

VI

THE MAIN SOURCES OF ORIGIN OF THE SECONDARY \bar{e} , \bar{o} : *ei-*, *ou-* MONOPHTHONGIZATION

A basic analysis of the problems of the "double" \bar{e} , \bar{o} , which we have presented in the preceding chapter, needs, naturally, amplification in many respects, for the compensatory lengthenings and the equivocal contraction are not the only sources that gave rise to the secondary \bar{e} , \bar{o} in Greek. Above all we must not fail to notice the monophthongization changes of the diphthongs *ei* and *ou*, for the accomplishing of these changes was regularly associated—at least in the first phase after their accomplishment—with the origin of some \bar{e} - or \bar{o} - monophthong. Since, however, our ultimate aim is to describe the situation in the long-vowel system of each individual Greek dialect about 350 B.C. at the latest, it will be necessary, in our opinion, to devote in this chapter attention primarily to the chronological problems of these monophthongization processes, particularly to the question whether the monophthongization of the diphthongs *ei* and *ou* had been accomplished in all the Greek dialects before the middle of the 4th cent. B.C. already. Finding an answer to this question will be of importance to us, because it will help us to determine how many monophthongs the long-vowel system contained in each Greek dialect about 350 B.C.

The hitherto published treatments of this chronological question may be briefly commented as follows: the question has so far not been treated with full consideration of the dialectal manysidedness of this problem, and specially not with full appreciation of the assumption that the monophthongization of these diphthongs may have been accomplished in different Greek dialects at quite different times. In this respect the interest of the research-workers was namely restricted mostly to Ionic and Attic, in which—as we shall try to show later¹⁷⁴. - the monophthongization of both these diphthongs positively occurred prior to 650 B.C., which again produced the impression as if the diphthongs *ei*, *ou* were by 350 B.C. already monophthongized in the whole of the Greek-speaking territory. This approach to the problem has recently found

¹⁷⁴ See pp. 117sqq.

its expression also in the above-quoted Lasso de la Vega's work, published in the periodical *Emérita* 24, 261—293 (we shall have an opportunity of referring to this work later once more). Yet, even critical voices were heard commenting this insufficiently founded generalization. One of them was Schwyzer, who in *GG* I 194, expressed his doubts as to an early accomplishment of this monophthongization in Cypriot, Cretan, and Delphian; his arguments will partly be made use of in our further exposition. In this connection it is further also Allen's statement which deserves our attention; it is to be found in his already quoted article in *Word* 15, 247, where the author points out that "by the time of the adoption of the Attic-Ionic alphabet, at least some of the dialects (which did not distinguish two series of long mid vowels—A.B.) may have acquired a second mid-vowel series, resulting from the monophthongization of *ei/ou* > *ē/ō*". This wording shows that Allen probably did not exclude, on the other hand, even the possibility of some of the alluded to dialects still having *ei/ou* as late as at the time of the adoption of the (Attic-)Ionic alphabet.

We have to do with either direct or indirect evidence proving the time when the diphthongs *ei*, *ou* became monophthongs. Direct evidence can only be established by tracing in the particular dialects—and, above all, in the periods when local epichoric alphabets were still used in the non-Ionic dialects—whether *E*, *I*, or *O*, *Y* respectively were not written in the place of the old diphthongs *ei* or *ou*. Records of this kind occur rather rarely. The sign *E* instead of *ei* appears in the most ancient inscriptions of Corinth (cf. the occurrences of *ΠοτΕΣᾶ*—as early as in the 7th cent. B.C.)¹⁷⁵ as well as in Megarian (e.g. *ἄρχΕ* Schw. 165g, fragm. def. [titulus Selinusius Olympiae repertus; VI ex.?), *Ε]ὐκλΕδᾶς* Schw. 151 [Megara, V?]), and sporadically in Laconian (*Φεδῶλᾶς* Schw. 15₁₄ [tit. Spartae Deli repertus; intra 403—399]), Lesbian (*Φεδῶ* Schw. 637₂ [Thymbra, V]), Attic (*Πέσιδος*¹⁷⁶ [IV])¹⁷⁷, and Ionic (*ἔπειν* Milet III 132_{a2} [VI]), and Pamphylian might be added as well (cf. *κῆσθαι* = *κῆισθαι* Schw. 686₂₆ [Silyon, IV pars prior]). The greatest progress in this respect was no doubt reached in Boeotian, in the epichoric alphabet of which the monophthongal substitute for the original *ei* is often represented partly by the special letter *ι*, probably indicating an articulated vowel somewhere between *ē* and *ī* (*Τι*-*σιμένῆς* Schw. 478 B₉ [Thespiæ, post 424]), partly also directly by the letter *I* (e.g. *Πίθαρχος* Schw. 451 A₁₃ [Tanagra, post 426]). On the other hand, the monophthongized *ou* occurs in the graphic form *O* only in Attic and Ionic, and that especially in the none too clear *τῶτο* [= *τοῦτο*], or in some other case forms of this demonstrative pronoun (in Attica we meet with *τῶτον* already on the vase of Dipylos

¹⁷⁵ See Bechtel, *GD* II 214.

¹⁷⁶ Quoted according to Thumb—Scherer 291.

¹⁷⁷ We do not include in our discussion such forms as *δαγεά* (occurring instead of *δαγειά* since 5th cent. B.C.), as they do not testify to any ordinary monophthongization.

from the eighth century, and analogical forms may be found also in Ionia).¹⁷⁸

As for the indirect evidence, however, most relevant are those cases in which the secondary \bar{e} or \bar{o} —which in the respective Greek dialects came into existence either as a result of compensatory lengthening or of the $e+e$ and $o+o$ contractions—acquired the graphic form EI, OY already before the general adoption of the “Ionic” alphabet throughout the Greek world, this process being finished during the 1st half of the 4th cent. B.C. In each of these cases it is necessarily taken for granted that the above-mentioned spelling could, in no circumstances, represent a real diphthong in the dialect in question. This “archaic” EI, OY with the phonetic value of some monophthongal \bar{e}, \bar{o} appears not only in Ionic (e.g., $\epsilon\iota\mu\acute{\iota}$ Schw. 723,3 [Miletos, VI med.]), but also in Old Attic (e.g. $\epsilon\iota\mu\acute{\iota}$ [VII med.], $\Lambda\epsilon\tau\omicron\upsilon\varsigma$ ¹⁷⁹ [VI ex.]),¹⁸⁰ in the epichoric alphabet of West Locris (e.g., $\epsilon\acute{\xi}\epsilon\iota\mu\epsilon\nu = \epsilon\acute{\xi}\epsilon\iota\nu\alpha\iota$ often in Schw. 362 [Oiantheia, V pars prior], $\epsilon\nu\ \Lambda\omicron\varphi\rho\omicron\upsilon\varsigma$ [l.c.₂₃]), and Phocis (e.g. $\kappa\alpha\tau\alpha\gamma\omicron\rho\epsilon\iota\tau\omega$ Schw. 323A₄₀ [Delphi, 400/390], $\tau\omicron\upsilon\ \delta\rho\omicron\mu\omicron\upsilon$ Schw. 321₁ [Delphi, V pars post.]), Corinth and Corinthian settlements (e.g., $\epsilon\pi\omicron\iota\epsilon\iota$ Schw. 133,1₂ [Korkyra, VI in.], $h\nu\iota\omicron\bar{o}, \delta\acute{\alpha}\mu\omicron\upsilon$ l.c._{1,3}), Argolis (e.g. $K[\lambda]ε\iota\tau\omicron\varsigma$ GDI 3260₆ [Argos, VI?], $M\nu\alpha\sigma\iota\omicron\upsilon$ l.c.₄), and with the restriction to EI sporadically even in archaic Thera ([K]λεισιτιμος GDI 4805₆₇₅ [VII-VI?]).

According to our opinion, however, it is possible to consider as sufficiently conclusive for the period about the year 350 B.C. also such cases in which the spelling EI, OY began to be used fairly regularly—i.e. without any particular variation—in the place of the secondary monophthongal \bar{e}, \bar{o} immediately after the introduction of the Ionic alphabet in the non-Ionic dialects. This happened not only in the just mentioned dialects, but also¹⁸¹ in Megarian,¹⁸² in almost the entire East Aegean Doric¹⁸³ and in Thessalian in regard to both EI and OY ,^{183a} and in Boeotian with the restriction to EI .¹⁸⁴

¹⁷⁸ For other evidence consult Meisterhans, *Gramm. der att. Inschriften*,³ p. 63, Note 538 (see here esp. the reservations concerning $\beta\bar{\eta}\nu$; as for this problem, cf. also Schwyzler, *GGI* 577, Note 7).

¹⁷⁹ Quoted according to Thumb—Scherer 291.

¹⁸⁰ Concerning Attic-Ionic see more on pp. 117sqq.

¹⁸¹ Of course, we have avoided forms which may have been influenced by Koine.

¹⁸² The necessary documentation for Megarian, East Aegean Doric, Thessalian and Boeotian may be found again on the respective pages of Thumb—Kieckers and Thumb—Scherer.

¹⁸³ But in Cyrenaean there occurs only EI , and even that only in problematic instances. See esp. the Thera-Cyrenaean $\pi\alpha\upsilon\sigma\epsilon\iota\tau\alpha\iota$ Abh. d. preuss. Ak. d. W. 1925, No. 5, p. 21sqq., Π₄₀ [$\acute{\alpha}\rho\eta\lambda\omicron\nu$ Theraeorum a viro Cyrenaico incisum, IV] beside the really Cyrenaean $\delta\eta\sigma\eta\tau\alpha\iota$ Sitzungsber. d. preuss. Ak. d. W. 1927, No. 19, p. 155sqq., A₃₆ [IV ex.]; that is why the Thera authenticity of $\pi\alpha\upsilon\sigma\epsilon\iota\tau\alpha\iota$ is highly probable. Similarly the form $\chi\epsilon\lambda\epsilon\mu\epsilon\omicron\varsigma$ Sitzungsber. d. preuss. Ak. d. W. 1927, No. 19, p. 155sqq., A₂ [IV ex.] is probably of Delphian origin (see Thumb—Kieckers 181 and Buck³ 124).—Both these conclusions concerning the non-Cyrenaean origin of the said forms are in full accord with our belief in only one \bar{e} or \bar{o} existing in Cyrenaean in historical times (see also pp. 73sqq.).

^{183a} See Note 186.

¹⁸⁴ Boeotian shows no OY for the secondary \bar{o} arisen by compensatory lengthening or contraction,

Boeotian, at the same time, offers a special case of indirect evidence of the monophthongization of the diphthong *ou*, as the spelling *OY* began to be used here in the place of the original Greek \ddot{u} just in connection with the introduction of the Ionic alphabet. In Schw. 467 [Thebes, between 355 and 346] Boeotian forms such as e.g. $\chi\rho\omicron\sigma\acute{\iota}\omega$ are still rare, but later their number quickly increases. Considering that Boeotian has probably adopted the Ionic alphabet through Attic, the latter example at the same time serves as basic evidence of the fact that in Attic-Ionic itself the diphthong *ou* had the monophthongic value as early as in the 1st half of the 4th century B.C.

A similar process had taken place even in Pamphylian, where, however, the spelling *OY* for the original Greek \ddot{u} ¹⁸⁵ or δ is found as late as in the 2nd cent. B.C. (e.g. $\gamma\omicron\nu\nu\acute{\alpha}$ = $\gamma\omicron\nu\nu\eta$ Bean 17.20 or $\Delta\iota\mathcal{F}\omicron\acute{\upsilon}\varsigma$ = $\Delta\iota(\mathcal{F})\acute{\omicron}\varsigma$ Bean 1). Even if this so extremely close quality of the Pamphylian monophthong arisen from *ou* makes it possible that the monophthongization itself took place in Pamphylian pretty soon before the 2nd cent. B.C., maybe already before 350 B.C., we can hardly take this possibility for granted in our study.

From the evidence presented above it follows that the monophthongization of the diphthongs *ei*, *ou* can be positively proved for the period before 350 B. C. above all in those Greek dialects, in which either a new close \bar{e} , \bar{o} had developed earlier—beside the original universal \bar{e} , \bar{o} —as a result of compensatory lengthening or contraction, or in which the close \bar{e} , \bar{o} had resulted from shifting universal \bar{e} , \bar{o} into a closed position. This is to be traced down to the fact that it was only in those dialects in which there formerly had existed a close \bar{e} , \bar{o} not as an outcome of the *ei*-, *ou*- monophthongization (this could occur partly just in dialects with the \bar{e} , \bar{o} produced by a compensatory lengthening or contraction, and partly in Thessalian¹⁸⁶ and to some extent also in Boeotian)¹⁸⁷ that it was possible to use in inscriptions in Ionic alphabet the spelling

as each Boeotian secondary \bar{o} - sound arising in this way fused rather immediately after its origination with the old Boeotian primary \bar{o} , the latter being a regular continuation of the primary \bar{o} and having always a mid long quality (see the expression $\tau\acute{\omega}$ $\acute{\Lambda}\rho\acute{\omicron}\lambda\lambda\omega\nu\omicron\varsigma$ = Att. $\tau\omicron\ddot{u}$ /secondary \bar{o} / $\acute{\Lambda}\rho\acute{\omicron}\lambda\lambda\omega\nu\omicron\varsigma$ /primary \bar{o} / in Schw. 448₃ [Orchomenos, III pars post.]). On the other hand, the Boeotian mid-long \bar{e} , which comprised both the local primary \bar{e} and the secondary \bar{e} that had arisen through compensatory lengthening or contraction, occupied in the first half of 4th cent. B.C. the position of the close \bar{e} already—apparently under the pressure of the open \bar{e} originated from *ai*, this shift being continued even later until the said \bar{e} ultimately fused with \bar{i} towards the end of the 3rd cent. B.C. The necessary documentation may be found on pp. 29sqq.

¹⁸⁵ In Pamphylian *OY* occurs also for *o + o*, even if in late forms such as $\Phi\omicron\rho\delta\iota\sigma\acute{\iota}\omicron\nu$ (Laneko-roński I, No. 87₃ and 90₂ [II cent.]). The same function has also the spelling *Y* in $\acute{\alpha}\rho\gamma\acute{\upsilon}\rho\omicron\nu$ = Att. $\acute{\alpha}\rho\gamma\acute{\upsilon}\rho\omicron\nu$ Schw. 686a 4₅ [Aspendos, II ?], etc. See also p. 126.

¹⁸⁶ In Thessalian some time before 400 B.C. the then-existing universal \bar{e} -, \bar{o} - sounds were shifted to \bar{e} , \bar{o} ; see more on pp. 122sqq.

¹⁸⁷ In Boeotian the up-till-then existing universal \bar{e} got shifted to \bar{e} in the first half of the 4th cent. B.C. under the pressure of the open \bar{e} originated from *ai* (Note 184). That in Boeotian

EI, OY for the reproduction of the same close \bar{e} , \bar{o} (this was done for the sake of differentiation, because the spelling *H, Ω* was after the introduction of the Ionic alphabet practically reserved for the reproduction of the open or at least mid long \bar{e} , \bar{o})¹⁸⁸. All this considered, we may say that our method of "indirectly" attesting the existence of monophthongization of the two diphthongs could in principle be applied only to such type of dialect as was just alluded to; on the other hand, this criterion cannot be applied to those dialects in which there had never existed any phonemically independent close \bar{e} , \bar{o} ¹⁸⁹ arisen in another way than by the supposed *ei, ou* monophthongization, i.e. to Arcadian, Cypriot, Lesbian, Elean,¹⁹⁰ Laconian, and apparently also to Cretan and Cyrenaean.¹⁹¹ The latter case namely concerns dialects in which each secondary \bar{e} , \bar{o} resulting from compensatory lengthening or contraction immediately merged with the old primary \bar{e} , \bar{o} in the universal \bar{e} , \bar{o} , i.e. probably in some mid long \bar{e} , \bar{o} , these \bar{e} -, \bar{o} - sounds being there not even later shifted into \bar{e} , \bar{o} ,¹⁹² so that here the use of the spelling *EI, OY* was practically¹⁹³ limited only to denoting the original diphthongs *ei, ou*. It stands to reason that in this situation the spelling *EI, OY* could indicate nothing definite about the actual quality of the phonetic realizations masked by it.

Thus, in proving the monophthongization of the two diphthongs in the latter dialects only the direct criterion (i.e. the existence of spellings *E, I* or *O, Y*, denoting the original diphthongs *ei, ou*) can be of some importance. But in the dialects of this type, such direct evidence is really found only in the two mentioned isolated cases of the Laconian $\Phi\epsilon\delta\iota\lambda\acute{\alpha}\zeta$ (end of the fifth century) and Lesbian $\Phi\epsilon\delta\iota\bar{o}$ (the fifth century), i.e. in merely two proper names derived from one and the same stem. It goes without saying that these two expressions will not suffice to prove conclusively that monophthongization of the diphthong *ei* occurred in Laconia and Lesbos as early as in the 5th cent. B.C. all the less since there are some contrary arguments showing either

also the diphthong *ou* got obviously monophthongized—although here the universal \bar{o} always maintained its mid position and thus was never reproduced by the sign *OY*—we may conclude safely from the special Boeotian case of indirect demonstration of the monophthongization of *ou* consisting in the reproduction of the original Boeotian \tilde{u} with the spelling *OY* (cf. p. 80).

¹⁸⁸ Cf. pp. 49sq.

¹⁸⁹ Here we should like to stress once more that Boeotian represents a somewhat special case—for here it was only the close \bar{e} , arisen from \bar{e} , that originated in another way than by the *ei*, monophthongization—and, on the top of it, this occurred subsequent to the monophthongization of the Boeotian *ei, ou* into \bar{i} , \tilde{u} through the intermediate stage of \bar{e} , \bar{o} . Cf. page 31.

¹⁹⁰ In this place we do not take into account the possibility that even in Elean a close \bar{e} originated in connection with the local accomplishment of the first compensatory lengthening. See more on pp. 91 and 98.

¹⁹¹ The special situation is to be found in Crete and Cyrene—where in the oldest historical times a double \bar{e} , \bar{o} appeared to be in making, not being, however, formed in the end.

¹⁹² Even in Thessalian and Boeotian the sounds \bar{e} , \bar{o} resulting through contraction—and in Boeotian also through compensatory lengthening—fused with the primary \bar{e} , \bar{o} . But in the course of time Thessalian \bar{e} , \bar{o} was shifted to \bar{e} , \bar{o} and Boeotian \bar{e} to \bar{e} . See more on pp. 84sqq.

¹⁹³ We do not include in our discussion the problematic Cyrenaean *EI* as mentioned in Note 183.

directly or at least indirectly that the diphthongs *ei*, *ou* did not become monophthongized before 350 B.C. at least in some of the seven dialects of the latter type mentioned above.¹⁹⁴

The diphthongal pronunciation of the diphthong *ei* may in all probability be directly proved as late as the first half of the 4th century B.C. in the Cypriot dialect (cf. *we-te-i* = *Ῥέτει* Schw. 680₁ [Edalion, 388]),¹⁹⁵ It is true, objections were raised that at that time the written *-e-i*, *-o-u* could already be only an expression of historical orthography;¹⁹⁶ this supposition, however, lacks a concrete argumentation basis. This evidence from Cypriot, on the other hand, is of no help in establishing the conditions in Arcadian, because both dialects had had an independent existence for at least eight centuries by that time.

Another argument, this time an indirect one, is offered by Cretan.¹⁹⁷ In this dialect namely, some evidence can be found to prove variations between the spellings *EY* and *OY* ranging from the earliest times (cf. e.g. *τιτο.ῤτος* GDI 4978 [Gortys, litt. vetust.]) to the latest (cf. e.g. *ἐπιτάδουμα* = *-δευμα* Schw. 191₁₂ [titulus Cnossius Deli repertus; post 167]).¹⁹⁸ Such a long duration of this inconsistency in spelling, lasting for many centuries (cf., moreover, *Ἐλουσ[ι]ώ* and *[βω]λούσ[ωνται]* GDI 5075_{4,5} [Lato-Olus, I pars prior] with *βωλέδωνται* et al. in the same inscription [l.c., 2,]) may be phonetically best explained by the supposition that *ou* had the diphthongic character as late as in the 1st cent. B.C.¹⁹⁹

Finally, the third argument, again an indirect one, concerns Lesbian, and partly also Elean and Cyrenaean, too.²⁰⁰ In these dialects, as we have already stated, at some time at the beginning of the 1st millennium, there developed the real diphthongs *ai*, *ei*, *oi*²⁰¹ through the 2nd lengthening²⁰². This argument, it is true, does not directly prove anything for the first half of the fourth century B.C., because the diphthong *ei* could have changed by that time even in the above-said dialects. In connection with the fact, however, that the described diphthongic outcome of the

¹⁹⁴ See Schwyzer, *GG* I 194.

¹⁹⁵ The often adduced form *a-ro-u-ra-i* = *ἀρούραι* Schw. 679₂₀ [Edalion, ca. 450] is considerably older and therefore inconclusive for the period about 350 B.C.

¹⁹⁶ Cf. Schwyzer, l.c.

¹⁹⁷ Cf. Schwyzer, l.c.

¹⁹⁸ Cf. also Bechtel, *GD* II 661.

¹⁹⁹ Schwyzer, *GG* I 194, also points out that the original *ou* is never represented by *O* in Delphi; this, of course, does not definitely prove that Delphian *ou* remained unmonophthongized until the adoption of the Ionic alphabet.

²⁰⁰ Owing to its isolated occurrence we do not include here in our discussion the Theraean *παῖσα*.

²⁰¹ See above on pp. 66sq.

²⁰² This means that in Lesbos, for instance, the preposition *ens* began to be pronounced as *eis* at this time, maintaining very likely this pronunciation for some longer time, whereas in Attic, for instance, the original *ens* was probably getting to be transformed into *ēs* without any long delay. even if there may have existed also here a short transition stage in the form of *eis* or something like it. Cf. p. 66 of this monograph, and especially Note 131.

second lengthening can be proved almost exclusively²⁰³ within the range of those dialects only in which no independent long \bar{e} - or \bar{o} - phoneme of close quality had developed either by lengthening, or by contraction, or by some intrasystemic shifting of the universal \bar{e} , \bar{o} to a close position,²⁰⁴ it is very probable that in the dialects of this type there had existed some closer connection between this specific feature of their long-vowel structure and the lack of evidence for the *ei*, *ou* monophthongization. One of the possible explanations might be the fact that in these dialects on the whole there were no such conditions for monophthongization as existed in most of those dialects in which we succeeded in positively proving it: in the majority of the latter ones (i. e. in all of them with the exception of Boeotian and Thessalian), the functional loads of the long \bar{e} - and \bar{o} - phonemes—these being four altogether—were after the accomplishment of the $e+e$, $o+o$ contraction and of the third compensatory lengthening not such as not to be capable of receiving a further \bar{e} , \bar{o} resulting from *ei*, *ou* by monophthongization,²⁰⁷ and besides the rather early existence of the special close \bar{e} , \bar{o} in most of these dialects had provided a phonemically very suitable place for the prospective results of both the above-mentioned monophthongizations, all the more so as the diphthongs *ei*, *ou*, by the very nature of their structure, displayed a marked tendency to approach rather the close \bar{e} , \bar{o} than the open \bar{e} , \bar{o} .

It clearly follows from what has been said above that the monophthongization of the diphthongs *ei*, *ou* before 350 B.C. cannot be accepted as a proved fact for all the Greek dialects. On the other hand, however, we cannot prove either that in all the seven dialects mentioned on p. 81 these diphthongs would have certainly remained non-monophthongized up to that date. Under the given circumstances, at any rate, we should be guilty of a smaller inaccuracy if—in analysing the long-vowel system both in Cypriot, Lesbian, Elean, Cyrenaean and Cretan, and in Arcadian and Laconian²⁰⁸—we took provisionally for granted the existence of the diphthongs *ei* and *ou* as late as in the middle of the 4th century B.C. than if we subscribed to the rather problematic probability of their completed monophthongization.

The just-said approach to these problems compels us, of course, at the same time, to conclude that the older phonemic differences between the Greek dialects concerning the long vowels with \bar{e} - and \bar{o} - quality—as they have been described in Chapter V—were not greatly affected by the monophthongization of the diphthongs *ei*, *ou*. The Greek dialects essentially remained divided into dialects with a long-vowel three-grade system basis and into dialects with a four-grade basis,²⁰⁹ and this to a great

²⁰³ The only exception is Thera with its *παισα* (see above Note I2I).

²⁰⁴ Here we mean again concretely the Thessalian shift \bar{e} , $\bar{o} > \bar{e}$, \bar{o} as well as the Boeotian change $\bar{e} > \bar{e}$, as they were alluded to in Notes 186, 187.

²⁰⁷ A systematic analysis of these functional problems may be found below on pp. 85sqq.

²⁰⁸ As for the former five dialects, see the above arguments as adduced on p. 82, while for the remaining two we lack any evidence at all.

²⁰⁹ The terms “three-grade basis” and “four-grade basis” refer here to the number of the articulation grades of aperture as assumed for the period following the accomplishment of all

extent with the same dialectal distribution which was for this division typical after the accomplished contraction, or also the third compensatory lengthening—when the four-grade basis had been assumed also by West Argolic, East Aegean Doric (Cyrene excepting) and Pamphylian.²¹⁰

Only the situation in Boeotian and Thessalian is somewhat more complicated. This is because only in these two dialects the monophthongization of *ei* and *ou* may be quite sufficiently proved in spite of the fact that they possessed a three-grade systemic basis after the accomplished *e+e*, *o+o* contraction. Out of the two dialects, it was, however, only Thessalian, that retained consistently this older three-grade system even after the *ei-*, *ou-* monophthongization: the Thessalian monophthongs, originating in the course of this process, fused immediately after their origination with the then existing Thessalian universal close \bar{e} , \bar{o} ,²¹¹ which had arisen some time before, when the original Thessalian mid long \bar{e} -, \bar{o} - vowels (representing both the primary, and the secondary \bar{e} , \bar{o} originated by the *e+e*, *o+o* contraction) underwent a specially Thessalian narrowing process to be described on pp. 122sqq.

On the other hand, in Boeotian after the monophthongization of the diphthongs *ei*, *ou* there came into existence a sort of the four-grade system as well, the newly arisen monophthongs having assumed the value of independent phonemes of close quality and having possibly²¹² pushed, at the same time, the hitherto universal Boeotian mid \bar{e} -, \bar{o} - (representing the primary \bar{e} -, \bar{o} -, and the secondary \bar{e} -, \bar{o} - originated by the first two compensatory lengthenings and by the *e+e*, *o+o* contraction) into the open positions of \bar{e} -, \bar{o} -.²¹³ Let us add, however, that this four-grade system became

the compensatory lengthenings and contractions. This chronological restriction was made here because the implied time [ca. 700? B.C.] witnessed the systemic situation in which the dialects with one \bar{e} -, or \bar{o} - pair and those with two of them were still clearly distinguished (in the light of the discussion presented on p. 91, even Elean with its two \bar{a}/\bar{e} - sounds may be associated with the former group). Even though in the course of time this situation was obscured by various changes we consider the above-said differentiation as basic also for the stage about 350 B.C.; the only Greek dialect with the three-grade basis which prior to this date joined the group of the four-grade ones—for a short period at least—was Boeotian (see esp. pp. 29sqq. and 154sqq.), the only dialect with the four-grade basis that joined before the said time limit the three-grade ones being the Argolic of Argos (let us add that for the latter case we have only indirect arguments, on the top of it; cf. pp. 126sqq. and 144sqq.).

²¹⁰ See pp. 71sq.

²¹¹ In contradiction to Lasso de la Vega, *Emérta* 24, 273, we take for granted that the Thessalian diphthongs *ei*, *ou* were monophthongized only after the Thessalian pair of the universal long mid \bar{e} -, \bar{o} - vowels (representing both the primary, and the secondary \bar{e} -, \bar{o} - arisen through contraction) had passed into close \bar{e} -, \bar{o} -. In our opinion, no Thessalian system comprising two series of \bar{e} -, \bar{o} - vowels had ever existed. — See p. 122sqq.

²¹² As to the restriction contained in the expression “possibly”, see Note 31.

²¹³ It is true that the Boeotian *ei-* and *ou-* monophthongizations were probably not quite contemporary processes, so that we hardly may count with the coexistence of four phonemes both on the front long-vowel axis and on the back axis within some longer space of time in the history of Boeotian; see pp. 29sqq., and esp. Note 30. In spite of these difficulties, however, we

soon simplified into a three-grade one again, after these close \bar{e} -, \bar{o} - sounds merged into \bar{i} , \bar{u} ²¹⁴—no doubt in connection with the fact that the \bar{e} - and \bar{o} - substitutes for original ei , ou were very slightly loaded from the functional point of view, as in Boeotian the \bar{e} -, \bar{o} - products of the compensatory lengthenings and contractions had long since been an organic part of the primary \bar{e} , \bar{o} .

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From our present analysis there follows a clear conclusion that the contrast in the number of long \bar{e} - and \bar{o} - phonemes was of considerable significance for classifying Ancient Greek dialects. At the same time, it can be taken for granted that the number of these phonemes and the total functional loading of all long \bar{e} - and \bar{o} - phonemes in the single Greek dialects were rather closely related factors. From the Table on page 61 it can be clearly seen that in the dialects with a three-grade basis²¹⁵ there occurred before 350 B.C. fewer vocalic changes on the whole from which secondary \bar{e} , \bar{o} could have resulted than it was the case in the dialects in which the system of long-vowels was established on a four-grade basis after the accomplished $e+e$, $o+o$ contraction and the third compensatory lengthening.

Let us begin with the dialects having the three-stage systemic basis. Among these dialects there are very frequently found cases when the sources of the secondary \bar{e} , \bar{o} , so abundantly occurring in some other Greek dialects, were applied rather sporadically. This was the case especially in Lesbian, where the secondary \bar{e} , \bar{o} developed only by the contraction of $e+e$, $o+o$.

Somewhat more loaded was the universal \bar{e} , \bar{o} in Arcadian (and perhaps also in Cypriot),²¹⁶ because in this dialect (or in these two dialects) it contained in itself not only the primary \bar{e} , \bar{o} and the secondary \bar{e} , \bar{o} developed from $e+e$, $o+o$, but also the \bar{e} , \bar{o} that came into existence as the result of the first compensatory lengthening (the second lengthening did not take place here).

Similar conditions are found also in Thessalian; it is true that \bar{e} , \bar{o} that resulted in Thessalian from the monophthongization of the diphthongs ei , ou also merged into the Thessalian universal close \bar{e} , \bar{o} , but on the other hand Thessalian never knew such

consider our formulation concerning the existence of a kind of four-grade system basis in the Boeotian dialect of the Classical Era as fully justified, as there existed in those times a quite clear basic difference of systemic character between Boeotian, on the one hand, and Thessalian, on the other.

²¹⁴ See pp. 29sqg.

²¹⁵ In accord with Note 209 we group here Boeotian along with dialects of the "three-grade basis" and the Argolic of Argos with those of the "four-grade basis"—even if subsequent fortunes of these dialects caused them in the course of time more or less to abandon their original bases and join the opposite camps.

²¹⁶ As to Cypriot see Note 112.

important source of the secondary \bar{e} , \bar{o} , as were the various kinds of compensatory lengthening in other dialects.

Still more loaded than in Thessalian was the universal \bar{e} , \bar{o} in Central Cretan, Cyrenaean, Boeotian and Laconian (it included the primary \bar{e} , \bar{o} as well as the secondary \bar{e} , \bar{o} resulting either from contraction and the first and third compensatory lengthenings [in Central Cretan and in Cyrenaean],²¹⁷ or from contraction and the first two lengthenings [in the remaining two dialects]).—In contrast to Central Cretan, Cyrenaean and Laconian, Boeotian admittedly displays even the monophthongization of *ei*, *ou*, but as the resulting monophthongs did not fuse with the universal Boeotian \bar{e} , \bar{o} , but apparently passed through the intermediate stage of \bar{z} , \bar{v} rather soon into \bar{i} , \bar{u} , the load of the Boeotian \bar{e} , \bar{o} (representing partly the primary \bar{e} , \bar{o} , and partly the secondary \bar{e} , \bar{o} arisen by the first two compensatory lengthenings and by the *e+e*, *o+o* contraction) was some time after the accomplished *ei*-, *ou*- monophthongization process about the same again as the loads of the Central Cretan, Cyrenaean or Laconian universal \bar{e} -, \bar{o} - sounds, and Boeotian soon returned—after a short four-grade interval—among the three-grade dialects again. Let us only remark that in Boeotian this originally universal \bar{e} was later—but before 350 B.C.—shifted to a close \bar{z} after the open \bar{z} had arisen there from *ai* in the first half of the 4th cent. B.C. [see more on pp. 31]. (Anyhow, this existence of open \bar{z} in the Boeotian system about 350 B.C. in no way affected the functional load of the above-said Boeotian close substitute for the originally universal Boeotian mid \bar{e}).

To the functional loading of the universal \bar{e} and \bar{o} in these four dialects corresponds on the whole also the functional loading of the universal \bar{o} in Elean, for it was also in this dialect that this phoneme concealed both the primary \bar{o} and the secondary \bar{o} originating through contraction or the first two types of the compensatory lengthening—even though the second compensatory lengthening sometimes failed to assert itself in the Elean end syllables.²¹⁸ As for the front-axis \bar{e} -sphere in Elean, however, it nevertheless appears necessary to distinguish two long $\bar{\alpha}$ -/ \bar{e} - phonemes²¹⁹, i.e. one that probably was very open (it likely possessed the quality $\bar{\alpha}$), represented the continuation of the primary \bar{e} , and rather often was reproduced with the sign *A* (see a more detailed discussion in Chapter VII, sub A, where we expressly deal with this problem), whereas the second Elean \bar{e} -phone had most likely a mid quality (or mayb.

²¹⁷ It is to be stressed, nevertheless, that the occurrence of the third compensatory lengthening was not as frequent as that of the second compensatory lengthening, so that the loads of the universal \bar{e} , \bar{o} in Central Cretan and Cyrenaean were not so great as the corresponding loads in Boeotian and Laconian.

²¹⁸ In Elean namely compensatory diphthongs may be found terminally (cf. Note 124).

²¹⁹ In spite of its two $\bar{\alpha}$ -/ \bar{e} - sounds, we group Elean along with the dialects of the three-grade basis, the main reason being that we cannot exclude the rather plausible possibility that the Elean long-vowel system may have been a three-grade quadrangular one (i.e. with both $\bar{\alpha}$ and \bar{a} in the most open positions; see esp. pp. 98).

a moderately close quality),²²⁰ comprised only the secondary \bar{e} originating through contraction or the first two types of compensatory lengthening (the second lengthening again with restricted occurrence in the end syllables), and was never reproduced with the sign A . All this, therefore, means that neither of the two Elean \bar{a} -/ \bar{e} -phonemes was functionally much overloaded, and that the Elean situation in the front-axis sphere resembled—as matter of fact—rather the state of things prevailing in dialects with the four-grade system, as we shall describe them later.

Among the dialects with the three-grade systemic basis, the universal \bar{e} , \bar{o} seems to have been loaded to a highest degree in East and West Cretan,²²¹ this being due to the occurrence of all the three compensatory lengthenings as well as of the $e+e$, $o+o$ contraction in these subdialects (on the other hand, however, the second lengthening, did not take place here at the end of a word).

The load of the East and West Cretan couple of universal \bar{e} -, \bar{o} - sounds was after the accomplishment of the said compensatory lengthenings and of the $e+e$, $o+o$ contraction very great indeed and the respective total amounts of the functional load of two pairs of \bar{e} - and \bar{o} phonemes in the dialects with a four-grade basis did not greatly differ from it either.²²² In the four-stage group of Greek dialects these very amounts were at least at a time²²³—i.e. directly after the accomplishment of the compensatory lengthenings, the $e+e$, $o+o$ contraction, and the ei -, ou - monophthongization—rather the same in all these dialects, and consequently, the differences between the respective dialects manifested themselves rather in the degree of the functional load of the open \bar{e} , \bar{o} in comparison with the close \bar{e} , \bar{o} .

Thus, in the North-West dialects, in Corinthian, Megarian, East Argolic, and Attic-Ionic there occurred a consistent etymological separation of the primary \bar{e} , \bar{o} (open) and of the secondary \bar{e} , \bar{o} (close), arisen by the compensatory lengthenings, the $e+e$, $o+o$ contraction, and the ei -, ou - monophthongization, and as a result of this a high load of \bar{e} , \bar{o} came into being.

In the Ionic of Asia Minor and of the Cyclades, of course, the functional load of the close \bar{e} -, \bar{o} - sounds was strengthened, in addition, by the results of the third lengthening, occurring here as well, while in the whole Attic-Ionic area (first of all, however,

²²⁰ See below pp. 90 and 98.

²²¹ See, however, also the objection raised on p. 150.

²²² No doubt, if we could take for proved even the monophthongization of ei , ou in all the "three-grade" dialects as early as before 350 B.C., the Laconian \bar{e} -, \bar{o} - vowels would be as much loaded as e.g. those of the "four-grade" Megarian, the respective sum-ups of the functional loads of the West and East Cretan \bar{e} - and \bar{o} - sounds being perhaps at the same time still greater.

²²³ In the Argolic of Argos (Argive), in Corinthian and in the non-Euboean Attic-Ionic the below arguments hold good only in regard to the period preceding the complete shift of \bar{e} , \bar{o} (in Argive), or of \bar{o} at least (in the remaining dialects), to the positions of \bar{i} , \bar{u} —no matter whether the \bar{e} -, \bar{o} - sounds concerned had arisen through compensatory lengthening, contraction or ei -, ou - monophthongization. See esp. Chapter IX, sub A Id α).

again in Ionic) even the occurrence of the open $\bar{\epsilon}$ was markedly strengthened by the outcome of the Ionic-Attic change $\bar{a} > \bar{a} > \bar{\epsilon}$.

On the other hand in West Argolic, East Aegean Doric (except Cyrene), and Pamphylian the close $\bar{\epsilon}$ -, \bar{o} - sounds were always represented much less frequently than in the other dialects with the four-grade systemic basis, as they are found there only for $e+e$, $o+o$, and partly (i.e. in East Aegean Doric) also for the results of the third compensatory lengthening. This was caused by the late origin of the second $\bar{\epsilon}$ -, \bar{o} - series in these dialects.²²⁴

By placing the question of the monophthongization of the diphthongs *ei*, *ou* among the wider problems of the primary and the secondary Greek $\bar{\epsilon}$, \bar{o} there was made a further step in describing the systemic differentiation of the Greek dialects, as regards the history of the $\bar{\epsilon}$ - and \bar{o} -members of the Old Greek long-vowel system. Some specific sources of the secondary $\bar{\epsilon}$ in Greek, such as the opening of Elean $\bar{\epsilon}$ towards \bar{a} , the Attic-Ionic change of $\bar{a} > \bar{a} > \bar{\epsilon}$, and the Boeotian $\bar{\epsilon}$ arisen from *ai* have been left out of a more detailed consideration here so far, but we shall make an attempt to discuss these phonic processes in the next chapter of the present monograph.

²²⁴ There were some further divergencies between the enumerated dialects caused i) by the open $\bar{\epsilon}$ -, \bar{o} - outcome of the 3rd lengthening in Argos, ii) by the absence of the 2nd lengthening either in every position in the word (in the whole of Argolis), or at least terminally (in East Aegean Doric).