

## VIII

### THE ORIGINATION OF THE CENTRAL PHONEME $\bar{u}$

After dealing with the long-vowel processes which gave rise—at least in some of the dialect concerned every time—to new phonemes on the front or the back axis, we are now going to discuss all the other phonetic processes which were of some importance from the long-vowel systemic point of view. The first item—to which we shall devote the present chapter—will be those cases in which there originated in the Greek dialects a phoneme altogether unknown to the archaic phases of Greek, namely the central long  $\bar{u}$ .

For the origin of this phone there exists in the Greek dialectal world double documentation:

A. the centripetal shift of the long  $\bar{u}$  to  $\bar{u}$  in the Attic-Ionic dialects, Euboean excepting (a parallel process is, naturally, to be seen in the shift of the short  $u$  to  $\bar{u}$ );

B. the monophthongization of the diphthong  $oi$  first in Boeotian and later also in other Greek dialects.

#### A. The non-Euboean Ionic-Attic change $\bar{u} > \bar{u}$

Apart from the change  $\bar{a} > \bar{e} > \bar{e}$ , the formation of the long-vowel system was in most of the Attic-Ionic territory very strongly affected also by the change  $\bar{u} > \bar{u}$  which had been accomplished in Attica, in the Cyclades, in Ionia, but not in Euboea. Concerning the chronology of this vocalic process, as well as concerning that of the parallel vocalic change  $\bar{u} > \bar{u}$ , the following may be said:

As to Attica, it is sometimes suggested that the change  $\bar{u} > \bar{u}$ <sup>269</sup> occurred here prior to the oldest known inscriptions,<sup>270</sup> and this view usually operates with the

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<sup>269</sup> We prefer to deal in the following analysis with both the change  $\bar{u} > \bar{u}$  and the parallel change  $\bar{u} > \bar{u}$  jointly.

<sup>270</sup> See, e.g., Meisterhans, *Gramm. der alt. Inschriften*<sup>3</sup> 28, and Lasso de la Vega, *Emérita* 24, 276sqq.

argument that in spite of the sign  $\varphi$  being quite often used before  $O$  this  $\varphi$  can never be demonstrated before  $Y$  (cf. e.g. the expression  $K\acute{\upsilon}\lambda\delta\upsilon\nu$  IG I<sup>2</sup> 1016<sub>1</sub> [ca. 550?; this is the oldest Attic demonstration of the graphic combination of  $K+Y$ ] with such expressions as  $M\acute{\upsilon}\rho\mu\bar{\epsilon}\varphi\omicron\varsigma$  ABSA 50 [1955], 67sqq., fig. 1 [ca. 600?],  $[\gamma\lambda]a\nu\varphi\delta\pi\iota\delta\iota\varphi[\acute{o}\rho\bar{\epsilon}\iota]$  IG I<sup>2</sup> 466 [ca. 600—575?],  $^{\prime}A[\rho]i\tau\tau\acute{o}\delta\iota\varphi\omicron\varsigma$  and  $\gamma\lambda a\nu[\varphi]\delta\pi\iota\delta\iota\varphi\delta\acute{o}[\bar{\epsilon}\iota]$  IG I<sup>2</sup> 463 + 475 [566] and the like). In the opinion of supporters of this view the  $u$ -pronunciation of the sign  $Y$  could be quite safely demonstrated only by the Old Attic occurrence of the spelling  $\varphi+Y$ .

To be sure, the matter is not so simple. It is true that the spelling  $\varphi+O$  is rather frequent in archaic Attic inscriptions, yet, its traces are disappearing about the middle of the 6th cent. B.C. (cf. e.g. already  $\kappa\acute{o}\rho\bar{\epsilon}$  in the inscription IG I<sup>2</sup> 1014<sub>2</sub> [ca. 540]), and it is just as late as at the time when  $\varphi+O$  ceases to occur in Attica that we can demonstrate the above-quoted Attic  $K\acute{\upsilon}\lambda\delta\upsilon\nu$ , which we have already declared to be the oldest attested Attic example of the graphic combination  $K+Y$  ( $\varphi+Y$  not being attested at all). To be sure, in this way the argument mentioned in favour of the pre-inscriptional origin of the Attic change  $\check{u} > \tilde{u}$  considerably decreases in weight, for we do not know whether the spelling  $\varphi+Y$  was not used just as frequently in Attica before the middle of the 6th cent. B.C. as the spelling  $\varphi+O$ . All this considered, it is quite impossible to conclude from the presence of  $K+Y$  in  $K\acute{\upsilon}\lambda\delta\upsilon\nu$  that  $Y$  was pronounced  $\tilde{u}$  in the whole course of Old Attic, because the graphic combination of  $K+Y$  may have been there just an expression of the then prevailing tendency to liquidate completely the sign  $\varphi$ .

Thus on the basis of the above-mentioned argument the pre-inscriptional Attic accomplishment of the change  $\bar{u} > \tilde{u}$  can by no means be safely proved. On the other hand, the lowest chronological boundary-mark for this phonological change can be suggested for Attica only in connection with the occurrence of the Boeotian orthography of the type  $\chi\rho\upsilon\sigma\acute{\iota}\omega = \text{Att. } \chi\rho\upsilon\sigma\acute{\iota}\omicron\nu$  Schw. 467, [Thebes 355—346], demonstrable from the 1st half of the 4th cent., when the Boeotians adopted through Attic mediation the Ionic alphabet, beginning at the same time to reproduce their phonetic value  $\tilde{u}$  with the spelling  $OY$ . This employment means that the phonetic value which was underlying the Attic  $OY$  about 400 B.C.—no matter whether it still had the quality of the close  $\varphi$  or whether its character was already that of  $\bar{u}$ —was anyway nearer the Boeotian  $\tilde{u}$  than the Attic pronunciation of the sign  $Y$ , the latter being consequently pronounced by that time like  $\tilde{u}$ .

What has been said so far does not mean, of course, that the accomplishment of the change  $\check{u} > \tilde{u}$  in Attica prior to the 4th cent. was entirely out of the question. Our discussion meant but to infer that the argument based on the contradictory character of  $K\acute{\upsilon}\lambda\delta\upsilon\nu : M\acute{\upsilon}\rho\mu\bar{\epsilon}\varphi\omicron\varsigma$  is not sufficiently convincing. The possibility is namely not altogether excluded that in Attic the phonetic value  $\tilde{u}$  was underlying the sign  $Y$  as early as in the 5th or 6th centuries B.C. This granted, even an eventual find of some Attic demonstration of the spelling  $\varphi+Y$  would not matter in the said centuries, for

the pronunciation of the phone  $\ddot{u}$  was no doubt sufficiently rounded to admit phonetically of its eventual graphic combination with the foregoing  $\varphi$ .

Summarizing, we must therefore say once more that as to Attic nothing definite can be stated in the meantime about the chronological estimate of the change  $\ddot{u} > \ddot{u}$ . On the one hand, we are namely unable to prove safely its early pre-inscriptional accomplishment, while on the other hand, the only real "terminus ante quem", based on the Boeotian occurrence of spelling of the type  $\chi\rho\rho\sigma\acute{\iota}\omega$ , the chronology of which is rather late, i.e. within the 1st half of the 4th cent., does not represent a basis firm enough for our investigation. To find a better clue to a more reliable chronological estimate of this change we shall now have to turn to the other regions of the Attic-Ionic dialects, namely to Euboean and to the Ionic of Asia Minor and the Cyclades.

Concerning these three Attic-Ionic dialects, we find some points of support for the solution of our problems especially in inscriptions from Euboea, or maybe also from the Euboean colonies, and from Ionia. Interesting are first of all inscriptions displaying the Euboean dialectal character, for here we can demonstrate two graphic phenomena, which are usually quoted in support of the view that Euboea did not share the  $\ddot{u} > \ddot{u}$  change with Attica. The first is the tendency to reproduce the original  $\delta$  in the last syllable of the word with the sign  $Y$  (see  $\varphi\acute{\upsilon}\rho\nu\nu\varsigma$  = Att.  $\nu\acute{\omicron}\kappa\nu\omicron\varsigma$  Schw. 797,5 [the "Chalcedic"<sup>271</sup> vase; VI p. post.] and  $h\nu\pi\acute{\nu}$ ,  $h\acute{\omicron}\pi\nu$  = Att.  $\upsilon\pi\omicron$ ,  $\upsilon\pi\epsilon\sigma\tau\iota$  Schw. 791 [Cumae; ca. 525—500?],<sup>272</sup> and the second is the use of the sign  $\varphi$  before  $Y$ ,  $AY$ ,  $NY$  (e.g.  $\lambda\acute{\epsilon}\varphi\upsilon\theta\omicron\varsigma$  Schw. 786<sub>2</sub> [Cumae; ca. 675—650?],  $\acute{\alpha}\rho\varphi\acute{\upsilon}\lambda\acute{\epsilon}\varsigma$  Schw. 793,2 ["ex urbe ignota Chalcedica Siciliae"; ?],  $\varphi\lambda\nu\tau\acute{\omicron}$  GDI 5296 ["Chalcedic" vase; VI] or the already quoted  $\varphi\acute{\upsilon}\rho\nu\nu\varsigma$  from the "Chalcedic" vase.

With regard to the first phenomenon, it may be stated that it actually proves the  $u$ -pronunciation of the original  $\ddot{u}$  in places of the finds in question, in reference to the time when  $\delta$  was being narrowed into  $\ddot{u}$  in the last syllable of the expressions  $kuknos$  and  $hupo$ —for both the original  $\ddot{u}$  and the  $\ddot{u}$  springing in the two above-mentioned words from  $\delta$ , were reproduced here with the same sign  $Y$ ; we, of course, encounter two difficulties: we namely do not know when this narrowing actually took place (the spelling  $\varphi\acute{\upsilon}\rho\nu\nu\varsigma$ ,  $h\nu\pi\acute{\nu}$ ,  $h\acute{\omicron}\pi\nu$ —and in fact the whole change  $\delta > \ddot{u}$  as such—may have been older than the inscriptions demonstrating it), and besides—which is even more important—not one of the quoted documents can be declared to have originated beyond doubt directly in Euboea,<sup>273</sup> so that Euboea itself need not have been the scene of the accomplishment of the change  $\delta > \ddot{u}$ . All this taken into account, we

<sup>271</sup> As for the "Chalcedic" vases, they were according to Vallet, *Rhégion et Zankle* 212sq., 225 sq., 301, and Boardman, *ABSA* 52 (1957), 12sq., (quoted here according to Jeffery, *Local Scripts* 244, Note 3), probably distributed, and possibly made, at Rhégion. Thus, they need not be of directly Euboean origin. They are now dated in the period 550-510; see *Jeffery* 83, N. 2.

<sup>272</sup> The dating of these inscriptions rests with Jeffery, *Local Scripts*.

<sup>273</sup> Cf. Note 271.

must say that the only fact verified by these documents is that *Y* was pronounced like  $\check{u}$  in Euboea certainly before the first Euboean colonists set out to establish settlements in South Italy and Sicily, i.e. somewhere about 800 B.C.—As to the other argument, we have to say once more what we have stated when discussing Attic, namely that the phonetic character of  $\check{u}$  was sufficiently rounded as to admit of its eventual graphic combination with the foregoing  $\varphi$ , judging from the phonetical point of view. In these circumstances neither the existence of the Euboean  $\lambda\check{\epsilon}\varphi\nu\theta\omicron\varsigma$ ,  $\text{Ἄ}\rho\varphi\acute{\upsilon}\lambda\acute{\epsilon}\varsigma$  etc. can be taken for a quite sufficient proof in favour of the *u*-pronunciation of the sign *Y* in the quoted Euboean expressions.

Nevertheless, the restricted argumentative validity of the mentioned two phenomena is very efficiently complemented by the following argument. It was namely Hatzidakis<sup>274</sup> who found even in modern times in Euboean Kyme the pronunciation of written expressions *Κύμη*, *Στόρα* and *θυγατέρα* having the form of /*kúmi*/, /*stúra*/, and /*θuyatéra*/ . This occurrence is really weighty and might indicate that the change  $\check{u} > \check{u}$  did not take place at all in ancient Euboean, and that some traces of this condition have been preserved among the Euboean inhabitants to the present day.

Concerning the Ionic of Asia Minor, we have to state that also in this Attic-Ionic subdialect the fact that in Ionia the sign  $\varphi$  can be demonstrated both before *O* and before *Y* is upon the whole immaterial with respect to our problems and their solution (cf. *φύλιχα* ABSA 47 [1952], 159sq., pl. 34—35 [Chios, 600—550?] and *τεΤαράροντα εἶφοσ(ι)*, *τηνίφοντα*, *ἐβδομήφοντα* Schw. 707 A<sub>1.2.5.6</sub>, or B<sub>2.8.9</sub> [Ephesos, ca. 550?]). Also in these Ionic expressions, just as it was the case with the Euboean  $\lambda\check{\epsilon}\varphi\nu\theta\omicron\varsigma$ , the spelling  $\varphi+Y$  might have in our opinion quite easily (at least from the theoretical point of view) reproduced already the phonetic value  $k+\check{u}$  (we have to consider even here the probability that the rounded character of the vowel  $\check{u}$  might have, according to our opinion, easily been combined in spelling with the foregoing  $\varphi$ ).

An important role in the solution of our problem may, however, be ascribed to the spellings *EO*, *AO*,<sup>275</sup> which can be demonstrated sporadically, chiefly in Ionia, since the 6th century B.C. in place of the proto-Greek *eu*, *au* (cf. here expressions *Εὐδοράσ[ης]* Schw. 724<sub>2</sub> [Miletos, VI], *βασιλεύς* = —*εὐς* [Nom. Sing.] Schw. 688 C<sub>3</sub> [Chios, V]: *Εδηνορίδεω* Schw. 718,2<sub>2</sub> [Thebes ad Mycal., V]; *αὐτός* Schw. 693<sub>20</sub> [Chios, V—IV] and others). The first demonstrations of this graphic usage probably really represent “terminus ante quem” for the accomplishment of the change  $\check{u} > \check{u}$  in places where they are found, for irrespective of our holding the sign *O* in Ionic *EO*, *AO* (which is attributed a polyphonic pronunciation of  $e+\underline{u}$ ,  $a+\underline{u}$ ) to be a mere substitute for *Y*, or whether we directly take the then existing second element of the Ionic polyphonic diphthongs *eu*, *au* ( $= e+\underline{u}$ ,  $a+\underline{u}$ ) for a combinatory *u*-, or  $\underline{u}$ - variant of the

<sup>274</sup> See *Ἀκαδημεικὰ ἀναγνώσματα*, Athens 1924, vol. 1, p. 101 (quoted according to Schwyzer, *GG* I 182).

<sup>275</sup> See above on pp. 42sq.

phoneme  $\delta$ , the casual substitution of the spelling *EO*, *AO* for the letters *EY*, *AY* makes it considerably probable that the second component of the diphthongs *eu*, *au* was in Ionia by the end of the 6th cent. B.C. already diametrically different from the phonetic value underlying the then existing *Y*.

On the other hand, however, the spellings *EY*, *AY*, which were quite prevalent in Asia Minor at all times, indicate by their very existence that in Ionia the change  $\check{u} > \check{\check{u}}$  was not accomplished yet at the time "when the reproduction of the diphthongs *au*, *eu* with *AY*, *EY* was becoming a usage", as Schwyzer says, *GG* I 182, i.e. at the time when the Ionians of Asia Minor began to use alphabetic script for the reproduction of their language. After all, this argument may be applied also to the other Attic-Ionic dialects. We may namely assume that the diphthongs *au*, *eu* would not have been reproduced with the signs *AY*, *EY* so consistently and uniformly in the oldest inscriptions of each single Attic-Ionic dialect, had in some of them existed from the very beginning—that is to say, from the time when the foundation of the orthographic tradition was laid—a contrast between the new  $\check{u}$ -pronunciation of the sign *Y*, replacing in general its old pronunciation *u*, and its original *u*-pronunciation when it occurred in "diphthongic" graphic combinations *AY*, *EY*. (The fact that in Attica and in the Cyclades—their colonies partly excluded<sup>276</sup>—we do not encounter any unsteadiness whatsoever in the graphic reproduction of the diphthongs *au*, *ou*, similar to the unsteadiness in the use of the Ionic *AY/AO*, *EY/EO* we have spoken before—not even later when the change  $\check{u} > \check{\check{u}}$  must have been accomplished there already—this rather surprising fact can hardly be explained otherwise than by the local conservative and consistent observation of the above-mentioned orthographic tradition, which again means that the time elapsing from the acceptance of the alphabetic script to the accomplishment of the change  $\check{u} > \check{\check{u}}$  must have been long enough in these areas to make it possible for the spellings *AY*, *EY* to strike roots.)

By referring to the initial full phonetic substantiation of the Attic-Ionic spelling *AY*, *EY* we have therefore succeeded in fixing approximately also the "terminus post quem" for the just-discussed change  $\check{u} > \check{\check{u}}$ —not only for Ionia, but also for the Cyclades and Attica. If we take into consideration that we can hardly take the spread of the alphabet for granted in these areas before the middle of the 8th cent. B.C.,<sup>277</sup> this "terminus post quem" coincides approximately with 700 B.C. Now, because, as we have already stated, the first demonstration of the Ionic spelling *EO*, *AO* for the original *eu*, *au* in Asia Minor comes from the 6th century B.C., we may assume that the change  $\check{u} > \check{\check{u}}$ , in the Ionic of Asia Minor at least, was likely accomplished from 700 to 500 B.C. This chronological estimate finds support also in two arguments that may be based upon the Ionic transcription of two proper names. Thus we find on the

<sup>276</sup> The phenomenon is attested also on Thasos, which was a colony of the Cycladic Paros, cf. Thumb—Scherer 253. Besides, we find its traces also in the Athenaeon colony Amphipolis. See above on p. 42.

<sup>277</sup> Cf. Jeffery, *Local Scripts* 21.

one hand on some coins from Elea, the Phocæan colony founded in South Italy in the 6th cent. B.C., beside the form  $\mathcal{F}\epsilon\lambda\eta(\tau\acute{\epsilon}\omega\nu)$  the forms  $\Upsilon\epsilon\lambda\eta\tau\acute{\epsilon}\omega\nu, -\tau\acute{\omega}\nu$  (GDI 5631, 1—3 [Elea, V pars prior]), the existence of which indicates that it was not only in Elea in the 5th cent. B.C., but surely also in the Ionic Phocæa in Asia Minor before the start of the said colonization process that  $Y$  was still pronounced like  $u$ ; and on the other hand we have Persian names, such as *Vidarna-*, *Vištāspa* (documented in Greek first in Herodotus<sup>278</sup> and relating to people living in the 6th cent. or in the 5th cent. B.C.), transcribed as  $\Upsilon\delta\acute{\alpha}\rho\nu\eta\varsigma, \Upsilon\sigma\acute{\tau}\acute{\alpha}\sigma\pi\eta\varsigma$ , which, on the contrary, points to the  $\ddot{u}$ -pronunciation of the sign  $Y$  being a usage at least at the time of Herodotus, if not before.

And finally there is the Cycladic pronunciation of the sign  $Y$ , about which practically nothing more definite can be said on the basis of the preserved Cycladic inscriptions only. Yet, referring to the above paragraphs and taking into account the comparatively small differences between the Ionic of the Cyclades and that of Asia Minor in other phonological spheres,<sup>279</sup> we believe to be upon the whole on the safe side when assuming—as far as the phonological change  $\ddot{u} > \check{u}$  is concerned—that the conditions in the Cyclades were similar to those found in Ionia.

The scheme of the chronological relations concerning the change  $\ddot{u} > \check{u}$  in the Attic-Ionic area would look as follows: Neither in Ionia, nor in Attica, nor in the Cyclades for that part, did this change start prior to the end of the 8th cent. B.C., while on the other hand it was hardly accomplished—in Ionia at least—later than towards the end of the 6th cent. B.C.; as to Attica, the latest possible estimate of its accomplishment would be the beginning of the 4th cent. B.C. The greatest probability, however, may be attached to the assumption that the change was accomplished both in Ionia and in Attica, and very likely also in the Cyclades, any time within the 7th—6th centuries B.C. In contrast to it, Euboean was evidently the only Attic-Ionic dialect which very likely was not affected by this change at all.

This conclusion induces us, at the same time, to express the opinion that there existed a rather substantial chronological difference between this change and between the doubtlessly older Attic-Ionic change of  $\bar{a} > \bar{\alpha} > \bar{\epsilon}$  (the lowest estimate of this latter change being approximately the beginning of the 8th cent. B.C.) so that we are quite ready in this study to endorse in principle Ruipérez's view that both these changes were caused by overloading the back long-vowel axis (see above on p. 27 our Nos. 3 and 5). We are only not quite sure whether Ruipérez's hypothesis itself is capable of explaining both these changes quite satisfactorily, or whether its being supplemented by some substratum theory<sup>280</sup> would not offer the more acceptable solution of the whole problem for the time being. The substratum of Asia Minor might have represented, according to our opinion, in the most eastern

<sup>278</sup> Both these names are attested in Herodotus several times.

<sup>279</sup> Cf., however, Note 255.

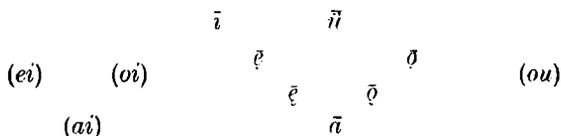
<sup>280</sup> Cf. F. Sommer, *Ahhijava-Urkunden*, München 1932, p. 23, Note 1.

area of the Greek world a certain primary impulse that resulted in the shift of  $\bar{a}$  to  $\bar{e}$  and later also in the change  $\bar{u} > \bar{i}$ , both these impulses asserting themselves, however, in either of the two cases only when finding favourable phonemic conditions, i.e. when the back long-vowel axis was occupied by four phonemes. It seems, therefore, that the accomplishment of either of the two changes required the coincidence of two factors, first of the substratum impulse from Asia Minor, and secondly of a special systemic condition implying the overloading of the back long-vowel axis. Now, this very coincidence appears to have asserted itself—at the time when the substratum influence of Asia Minor was still strong enough—only in the Attic-Ionic dialects, and not, let us say, in the Aeolic of Asia Minor, whose long-vowel system was surely at that time a three-grade one.

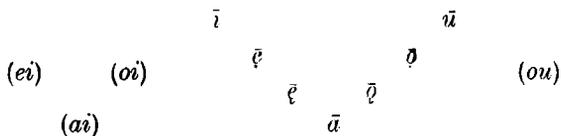
But let us proceed to presenting the development of the Attic-Ionic long vowel system after the accomplishment of the change  $\bar{u} > \bar{i}$ :

1. When analyzing the phonemic consequence of the realization of the change  $\bar{u} > \bar{i}$ , we must stress that, on the one hand, the accomplishment of this change neither reduced nor increased the number of the members of the long-vowel system in question, nevertheless, on the other hand, the system itself received a new form, for it was for the first time in the history of the Greek language that a phoneme of central articulation position assumed the grade of minimal opening.

Thus the following long-vowel scheme originated, which was the direct continuation of the Attic-Ionic systemic phase No. 3, described on pp. 105sqq.



This systemic stage was reached, of course, only in Attic and the Ionic of Asia Minor—and, to a limited extent, perhaps also in the Cyclades (Naxos, Keos, Amorgos excepting). In contrast to it, in Euboea the older systemic phase still held its ground, since we believe that in this Attic-Ionic dialect the change  $\bar{u} > \bar{i}$  perhaps never occurred at all,<sup>281</sup> the local systemic stage having there the same form since the fusion of  $\bar{e}$  with  $\bar{e}$  until at least 350 B.C.:

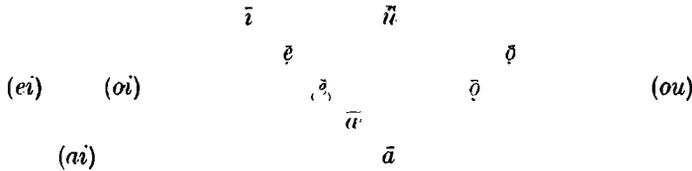


As to the Cyclades, the change  $\bar{u} > \bar{i}$  may really have been accomplished there by the same time as in Attic and in the Ionic of Asia Minor, sure enough (even though

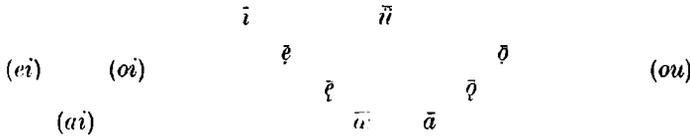
<sup>281</sup> Cf. p. 113.

positive documents are absent), yet in Naxos, Keos, and Amorgos, at any rate, there still existed the quality  $\bar{a}$  alongside the open  $\bar{e}$ . It seems, therefore, that in these three islands a very complicated long-vowel system sprung up subsequent to the accomplishment of the change  $\bar{u} > \bar{i}$ , containing, on the one hand, still the phoneme  $\bar{a}$  and having the shift of  $\bar{u}$  into  $\bar{i}$  accomplished already, on the other hand. This system may be depicted in two ways; it depends on which of the two variants mentioned sub 2 on pp. 104/5 is considered to be its basis. The two schemes would look as follows:

either—



or—



2. Let us, however, remark that the question remains at this point to be answered whether the schemes which we have just presented sub 1 really reproduce an actual situation in the history of the Attic-Ionic vocalism as the number of the “associated” short diphthongs is concerned. We namely cannot fail to see that the oldest known Attic inscription (Schw. DGE App. I 1, ca. 725)<sup>282</sup> already bears the form  $\tau\bar{\epsilon}\tau\bar{o}\nu = \tau\bar{o}\bar{u}\tau\bar{o}\nu$ , which may be used as a “direct”<sup>283</sup> argument in favour of the view that the monophthongization of the diphthong *ou* into  $\bar{e}$  was accomplished in Attic as early as towards the end the 8th cent. B.C. (similar forms of the demonstrative pronoun  $\bar{o}\bar{u}\tau\bar{o}\varsigma$  may be found later in the Attic-Ionic area more often).<sup>284</sup> An analogical argument, even if “indirect” in this case, speaking in favour of an early monophthongization of the diphthong *ei* into  $\bar{e}$  may be seen in numerous documents of the spelling *EIMI* in place of the older spelling *EMI* (=  $\bar{e}mi < *esmi$ ), found in Attic-Ionic inscriptions from as early as the middle of the 7th cent. B.C.<sup>285</sup> Of importance, however, are also some other instances of early documentation of the two monophthongizations,

<sup>282</sup> Schw. DGE App. = E. Schwyzer, *Dialectorum Graecarum exempla epigraphica potiora*.<sup>3</sup> Lipsiae 1923, Appendix on pp. 383sqq.

<sup>283</sup> Concerning the “direct” and “indirect” argumentation as to this problem, see pp. 78sqq.

<sup>284</sup> Further documentation see in Meisterhans-Schwyzer, *Gramm. der att. Inschriften*<sup>3</sup>, Berlin 1900, p. 63, Note 538.

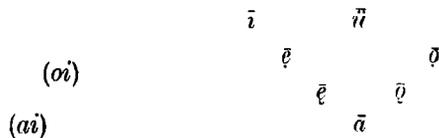
<sup>285</sup> Cf. *εἰμῖ* Hesperia 5 [1936], 33 [Attica, ca. 650]; *εἰμῖ* SEG 14, 565 [Thasos, 625–600?], *εἰμῖ* Schw. 723, 3 [Miletos, VI med.], *εἰμῖ* IG XII 9, 297 [Eretria, 500–480?].

such as the Attic  $\acute{\alpha}\rho\chi\bar{\epsilon} = \acute{\alpha}\rho\chi\epsilon\iota$  SEG 3, 56, [VI], or  $\Lambda\epsilon\tau\omicron\upsilon\varsigma < -\omicron\jmath\omicron\varsigma$  [VI ex].<sup>286</sup>

If thus the first signs of the monophthongization of the diphthongs *ei*, *ou* are of such early date in the Attic-Ionic dialects, our presentation of the “associated” short diphthongs as given sub 1 may really be of purely theoretical value: we must count with the possibility that in Attica, Ionia, and the Cyclades the diphthongs *ei*, *ou* were likely being monophthongized into  $\bar{e}$ ,  $\bar{o}$  either prior to the change  $\bar{u} > \bar{u}$  or more or less simultaneously with it. It is true that Schwyzer, *GG* I 233, finds—with regard to Attica—in his chronological table for these monophthongization changes a date as late as the 5th cent. B.C., yet, the above-quoted documents considered, this term appears to be far too postdated, and besides we must not forget that with reference to the *ou*-monophthongization Schwyzer, i.e., joins into one both the monophthongization *ou* >  $\bar{o}$  and a further shift of this  $\bar{o}$  into  $\bar{u}$ , this latter shift not having probably been fully accomplished there even about 400 B.C. (cf. below pp. 127 sqq.). On the other hand, we must admit that the argumentative force of the Attic  $\tau\acute{\omicron}\tau\omicron\nu$  does not seem to us sufficiently convincing, for the possibility of this form representing some very old variant of the more familiar  $\tau\omicron\upsilon\tau\omicron\nu$  cannot be excluded, the original *ou* perhaps not underlying there the spelling *O* at all.<sup>287</sup> Nevertheless, even if we did not take this expression into account, we could hardly bring down the upper boundary for the monophthongization process of the Attic-Ionic diphthongs *ei*, *ou* below the middle of the 7th cent. B.C. (Anyhow, we have to count also with the possibility of the chronological relation of the change  $\bar{u} > \bar{u}$  to the monophthongization process of the diphthongs *ei*, *ou* being different in the different Attic-Ionic dialects.)

In this situation, when it is really very hard to find an entirely certain solution, we cannot but lay stress at least on the following: If the monophthongization of *ei* >  $\bar{e}$ , *ou* >  $\bar{o}$  was accomplished in Attica, Ionia, and the Cyclades subsequently to the accomplishment of the change  $\bar{u} > \bar{u}$ , then the two schemes depicted sub 1 in this chapter are fully valid for the period immediately subsequent to the operation of the said change. It was only later that they lost the two “associated” diphthongs *ei*, *ou*, viz. after the accomplishment of the *ei*-, *ou*-monophthongization, so that the then-existing situation may be presented—certainly about 500 B.C. for instance—by the following schemes:

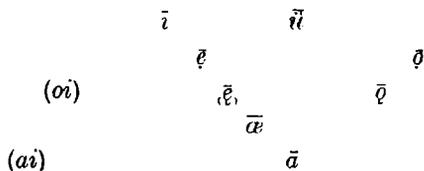
—in Attica, Ionia (and very likely also in the Cyclades, except Naxos, Keos and Amorgos where probably the phoneme  $\bar{u}$  did not fuse with  $\bar{e}$  before 400 B.C.):



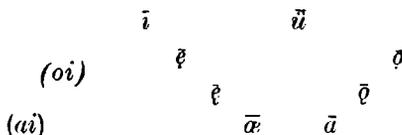
<sup>286</sup> Quoted according to Thumb—Scherer 291.

<sup>287</sup> Cf. Schwyzer, *GG* I 611.

— in Keos, Naxos, and Amorgos either

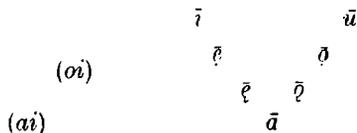


or more probably



If, however, in Attica, Ionia, and also in the Cyclades the monophthongization process  $ei > \bar{e}$ ,  $ou > \bar{o}$  preceded the change  $\bar{u} > \bar{u}$ , then the situation depicted sub 1 of this chapter never existed, the “associated” diphthongs  $ei$ ,  $ou$  being lost before. The end result, manifested about 500 B.C., was, of course, identical with that of the former assumption, even though it was attained by the reverse sequence of the two changes.

As to Euboea, it was the scene of one of the two changes only, i.e. the monophthongization process  $ei > \bar{e}$ ,  $ou > \bar{o}$ , so that the development in this area was quite undisputable, its result being about 500 B.C. at the latest a long-vowel system with only two “associated” diphthongs, but  $\bar{u}$  in it failed to shift to  $\bar{u}$ :



## B. The monophthongization $oi > \bar{u}$

a) Sub No. 5 of our expositions dealing with Ruipérez’s view on the development of the Boeotian vocalic system, we have discussed the question of the monophthongization process  $oi > \bar{u}$ , whose beginnings had found their first documentations—in some respect analogically to those of the monophthongization  $ai > \bar{e}$ —as early as in the second half of the 5th cent. B.C. (cf. the above-quoted *Μοέ(ρ)ιχο(ς)* Schw. 451A<sub>4</sub> [Tanagra, post 426]), but whose full accomplishment cannot be verified before the middle of the 3rd cent. B.C. (cf. again the above-quoted *Βοιωτῦ = Βοιωτοί* IG VII 2724c<sub>1</sub> . d<sub>1</sub> [Ptoion, III p. post.]). This latter circumstance is the reason why we registerate this important phonological change only here, without taking it

into consideration in the final chapters of our study, describing the development of the Greek long-vowel systems till 350 B.C. only.

b) In a similar way we shall only registrate here also some other, non-Boeotian examples of the spelling *OE*, or *OEI*, that are found on the inscriptions older than 350 B.C.; such spellings may be found e.g. in Attica (*Κροῆσος* Kretschmer, Griech. Vasenschr. 129), Corinth (*ἀντοπέ(ε)ια* = *ἀντοποία* Schw. 123,4 [Corinth, VI?]) and Argolis (*πρῶροέ?* = *φρῶροῖ* IG IV 1611 [Lygourion, ?]), but analogically to the explanation of the *AE*- and *AIE*-spellings (see p. 107) in general we see even in the *OE*- and *OEI*-spellings a mere indication of a gliding pronunciation of the original diphthong *oi* (cf. pp. 41sq.). The full accomplishment of the said monophthongization process can be verified in the non-Boeotian area still later than in Boetia, e.g. about 200 B.C. in Crete (cf. the hypercorrect spelling *Ποίτιος* appearing there since that time often instead of *Πύτιος*), yes, in Attica it is not safely documented before about 240 A.D.

\*

As we could already observe, there seems to exist between the two discussed types of the phonetic processes leading to the origin of the central  $\bar{u}$  one significant phonemic difference: while in the second case there originates through the monophthongization of the diphthong *oi* a new additional phoneme (taken, of course, for granted that in accord with our provisional statement on page 43 also the Ancient Greek diphthong *oi* is to be considered here as a biphonemic combination of *o+i*), in the first case, on the other hand, the essential factor in the origin of the central  $\bar{u}$  is merely the centripetal shift of the hitherto existing  $\bar{u}$ , which, for its part, naturally, itself disappears as a phonetic quality (the number of the phonemic units remains, therefore, unaffected by this change).