Some special sources of origin of the secondary ē

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VII

SOME SPECIAL SOURCES OF ORIGIN OF THE SECONDARY $\bar{e}$

In the preceding two chapters we have been discussing several significant phonetic processes as possible sources of the origin of the second couple of the $\bar{e}$- and $\bar{o}$- phonemes in the Greek dialects. We ascribe significance to these processes partly because they regularly occurred in a greater number of Greek dialects (if not in all, as it was the case with contraction), and partly because their accomplishment always concerned both the front and the back long-vowel axis.

The phonetic processes we shall deal with in this chapter resulted, in contrast to it, in the formation of one new long phoneme on the front vocalic axis only, the same occurring in a comparatively very limited dialectal area, on the top of it.

We have in mind here three phonetic processes:

A. the Elean tendency to open the original mid $\bar{e}$ into $\bar{\varrho}$ or maybe $\overline{\alpha}$, and the formation of favourable conditions for the origin of the second long $\bar{e}$-phoneme;

B. the Attic-Ionic shift $\bar{a} > \overline{\alpha}$ and its forthcoming fuse with the already existing open $\bar{\varrho}$;

C. the Boeotian monophthongization of the diphthong *ai* into $\bar{\varrho}$.

A. The Elean shift $\bar{e} > \bar{\varrho} > \overline{\alpha}$

Since long ago it has been recognized as a well-known feature of the Elean dialect of Ancient Greek that the sign A appears very frequently for the primary, proto-Greek $\bar{e}$ in this dialect (cf., e.g., the frequent Elean $\mu\acute{\alpha} = $ Att. $\mu\acute{\eta}$, or $\acute{\varepsilon}\overline{\alpha} = \varepsilon\acute{\iota}\eta$ [3. Sing. Opt. of "to be"]), whereas the secondary Elean $\bar{e}$, no matter if it had arisen by the compensatory lengthening or by the equivocalic contraction of $e+e$, $o+o$, was regularly reproduced by *E*, or later by *H*. Thus let us compare in Schw. 415 [Olympia, ca. 500—475?][225] the form $\digamma\varrho\acute{\alpha}\tau\varrho\overline{\alpha}_1 = $ Lac. $\acute{\varrho}\acute{\eta}\tau\varrho\overline{\alpha}$ (the first *A* representing

[225] Our dating of the Elean inscriptions rests for the most part on Jeffery, *Local Scripts* 220sqq.

here the primary $\bar{e}$)[226] with $\tilde{\bar{\varepsilon}}\mu\varepsilon\nu_2$ = **esmen* (Inf. Praes. of "to be"), the first *E* being here employed for $\bar{e}$ arisen by compensatory lengthening, and with $\tilde{\bar{\varepsilon}}\chi\bar{\varepsilon}\nu_5$ = Att. $\tilde{\varepsilon}\chi\varepsilon\iota\nu$ and $\mathit{F}\acute{\varepsilon}(\varrho)\varrho\bar{\varepsilon}\nu_6$, each of the two latter expressions having its second E for contracted *e*+*e*. The just mentioned Elean tendency to reproduce the primary $\bar{e}$ by means of the sign *A* may be traced as far back as to the earliest Elean inscriptions from the first half of the 6th century B.C., whereas, on the other hand, some time after the adoption of the Ionic alphabet (this event occurred shortly before the middle of the 4th century B.C.) the above-mentioned tendency markedly began to lose its ground. But let us stress, at the same time, the very important fact that the sign *A* appears at no time to be established as the only possible spelling of the Elean substitute for the primary $\bar{e}$, not even in the earliest documents. Thus in one of the earliest Elean inscrip tions, the fragmentary GDI 1147 [Olympia, ca. 525?], we meet not only with $\mu\acute{\bar{\alpha}}_2$, but also with $\chi\varrho\bar{\varepsilon}\tilde{\bar{\varepsilon}}\sigma\tau[\alpha\iota_3$ (both *A* and the first *E* hiding here the primary $\bar{e}$).[227] Sometimes, on the contrary, the *E*-spelling is in such cases even prevalent when compared to the *A*-spelling; see, e.g., the above-adduced inscription Schw. 415 [Olympia, ca. 500—475?] with its only $\mathit{F}\varrho\acute{\alpha}\tau\varrho\bar{\alpha}_1$, but at the same time with $\sigma\upsilon\lambda\alpha\acute{\iota}\bar{\varepsilon}_6$ [3. Sing. Opt.] and $\mu\acute{\bar{\varepsilon}}_7$, or Schw. 412 [Olympia, ca. 500?] with $\mathit{F}\varrho\acute{\alpha}\tau\varrho\bar{\alpha}_2$ again, but with three *E*-instances ($\varepsilon\tilde{\iota}\bar{\varepsilon}_{1\cdot2\cdot3}$. $\grave{\alpha}\tau\varepsilon\lambda\acute{\bar{\varepsilon}}\varsigma_2$, $\pi\lambda\bar{\varepsilon}\vartheta\acute{\upsilon}\circ\nu\tau\iota_4$).

Concerning the possibility of identifying the concrete phonetic quality underlying the Elean *A* which corresponds to the primary Greek $\bar{e}$, one cannot take for granted that the vocal quality $\bar{a}$ was here the actual articulated sound. Our doubts are justified when we realize that in the Elean texts we do not encounter one single case of graphic unsteadiness with respect to the signs *A* and *E*, or maybe *A* and *H*, in situations when the original $\bar{a}$ is reproduced; this phone is reproduced in Elean quite consistently with the sign *A*. In our opinion this fact justifies our belief that the Elean substitute for the primary $\bar{e}$, even though frequently reproduced with the sign *A*, never fused with the original $\bar{a}$, but was simply written with the same sign as this original $\bar{a}$ for want of another more suitable reproduction. In these circumstances the most correct standpoint appears to be to take the Elean substitute for the primary $\bar{e}$ for a very open $\bar{\varrho}$, if not for $\bar{\varpi}$, which differed phonetically both from the phoneme $\bar{a}$ and from the secondary $\bar{e}$ originating through compensatory lengthening or through contraction (no matter whether this secondary $\bar{e}$ had the character of mid $\bar{e}$ or of the somewhat closer quality of $\bar{\varrho}$).

For finding out the chronology of the origin of this assumed Elean $\bar{\varpi}$ it is necessary to start above all with the fact that the contrary character of $\bar{\varrho}$ and $\bar{\varpi}$ finds no parallel in any similar phonic opposition on the back long-vowel axis. This means that the

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[226] In this place we do not take into account the forms $\sigma\upsilon\lambda\alpha\iota\bar{\varepsilon}_6$ (3. Sing. Opt.) and $\mu\acute{\bar{\varepsilon}}_7$, both these expressions reproducing the primary $\bar{e}$ with the sign *E*, as this was a quite regular graphical usage in all the non-Elean dialects before the general introduction of the Ionic alphabet.

[227] $\chi\varrho\bar{\varepsilon}\tilde{\bar{\varepsilon}}\sigma\tau[\alpha\iota$ goes back to $\chi\varrho\eta\mathit{F}\acute{\varepsilon}\jmath\varepsilon\sigma\vartheta\alpha\iota$; cf. Bechtel, *GD* II 833. We prefer here Bechtel's $\chi\varrho\bar{\varepsilon}\tilde{\bar{\varepsilon}}\sigma\tau[\alpha\iota$ to the $\chi\varrho\acute{\eta}\varepsilon\sigma\tau[\alpha\iota$ of GDI.

Elean long-vowel system was definitely never fully affected by the systemic innovation which about the beginning of the 1st millennium B.C. resulted—in those dialects that were spoken in the territory adjacent to the Corinthian and Saronic Gulfs—in the origination of a second couple of $\bar{e}$-, $\bar{o}$- phonemes, the $\bar{e}$-, $\bar{o}$- outcome of the first compensatory lengthening having not fused with the primary $\bar{e}$, $\bar{o}$ in the said territory, but asserting itself as a quite independent phonemic $\bar{e}$-, $\bar{o}$- couple. The very fact, namely, that the Elean $\bar{o}$-product of the first compensatory lengthening fused quite completely and without residue with the primary $\bar{o}$, whereas the Elean $\bar{e}$-product of the same lengthening was always both phonetically and phonemically separated from the local substitute for the primary Greek $\bar{e}$, seems to indicate that the primary $\bar{e}$ had changed into $\bar{\text{æ}}$ prior to the first lengthening, and the new secondary $\bar{e}$, which originated in the course of the first compensatory lengthening, simply filled later the wide gap between $\bar{\imath}$ and $\bar{\text{æ}}$, having either a mid or a close quality. In this way, the first compensatory lengthening played here only a secondary part. All this taken into account, we can hardly put the Elean pair $\bar{e}$: $\bar{\text{æ}}$ on a level with the systemic doubling of $\bar{e}$-phones and $\bar{o}$-phones, as we encounter it in non-Elean North-West dialects (i.e. North-West dialects in the very sense of the world), in Corinthian, Megarian, East Argolic, and in the Attic—Ionic dialects, on the contrary, we may rightly place the Elean change $\bar{e} > \bar{\text{æ}}$ before the beginning of the 1st millennium B.C.[228]

Let us, however, stress that the tendency towards the change $e > \bar{\text{æ}}$ is not restricted in Elean to the long-vowel system only, but that it found some form of realization in the short vowel system, as well. We have in mind the Elean tendency to reproduce also the short proto-Greek *e* with the sign *A*, which tendency, however, asserted itself rather extensively outside Elis, too. While the Elean application of the sign *A* for the long proto-Greek $\bar{e}$ finds its analogy in a few exceptional demonstrations in the regions of Corinth and Crete[229] (cf. Sicyonic *στ]ᾱθος* = Att. *στηθος* /?/ Schw. 130 [Sicyonic inscription found in Olympia, ca. 600—550?], *'Ορφάς*[230] = *'Ορφής, -ενός* Fouilles de Delphes IV 1, 27/33 [Sicyonic inscription found in Delphi,[231] VI ?], and the Cretan *'Ορᾱτριον* = *(Ϝ)ρήτριον* Schw. 198_{11} [Hierapytna, paullo post 146—5],[232] and *Ζᾱνοποτε[ιδᾱνος]* GDI 5163 b_{12} [Mylasa, II?]),[233] one may find documents demonstrating the A-reproduction of the short proto-Greek *e* comparatively often

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[228] See also p. 132.

[229] Cf. Schwyzer, *GG* I 185, Zusatz 2.

[230] As to *'Ορφάς* see Schwyzer, *IF* 38, 161—165; cf. also Kretschmer, *Glotta* 12, 184.

[231] The Sicyonic origin is, however, not quite certain; see Jeffery, *Local Scripts* 140, Note 4.

[232] Of course, such late forms may always be of hyperdialectic nature (cf. Schwyzer, *GG* I 185, Z. 2).

[233] Here, we have not taken into account the problematic *Tᾱ[να]*; see GDI IV 2, 1173 (sub *Ζηνός*). As to GDI 5163, see more in the Index on p. 194 of this work.

not only in Elis,[234] but also in West Locris[235] and in Phocis,[236] and besides sporadically in other Greek regions as well, e.g. in Achaea,[237] Aetolia /?/,[238] Thessaly,[239] Argolis,[240] Pamphylia,[241] and in Cyprus[242] (i.e. partly at least in places not very remote from Elis).[243]

A mutual confrontation of these two phenomena is, of course, rendered rather difficult by the fact that whilst the sign *A* was employed for the long *ē* in Elean irrespective of the adjoining phonic neighbourhood, the short *e* is reproduced by *A* in West Locris and in Phocis only when foregoing the phone *r*, Elean alone having several important instances of another kind in addition to it.[244] In several instances the spelling *A* may be found instead of the expected *E* also after *r*, these instances being *λατραι[ομεν* GDI 1147_7 [Olympia, ca. 525?] — beside *λατρειόμενον* Schw. 413_7 [Olympia, ca. 500?] —, *κατιαραύσειε* Schw. 409_2 [Olympia, ca. 475—450?], *μαστράαι* l.c.$_6$, *κατιαραίων* Schw. 424_5 [Olympia, ca. 350];[245] but the most important are without any doubt those cases, where such an *A* occurs apart from any neighbourhood of *r*. They are the following instances: *γνõμαν* = *γνῶμεν* (Inf. Praes.) Schw. 414_6 [Olympia, ca. 475—450?], *εὐσαβέοι* = *εὐσεβ-* Schw. 418_{15} [Olympia, ca. 450—425?], *μάν* =

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[234] See *Fάργον* = Att. *ἔργον* Schw. 413_4 [Olympia, ca. 500?] or *παρ* = *περί* l.c., etc.—See more in Bartoněk, *Eirene* 2, 101sq.

[235] See e.g. *ἁμαρᾶν* = *ἡμερῶν* Schw. 363_5 (Oiantheia, V pars pr.] or *φάρειν* = *φέρειν* Schw. $362_{5\cdot10}$ [Oiantheia, V pars pr.], *πατάρα* l.c.$_{36}$ = *πατέρα* etc.—See more in Bartoněk, *Eirene* 2, 102.

[236] See e.g. *μᾱτάρα* = *μητέρα* Schw. 317 A [Delphi, VI in.]. Let us add that before 350 B.C. we find also the spelling *A*+*A* instead of *E*+*A* in the name of Delphi, esp. on coins (see Bechtel, *GD* II 102).—See more in Bartoněk, *Eirene* 2, 102.

[237] See *Δία 'Αμάριον* and *'Αθάναν 'Αμαρίαν* Schw. 428_8 [Orchomenos, 234—3], and also *Καρυνεῦσιν* Syll^3 559_{67} [Megalopolis, 207—6] and *Καρυνέων* on a coin [Head^2 417], the more usual form of this Achaean community being, however, *Κερύνεια* (cf. Thumb—Kieckers 231).

[238] Cf. perhaps the Aetolian *Παροχθέου* = *Περ-*(?) Syll^3 545_4 [Delphi, 213]; see Thumb—Kieckers 303.

[239] See *ἐγ Κιαρίοι* Schw. 558_2 [Kierion, II] and *Κιαρι[* IG IX 2, $260b_1$ [Kierion, II?].

[240] See *ὕπαρ* Schw. 109_{132} [Epidauros, ca. 320].

[241] See *ὕπαρ* Schw. 686_2 [Sillyon, IV pars pr.]; cf. also Mycenaean u-pa-ra-ki-ri-ja = *Huparakria?* PY An 298_1—beside u-po-ra-ki-ri-ja PY Cn $45_{4\cdot5\cdot6\cdot7\cdot11}$; nevertheless, the identity of u-pa-r./ /u-po-r. with the alphabetical *ὕπαρ* is not quite certain (cf. Thumb—Scherer 180. 330, 360, and Vilborg 50).

[242] In this case we mean the Cypriot spelling *A*+*A* instead of *E*+*A*; cf. Note 236.

[243] We have omitted here such lexically fixed documents of the above phenomenon as are represented by the common West Greek, Pamphylian, Boeotian, and partly even Thessalian *ἰαρός/ἰαρός* in contrast to Attic-Ionic, Arcado-Cypriot and partly even Thessalian *ἱερός/ἱερός* and to Lesbian *ἶρος*.

[244] We speak here about West Locrian, Phocian and Elean only, as only in these three dialects the spelling *A*+*P* for the original *e*+*r* is met with rather frequently.

[245] In some of these cases we have to do with the *e*-diphthongs, not with a pure vocalic *e*, but even these instances are of importance for our argumentation, according to our opinion.

μέν l.c.$_3$, *σκευάδν* Schw. 417$_4$ [Olympia, ca. 450]—beside *σκεύεα* l.c.$_{12}$—while the Elean origin of the fifth instance, viz. of *ἀπόεσεν* = *ἐποίησεν* (*ἀ-* is here augment) GDI 1176 [?, ca. 550—525?] is less certain.[246] [247]

If, by chance, we had in Elis only the first of the two just-mentioned documentary types, demonstrating the use of the A-spelling for the short *e*, namely the type *μαστρά̄αι*, it might be after all possible to take it for an expression of some extensive isogloss, likely in no way contingent on a substratum, isogloss, whose essential feature would be the opening of the vowel *e* in the vicinity of the phone *r*, this sound giving often an impulse towards opening the neighbouring vowels.[248] Such an isogloss involving both the Elean *μαστρά̄αι* and *Fάργον*, the Locrian *ἁμαρᾶν*, and the Phocian *μᾱτάρα* could be said to have likely originated after the arrival of the Dorians to the south of the Balkan Peninsula—and probably also as late as after the separation of the Dorians in the narrower sense from the "North-West" Dorians; at the same time it would not be necessary at all to associate the Elean *μά* (with its *A*-spelling of the long primary *ē*) with these cases.

There is, however, a phenomenon that hinders us from adhering to this view, and this is the existence of the Elean documents *γνῶμαν*, *εὐσαβέοι*, *μάν*, *σκευάδν*, which, to be sure, are on the one hand on a level with the Elean type *Fάργον*, but which cannot be on the other hand separated from the Elean *μᾱ́* either. This double colligation of the Elean type *γνῶμαν* induces us therefore to try to find a solution that would enable us to explain all the above-mentioned types of the *A*-spelling—whether for the long or for the short primary *e*—with one more complex hypothesis, whose basis would be the assumption that in the north-west of Greece a substratum influence of some pre-Greek language had been asserting itself long before, the said language having in its phonic system some very open *ę*, maybe even *æ* that possessed the character of a front *a*-vowel and perhaps had a back *a*-vowel for its correlative, so that this language would dispose on the most open level of its articulation scheme of two *a*-phonemes, namely of *æ* and *a*.[249]

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[246] Cf. Bechtel, *GD* II 828sq.

[247] Let us add that we meet with some analogical phenomena even outside Elis, nevertheless, they are either isolated cases which can be explained also in some other way than by the general tendency to open the short *e* (cf., e.g., Argol. *κραμάσαι* = *κρεμάσαι* /Inf. Aor./ Schw. 109$_3$ [Epidauros, ca. 320] and *μάντοι* = *μέντοι* Schw. 109g$_{37}$ [Epidauros, ca. 320]; see Buck^3, p. 24, and Bechtel, *GD* II 471), or we encounter here some special lexically restricted and genetically not easily interpretable instances as they are represented e.g. by the West Greek (Cretan, however, excepting), Boeotian and partly Thessalian *Ἄρταμις* = *Ἄρτεμις*, or by the common West Greek and Boeotian *κα*, which corresponds with the Lesbian-Thessalian and Cypriot *κε* and with the Attic-Ionic and Arcadian *ἄν*.

[248] Cf. Schwyzer, *GG* I 188. with reference to Meillet, *Mém. Soc. Ling.* 12, 30; cf. also Ruipérez, *Word* 12, 72.

[249] We speak here only of *e*, *æ*, *a* without indicating their quantity, as the said substratum language need not have distinguished short and long vowels.

The possibility of such systemic conditions actually existing in some pre-Greek languages finds confirmation e.g. in the fact that we can find a number of graphic A-doublets in the Linear B Script, this phenomenon having a marked contrast in a comparatively small number of doublets in other vocal series.—E.g., in the syllabary published in Bennett-Chadwick-Ventris-Householder, *Knossos Tablets*², p. 139, we meet with four graphical doublets in the A-series (A : A_2, RA : RA_2, PA : PA_2, TA : TA_2) and only with two doublets in all the other vowel series (PU : PU_2, RO : RO_2). A certain complication arises from the view that the Linear B Script is supposed to be a Cretan product, while the tendencies described in this chapter concern mainly the north-west of Greece; anyway, we cannot fail to notice that the A-spelling of the primary *ē* can be demonstrated in a few odd cases — even though somewhat problematic—also in Sicyon, yes, even in Crete itself.—At the same time, it is worth noticing that the significant Linear B doublet contrast of A : A_2 finds a marked manifestation just in Pylos, that is to say only in the West-Peloponnesian Messenia, whereas in Cretan Knossos the sign A_2 can be demonstrated only quite exceptionally, these few cases being for the most part rather problematic, on the top of it. (To be sure, the graphical contrast A : A_2 may be in a number of cases interpreted as a phonetical contrast *a* : *ha* [see Chadwick, *Trans. of the Philol. Association* (1954), pp. 1—17; Bartoněk, *Sborník* A 5, 45—62; Milani, *Aevum* 32, 101—138], nevertheless, the original, i.e. probably pre-Greek, difference in using both of the mentioned signs hardly consisted in this very distinction of Ø+ *vowel* : *h* + *vowel*, since Mycenaean *e/he*, *i/hi*, *o/ho*, *u/hu* were not distinguished at all. It is, therefore, more probable that one of the two signs reproduced originally the *æ*-member of the assumed pre-Greek contrast *a* : *æ* and was after the adoption of the older Linear Script system by the coming Greeks—owing to its own superfluousness in reference to Greek phonology—given the function of reproducing *ha*, this syllable being rather frequent in Mycenaean, after the change *sa* > *ha* had taken place in the Greek-speaking world.)

Supposing that there actually existed in the north-west of Greece a substratum pre-Greek language disposing on the most open level of articulation scheme of two *a*-phonemes, namely of *æ* and *a*, we may count with the possibility that this assumed phonemic peculiarity found a reflection even in the vocalism of the language spoken by some of the first Greek newcomers. The way how it came to be precisely reflected we can in the meantime neither grasp nor describe owing to our very limited knowledge of the linguistic character of the Greek "pre-Doric" dialects; to do justice to our hypothesis we simply assume that at some later time, immediatedy subsequent to the arrival of the Dorians (i.e. possibly in the 12th century B.C.), this peculiarity found its expression also in some West Greek (i.e. Doric) dialects—specially in those which overlay the pre-Doric Achaean substratum in the north-west of Greece (Elis including)—the said expression consisting in the progressive phonetic tendency to open not only the long, but also the short *e*.

The further development of the long-vowel system in the above-mentioned

North-West regions evidently proceeded along two paths. It is most probable that in some of these dialects, i.e. in the predecessors of the later *(non-Elean) North-West dialects*, phonic processes were taking place that after the accomplished first compensatory lengthening resulted in *an extensive and quite consistent transformation* of the older local three-stage long-vowel systems (the original $\bar{e}$ having possibly an open quality since the 12th cent. B.C. even in these dialects—like in Elis) to a four-stage system. On the other hand, *Elean*, which owing to its geographical remoteness very likely stayed apart from the tendencies aiming at the just-mentioned phonemic reconstruction of the three-stage long-vowel system, evidently *accomplished only the first compensatory lengthening as such*, introducing all the "compensatory" results into its hitherto existing long-vowel system *in the simplest way possible*, i.e. by fusing the new $\bar{o}$ arisen through this compensatory lengthening with the original Elean mid long $\bar{o}$ and by inserting the new "compensatory" $\bar{e}$ into the gap between $\bar{\imath}$ and $\bar{\omega}$. From the graphical point of view, it evidently meant that the two signs *A* and *E*, or later *A* and *H*, represented from the very beginning three long-vowel qualities, all of them having the character of independent phonemes. Now, this presupposition agrees without any difficulty with the substantiated fact that in historical Elean we can observe from the oldest times unsteadiness between the use of the sign *E* (which as to pronunciation corresponded very likely best of all to the secondary $\bar{e}$ arisen through the compensatory lengthening, or through the equivocalic contraction of $e+e$, $o+o$) and between the use of the sign *A* (which was from the very beginning reserved for the original $\bar{a}$) even for the graphic reproduction of the $\bar{\alpha}$-substitute for the primary Greek $\bar{e}$, the very open character of the phoneme $\bar{\alpha}$ probably inducing engravers to prefer very often the second way of its reproduction to the first one.

Even with respect to the short-vowel system the development towards the open *e*-quality was very likely taking two paths, this process being rather similar to that in the long-vowel system, as described before. On the one hand, it was again *Elean* which displayed down to the historical era—and within it perhaps to the end of the classical period at least—a rather open pronunciation of its short $\check{e}$, this in our opinion being the case in any position in the word and with any phonic neighbourhood; under such circumstances, the open Elean pronunciation of the original $\check{e}$ in the vicinity of *r* was probably an entirely organic part of the said Elean peculiarity, whose beginnings very likely coincide with the time when the West-Greek newcomers stood in Elis face to face against the language of the pre-Doric Achaeans and succumbed in this respect to its influence.

The said theory is obviously open to one objection: it may be argued that the Elean type *γιᾱμαν* may be demonstrated in comparison with both the type *μά* and the type *Fάργον* in a few cases only, and that from this comparatively rare occurrence we can hardly conclude on an open pronunciation of every Elean short $\check{e}$.

As to comparing the type *γνᾱμαν* with the type *μά*, we can, however, likewise object and say that whilst in the long-vowel sphere the Elean signs *A* and *E*, or later

A and *H*, implied three phonemes[250] (the sign *E* or *H* finding here its basic assertion in the reproduction of the secondary *ē*, which, as we know, was not subject to opening), in the short-vowel sphere the Elean signs *A* and *E* reproduced only two vowels, i.e. partly the vowel *ă* and partly our presupposed *ă̄*. This again means that in the short-vowel sphere—provided that the open *ă̄* did not in some way directly fuse with the phoneme *ă*—the sign *E* represented to the Elean engravers, no matter how open this *ă̄* may have been, by far the most suitable graphic means which they could hardly do without and replace it by the sign *A*, all the less so since the sign *A* was far less suitable from the distinctive point of view.

And with respect to the more frequent use of the *A*-spelling with the type *Fάϱγον* than with the type *γνῶμαν*, we have to keep in mind first of all one thing, i.e. the fact that in the type *Fάϱγον* the employment of the sign *A* is precisely determined by having for its immediate successor the letter *P*, so that the use of *A* appears to be here a kind of orthographic rule, which, of course, could not oust in Elean the sign *E* from usage totally; thus the distinctiveness of Elean orthography could by no means be essentially impaired in this way, whereas the same would surely have happened if the *A*-sign had been quite consistently used for each Elean short *ĕ* (i.e. if the graphic type *γνῶμαν* with *A* for each *ĕ* had been quite consistently and unexceptionally employed).—We believe, therefore, that the relatively rare demonstration of the type *γνῶμαν*, when compared with the types *μἀ* and *Fάϱγον*, cannot be taken for a sufficiently weighty argument against our view of the open character of every original short *ĕ* in historical Elean.

In addition, we believe that even the expressions *γνῶμαν*, *εὐσαβέοι*, *μάν*, *σκενάων* as such, speak clearly in favour of our theory, since their character mostly dissuades us from holding the sign *A* in them to be a mere surviving fixation—lexically restricted—of some former tendency to open the short *ĕ*; specially the document *γνῶμαν* makes it clear, for we find *A* here in the infinitive suffix, which employs in Elean also the sign *E* (cf. this *γνῶμαν* Schw. 414_6 [Olympia, 475—450?] with the later *δόμεν* Schw. 425_{28} [Olympia, III extr. aut potius II in.]).

On the other hand, in the *non-Elean rest* of the North-West Greek regions the tendency to open the short *ĕ*, due to substratum influence, found conditions favourable for its more systematic assertion only in a very considerably restricted form, viz. towards the end of the 2nd millenium B.C. in connection with the prevailing general tendency to open front vowels in the vicinity of the phone *r*, this tendency spreading then throughout the whole of North and Central Greece. We have in mind—besides the before-mentioned North-West opening of the short *ĕ* in the vicinity

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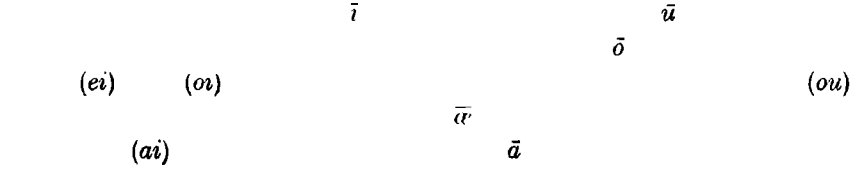
[250] The independent phonemic character of all the three sounds, i.e. of *ā*, *ă̄* and *ē̆*, seems to be proved by the fact that all of them may be found in the identical positions of the word (cf., e.g., *δίκᾱ* Schw. 412_2 [Olympia, ca. 500?; primary *ā*] with *μᾱ́* and *μᾱ́/μή* [very often documented; primary *ā*] as well as with *ἐποίᾱ* GDI 1169_1 [Olympia, ca. 450—425; secondary *ā*]).

of *r*—mainly the Lesbian-Thessalian-Boeotian change[251] of the phonic combination *r*+*i* into *r*+*e*, whose geographic spread points to the fact that the change was accomplished still before the Aeolic colonization of the seaside territory in Asia Minor, that is to say, definitely before 1000 B.C. (for documentation of this phenomenon compare the Lesbian *Δαμοκρέτω* Schw. 621_9 [Mytilene, III], the Thessalian *κρεννέμεν* = *κρίνειν* Schw. 590_{14} [Larisa, 214],[251a] the Boeotian *τρεπέδδας* = *τρι-* Schw. 523_{38} [Orchomenos, 222—200]). According to our opinion, it is quite possible to include here also the Attic regressive shift *rᾱ* > *rᾰ*, demonstrated e.g. with the contrasting Attic *χώρα* and Ionic *χώρη*; the comparatively late chronology of this Attic change (about the 9th cent. B.C.) seems, of course, to favour the assumption that this change should be classified among the latest manifestations of the tendency aiming at the opening of the front vowels in the vicinity of *r*.

If this was actually the case, we may conclude that, in contrast to Elis, where the opening of the short *ĕ* before *r* was an entirely organic component of the said substratum tendency to open the *e*-phones, in the Greek North-West dialects proper this phenomenon had the character of a mere combinatory phonological change, depending on the immediately succeeding *r* and emerging only in this form from the older substratum tendencies, its existence being very likely due to a specific secondary impulse, affecting a much wider sphere than North-West Greece only. This means at the same time that in comparison with the Elean *e*, which probably had an open quality both in *Fάργον* and *γνῶμαν*, the open West Locrian and Phocian *e*, foregoing *r*, represented most likely only a combinatory variant of the "normal" mid *e*, which was a matter of common usage in these dialects in every other position in the word.

The concrete development of the Elean long-vowel system would probably run like this:

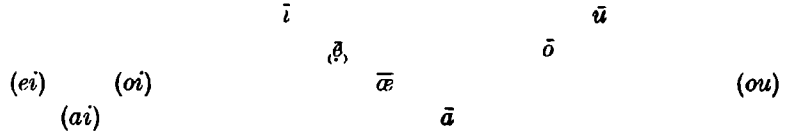
1. The assumed proto-Greek long-vowel system with 5 monophthongs was transformed as early as in the 12th cent. B.C.—as we have indicated before—into a system which preserved, to be sure, five monophthongic phonemes, but whose original proto-Greek mid *ē* was clearly shifted to *ǣ*. To what extent was also the primary central *ā* shifted in Elean to the back *ɑ̄*-position in connection with this change—similarly as we have postulated the existence of this phonemic quality for the local languages of the pre-Greek substratum—we can hardly guess in the meantime. A systemic diagram of this Elean stage could therefore be made as follows:



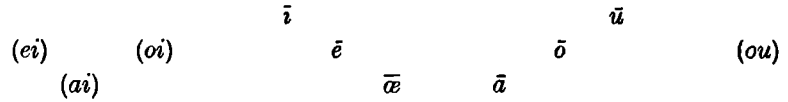
[251] See also the Sicil. Dor. *περιωρεσίας* = *-ωρισίας* Schw. 313_{38} [Halaisa, I] (cf. Bechtel, *GD* I 26).

2. The second change in the Elean long-vowel system must have occurred in connection with the accomplishment of the first compensatory lengthening (some time about 1000 B.C.) at a time when the new *ē*-phoneme, arisen through this lengthening, was being inserted in the gap between *ī* and *ǣ*, this new *ē*-sound having either a mid or close quality. Provided that the up-till-then existing *ǣ* maintained its phonemic difference from *ā*, the total number of phonemes in the system was increased by one monophthong, in this way. The newly arisen long-vowel system had at that time

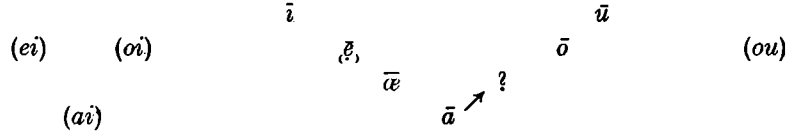
—either the form of a triangle with four monophthongic grades on the front axis and with three at the back:



—or else this Elean systemic stage could be demonstrated by a tetragone, in which the proto-Greek *ā* was shifted to the back row:



A certain handicap of the first possibility lies in the fact that if we accepted it we should likely have to take the existence of an Elean close *ē*- substitute for the secondary *ē* for granted, in spite of the absence of evidence: owing to the probable fact that the Elean *ei* failed to monophthongize prior to 350 B.C. we have no earlier Elean document, not even about the time of the adoption of the Ionic alphabet, demonstrating the use of the "close" Ionic spelling *EI* for the Elean secondary *ē*. Neither the second hypothesis, however, can so far be supported by any positive evidence of the eventual back articulation of the original *ā*. For these reasons it will probably be better to illustrate the above-said systemic phase with the following somewhat more indifferent diagram:



This systemic stage, no matter whether we prefer its triangular or tetragonal variant, was probably characteristic of Elean conditions down to at least 350 B.C.—provided that before the middle of the 4th cent. B.C. no monophthongization of the

[251a] In Thessalian we also find some traces of the spelling *A* + *P* for the original *e*+*r*; see the above-adduced expressions *ἐγ .ι α. ἰ ι* and *ι.ταρι[* (cf. Note 239).

diphthongs *ei*, *ou* took place; had it namely taken place, the two diphthongs would have been transformed into monophthongic phonemes, most likely of the close quality. This latter possibility, however, does not appear to be very probable—as we have already stated in Chapter VI.

When closing, let us express once more our opinion presented already above on pp. 7sqq., that Elean—as the epichoric dialect of the Elean inhabitants unaffected by interdialectal tendencies—never witnessed an actually systemic, regressive change $\bar{\alpha} > \bar{e}$, let alone prior to 350 B.C., a change which would have restored to the dialect the proto-Greek long-vowel system with five monophthongs. Firstly, the A-spelling for the primary Greek $\bar{e}$ can be found in Elean inscriptions still in the 3rd cent. B.C., i.e. in the Hellenistic Era already. But above all we must realize that even the final victory of Elean *H*- spelling over *A*- spelling, manifesting itself as late as in the 2nd cent. B.C., was hardly a reflexion of a real systemic change $\bar{\alpha} > \bar{e}$ that would occur in the epichoric Elean dialect basis; as we have already pointed out, it should rather be interpreted as an outcome of interdialectal tendencies, which specially since the end of the Classical Era were sure to prevail chiefly in the speech of the upper social classes of the Greek communities of that time, and surely penetrated pretty soon also into the language of official documents.

B. The Attic-Ionic shift $\bar{a} > \bar{\alpha} > \bar{\varepsilon}$

Attempts to fix chronologically the change $\bar{a} > \bar{\alpha}$ vary with different authors, the suggested data stretching from the boundary between the 2nd and the 1st millennia B.C. down to the end of the 8th cent. B.C., the latter limit being the time when the change can be safely demonstrated in inscriptions. One can observe that just the contemporary investigators often seem to favour very early chronological estimates, chiefly those among them, we may say, who belong to the most outstanding experts in Greek phonology. Thus M. Lejeune in *Traité* 17 expressly includes the change $\bar{a} > \bar{\alpha}$ in the set of changes occurring "towards the end of the 2nd and in the beginning of the 1st millennium". Also E. Risch in *Museum Helveticum* 12 (1955), 65, suggests the 10th or the 9th century B.C.

When fixing these data the above-mentioned research-workers usually base their arguments mainly on the fact that the change $\bar{a} > \bar{\alpha}$ is older than the 2nd compensatory lengthening (of the type **pantja* > *pansa* > *pāsa*)—and this compensatory lengthening is in itself already commonly looked upon as prehistoric. It is true that Lasso de la Vega, *Emérita* 24, 288 sq., says that the contradictory character of older Ionic borrowings of the type *Μῆδοι* (cf. the Persian *Māda*-), when compared to the younger borrowings of the type *Δᾱρεῖος*, indicates that the change $\bar{a} > \bar{\alpha}$ does not belong to the set of oldest Ionic innovations, but rather to later ones, occurring subsequent to the earliest contact of the Ionians with the pre-

-Greek population of Asia Minor—yet, since this first contact can hardly be placed far below 1000 B.C., the above Vega's view does not in fact oppose the comparatively early chronological estimates of the change $\bar{a} > \bar{\alpha}$ (also the name of Medes itself, even if in its former form *Mādoi*, may have existed according to Risch, *MH* 12, 65, in Greek as early as about 1000 B.C., judging from the historical point of view). All this considered, we take the beginning of the 10th cent. B.C. to be the "terminus post quem" for the change $\bar{a} > \bar{\alpha}$. On the other hand, "terminus ante quem" can safely be said to coincide with the end of the 8th century B.C., for by this time the change can positively be demonstrated in Attic-Ionic inscriptions. As capricious luck would have it, in the most ancient Attic-Ionic inscription, which is at the same time the oldest inscription in Greek alphabet at all (see Schw. App. I 1 [Attica, ca. 725?]), no word can be found demonstrating the change, but from about 700 B.C. one such Attic-Ionic document has been preserved (cf. the expression *Ἀφροδίτῆς* < *-ās* [Gen. Sing.] SEG XIV 604_3 [the Euboean colony Pithekoussai, ca. 700?]). The reliability in argumentation of this "terminus ante quem" very likely induced also Schwyzer to decide for a comparatively late chronological estimate of this change; he namely puts it in his synoptic chronological table under the heading "?VIII/VII", the change $\bar{u} > \bar{\imath}$ being included here as well, succeeding, however, that of $\bar{a} > \bar{\alpha}$ in sequence.[252]

This means that Schwyzer did not take at all into account the possibility of the change $\bar{a} > \bar{\alpha}$ far foregoing the first known Attic-Ionic inscriptions. Yet, the possibility of this assumption may well be concluded from the fact that the change $\bar{a} > \bar{\alpha}$ finds its full affirmation—with the exception of certain Acolic (and maybe also Achaean, i.e. proto-Arcado-Cypriot),[253] mostly metrical residues—also in Homeric poetry, of which the earliest written reproduction is today usually ascribed to the end of the 8th century B.C.[254] At the same time the Ionic, and not Attic, character of the Homeric language prevents us from ascribing the rather consistently observed Homeric adoption of the phonological change $\bar{a} > \bar{\alpha}$ (i.e. even after *r*, *e*, *i*) to as late a factor as the Peisistratian editorial adaptation in the 6th cent. B.C.

This taken into account, we feel induced to shift the "terminus ante quem" for the Attic-Ionic change $\bar{a} > \bar{\alpha}$ still more backward, at least somewhere near the boundary between the 8th and 9th centuries, since a certain interval must be accounted for between the change $\bar{a} > \bar{\alpha}$ and the first written reproduction of Homer, reserved for the accomplishment of the 2nd compensatory lengthening. The latter was certainly posterior to the change $\bar{a} > \bar{\alpha}$, and yet we find it in Homer uniformly attested (cf. e.g. A 3 *πολλὰς δ' ἰφθίμους ψυχὰς*).—Here we must stress that even the forms of the type *πολλὰς* could hardly be taken for products of some later

[252] See Schwyzer, *GG* I 233.

[253] Cf. especially C. J. Ruijgh's work *L'élément achéen dans la langue épique*, Assen 1957.

[254] Cf., e.g., M. Bowra in *A Companion to Homer*, London 1962, p. 45, or J. A. Davison, ibid. 259.

Attic editorial adaptation. We can scarcely imagine that this adaptation might have been made without regard to a number of Greek dialects which kept on pronouncing *pollans* even about 500 B.C., just as it was still in the classical times the case in Argolic, Cretan, East-Aegean Doric, Thessalian, Arcadian, and maybe also in Cypriot.

Yet, the most creditable chronological estimate of the change $\bar{a} > \bar{\text{æ}}$ appears to us—upon the whole in accord with Lejeune—a somewhat still older date, i.e. about 900 B.C., which boundary-mark is approximately in the middle between our "terminus post quem", placed by us in the beginning of the 10th cent. B.C., and the newly fixed "terminus ante quem" (about 800 B.C.); we admit, of course, that this conclusion has rather the character of a working hypothesis.

Consequently, let us conclude that probably due to the substratum influence of non-Greek languages spoken in Asia Minor, and maybe partly also in connection with considerable overloading in the back long-vowel row (Ruipérez believes the latter factor to be the primary), at first perhaps in Ionia[255] but soon after also in the other Attic-Ionic areas, a shift of the phoneme $\bar{a}$ to the front position of $\bar{\text{æ}}$ took place at some time in the period between the operations of the first and the second compensatory lengthenings (cf. Att. *ἔφηνα* < *e-phāna* < *e-phansa* [1st compensatory lengthening] with *πᾶσα* < *pansa* < **pantja* [2nd compensatory lengthening]). This means that the hitherto existing four-grade triangular system, which originated in the Attic-Ionic area in connection with the realization of the first compensatory lengthening process (stage No. 2 on p. 27), was now changed into a special, probably quadrangular system with the phoneme $\bar{e}$ in the front row.[256]

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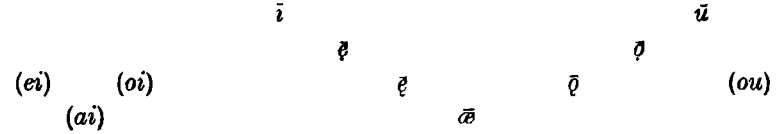
[255] This conclusion is based

i) on the slower progress of $\bar{\text{æ}}$'s further development into $\bar{\text{ę}}$ in the Cycladic islands Keos, Naxos and Amorgos, where the difference between the $\bar{e}$- vowel arisen from $\bar{a}$ and the original long $\bar{e}$ is attested still in the 5th cent. B.C. (see, e.g., *καστγνέτη* Schw. 758$_2$ [Naxos, VI] with *H* for the primary $\bar{a}$ and *E* for the primary $\bar{e}$ [cf. p. 102]);

ii) on the only partial realization of the same development in Attic, where *rᾱ̄, eᾱ̄, iᾱ̄* were not further shifted to *rᾱ̨, eᾱ̨, iᾱ̨*, but were changed by a regressive development into *rᾱ, eᾱ, iᾱ* (see more on pp. 103sqq.). Let us add, that—on the other hand—the assumption of even the Attic $\bar{e}$- vowel arisen from $\bar{a}$ being different from the Attic substitute of original $\bar{e}$ still in the 5th cent. B.C. (cf. Schwyzer, GG I 185sq., and also Lasso de la Vega, *Emérita* 24, 279) is quite uncertain (see Ruipérez, *Word* 12, 71, Note 11); the difference between Schwyzer, l.c., and Lasso de la Vega consists in the fact that Schwyzer simply speaks in the quoted passage of a very open (*überoffen*) pronunciation of $\bar{e}$ originated from $\bar{a}$, or maybe through the contraction $e+a$, and of the comparatively close pronunciation of the primary $\bar{e}$-without taking at the same time into consideration the doubtlessly quite close secondary $\bar{\text{ę}}$ produced by monophthongization, lengthening or by contraction-, whereas Lasso de la Vega is fully aware of the fact that the primary $\bar{e}$ was bound to be a more open sound than the secondary $\bar{\text{ę}}$ and he employs for it the transcription $\bar{\text{ę}}$ (Schwyzer, on the contrary, resorts to the transcription $\bar{\text{ę}}$).

[256] This systemic scheme is not explicitly given in Ruipérez, its existence, however, is quite clearly implied in Ruipérez's previous expositions.

1. This first, specifically Attic-Ionic systemic stage had, consequently, the following form:



This systemic scheme could, of course, not be applied to Attic, had there the original Greek *rā, eā, iā* never been transformed into *rᾱ, eᾱ, iᾱ*, i.e. if the supporters of the older view were right, holding the Attic *rā, eā, iā* of the Classical Era (with *ā* corresponding either to the proto-Greek *ā* or to that which originated through the 1st compensatory lengthening) to be Attic original qualities and not results of the reverse change of *rᾱ, eᾱ, iᾱ* into *rā, eā, iā*. Yet, the more recent theory of the reverse shift appears now to be more convincing even from the structural point of view (see Ruipérez, *Word* 12, 71sq.), and the contemporary research-workers usually prefer it to the older hypothesis.

There is, however, another, still more important question, viz. whether the phonic quality *ᾱ* was sufficiently fixed in all the Attic-Ionic dialects, for a space of time at least, to assert itself in the history of their long-vowel system as an independent phoneme, not fusing immediately with the quality *ę̄*. The situation was pretty clear in this respect in Naxos, Keos, and Amorgos, where the local quite special differentiation of the spellings *H : E*, documented even in the 5th cent. B.C., speaks for a long-lasting phonemic fixation of the quality *ᾱ:* the spelling *H* was used there merely for the local substitute of the proto-Greek *ā* and for the *ā* produced by the first compensatory lengthening, the spelling *E* being used, on the other hand, not only for the short *ĕ*, but also both for the proto-Greek *ē* and for the secondary *ē* produced by any compensatory lengthening, by the *e*+*e* contraction or by the *ei*- monophthongization. See e.g. *καστγνέτη* Schw. DGE 758$_2$ [Naxos, tit. Deli repertus; VI] or cf. *μνῆμα* with *ἐμί* Schw. 751, 4 [Amorgos, V?], *Ἰστίηι* with *Κλεnογένες* Schw. 765, 1 [Keos, V] etc. As for the phonemic difference between *ᾱ* (= proto-Greek *ā* and *ā* produced by the 1st compensatory lengthening), *ę̄* (= proto-Greek *ē*) and *ę̄* (secondary *ē*), see Note 266.

But, according to our opinion, in Attic as well we have to take an independent phonemic existence of the *ᾱ*- quality for granted, for a limited space of time at least. It is generally known that there exist in the Attic dialect certain differences between the extent of occurrence of the signs *A* (= *ā*) and *H* after *r*, and between their occurrence after *ĕ* and *ĭ*—this holding good in reference to quite identical word types (cf. e.g. the Attic *πλήρη* < **plēre/s/a*, *κόρη* < **korwā*, on the one hand, and the Attic *ὑγιᾱ* < **hugie/s/a*, *νέᾱ* < **newā*, on the other hand).[257]

[257] See Schwyzer, *GG* I 188.

This fact led the adherents of the reverse shift theory to the conclusion that reverse shifting of *ᾱ* to *ā* after *r* somewhat preceded the same process after the phones *e*, *i*, the contrasts *πλήρη/ὑγιᾶ* and *κόρη/νέᾱ* indicating that the liquidation of the phoneme *w* and the contraction of *e*+*a* into *ᾱ* must be interposed between the occurrence of the change *rᾱ* > *rā* and that of *eᾱ* > *eā*, *iᾱ* > *iā*. If this actually took place—and the advocates of the opposite theory are hardly capable of offering a more convincing explanation of these differences[258]—the quality *ᾱ* originating from *ā* must have existed in Attic long enough to be ascribed without hesitation the character of an independent phoneme.

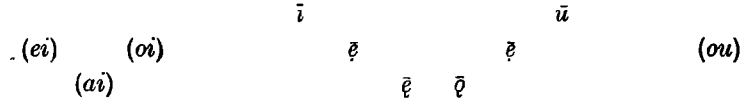
We do not hold quite probable, on the other hand, the preservation of this quality in Attic even in the 5/4 centuries B.C., this being e.g. Schwyzer's and Lasso de la Vega's view.[259] We only assume that this *ᾱ* definitely outlived the origin of the new Attic *ā*, which was the product of the second compensatory lengthening (the type *tans* > *tās*) and which will be the subject of a more detailed discussion further on. There are namely two possibilities: either the Attic *rᾱ*, *eᾱ*, *iᾱ* was transformed into *rā*, *eā*, *iā* only after the origin of this new *ā*—this being the case, the just-mentioned three phonic combinations were still retaining their phonic value *ᾱ* at the time when this new "compensatory" *ā* originated—or else if the Attic *rᾱ*, *eᾱ*, *iᾱ* got shifted to *rā*, *eā*, *iā* already before the origin of the "second compensatory" *ā*, then the phone *ā* could not at first but assume in the combinations *rā*, *eā*, *iā* the character of a mere combinatory variant of the phoneme *ᾱ*—this again implying the assumption that this *ᾱ* alone could hardly have fused entirely with the quality *ę* prior to the accomplishment of the second compensatory lengthening, withdrawing thus suddenly the necessary phonemic support from its above-said combinatory variant *ā*. If namely, in spite of it, this fusing had taken place in Attic so early, the *ā* in *rā*, *eā*, *iā* would have had to become an independent phoneme, this surely being with regards to systemic economy quite incompatible with the not very high functional loading of *ā* in these three combinations—all the more since, especially in contrast to this, the functional loading of the phoneme *ę*, which had been high enough even so, would have had in this case to increase too disproportionately after taking over the quality *ᾱ*.—It appears therefore probable that suitable systemic conditions for the infusion of the quality *ᾱ* into the hitherto existing *ę* did not in fact develop in Attic until the second compensatory lengthening produced the new *ā*, whose frequency of occurrence, to be sure, was not too high either, but which could not turn into a combinatory variant of any hitherto existing phone, as it was not dependent on any phonic environment; so it could in the given situation perform only the function of a real phonemic unit, being thus also capable of adopting either

[258] This is true even of Schwyzer's modification explained in *GG* I 188.

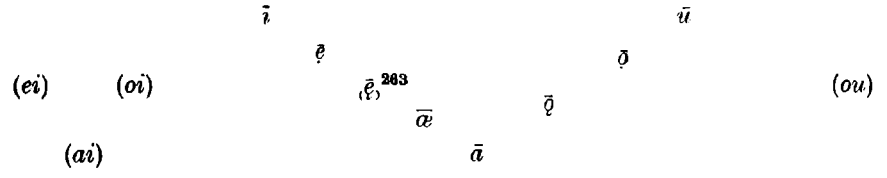
[259] See Schwyzer, *GG* I 185 sq., and J. S. Lasso de la Vega, *Emérita* 24, 279. But cf., on the other hand, Ruipérez, *Word* 12, 71 (Note 11). Cf. also our Note 255.

at once or later the quality $\bar{a}$ from $r\bar{a}$, $e\bar{a}$, $i\bar{a}$ and relieving in this way the phoneme $\bar{\alpha}$ of this combinatory ballast.

In the meantime, it is hardly possible to find out to what extent that which has been said in the last paragraph about Attica can be applied also to Euboea and specially to Ionia.[260] Of course, the geographical spread of the change $\bar{a} > \bar{\alpha} > \bar{\varepsilon}$ from the east to the west taken for granted,[261] one may assume that at least in Ionia the whole of this phonic development may have been accomplished so quickly as to enable the substitute for the proto-Greek $\bar{a}$ (and for the $\bar{a}$ produced by the 1st compensatory lengthening) to take the position of $\bar{\varepsilon}$ as early as before the new $\bar{a}$ originated through the second compensatory lengthening, yes, it may even be that the $\bar{\alpha}$-stage ran its course here without any phonemic fixation of the quality $\bar{\alpha}$ whatsoever. This would mean, to be sure, that either the duration of the above-described systemic phase No. 1 may have been at least in Ionia shorter than in the other Attic-Ionic areas, or that this systemic phase, owing to the merely transient—i.e. non-phonemic—character of the quality $\bar{\alpha}$, may not have occurred at all. In either case this Ionic situation would have resulted in an extra transition phase with 6 monophthongs, offering the following scheme:



2. The systemic schemes of No. 1 ceased to exist, when the new $\bar{a}$ originated in the entire Attic-Ionic area at some time in the 9th century B.C. as the result of the second compensatory lengthening, the said $\bar{a}$ absorbing in Attic sooner or later (cf. our discussion in the preceding paragraphs) also the $\bar{a}$ which originated through the reverse shift $r\bar{\alpha}, e\bar{\alpha}, i\bar{\alpha} > r\bar{a}, e\bar{a}, i\bar{a}$. Thus there came into being at least in one part of the Attic-Ionic area[262] a system of 8 monophthongs, with the front vowels predominating, as it is presented sub No. 3 on p. 27:



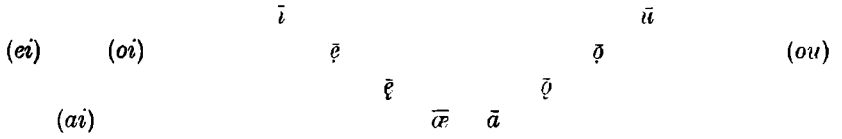
[260] The reason is to be found in the fact that in these areas the reverse shift of $r\bar{\alpha}$, $e\bar{\alpha}$, $i\bar{\alpha}$ into $r\bar{a}$, $e\bar{a}$, $i\bar{a}$ did not take place, so that the phoneme $\bar{\alpha}$ had never there a combinatory variant of the $\bar{a}$-quality.

[261] Cf. Note 255.

[262] I.e. possibly not in Ionia—if the local systemic conditions shown in the last paragraph of No. 1 were true.

[263] The sign ‹ē› indicates here that ē, being articulated between ī, ē and ᾱ, ā, was possibly changed into ē, for some period at least.

It must be stressed, however, that this long-vowel system could after all have even the character of a four-grade quadrangular system, provided, to be sure, that the new $\bar{a}$ was inserted in the back vocal row; this being the case the systemic scheme would be different:



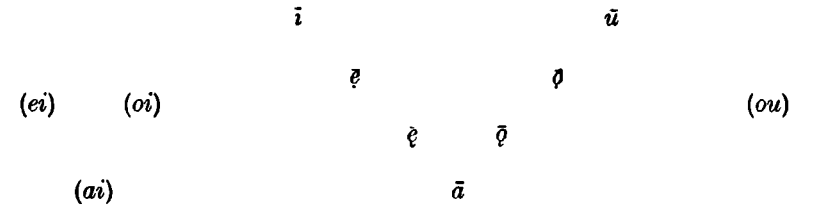
The advantage of this quadrangular scheme would lie in the fact that the front long-vowel axis would be less overloaded than in the corresponding Ruipérez's triangular scheme (the latter, however, may be said to conform somewhat better to the physiological character of the oral cavity), and besides the quadrangular scheme need not likely assume the shift of the hitherto existing open $\bar{ę}$ (i.e. the then available substitute for primary $\bar{e}$) to the position of the mid $\bar{e}$, which assumption would seem to be a rather necessary implication of Ruipérez's triangular grouping.[264] On the other hand, however, we must admit that in the whole of the Attic-Ionic area we do not find anywhere the least trace of a back quality of the secondary $\bar{a}$ produced by the second compensatory lengthening.

Anyway, when closing the discussion of this systemic phase the following reservation must be uttered: whether one or the other systemic modification—either of them respecting the quality $\bar{æ}$ as an independent phoneme—could make itself valid only in those Attic-Ionic dialects which preserved the quality $\bar{æ}$ as an independent phoneme even after the second compensatory lengthening. We have, however, already expressed the opinion (sub No. 1) that such a long existence of the quality $\bar{æ}$ is at least in Ionia not quite certain, which implies after all the real possibility of the just analyzed systemic phase No. 2 having been altogether skipped in the Ionic of Asia Minor. This granted, the assumed "Ionic extra phase" of 6 monophthongs, which we have mentioned at the close of our analysis sub No. 1, would have been immediately followed by another phase lacking the phoneme $\bar{æ}$, as it is described below sub No. 3.—Nevertheless, this reservation wants to be just a marginal remark without claiming any outstanding significance. If we namely laid a too great stress on it we should run the risk of overestimating the differentiation between the single Attic-Ionic dialects (specially when compared to the other Greek dialects) by pointing out differences between at least the Ionic of Asia Minor, on the one hand, and the other Attic-Ionic dialects, on the other hand, even in situations when they cannot be safely demonstrated.

3. The just analyzed systemic phase (i.e. that comprising 8 monophthongs), no matter whether triangular or quadrangular and irrespective of the extent of its

[264] See Note 263.

spread over the Attic-Ionic territory, clearly displayed the tendency to undergo futher transformation into a triangular four-grade system, similar to that which originated in the Attic-Ionic area already after the accomplishment of the first compensatory lengthening, i.e. again into a system of seven monophthongs:



This long-vowel system was very likely quite familiar at the time of the first Attic--Ionic inscriptional documents (i.e. at the end of the 8th and on the threshold of the 7th century B.C.) to the inhabitants of Attica, Euboea, Ionia, and maybe also of some of the Cyclades,[265] the possibility having been indicated in this chapter several times before that Ionia may have been the scene of this development substantially earlier than the other Attic-Ionic regions.

As to Naxos, Keos, and Amorgos, where the phonic difference between the substitute for the proto-Greek $\bar{a}$ (and for the $\bar{a}$ produced by the first compensatory lengthening) and between the substitute for the primary Greek $\bar{e}$ can still be demonstrated as late as in the 5th cent. B.C. (see above sub No. 1), we have to assume that at the time when in the other regions of the Attic-Ionic area the just described systemic phase No. 3 was already in progress, in these parts of the Cyclades the foregoing systemic phase comprising 8 monophthongs was still prevailing.[266] This condition, documented in those three islands, is the only instance known to us speaking in favour of the hypothesis of the quadrangular modification of the mentioned systemic stage of 8 monophthongs (No. 2), for the outnumbering of the $\bar{o}$-phonemes by the $\bar{e}$-/$\overline{æ}$-phonemes lasted here uninterruptedly from the 8th to the 5th cent. B.C., and this fact implies the possibility of the phoneme $\bar{a}$ being there really ousted to the back long-vowel axis all the time.

It was probably as late as towards the end of the 5th cent. B.C. that even in Naxos, Keos, and Amorgos the phoneme $\overline{æ}$ fused with the phoneme $\bar{ę}$, so that even here the older systemic phase of 8 monophthongs (No. 2) got about that time completely out of use. Let as add, of course, that this transformation took place as late as after

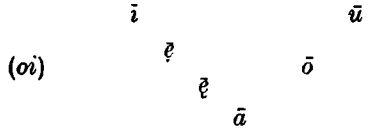
[265] I.e. on the Cyclades with the exception of Naxos, Keos, Amorgos (see below).

[266] The phonemic distinction between $\overline{æ}$ and $\bar{ę}$ is clear from the examples given on p. 102, while that between $\bar{ę}$ and $\bar{ẹ}$ is implied in the fact that about 400 B.C.—i.e. after the fusion of $\bar{æ}$ and $\bar{ę}$—the spelling contrast *H* : *E* was transferred from the phonic relation of $\overline{æ}$: $\bar{ę}$, $\bar{ẹ}$ on that of $\bar{ę}$: $\bar{ẹ}$ (cf. e.g. *μή* Schw. 767$_1$ [Poieessa on Keos, IV in.] with *φέρ*$\bar{ε}$*ν* l. c.$_{10}$); the latter phenomenon would namely be impossible, if the opposition $\bar{ę}$: $\bar{ẹ}$ had been liquidated before.

the accomplishment of the change $\bar{u} > \bar{\ddot{u}}$ in the non-Euboean Attic-Ionic, this phonic change being dealt with in Chapter VIII, sub B.

C. The monophthongization tendency *ai* > ę̄

a) In Chapter II of this monograph (pp. 29sqq.) we have presented Ruipérez's view on the development of the Boeotian vocalic system, adjoining at the same time to each Ruipérez's systemic stage our own additional remarks. Sub No. 4 of the just-mentioned exposition we have touched an important vocalic change leading to the origination of a local kind of secondary *ē*, i.e. the Boeotian monophthongization *ai* > ę̄. The beginnings of this change had found their documentations as early as in the 6th cent. B.C. (cf. the above-quoted *'A]μεινοκλείαε* Schw. 452, 2 [Tanagra; litt. vetust.]), but its actual termination was probably—we are in accord with Ruipérez in this respect—taking place as late as in the first half of the 4th cent. B.C. (no doubt after the monophthongization of *ei* > ę̄ [see the Boeotian stage No. 2 on p. 29] and after the fusion of the resulting ę̄ with ī [see stage No. 3 on p. 30]). And we agree with Ruipérez also in accepting his view that the local long *ē* of mid front quality was pushed then—just under the influence of the open ę̄ arisen from *ai* – into the close position of ę̄ (cf. again the above-quoted *Αριστηχμο[ς]* = *'Αρίσταιχμος* IG VII 2427$_{11}$ [Thebes, 400—350] beside *Κράτεις* = *Κράτης* l.c.$_{22}$), the resulting Boeotian long-vowel system representing really after the accomplishment of these changes, i.e. about the half of the 4th cent. B.C., the following picture, described already sub No. 4 on p. 31:



b) The very beginnings of the same monophthongization process are documented also in several other Greek dialects as early as before 350 B.C., e.g. in Attica (*Αἔθρα* Kretschmer, Vaseninschr. 126), Ionia (*Αἐάκης* Schw. 714$_1$ [Samos, VI med.], *'Ελαιεαν* = *"Ελαιαν* [Samos, 435)], Corinth (*Αἔθōν* = *Αἴθωνν* Schw. 122, 6 [???, VI?], *ΠεραΕόθεν*, *'ΑθαναΕα* Schw. 123, 12. 14 [Corinth, VI?]). We can namely see in these *AE-* or *AIE-* spellings hardly anything more but the indication of a gliding pronunciation of the original diphthong *ai* (cf. p. 41 of our study): before 350 B.C., an entire accomplishment of the said monophthongization process did not probably take place in any Greek dialect outside Boeotia. The quite safe documentations of this latter stage are found in the non-Boeotian area as late as in the Hellenistic period, the first document of this kind being perhaps the spelling *παλεο-* on the Timotheos-Papyrus [IV ex.], whereas in the Attic inscriptions the accomplishment of the

said process may be verified as late as since 100 A.D. (see the Attic stage No. 8 on p. 28). We can, of course, take neither this nor that into consideration in our summarizing final chapters, since the just-said cases do not belong to the period to be investigated in our monograph.

*

By way of conclusion we should like to add the following remarks about the phonic processes analyzed in this chapter: All these discussed processes have one feature in common, namely their regular outcome always was the adding of another "front-axis" member to the hitherto existing inventory of the long-vowel phonemes—either directly after the accomplishment of the phonic change in question (in Boeotian) or at least in connection with other phonic processes which succeeded it (in Elean[267] and Attic-Ionic);[268] in contrast to it, in the single cases of various compensatory lengthenings, the *e*+*e*, *o*+*o* contractions, and the *ei*- and *ou*- monophthongizations the number of phonemic units got as a rule increased in several of the dialects concerned only—provided it increased at all. Thus those three phonetic processes analyzed in this chapter have the character of infallible sources of new $\bar{e}$- phonemes which were bound to come into being, whereas compensatory lengthenings, contractions, and *ei*-, *ou*-monophthongizations may be rightly classified as merely potential sources that may have—but need not have—given rise to new $\bar{e}$- and $\bar{o}$-phonemes.

Yet, there is another side to the problem: our endeavour to include also the three just described phenomena in the list of sources giving rise to new $\bar{e}$- phonemes encounters one difficulty: in some of these cases—we mean here Elean and Attic-Ionic—we may, or directly must, count with the possibility that the newly arising $\bar{\alpha}$, which we have denoted above as an $\bar{e}$-phoneme, had the character of a terminal phoneme, that is to say, of a phoneme occupying the position on one end of the front long-vowel axis—this being, on the other hand, not the case, at least immediately after their origination, with the $\bar{e}$- and $\bar{o}$- products of the compensatory lengthening and *e*+*e*, *o*+*o* contraction, or with the products of the *ei*- and *ou*- monophthongization. (In these latter instances each newly arising $\bar{e}$-, $\bar{o}$- phonemic unit was accommodated every time, to start with at least, in a non-terminal position of the front or back long-vowel axis.) Thus, in Attic-Ionic we must count with the inevitable fact that its $\bar{\alpha}$ occupied the position with the maximum grade open quality on the front axis within the space of time between the accomplishment of the change $\bar{a} > \bar{\alpha}$ and that of the second lengthening (our stage No. 1 on p. 102), as well as with the possibility that the

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[267] After the shift of $\bar{e} > \bar{\imath}$, the Elean long-vowel system was capable of forming a new $\bar{e}$ (or $\bar{\varepsilon}$) through the first compensatory lengthening, so that the Elean long-vowel system increased by one phonemic unit in this way.

[268] After the shift of $\bar{a} > \bar{\alpha}$, the Attic-Ionic long-vowel system was capable of forming a new $\bar{a}$ through the second compensatory lengthening so that even the Attic-Ionic long-vowel system increased by one phonemic unit in this way.

same state of things continued there even later, provided the respective long-vowel system was quadrangular at the time in question (see the quadrangular variants of stages No. 1 [p. 117] and No. 2 [p. 119] as well as of the stage No. 2 on p. 105). In Elean, on the other hand, only the latter Attic-Ionic instance may be found: we may speak here only of the possibility of the Elean $\bar{\alpha}$ having a terminal character, the said possibility being bound up again with the proviso that the local long-vowel system was actually quadrangular (see the Elean stage No. 2 on p. 98).

Of course, considering the fact that the division of our phonological explanations into chapters was upon the whole just an auxiliary arrangement, we do not believe our present method, which induced us even in these two cases to speak of the origin of a further (i.e. a second, or even a third) $\bar{e}$-phoneme, and not—more precisely—of the terminal, $\bar{\alpha}$-phoneme, to be seriously distorting the systemic truth.