o-kra-o-see (-*o-kra-o-see?).
27 L. A. V. 1966, 282 ff. The text is remarkably archaic; a propos of it it should also be pointed out that Masson now rejects the reading πόλας suggested by Meister. In this way one of the most famous example of -αθα from *αθα disappears (see e. e. Frankel op. cit. in note 13).
28 See Ruthig Element 106 ff.
29 These are now most easily available in Brown's edition, Glosa 1960, 48 ff.
30 See also Ruthig Element 163. For the sake of completeness I mention here three other forms in which an -αθ- treatment of R in problematic position is conceivable: πόλας 402; ἀγαθορρασία 227; ἀπόκρισις 179.
31 But see now the sensible observations of Masson in Studi Momiano et Egeo-Arabici II (1997) 52 ff. In what follows some of the references are shortened or not complete; for them see my Mycenaean Grammatica Lexicon (MGL) s. v.
32 The numbers in brackets refer to the classification of scribal hands published by E. L. Bennett in Nether 58-60; n. c. = not classified.
33 a-ra-re written before A - RE + Pa in Un178.9 is probably a scribal error for a-ra-re (a): a small horizontal stroke constitutes the only difference between the signs for ra and pa.
34 For the meaning see Lejouan RPh 1960, 26 ff.
could assume a peculiar treatment of the labiovelar in pre-consonantal position. However, if the connection of πάτω and πάτος suggested by the etymological dictionaries stands, we have in Greek itself an argument for assuming that in the forms quoted above -πα- goes back to *-πα-; moreover a zero grade is expected in the middle perfect ε-κα-πε-μο-να 44.

la-πο, KN F 841.5: the word follows su-πα- NI 75 and precedes ε-κα-πε-μο-να (πα-κα-μα-κα). There is a good chance that we are dealing with the equivalent of Gr. κρατεως. In that case an etymology which assumes -πο- < *-πα- is probable (see Boisenq and Frisk s. v.) 45.

πα-κα-μα-κα, πα-κα-μο-πι KN Le, Le, L passim; NY Aeol. 27: Gr. κρατεως. There is no reason to reject the traditional etymology which connects the word with Lith. bura (Fokorny s. v. bérer- 7; Boisenq s. v.). If so, -πο- is from *-πα-. 46

πο-δα-κο, to-μα-κο KN Ch, passim 47. Names of bulls or oxen; both words are obviously compounds with -κρατος as their second element. The interpretations pedargos and steomargos are almost certain 48. The comparison with Skt. jīrāḥ obliges us to reconstruct ṣṛgros and to assume that -πο- is from *-ρα-. Though Hitt. ṣarīš points to an initial laryngeal this need not influence the treatment of the sonant 49.

ta-πα-κα-κε KN B 823. The word is contrasted with α-πα-κο-όδι in the same inscription, so that ta-πα- has a good chance to be a prepositional or adverbial form. Lejeune 50 suggests attractively that tā-pa- is *tāra-ka, comparing ṭāroś and ṭāroś. If so, -πο- should be from *-ρα-. 41

10. b) Clusters of the type (C)Ro(C) / (Co)R(C).

ma-το-ρο-πα-ρο, ma-το-ρο-πα-ρο. The first form is found in PY Car 595.5 (21), the second in Ma 1412.5 (n. c.) In both cases we have to deal with a place-

44 See also Headbeck IF 1959, 110 ff. As I am in favour of connecting πα-πλη with πάτω, I assume that the personal name ma-ra-ra-ri-ro (MY Au 102.1) belongs to a different stem.

45 Lat. curpas would point to *πα- and not to -ρα-, but Skt. ṣūṇōṣ etc. (see Mayrhofer s. v.) favours Ermout's and Muller's (Dict. dt. s. v. curpas) hypothesis that 'le vocabulaire a est populaire'.

46 Ruhig Minos Moreno 202 note 3 suggests tentatively that the vocalism be analogical on *ταρ-ρα- < *κρατος, but the presence of an aorist πα-κα-κα in Hesychius is not sufficient evidence for such a present.

47 For the references see MGL 8, vv. Ch377 has now been joined to X 7628: see Proceedings Cambridge Coll. 61.

48 For those names see Lejeune REG 1953, 1-9.

49 There is no evidence that the development of sonants was ever influenced by a neighbouring laryngeal; see for instance Corbell in Evidence for Laryngeals (ed. Wierst), The Hague 1965, 148 ff.


51 For some names which might belong to this root, see below note 64.

name. Heubeck (Kadiak 1962, 61 ff.) has made a good case for reading in the one case μα-τρο-πα-ρο- (το- from *-ρα-) and in the other case μα-τρο-πα-ρο- (ο- from *-ρα-). The whole interpretation is based, on the assumption that Mycenaean does not know the type of compound in which a non-etymological -ο- is inserted between the first and the second element. This is not altogether true: at least in the case of -ο- stems an exception is provided by ho-to-no-o-lo. Another possible exception (with a sonant stem) is t-s-s-a-βε-o-δο. Moreover, in the first Milenium compounds with μαικρο-/μεγα-, παρα- and ανθή- for first element are the rule and in the absence of any strong evidence to the contrary one might feel inclined to assume that the same applies to Mycenaean 51. The other difficult point is the assumption that a same geographical name can assume two different forms: there may be a case here for correcting ma-το-ρο-πα-ρο to ma-το-ρο-πα-ρο as suggested by the first editor. To sum up: it is possible that ma-το-ρο-πα-ρο may have an example of -πο- from *-πα-, but the other interpretation is equally possible and there is no way of arriving at a definite conclusion.

52 ma-ro-ρο-πα-ρο PY Aeol. 27, 134, 489 (42); cf. ho-to-no-o-lo. The connection with Gr. τρήκονω is obvious and cannot be called in doubt. If ho-to-no-o-lo goes back to *hro(γ)(η)-C-ρα- from *-ρα-; that -ο- is a non etymological -ο- joining the two elements of the compound is unlikely in view of the latter τρήκονον. However, as ho-to-no-o-lo belongs to the numeral series, analogical influences cannot be excluded (see above § 3 a propos of τρήκονον) 52. Moreover, if the Mycenaean cardinal had belonged to the type τρήκονος rather than to the type τρήκονος it could have influenced the vocalism of the ordinal. Yet, when all this is said, it is still true, though certainty cannot be reached, it is likely that we have here -ο- from *-ρα-.

te-ρα-κο PY Te- passim (2), KN V 290.5. There are few doubts that the word is the equivalent of Greek τράκτος (τρακτος), Boeotian τράκτακα (cf. Hesych. τράκτακα τράκτακα, Βοιωτίδ.; it seems also clear that the standard etymology τρακτος < τρακτος through haplology or τρακτος < *traktos) should be rejected 53. We are then left with an alteration of Myc. τρακτος and Attic τρακτος (traktos). This means that, though -τρα- is clear, we are completely in the dark as far as the first element of the compound is concerned. A possible way out would be to assume that τρα- and τρα- are both different treatments of an original *πα- which in its turn would be a compositional form of the number S, parallel to τρα. The obvious objection, however, is that there is no independent
evidence in Greek itself for a *ser-/*er- form of the number three. For this the only evidence available comes from Sanskrit and Hittite — and even this is disputed. Moreover, it is difficult to believe that *epa наресα and *epa наресα can be independent formations, one on a stem *er- and the other on a stem *er-. If we try to get out of this, suggesting that the Boeotian form is later and is perhaps a re-formation of *epa наресα, then the whole argument in favour of *er- representing the root of ‘three’ fails to the ground. In conclusion we do not really know what the first element of the compound *epa наресα is. If so, we can hardly say that *er- represents the treatment of *er-.

As I have pointed out before, an alternation *ero- or *er- is not sufficient evidence for reconstructing a liquid sonant.

voor-oa-ja MY 0e111.2: the word appears in a rather obscure context, but in proximity of the ideogram for WOOL. Palmer's suggestion (BICS 1955, 36) that it should be read as wonoja (or wonoja?) comparing ἄρην ἄρος has been received with some favour (see e.g. Chantraine, Proceedings Cambridge Coll., 177; Ruijgh, Etudes 240). If so, the word would be built on the stem of ἄρην (ἄρος), ἄρος and the cluster *er- would go back to *ep-o-.

voor-oa-joa-jo-s-voor-oa-me-na - voor-oa-voor-oa-te PY E-passim (1, 41, 43), KN So4933, 0438. These verbal forms belong to a present *woaro rekojiich appears to be the Mycenaeian equivalent of the later ἐκεῖοι and ἐκεῖος. It is generally assumed that we have here the product of an original *ep-o-, the -o- prefix being added to the zero grade of the stem. ἐκεῖοi and ἐκεῖος would then be analogical re- formations of *woaro /woaro and *woaro-/*woaro respectively. This is supported by Avestan and Gothic which have parallel present formations built on a zero grade. There are only two possible objections, neither particularly important: 1) we have no other evidence in Greek for a zero grade *ser- of the root *sery-; 2) *ser- is a disyllabic stem; if it received a suffix in order to produce a verbal form we would expect *sery-/*ser- rather than *sery-.

A zero grade is called for by a nominal stem and this might indicate that *wer- is really a denominative built on a substantive of the type *werko or similar. However, in this case, the changes are in favour of a root noun built on the zero grade *ser-/*ser- so that there seems to be a high probability that -er- here represents an earlier *sre-.

11. There are a number of other words — in particular proper names — that can be interpreted as to show ακ-/*ακ- or αρ-/*αρ- as a treatment of ακ. I shall list here a few (including some with (C)αΡΥ from (C)ΡΥ), but their number might be multiplied.

ho-rao-d, ho-rao-d, ho-rao- (for references see MGL s. v.); no doubt all these names are connected with χαρδον, χαρδος etc. -o- arises in the cluster Crv: see above § 6.

ho-ta-so KN Dw1113: proper name. Cf. the Arcadian ἀνδροςος (see above § 6). Lejeune (PAP 1952, 407) finds the same element -οςος in *πολυ-νιονος, which he reconstructs in order to account for πολυ-νιονος-ος (see also Ruijgh Etudes 239, 1).

ho-aro. Gr. ἀρεβός: see above § 6. Here ἀρο must be from *ἀροει.

pi-ro-ho-te PY Jk0021.2 (2): proper name: Phile-bardo; see above § 5.

ta-ra-to PY An192.10 (22), Ev247.6 (41): proper name: Gr. Σφάκων; The suggestion goes back to Georgiev and Landau, but can hardly be accepted in view of the fact that ta-ra-to of Ev247 appears to be the same person as ta-ra-to of Ev247.16 (1). If so, an interpretation Σφάκων would assume τα-ρα-τα- - -τα-, which seems unlikely.

ta-su KN L 1888.20: proper name. Tharsus? See e.g. Lejeune REG 1952, 341 who compares Gr. Θαρσος and see above § 5 s. v. Θαρσος. 19.

ta-ra-to PY Crs55.20 (class 1): proper name. Venetr and Chadwick suggest the reading Σπαράγεια. If so -o- is from *γν.

wa-ni-ko PY Jn574.2 (2): proper name. The interpretation Warnaioi (cf. Gr. *Ἀρναῖας) has found considerable favour: see recently Chantraine Proceedings Cambridge Coll., 169. If this were correct, the word would be connected with ἀρην, ἀρεως and wa- would be from *γν, but see below s. v. wa-ni.

wa-ni- KY Ch5724 + X 6005 + fr. (new join), name of a bull. In his commentary J. P. Olivier (Proc. Cambridge Coll. 82) wonders if it is possible that the name of a bull or ox is 'λαμπον'. The difficulty is a real one and should be stressed here. If we accept that wa-ni- is not connected with Gr. ἀρην, ἀρεως, then we must acknowledge the existence in Mycenaean of an independent stem wa-ni-... which can account for wa-ni- for wa-ni-ko (see above) and for wa-ni-jo (see below).

wa-ni-jo wa-ni-oi PY Crs40.1 (4), 593.1.8 (21): place name. wa-ni-jo is often read wanojo, comparing Greek ἀρην, ἀρεως, and the new (and later)
A number of proper names and words beginning with 'a-no-' have been discussed by Möhlestein (Athenaeum 1888, 361 ff. and MH 1888, 223 f.) who reads anuer < *amn (cf. ἀμφι), etc. The interpretation is doubtful and a-no- may well be a form of the preposition ἀνε: see now Ruijgh Eludes, 353 f.

The lemma refers to the second element of the compound words de-vó-rw-a-ro-ra-i-ja (PY Ng 3319: 1), po-ra-ko-ra-i-ja (Ng 332, Wa 1141: 1), po-ra-ro-ra-i-ja (Ae 388: class Π ΙΜ, po-ra-ro-ra-i-jo (On 300: Π ΙΙΙ). Lejuene (REG 1962, 310) compares the name Alakivin and explains the word as derived from *Agolos. This form would show a Myc. treatment -ol-of *-el (ibd. p. 332 note 25). However, there are a number of other equally possible explanations: see Ruijgh Eludes 208 with note 55.

do-ka-ma-i PY An 12823 (n. c.): the word is listed among other items like a-mo-si 'wheels', po-ge-si-ja-i-ai etc. It is mentioned here because Lejuene Mémoires 336 has suggested the interpretation domosia 'gerbs' comparing ἡμεροερήμων in Hom. Σ 555 (see also Ruijgh Mémoires 202 note 2). The suggestion, however attractive, is highly hypothetical.

The name of the proper name is attested in PY Es 630 and from o-ka in PY Ub 1318.1. There is no agreement on the interpretation of the word. It is quoted here because a number of scholars compare Gr. ἀξία and assume that or- stands here for *e. However, it has been pointed out above that the etymology of ἀξία is obscure; if the word were IE, we should reconstruct a stem *'akh- or *'akb-. In either case we would expect an -e- vocalism for the root verb and an -o- vocalism for the nominal actions. On the assumption that the stem is *'akb- we should then have ἀκόνως as a stem of ἀκόνως and we would be obliged to explain away ἀκόνως as due to analogy with ἀξία. On the other hand if the word were IE, but a borrowing, the assumption that *'akb presents an 'Aeolic' vocalism would work only if it were agreed that the stem had been borrowed in the form *'akb- or *'akb-. Needless to say, there is no way of proving this in any authoritative way. To sum up: interpretation and etymology are not certain: a-ka should not be used in a discussion on the treatment of the liquid sonants 47.

12. It is now time to draw some conclusions from the material collected above. In Arcadian, as we have seen, there are two possible examples of -or- treatment of *e: τέρωρος and χρώρος. I have given reasons to reject the example of τέρωρος and it is possible to challenge the first. Cyprian inscriptions offer only one possible example (xorwagro) not altogether certain. If one accepts that the reliability of Hesychius' evidence is extensible to the vocalism, one should add xorwagro and perhaps xorwagro. The Mycenaean evidence is slightly richer: ma-to-ro-po-ro-ma-to-po-ro, po-ro-ro-po-ro, to-po-ro, xo-ro- etc., xo-ro-ro-ja all have some argument in their favour, though I do not feel that the evidence provided by ma-to-ro-po-ro-ma-to-po-po (which may well have a non-etymological -o-) and by to-po-ro (of which we do not know the origin) can be considered satisfactory.

On the other hand in Arcadian we have a number of instances of -o-p- or from *e: ἀτρόσα, γαρμιά, ἀστράγγεας, among the proper names Ἀρμιστός, Προμίλος, Θερμίτας, Κρήτης, Αράσας plus other forms more or less reliable. Cyprian offers ἀμιρία, ἀδελφία, and among the glosses εἰδός and εἰδολία. Mycenaean has A + RE + PA, e-wp-epe-je-ets etc., e-ba-wa, po-dol-go-to-ma-to, to-po-ro-ro-je and a number of less certain examples.

I have pointed out above (§ 1) that, insofar as there is a standard opinion about our problem, this concerns Arcado-Cyprian and assumes that the treatment of *e in these dialects is arR/αR compared with arR/αR. This thesis goes back originally to an article by Ernst Fraenkel in IF 1911 and has recently found the support of most manuals on Greek dialects 49. Needless to say, the whole theory is based on the few examples which we have quoted above (χρώρος, τέρωρος, xorwagro), on a number of pseudo-examples and words nakhli (e.g. ἦρασις and τιθέω) 50 and on the more or less conscious

46 A number of other names showing a possible or/ra from *e or α/la from *i is quoted by Landau, Nyk. -Griech. Personennamen, Gottingen 1894, 158 note: pa-ro-to (Diolkos), ma-tzmo (cf. παντεζμός, te-pa-za, te-pa-tos (τεπατός), ma-ra-lo-mo (μαραλός)). The interpretation is very uncertain. — For the possible connection of o-ra-ro-ea with *epxa see above note 35. — The name of the silver is attested in Mycenaean (a-he-ra: ἀπόλλω), but for the etymology of the word see above §§ 6 and 7.

47 See § 6 and § 7.

48 See above note 6.

49 For πολεμός see above note 38.
argument that in terms of the geographical distribution of dialects in the first Millennium it is possible to explain away the instances of aR/Ra in Arcadian and perhaps in Cyprian as due to Doric or Attic influence. Yet the evidence listed above seems to show that both in Arcadian and in 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 R in those dialects. On the other hand it seems difficult to account for the few instances of oR/ro by means of hetero-dialectal borrowing; at least in the case of Arcadian, it is unlikely that in the first Millennium it may have come in contact with dialects showing an -o- treatment of the liquid sonants. There remains a more drastic solution: to try to dismiss all the supposed examples of oR/ro by invoking ad hoc explanations such as false etymologies, & grades, analogy etc. I have shown above, case by case, how this can be done, and to my mind at least this is a possible solution to our problem.

13. So far I have not considered Mycenaean. Yet the evidence that it provides can be of some use for the evaluation of the Arcado-Cyprian data. In fact all of it should be noticed that a summary of the evidence such as that given above seems to show that the position of Mycenaean and Arcado-Cyprian are not very different. In both cases we have a duality of treatment which remains unexplained. The words in question are not the same — except for aR/roα and aR/roβ — and the number of examples of oR/ro in Mycenaean is slightly larger than in Arcado-Cyprian ⁴, but the overall pattern is not very dissimilar. This brings us to a general consideration of the relationship of Mycenaean and Arcado-Cyprian and at the same time carries some consequences for our problem. It now becomes more difficult to assume that the Mycenaean alternation a/o after or before r is purely graphic and depends on an attempt to express in the syllabary a phoneme R still preserved. The same argument does not apply to the dialects of the first Millennium, but similar treatments require similar explanations. It follows that there is no reason to assume that the position of the dialect is different in Mycenaean and Arcado-Cyprian. Also, at the same time in which one feels more reluctant to dismiss as secondary the -o- treatments of Arcado-Cyprian, it becomes impossible to attribute all the -o- treatments to Doric or Attic influence. They can hardly be separated from those of Mycenaean and it is obvious enough that Doric or Attic can hardly have played any part in the linguistic formation of Mycenaean.

We are left once more with a philological puzzle. In the three dialects considered aR/Ra is present as the normal treatment of *R, but there are a few instances of oR/ro which do not fit in the pattern.

¹¹ Unfortunately the figures are not high enough for this to have any particular significance.

14. As Mycenaean offers the largest evidence for oR/ro we should not concentrate on it first. A study of the scribes is not very helpful: we do not have a definitive classification of the scribal hands at Knossos and many of our instances of the treatment of liquid sonants come from Knossos. Moreover — and in this our data differ considerably from those which we have for the nasal sonants — there is no example of double spelling parallel to e.g. a-ro-pa-o-o/r-en-pa-o or pe-na/o-o/o. It is true that most of the scribes who write or or ro do not write ar or ra, but the examples are so few that this may be due to chance. Moreover, here too we have exceptions: hands i and 43 write both ra-pie and no-se; also, if we considered ma-tor-pa-ro an example of ro treatment we should notice that it is written by the same hand 21 which writes ra-pi-li-rag. This means that though it cannot be excluded, it does not appear very probable that the different treatment is due exclusively to dialect differences inside Mycenaean itself ⁴³. There is a rather surprising concentration of -a- treatments in Knossos and -o- treatments in Pylos, but as -a- is present in Pylos (A+RE+IA, ra-pie etc.) and -o- in Knossos (ao-so-me-na) this does not appear to be significant.

It looks then as if either there is no solution to the problem or the solution must be looked for on one of the two following lines.

1) It is possible that the development of the liquid sonants originated a vocable phoneme which was phonetically and phonemically different from any of the pre-existing vocable phonemes ([a, e, o, i, u, ñ, ò, ò, ò, à]). It would be possible to imagine this phoneme as a back a [a] or a very open o [o]. The phoneme thus created (A) would have a very low frequency and probably the oppositions between /a/ and /A/ and /o/ and /A/ would have had a very low functional load. If so it is possible that the phoneme would tend to disappear through a series of analogical changes which would replace it either by /a/ or by /o/. Thus for instance an original *maṭro- first element of compound, would be replaced by maṭro- when the non etymological -o- was introduced as ‘voyelle de liaison’ between the two elements of the compound. Or in the case of a supposed *Argos [A] would be replaced by /a/ on the analogy of those cognate forms which descend from *Hgrg- and have an etymological a-. These are highly hypothetical suggestions: there is no shred of evidence to support them, but at least they have the merit of showing that it is possible to make sense of a linguistic situation which appears otherwise so confused that one is apt to think that for some reason we have here an exception to normal phonetic laws. However, that this may in actual fact be the case could be proved only by the discovery of a new series of pre-Mycenaean documents in which /A/ existed and was indicated.

²² For these see the recent article by Risch in Proceedings Cambridge Coll. 150 ff, and cf. below note 81.
in the spelling. Needless to say, such an event appears at present more than unlikely.

2) It is still possible to look for different conditions and environments which could have caused the two different treatments. A first observation is that in none of the three dialects concerned do we have any certain example of treatment of η: this is obviously due to chance and cannot be significant here. A second point is that in no dialect do we have an initial or a final example of η/ε/ο. It is true, however, that, the examples of initial and final ar/ε/α are not numerous (διάρκεια in Arcadian, pod-argos/som-argos in Mycenaean, ημιο, oδερ in Cyprian, A+RE+PA in Mycenaean), so that even this may not be significant 6. However the observation acquires some greater importance when coupled with another point. Most of the examples of -o/ε treatment follow a consonantal γ. This applies to wo-ε and wo-ro-ni-εα and to ge-ro-fe-fi (where the -ε has dropped after the -f- before the -ε); it also applies to Cyprian xerεηφων and to Arcadian ετετογε (where, again, the -ε has dropped). It does not apply to Arc. ηπερα and to Myc. ma-ro-ε-wi-ma-ro-εα and to-ε-εα, but we have seen above that there may be good reasons for not considering these examples as reliable. If we now look at the certain instances of ar/ε treatment of η in Mycenaean and Arcado-Cyprian we do not find any which follows γ. This

6 Raileigh (O. G. in *Ethudes 70 1*) explains the presence of -ε (and not -ο) in words like Myc. wo-ε-po etc. as due to the analogy of the oblique cases in which -ο continues an -ο- and not an -ε-. The suggestion is very attractive, but is based on the assumption that the only possible treatment of η and ε is a. This is not supported by words like wo-ε-εα in which the -ε treatment of -ε is not likely to be due to analogy. For further criticism of Raileigh’s theory see also Cowgill in *Ancient Indo-European Dialects* (ed. by Zimmern and Pulley, Berkeley and Los Angeles 1966, 90 ff.

A cluster ε-να is necessary in order to account for the -ν- of the Ionic, Attic, Boeotian and Thessalian forms of the cardinal 4; the presence of -ε- is also apparent in Homeric τετογε though the details are obscure. There is no reason to assume that the forms of the ordinal (τεταρτος etc.) go back to an original form without -ε. Seemeseili (so note 18) has suggested that in the cluster ε-να the -ε has dropped after that γ had been replaced by -εα or -εα. But we now know from Mycenaean that the liquid sonants developed at an early stage, when the consonantal -γ was still preserved. This would imply that -ε and -α were still allomorphy in Mycenaean. If so, however, a cluster ε-να (or ε-να) should have yielded -να- or -να- to my mind at least, the difficulty can be solved assuming that at an early stage the cluster -να- produced a new phoneme of the type [na]. After the development of -ε into -ο (or -ο) the cluster ε-να (ε-να) was simplified into -ο (or -ο). The same process of simplification did not occur before a vowel and the double -ο of τετογε etc. goes back to -να- or -να-. The lack of gemination in τετογε can be due to an extension of the Dative form in which ε-να was simplified before -να (or -να) < γ. That -να was not always treated as if it were two separated phonemes and was subjected to peculiar treatment may be suggested by the Mycenaean triplet o-da-ε-wa o-da-ba-ε-εα, o-da-ba-ε-εα, o-da-ba-ε-εα. For other clusters of dental + γ in Mycenaean see also Duria, *Minor 1968*, 21 ff.

in itself is sufficient confirmation that the fact is significant. The only exceptions could be wo-νε-ο, wo-να-ο, and wo-νι-ο if we were proved that they are to be connected with δηφι, δηφι. But as we have seen, the presence of wo-νε-ο as the name of a bull or ox makes it rather unlikely that it can mean "Lamb". If this is impossible, then we are bound to look for a different explanation for wo-νε-ο and this means that both wo-να-ο and wo-νι-ο may be connected with the root of wo-νε-ο rather than with that of δηφι. Would a connection with Homeric ἡπευ be possible? Apparently the presence of a digamma makes itself felt in Homer 10, but it remains to be proved that ἡ represents an ancient ε and not an original η, and therefore the suggestion is bound to remain hypothetical.

15. If our suggestion can be accepted that in Mycenaean and Arcado-Cyprian η tends to evolve in or/ε after γ and in ar/ε elsewhere, we may try to look for other examples of this phenomenon. One seems to be immediately at hand in Mycenaean itself. There is now almost complete agreement on the meaning of o-pa-wa-la, the name of some piece of armour mentioned both at Caunos and Polya 11. The reading of o-pa-wa-la points to a connection with δηφια and with the Homeric words δηφι and δηφια. The latter have been the object of a number of discussions (see Frisk s. v.). Both in a neuter like δηφι and in a -η derivative like δηφια a zero grade is expected. The same applies now to our -ε- formation. And in actual fact what we have here is a zero grade with -ε- treatment of η (δηφια < δηφια). There is no direct Mycenaean evidence for δηφι and δηφια 12, though the γιόαεστε κατα της attribute δηφι to the Arcadians, but it would be possible to suppose that both words are a Mycenaean relic in the epic.

Another word which may be quoted in this context is the Greek ᾠδοί for which we have some good evidence in the Mycenaean adjective wo-ε-ο-ε, i.e. wo-ε-ο-ε (PY 488 pres.); cf. Hom. ᾠδος and perhaps in the mouth name wo-ε-ο-ε (KY) and in the proper names wo-ου-ο-ε and wo-ου-ο-ε 13. If it is true, as it seems, that the word was borrowed from Persian in the form ᾠδο-, a treatment -o- of η after γ would be normal and would account for the vocalism of ᾠδον. It would also be possible to assume that ᾠδον is once more a Mycenaean word in Greek.

Finally a few words should be said about the professional name ᾠδοε-κα, Gen. ᾠδοε-κο which refers to a category of women in PY A 2795 (1).

12 For o-pa-wa-la see references and bibliography in MGL s. v.
13 Mycenaean knows a word wo-ου-ε in PY T 164, it could be identified with δηφι only on condition of correcting the text into τα-ου. However, the word is written before the number 2 and is likely to be a dual. If so, any connection with δηφι must be excluded.

14 For the references see MGL s. v. Cf. also Raileigh *Ethudes* 125 and 254.
Ab 558 (21), Ad 691 (23) and perhaps La 332 (class 11/1). If François Bader is right in seeing in this word a compound of which the second element is a root noun connected with the root yorg-, i.e. -eworks, Gen. sing. -ёргоев, we have here once again a zero grade (cp. οἱον, *οιοδέξον* etc.) with or- treatment of υρ- after υ.16.

In the case of the nasal sonants the Mycenaean evidence seems to show that the normal treatment is -τις (-τινς, -τινας); an -τι- treatment appears only after labials or labialized phonemes, though in this position -α- is also attested 19. This double treatment in the same labial environment remains phonetically unexplained, though Risch’s theory of the absence of two dialects in Mycenaean would have the advantage of solving the philological puzzle 20.

If what precedes is correct, in the case of *υ* Mycenaean and Arcado-Cyprian show a normal treatment *υρ* ἄρα, but after *υ* *τυ* yields *τρτρο* *κρις. As far as I can see in this position there is no question of a double treatment as in the case of the nasals: after *υ* the or *κρις* vocalism is the only one attested with certainty as the few possible examples of *αρ* (αυ-να, μα-να-κο, μα-νο-κο) are too doubtful to be given much weight. Needless to say, such a restriction in the normal treatment would not be exceptional from a phonetic point of view: a similar phenomenon is attested e.g. in Pāṭ, where Mayrhofer points out that though a, i, u are all possible continuations of υ, υ appears in preference after labials 18.

It is worth while to stress once more that these conclusions apply only to the dialects considered and not, e.g. to Aeolic, which would require a different study. Their validity depends, as usual, on the evaluation of the evidence listed above. Our phonetic rule (*υ* > *ο*ρ/υρ*τις after *υ*, but *υρ* ἄρα in all the other positions) accounts for most of the forms considered, though not for forms like *ιδας* (but this is a gloss attested only in Hesyechus) or like Myc. *το-πο-α* and *μα-ρο-πο-ρο* (but for these other explanations are possible).

19 See my article in *Comm. Acad. Lincei* 1960, 321-36 and e.g. Risch, *Proceedings Cambridge Coll.*, 162; for a different position see also Reighl’s article quoted in note 5. Cf. note 17.

20 Risch (*Proceedings Cambridge Coll.*, 150 ff.) assumes that in Pāṭ different dialectal features correspond to different scribes. In the case of the nasal sonants there is at least one exception: hand 2 which writes *μα-να-κο* and *απε-κα-υ* writes also *κα-μα-κο*. It could be possible to maintain that the or *κρις* treatment occurs also after τι. This would have the advantage of accounting for Myc. *το-πο-α* and *μα-ρο-πο-ρο*, but a) it would be difficult to understand from a purely phonetic point of view, b) it would be contradicted by Myc. *το-πο-α* etc. by Arc. *αρκορ* etc.


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Intervenit vel R. Risch, V. Georgiev, O. Semeorges; prenda poi la parola

C. J. ROUGIS: D’abord, je tiens à affirmer que j’apprécie beaucoup l’exposé de Mme Morpurgo-Davies. Le traitement des sonnants voyelles en mycénien et en arcado-cypriote semble être le seul problème important sur lequel nous ne sommes pas d’accord. En tout cas, Mme M. a bien démontré combien les faits attestés sont complexes et combien il est difficile d’en tirer une conclusion qui s’impose. Ceci dit, je dois avouer qu’après tout, je ne vois pas de raison urgente pour abandonner la théorie selon laquelle *γρ/υρ* est le traitement phonétique normal de υ voyelle dans les dialectes en question, tandis que α l’est de la nasale voyelle. Comme il n’est pas possible de répéter ici l’argumentation que j’ai fournie ailleurs, je ne discuterai que les trois points suivants:

1er Mme M. croit qu’il ne faut pas considérer les antiphrases composées en *οφυς* comme des emprunts par opposition à ceux en *οφυς*, parce que le dégré zéro serait attendu. En réalité, le dégré n’a parmi plus ancien tant dans les composés que dans les noms simples. Ainsi, Hémé nous présente *ναυσιδηκς*, avec la vieille forme νη de la négation, à côté de *νος*, tandis que *αυτικες* ou *αυτοκες* ne sont attestées que plus tard. Après tout, les noms en *αφυς* constituent donc un élément récent, de sorte qu’il n’est pas illégitime de penser à des emprunts, vis-à-vis de l’élément authentique constitué par les noms en *οφυς*.

20 Il n’est pas étonnant que les Arcadiens aient emprunté le terme de *στρατος* aux Doriens. On sait qu’en attique λοχηθες, mot qui désigne également un chef militaire, doit être un emprunt dorien, parce que la forme authentiquement attique était été λοχηθες.

3e Dans le nominatif singuliers du type *θεος*, le vocable est de la syllabe finale peut s’expliquer facilement par l’analogie des formes féminines comme *θετρικος*, où l’on provient de la nasale voyelle après la théorie que j’ai proposée et qui, après tout, permet une explication plus cohérente des faits en question.

K. MÜLTESTEIN: La règle que le timbre o de l’ancien υ est conditionné par un υ précédent rend compte d’une série d’exemples mycénien. Pourtant, elle est trop restrictive: certains exemples doivent être jugés autrement, comme *ιμε- κρο* et *ιμη*, dont je ne reprends pas la discussion. Et la règle n’est pas complète; j’y ajouterais, p. ex., *το-τι-κκ* = *θετρικος* (< *τιρις*), ce qui est dû au dégré zéro. On ne parle pas que des noms propres ne provenant rien: comme le suffixe est grec, le noyau l’est aussi (alternativement λο- serait un toponyme, ce qu’il semble pas être).

Quant à *το-πο-α* / τραπεζα, l’étymologie traditionnelle ‘à quatre pieds’ est toujours la meilleure, d’autant plus que son premier membre, si curieux, est confirmé par un autre exemple mycénien dans l’objectif de tissus *τοι-ις* – *θορία* à 2I quadruple’, qui contavait un *ειμ-ις* (ou *μι-ις)* à 3I le³, ‘3I le³, qualifi- catif des *μα-α-βα* de KN Le 788. On compare *πιλικοντικος* (H.), expliqué par haplogliei de *πιλικοντς* tiré de *πιλις* ‘à trois fils’. Et qu’on ne s’inquiète pas de la *τραγεία* béotienne; celui-ci était à trois pieds.

J’autorise, et conformément à la règle de Mme Morpurgo, le mot pour le ‘jour’, attesté dans l’adverbe *μα-ο-μα-α* ‘chaque jour’, qui rappelle *κε-λει- κε-λει* et qui est synonyme du chypriote *μα-ο-μα* et du sanskrit *शार-शार* (v. les Actes du 2e Congrès Cretologique). Le deuxième membre est *μαρ*, le premier *μαρ* (cp. *κε-σκαρ* ; *κεπερ-καμπαρ*) plutôt que *μαρ* avec l’autre traitement
de \( r \) (en observando, por tanto, que el tratamiento \( e \) aparece muchas veces en la ceja de composición).

Quanto au rapprochement de \( an-no \) et de \( \check{r}ep-o \), je me félicite d'y être parvenu aussi par d'autres chemins: les noms des bœufs croisiers sont tous (ou peuvent tous être) des termes de couleur.

F. R. ADRADOS: Creo que la Dra Morpurgo tiene razón al considerar genuino del arcadio-chipriota y miocénico el tratamiento \( ap/pe \), al/la de \( r \). Pero me encuentro más cerca de la doctrina sostenida por la Dra Morpurgo en su trabajo anterior (Alli Accad. Lincei 15, 1906, pp. 61-76), en que aírma que \( g \), \( w \) dan en miocénico \( a \), pero también \( o \), que sin embargo está condicionado por la existencia de labiales y guturales inmediatas, que de la aquí defendida para \( r \).

Consideraciones generales de fonología diacrónica, así como datos procedentes de diversas lenguas indoeuropeas (para lo cual remito a Emeria 26, 1958, pp. 243-390; 27, 1959, pp. 155-82 y 323-44, así como a dos artículos que aparecerán en Língua y en Annali Inst. Or. Napoli), hacen verosímil en principio la opinión de que también en este caso habría que esperar una solución general con \( s \) y al propio tiempo otra con \( e \) en posición inmediata a las consonantes citadas.

Hay que reconocer, ciertamente, que los datos que poseemos del arcadio-chipriota y del miocénico están sometidos a múltiples dudas. Aun así podrían tal vez interpretarse en el sentido que proponemos formas como arc. \( \check{r}ep-o \) y mioc. \( to-pe-za. \)