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OUTLINE OF PHONEMIC SYSTEM IN MYCENAEAN GREEK

The application of phonemic methods in phonological analysis of a language is becoming — above all in modern languages — an increasingly indispensable component of scientific approach in the sphere of phonological problems. Though with some delay, the same tendency has, nevertheless, of late begun to penetrate with growing intensity also into the realm of antique languages, i. e. into Latin and Greek. It is, no doubt, not a matter of chance, for such phonemic approach of phonological questions gives us new interesting views of linguistic reality even when the so-called dead languages are concerned, having just here one hitherto underestimated advantage, when compared with the purely phonetical phonological investigation, practised so far: while the fact of a dead language being mediated to us through graphic reproduction only does not enable us to get to know the totally precise phonetic realization of the respective phone, on the other hand again the phonemic approach, in spite of the fact that it sprung up from a thorough knowledge of living languages, does not really aim at precise determination of all *concrete phonetic realizations* of the language in question, rather attempting a certain kind of *phonic abstraction*, i. e. studying phonemes as basic phonological units from the functional point of view, and phonemes as such may for the most part be distinguished even in the dead languages with the application of the present greatly developed phonemic methods, even though the quite precise knowledge of their concrete phonetical realizations may be missing. Thus for instance, it is not of essential importance for us to know what the exact sound of the sign *σ* was in the word *σβέννυμι* (i. e. before voiced *b*), and what it was in contrast to it in the word *σπένδω* (i. e. before voiceless *p*), but it is significant for us to realize that the initial phone of the word *σβέννυμι* and the initial sound in the expression *σπένδω* were two combinatory variants of one and the same phoneme *s/z*, either of the variants being bound up with different phonic neighbourhood. Let us add that phonological considerations of this kind are often of a very high practical importance, because without joining the combinatory variants into the unit of a phoneme, the phonic inventory of any language would be a mere mechanical registration of all sounds occurring in it, irrespective of whether a mutual misplacement of any of them might affect the meaning of the communication or not. Thus, should, let us say, the sounds *n* and *ŋ* have been confused in the Greek words *ἄνθρωπος* [*'anthrōpos*] „man", and *ἄγγελος* [*'aŋgelos*] „messenger" (that is to say should a person have pronounced by mistake [*'aŋthrōpos*] and [*'angelos*]), it could not have resulted in any change as to the idea communicated [*n* and *ŋ* are therefore in ancient Greek two combinatory variants of the same phoneme, the position before *k, g, kh*, and maybe also before *n* and *m*, being reserved for *ŋ*], whereas if we replace, let us say, the initial *n* in the Greek *νῦν* [*nūn*] „now" or the initial *n* in *νή* [*nē*] „really" by the consonant *m*, we get quite different words: *μῦν* [*mūn*] „mouse" (4. Sing.) and *μή* [*mē*] „no". (Thus we have to conclude that *n* and *m* could

not have been two combinatory variants in ancient Greek; they evidently were two mutually quite independent phonemes.)

So much we wanted to say by way of introduction to the present study, in which we shall try to establish all the phonemic units of Mycenaean Greek and to give their systemic classification at the same time. It is true that a lot of work has been done to investigate Mycenaean phonology, yet the phonological discussions relating to Mycenaean Greek have so far hardly transcended the stage of mere phonetic descriptions, and neither have the existing synoptic analyses of Mycenaean phonology always sufficiently distinguished the phoneme from a mere combinatory variant. Let us mention the following example: In the otherwise excellent work by *E. Vilborg*, A Tentative Grammar of Mycenaean Greek, Stockholm 1960, p. 44 sqq., we encounter in the list of Mycenaean consonants besides the dental nasal *n* also the velar nasal *ŋ*, without being stated that very likely also in Mycenaean — just as in Greek of the Classical Era — either of the two sounds occurred only in a specific phonic neighbourhood, the two sounds being, as a matter of fact, two variants of one and the same phonemic unit. From a purely phonetic point of view Vilborg's registration of the assumed Mycenaean *ŋ* is fully justified — the sound, no doubt, actually existed as such in Mycenaean — but if we were to consider all the various combinatory variants dependent only on the specific neighbourhood in question (such variants must have been rather numerous in Mycenaean: thus there was sure to occur in it for instance the *z*-combinatory variant of *s*, especially to be found in places where the original *s* preceded some voiced consonant, and besides there were, no doubt, other much less significant phonetic shades of difference that appeared sporadically), we should find ourselves, while proceeding with further distinguishing of individual phonetic deviations, in an increasingly less surveyable mixture of sounds important from the functional point of view with sounds that were quite insignificant in this respect.

* * *

In our own analysis of the Mycenaean phonemic situation we propose to proceed as follows: we shall abstain from trying to draw up one fully complex phonemic Mycenaean system at any cost, aiming, on the contrary, above all at constructing rough schemes of the partial short-vowel and long-vowel subsystems on the one hand and of the consonantal subsystem on the other.

A. Vocalic subsystems

Even though Mycenaean Greek does not distinguish the quantity of the vowels, it is possible to restitute in it the quantitative differences of the vowels when comparing it to Classical Greek. While attempting it we intend to discuss the short vowels and the long vowels separate, for it is impossible to exclude beforehand the possibility that the long-vowel subsystem and the short-vowel subsystem were not identical in Mycenaean. Above all, it is necessary to take into consideration the fact that the long-vowel subsystem is usually being amplified with monophonemic diphthongs, figurating as independent phonemes, and neither their occurrence may be safely excluded in Mycenaean beforehand (this problem will be discussed separately under the heading „diphthongs").

1. Short vowels

The Mycenaean short vowels are usually said to be five in number, judging from the phonetic point of view; the vowels in question are *a, e, i, o, u*, the situation being identical with that in proto-Greek, as we can assume. Concrete employment of these vowels in Mycenaean as well as their historical continuation in Classical Greek[1] leaves no doubt that we encounter here five phonemically quite independent and different units.

As for Lurja's conception of the Mycenaean six-phoneme vocalic system, comprising the *ä*-phoneme value, see below the paragraph dealing with the long vowels (sub A 2); this conception concerns namely primarily the long-vowel subsystem, even if Lurja himself does not distinguish in his exposition the long-vowel subsystem from the short-vowel subsystem at all.

2. Long vowels

We find that most of the research-workers consider the situation in respect to the long vowels to be the same as that in the sphere of the short vowels, that is to say, there were again five of them judging from the phonetic point of view ($\bar{a}, \bar{e}, \bar{i}, \bar{o}, \bar{u}$), and even here we may say that their documentation in Mycenaean texts together with their parallels in Classical Greek justifies us in considering them to be five quite mutually independent and separate phonemic units.

Nevertheless, there exist views, pointing out the possibility of the Mycenaean long vowels exceeding number five. The common basis of these views is the assumption that in Mycenaean the monophthongization of some diphthongs had taken place, the phonic outcome of these monophthongizations not being identical with any of the up-till-then existing long-vowel phonemes. Here we have to include above all the already quoted view of *Lurja*,[2] which says that in Mycenaean we have to take for granted the existence of six long-vowel phonemes, i. e. of $\bar{a}, \ddot{\bar{a}}, \bar{e}, \bar{i}, \bar{o}, \bar{u}$, the vowel $\ddot{\bar{a}}$ being according to Lurja the monophthongal substitute for the proto-Greek *ai*. Lurja draws this conclusion from the fact that besides employing the exclusively opening sign No. 43, which is usually transliterated as AI,[3] and besides the exceptional „full" spelling A-I- (cf. A-i-qe-u = *Aik^{w}eus?*), the original *ai* is often reproduced with mere -A as well (see for instance e-ra-wa = *elaiwai* [Nom. Pl.; cf. *ἐλαί(ϝ)ᾱ*]). In this connection Lurja points at the same time to another fact that in some of the Aeolic dialects of the Classical Era (and Aeolic group is according to Lurja among the classical Greek dialects the one that stands nearest to Mycenaean)[4] documents can be found speaking in favour of an early local accomplishment of the monophthongization of the diphthong *ai*: this concerns partly Boeotian and its early use of AE in place of the original *ai*, especially in Tanagra (see e. g. *'A]μεινοκλείας* Schw. 452, 2 [Tanagra; litt. vetust.: probably 6th cent. B. C.]), and partly the hypercorrect Lesbian reproduction of the initial long *ē* with the spelling AI (see *αἰμιθέων* Alcaeus, *αἰμιόνοις* Sappho, and the inscriptional *αἰμισέων* Schw. 619$_9$ (Mytilene, IV pars pr.; cf. the Attic *ἥμισυς*). — As to the Boeotian AE it is, of course, necessary to point out that it obviously was a mere graphic representation of some gliding diphthongal articulation (perhaps that of some $\widehat{\bar{a}\bar{e}}$), which changed into the monophthongal $\bar{\bar{e}}$ only later (cf. e. g. *'Αρίστηχμο[ς] = 'Αρίσταιχμος* IG VII 2427$_{12}$ [Thebes; 400—350]); in the above-quoted *'A]μεινοκλείας* we definitely do not have to deal with an entirely monophthongal *ä*-phoneme whose existence could be traced in Boeotian back to a very remote past, especially if in the earliest Boeotian inscriptions of

Tanagra we find the unambiguously „diphthongal" spelling AI as well (cf. *Ταναγραῖοι* SEG XI 1202 [Tanagra 525—500?]). According to our view, there is a better possibility of explaining the occurrence of Boeotian AE by a more general theory of ascribing the Greek *i*-diphthongs — in a number of Greek dialects at least — the monophonemic character (see more sub A 3).[5] — As for the Lesbian hypercorrect AI used for *ē*, to be sure, we cannot exclude the possibility of a very long preceding duration of phonic impulses resulting in the origination of this hypercorrection (documentation may be found in Alcaeus and Sappho already), yet, we have to point out here the fact that we meet with this phenomenon in initial position only (just in a few isolated cases on the top of it), and so if we tried to apply to it Lurja's *ä*-interpretation of the Mycenaean sign No. 43, occuring likewise in initial position only, the best we could do would be to see in Lurja's value *ä* a combinatory initial variant of the Mycenaean *ai*. But even that would be a mere speculation, for the establishment of the *ä*-interpretation of sign No. 43 finds no sufficient support in the Mycenaean material (no Mycenaean expression with sign 43 in initial position has namely any safe parallel with the initial *ē* in alphabetic Greek, yes, even the sometimes adduced examples for No. 43 = A_3 are on the whole uncertain [see Note 3]).

Thus we may draw the conclusion that Lurja's hypothesis about the alleged six members of the Mycenaean vocalic subsystem finds insufficient documentary support, and even less creditable appears to us his further speculative argument ascribing to Mycenaean a similar contrast of palatal and non-palatal vowels as that we meet with in the sphere of Slavonic languages.[6]

A similar — even if somewhat different in details — hypothesis about the existence of six long-vowel phonemes in Mycenaean could be inferred also from *Georgiev's* view that the proto-Greek *ei* is usually reproduced in Mycenaean with mere -E (cf. e. g. e-ke *ekhei* [3rd Sing. Ind. Praes. Act. of *ekhō*; cf. *ἔχω*]) just because this *ei* had been monophthongized into close *ę̄* in the Mycenaean era already.[7] [Notwithstanding, Georgiev himself has nowhere expressed the theory of the Mycenaean long-vowel system comprising six members.] This Georgiev's explanation of the Mycenaean simplifying spelling of the original *ei* is in our opinion too incidental, and we believe that the graphic phenomenon in question may be again explained by a more *general* theory, which will be alluded to in our discussion of the Mycenaean diphthongs (see below, sub A 3).

And finally of speculative character is also *Vilborg's* suggestion that the Mycenaean substitute for the original short *e* before the groups *rj*, *lj* (see o-pe-ro-si = *ophêlonsi*[8] [cf. the Attic *ὀφελίλουσι*]) may have had the value of close *ę̄*[9]; Vilborg himself remarks that this explanation is just one of several that may be offered, and admits that theoretically under the mask of the Mycenaean -E there may have been hidden also the diphthong *ei*. We should like to add that it may have been just as well the long *ē*, fully identical as to quality with the long primary *ē*, as we come across this phenomenon in connection with the above-mentioned substitute in numerous Greek dialects of the Classical Era. [At all events, it is appropriate to finish our analysis of the systemic problems of the Mycenaean long vowels by stressing the fact that in Mycenaean we can by no means prove the existence of a second („secondary" as to its origin) couple of long vowels of either the *e*-type or *o*-type, originating through compensatory lengthening or contraction — similarly as we find this phenomenon demonstrated in the second large group of ancient Greek dialects of the Classical Era (see e. g. the contrast of the Attic open *ę̄*, *ǭ* in *μή*, *χώρα* and of the close *ę̄*, *ǭ* in *εἰμί*, *τούς*]).

3. Diphthongs

The long-vowel subsystem is usually being amplified, as we have already mentioned, by the so-called monophonemic diphthongs, i. e. such diphthongs which may be taken for phonemic units that are incapable of further splitting. The problem of the occurrence of such diphthongal phonemes in Mycenaean has not yet been tackled, nevertheless, we believe that it deserve attention.

From the phonetic point of view we usually distinguish seven diphthongs in Mycenaean,[9a] i. e. *au, eu, ou, ai, ei, oi, ui*. It has not been the habit so far to differentiate here the short diphthongs from the long ones. This attitude reflects, no doubt, the fact that the assumed Mycenaean diphthongs, whether long or short, behave essentially in the same way when reproduced graphically. Some difference within the Mycenaean diphthongs is perceivable, however, in the light of another and rather surprising criterion: in Mycenaean graphic practice there namely exists a distinct difference between the reproduction of the original *i*-diphthongs, on the one hand (no matter whether they were short or long by origin; the Mycenaean *ui* must, however, be excluded, being as a rule of secondary origin),[10] and the graphic reproduction of the original *u*-diphthongs, on the other hand (again irrespective of their length). This fact makes us wonder what difference may have resulted in this graphic distinction; now, one of the answers that seems to approach closely this problem is the hypothesis of the possible monophonemic character of at least the Mycenaean *ai, ei, oi*; this hypothesis the author expounded in his article „Monophonemic Diphthongs in Mycenaean?", Minos 8 (1963), 51—61. Arguments contained therein are essentially the following:

α) The diphthongs *au, eu, ou* are in Mycenaean before a consonant reproduced usually by two signs, the second of which is U (e. g. a-ro-u-ra = *arourans* [Acc. Plur.; cf. *ἄρουρα*]), whereas in the case of the diphthongs *ai, ei, oi* it is as a rule only the first component that is reproduced (e. g. po-me = *poimēn*, root *pōi-*; cf. *ποιμήν*).

β) The opposite practice is both in the first and in the second case quite exceptional, but even such rare deviations from the „regular" spelling, described sub *α*), have often „regular" doublet parallels on the top of it (e. g. ko-to-i-na/ko-to-na = *ktoinā*, cf. the Rhod. *κτοίνα*, or qo-qo-ta-o/qo-u-qo-ta = $g^woug^wotā$-[root $g^wōu$-], cf. *βουβότας* Pind.); at the same time the rather frequent apparent deviations of the type e-te-wo-ke-re-we-i-jo = *Etewoklewe(h)ios* [patronymic of *Etewoklewēs*; cf. Hom. *Ἐτεοκλήειος*], e-u-me-de-i = *Eumēde(h)i* [Dat. Sing. of the *s*-stem *Eumēdēs*; cf. *Εὐμήδης*], and also e-qe-ta-i = *(h)ek^{w}etā(h)i* [Dat. Pl. of the *ā*-stem *(h)ek^{w}etās*; cf. *ἑπέτας* Pind.][11] should not be included, for they represent very likely only prospective vocalic joining of *a* + *i*, *e* + *i* (let us add thad even the sign-group do-e-ro-i [Dat. Pl. of *doelos*; cf. *δοῦλος*] is often interpreted as *doeloi(h)i* and not as *doelois*).[11]

γ) Before a vowel,[12] both *au, eu, ou* and *ai, ei, oi* are reproduced in the same way, that is to say, the following vowel is represented by a sign of the W- series or of the J- series (e. g. e-wa-ko-ro = *Euagros* [cf. *Εὔαγρος*] and re-wo-te-jo = *lewonteios* [cf. *λεόντειος*]) — this graphic usage speaking, therefore, as it would appear, in favour of the biphonemic character of both the two diphthongal types. Nevertheless a detailed analysis of the phonic combinations *a* + *i*, *e* + *i*, *o* + *i* before a vowel (and also of the phonic combination *u* + *i*, which occurs before a vowel only)[13] makes us feel justly doubtful whether these were cases of diphthongal joining at all,

for the respective documentary material is in Mycenaean almost entirely restricted to instances in which we feel inclined to see in the *i*-component of these combinations rather the initial consonantal *j*-element of the following syllable.[13a] In contrast to it, in cases of the type e-wa-ko-ro we have to see the reproduction of real tautosyllabic, but at the same time evidently polyphonemic diphthongs, as we can judge for instance from the existence of the doublet parallel e-u-wa-ko-ro.

δ) Of all the Mycenaean diphthongs only the initial *ai* has its own specific „diphthongal" sign AI [sign No. 43]; cf. e. g. ai-ka-sa-ma = *aiksmans* [Acc. Pl.; cf. *αἰχμήν*].[14]

ε) In a few odd cases the second element of the diphthongs *ai*, *oi* is represented with the sign E (see to-e = *tōi?* [Dat. Sing. of the demonstrative pronoun], and mi-to-we-sa-e = *miltowetsai* [Nom. Pl. Adj.; cf. Hom. *μιλτοπάρῃος*]; both these phenomena may be conceived as documenting the gliding character of the pronunciation of *ai*, *oi*.

ζ) Considering the intelligibility of the Mycenaean texts, the neglect of the second component in the diphthongs *ai*, *ei*, *oi* appears to be a more serious drawback than if the same tendency had asserted itself in the diphthongs *au*, *eu*, *ou* (in Ancient Greek the diphthongs *ai*, *ei*, *oi* occur namely very often both in important nominal and verbal endings); thus we cannot explain the graphic practice, alluded to above sub *α*), as a manifestation of an assumed effort of the Mycenaean scribes to neglect the graphic representation of less significant elements.

η) For the monophonemic character of the diphthongs *ai*, *ei*, *oi* (and also of *ou*) there exist indications also in the Classical Era of Ancient Greek. In the first place we have to mention indications of the gliding pronunciation of the diphthongs *ai*, *oi*, demonstrable from the 6th cent. B. C. in quite a number of Greek dialects (we mean cases when the original *ai*, *oi* is being reproduced by the gliding spelling AE, OE or even OEI, AIE),[15] and secondly, when taking into account the strong monophthongizing tendency of the diphthongs *ei*, *ou*[16] which must be taken for granted in a number of Classical Greek dialects as early as before the middle of 1st millennium B. C., we can hardly exclude the possibility of these diphthongs having the monophonemic character even in the more remote stages of the respective dialects (there is, however, one disproportion in this argument, i. e. the monophthongizing tendency of the diphthong *ei* is as a rule accompanied by an analogical tendency of the diphthong *ou*, and there are in Mycenaean no indications of the monophonemic character of the latter).

On the basis of the foregoing analysis we could therefore venture to draw the following conclusions:

a) In Mycenaean there were likely only six short diphthongs, i. e. *ai*, *ei*, *oi*, *au*, *eu*, *ou* (the Mycenaean *ui* was in fact the heterosyllabic *u-j*, as it seems), and besides there may have existed also some long diphthongs. Yet, the study of Classical Greek parallels of Mycenaean expressions which may be expected to have contained the latter induces us to admit the possibility that at least some types of the original long diphthongs, especially those in the root syllables, may have turned into short ones as early as in Mycenaean (cf. e. g. the assumed Mycenaean *gʷougʷotās* going back to the IE. *gʷōu-*); yes, it is even possible that maybe Mycenaean, too, just like Classical Arcadian (as well as Boeotian, South-West Thessalian and the North-West dialects) had in Dat. Sing. of the *ā*-stems and *o*-stems the „short" endings *-ăi*, *-ŏi* and not the IE. dative endings *-āi*, *-ōi*.

b) Of the six Mycenaean short diphthongs three, i. e. *au*, *eu*, *ou*, had no doubt

a polyphonemic character (they were composed of two independent phonemic units, that is to say of the short *a*, *e*, *o* and of the semivocalic *w*). On the other hand, with respect to the Mycenaean diphthongs *ai*, *ei*, *oi* we cannot altogether exclude the possibility of each of them representing a quite independent phoneme, although we have to admit that neither this can be safely documented. When trying to formulate our own view we should most likely prefer to say that the monophonemic character of the three latter diphthongs may be accepted as one of the possible explanations of the graphic difference that no doubt characterized the Mycenaean reproduction of the diphthongs *ai*, *ei*, *oi* in contrast to that of the diphthongs *au*, *eu*, *ou*.

*

A scheme surveying the complex of both the Mycenaean vocalic subsystems would therefore, look as follows:

i *u*		$\bar{i}$ $\bar{u}$
e *o*	⟨*ei*⟩ ⟨*oi*⟩	$\bar{e}$ $\bar{o}$
a	⟨*ai*⟩[17]	$\bar{a}$

On the other hand, we are, of course, not familiar with the quite precise phonetic quality of the single short and long Mycenaean vowels. It is especially a certain unsteadiness concerning the Mycenaean I and E[18], reminding us of a similar unsteadiness in the use of the alphabetic I and E in some dialects of the Classical Era, as well as some analogical disproportions between the Mycenaean spelling and the alphabetic one, that suggest that our diagrams may be only a very schematic presentation of the existing reality.[19]

Thus we may conlude our discussion of the complex of the vocalic subsystems in Mycenaean by stating that it differed from the proto-Greek state, as assumed e. g. by *Ruipérez*,[20] only if our view of the possible monophonemic character of the diphthongs *ai*, *ei*, *oi* should be justified. When compared to the Classical Greek dialects the above pair of the monophthongal systemic diagrams corresponds essentially with the systemic situation known to us specially from the oldest demonstrable phase of the Classical Aeolic and Arcadian-Cypriote dialects and of the dialects that constitute the so-called „Doris severior"; of course, considering the fact that the origin of the second and secondary couple of long vowels of the *e*-shade and of the *o*-shade, as we know it in the Classical Era specially in the Attic-Ionic dialects and in those that constitute the so-called „Doris mitior", is sure to be a product of the post-Mycenaean period,[21] the complex of both the Mycenaean vocalic subsystems which we have described represents only an archaic situation, essentially identical with the proto-Greek situation, and that is why we cannot deduce from this condition any conclusion concerning an assumed kinship of Mycenaean with any dialect of the Classical Era.

B. Consonantal subsystem

If we started determining the number of Mycenaean consonantal phonemes quite consistently only on the basis of the existing number of the single consonantal lines of the Linear Script B, we should arrive at a very small number of Mycenaean consonants, twelve in all, this being namely the number of Mycenaean consonantal syllabic series (the series are the following: *p-*, *t-*, *d-*, *k-*, *k^w*, *s-*, *z-*, *m-*,

n-, r-, w-, and j-). As early as in 1952, however, Ventris and Chadwick succeeded fully in proving that the Linear Script B does not distinguish for the most part voiced, voiceless, and aspirated consonants.[22] Likewise did Ventris and Chadwick discover that the Mycenaean „*R*-" series reproduces not only the phone *r* but also the phone *l*[23]. And thus the number of the Mycenaean consonantal phonemes must no doubt considerably exceed the number of consonantal series of the Linear Script B. In the following paragraphs we shall attempt to fix the exact number of these phonemes. To be sure, when doing so we shall differ from *Vilborg* trying to include in this number even the combinatory variant *ŋ*. Yet, it certainly will not be out of place if we first enumerate all Vilborg's Mycenaean consonantal phonemes so that the reader may clearly see in the end where we differ from him, or in what respect we try, as a matter of fact, to make more precise his enumeration, contained in his above quoted work, which represents today a fundamental synoptic study in the sphere of Mycenaean grammar. Vilborg distinguished 20 consonantal phonemes, and if we add his two separate semivowels, we get the total number of 22. The number comprises: *m, n, ŋ; r, l; p, ph, b; t, th, d; k, kh, g; q*^{u}, *q*^{u}*h, g*^{u}*; s,* „*z*", *h, j, w*.[24] Our task will, therefore, be to control this enumeration from the phonemic point of view. With this aim in view we shall now turn our attention to the single articulation types of Mycenaean consonants in the following sequence: semiconsonants, liquids and nasals, explosives of all four types, and fricatives.

1. Semivowels

The Mycenaean material shows that in Mycenaean still existed not only *w* (which, after all, is long preserved in a number of Greek dialects in the 1st millennium B. C.), but also *j*, of which not a single trace remains in the alphabetic Greek of the 1st millennium B. C. At the same time the occurrence of these semivocalic phones even in such positions where also *i* and *u* occur makes it clear that *w* and *j* were not mere combinatory variants of the latter vocalic phonemes (as for *j*, note the two alongside existing sign-groups me-wi-jo/me-u-jo, on the one hand, this parallel existence of the two spellings masking very likely the form *mewjŏs* with semivokalic *j* [Nom. Sing. Comp.; cf. *μείων*], and ke-se-nu-wi-ja = *ksenwia* with the vocalic *i*, on the other hand [Nom. Pl. N.; cf. the Ionic *ξείνιος*]; as for *w* it is enough to know that the Mycenaean *w* can be demonstrated both in antevocalic [or intervocalic] position and also before consonants or after them).

2. Nasals and liquids

As for the number of Mycenaean nasals, we cannot take Vilborg's *ŋ* — as we have already said — for an independent phoneme. If this sound existed in Mycenaean — and this is a well-grounded speculation — then this phone is sure to have been pronounced in Mycenaean essentially only before *k*, *g*, and *kh* (probably in cases like a-ke-ro *aŋgelos* [cf. *ἄγγελος*] and e-ke-a *eŋkhe(h)a* [cf. *ἔγχος*]), and for this reason it can be taken even here — in full accord with alphabetic Greek — for a mere combinatory variant of *n*. Thus Mycenaean had only two nasal phonemes, *n* and *m*, besides two liquids, *l* and *r*.

Further, it is not probable that there should have still existed in Mycenaean syllable-forming sonants *ṛ, ḷ, ṃ, ṇ*. This is sometimes asserted in connection with the fact that in Mycenaean we may quite often notice inconsistency in the A-reproduction

and the O-reproduction of the original *r̥*, *l̥*, *m̥*, *n̥*[25] (cf. e. g. the side by side existing Mycenaean pe-mo and pe-ma, i. e. a couple of Linear B expressions, corresponding with the proto-Greek *spermn̥* and the alphabetic *σπέρμα*). It seems, however, that the above-mentioned inconsistency is rather a reflexion of an actual doublet pronunciation of *spermo/sperma* within the area of Mycenaean civilization, for, as *Georgiev* pointed out, the existence of a sonant *n̥* in Mycenaean should really be excluded on the basis of such documents as a-ki-ti-to = *aktitos* [cf. *ἄκτιτος*]:[26] an initial *n̥* that actually was pronounced could hardly have been reproduced by such a typical vocalic sign as the sign A.

Another view was expressed, namely that in Mycenaean existed also the geminate *rr*. Gallavotti believes so on the basis of the existing doublet R-signs RA_2 and RO_2, whose initial consonantal component is usually transcribed as *rj*, but in which Gallavotti sees the geminate *rr*,[27] analogical with the Lesbian and Thessalian *rr*, the substitute for the proto-Greek *rj* (cf. e. g. the Lesbian *φθέρρω* or the Thessalian *περρατει* with the Attic *φθείρω*, *πειρᾶται*; outside Lesbos and Thessaly the proto-Greek *rj* was simplified into a mere *r*, compensatory lengthening or compensatory diphthongization *(epenthesis)* occurring, in the preceding syllable). Gallavotti's hypothesis has, however, failed so far to find a sufficient number of safely documented concrete Mycenaean-Lesbian or Mycenaean-Thessalian word parallels of the said kind, the only one attractive type of adduced examples being the frequent Mycenaean feminine agent suffix -ti-ra_2, which is usually interpreted as *-tria* (see e. g. ra-pi-ti-ra_2 = raptriai; cf. *ῥάπτρια*), but by Gallavotti understood as *-tirra* (this suffix, too, no doubt originated from the older *-tria*, but it can be directly compared only with the Lesbian-Thessalian *-τερρα* and with the Homeric *-τειρα*). — Thus upon the whole it is simplest to conclude that RA_2 and RO_2 were signs whose phonetical values in the older Linear graphic system, giving rise to the Linear Script B, were approximately *rja/lja*, or *rjo/ljo* (signs with originally palatalized consonantal values are in Mycenaean, as a matter of fact, quite frequent), and that they may have been used primarily for the reproduction of the proto-Greek *rj-/lj-*, especially at those times when the formation of the Linear Script B was only in progress, but secondarily also for the reproduction of the original phonic combinations *r* + *i*, *l* + *i* before a succeeding vowel, this being the case esp. with the sign RO_2 (cf. po-pu-ro_2 = *porphuriō* or *porphurjō* [Nom. Du. Fem.; cf. *πορφύριος*]). On the other hand, the possibility is not excluded that in the period for which we have documents of Mycenaean texts the signs RA_2, RO_2 were already mere graphic doublets of RA, RO, ie. that they were then already as to pronunciation masking mere [*ra*] / [*la*], [*ro*] / [*lo*], no mater, if compensatory lengthening or compensatory diphthongization would have to be assumed in the preceding syllable, or not. There is, however, a problem attached to this explanation: it is true, it fits comparatively well when we try to explain the history of the proto-Greek *rj* (the geminate substitute *rr* can be demonstrated only in Lesbos and Thessaly), but if falls short as method of explaining the history of the proto-Greek *lj;* for the latter, in contrast to the former, we find in the Classical Era the use of the geminate substitute *ll* documented throughout the whole of Greek territory, only Cyprus excepting. All this considered, we may say that the acknowledgement of the geminate *ll* as an independent phonemic unit would not be altogether unjustified even in Mycenaean, all the less so since the same phenomenon is to be found also in Arcadian, which is considered to be a direct successor of Mycenaean Greek. On the other hand, however, Mycenaean is as a rule in the same way directly grouped along with Cypriote, too, and Cyprus is,

as we have already observed, the only part of the Greek territory in which the geminate *ll* fails to be demonstrated; thus this Myceanean problem must really be classified as yet unsolved.

There exists, after all, a third possibility, i. e. to believe that the proto-Greek *lj* had assumed in Mycenaean the form *l'l'*, which gave partly rise to the Cypriote simple *l* with the preceding lengthening or diphthongization, and partly to the geminate *ll* in the rest of the Greek dialects. To accept this idea would, of course, mean to endorse the hypothesis that Mycenaean managed to preserve the assumed late proto-Greek consonantal subsystem with a number of geminate palatal explosives of the following type: *l'l'*, *r'r'*, *m'm'*, *n'n'*, *d'd'*, *g'g'*, *t't'*, *k'k'* etc.[28]; yet, because the existence of the so-called „Z-" spelling in Mycenaean [see B 4b] testifies in favour of the view that Mycenaean substitutes for the proto-Greek *dj*, *gj*, *t(h)j*, *k(h)j* had by that time already assumed the character of some affricate continuants [i. e. they got past the stage of *d'd'*, *g'g'*, *t't'*, *k'k'*], we may conclude with some probability that even the geminates *r'r'*, *l'l'*, *m'm'*, *n'n'* were by that time already out of use.]

3. Explosives

As to explosives, we can fully agree with *Vilborg* and distinguish in Mycenaean, by comparing it with alphabetic Greek, three phonemes in each of the following categories: labials, dentals, velars, and labiovelars. Each of these series requires, however, a few explanatory remarks.

a) As to labials, we have to point out that in Mycenaean there does not exist a single demonstration of the voiced *b* reproduced by signs of the labial P-series. As far as we encounter in Mycenaean expressions whose alphabetic equivalent contains some *b*, the phone in question is always reproduced with signs of the Q-series, whose consonantal element masks, of course, in such a case an original g^w (cf. e. g. qo-u-qo-ta = $g^woug^wotās$; cf. *βουβότας* Pind.).

b) With reference to dentals we must say that the existence of the graphic differentiation between the signs used for voiced *d* (the so-called D- series) and those used for voiceless *t* or *th* (the so-called *T*- series) is rather surprising; it is an odd phenomenon, for the other voiced explosives, i. e. *b*, *g*, g^w (= Vilborg's g^u), are not reproduced in Mycenaean by a special graphic line. This inconsistency induced *Lurja* to express the view that the original *d* was transformed in Mycenaean into a spirant, and for this reason he employs for the signs of the *D*- line transcription with initial DZ-.[29] This standpoint would actually offer a certain explanation of the above-mentioned anomaly, yet the more commonly endorsed theory believes that even in this case we have to deal again with a graphic heritage of the older Linear system, which may have comprised a phone that closely approached the pronunciation of the Mycenaean *d*. The weakest spot in Lurja's hypothesis represents in our opinion just the phonetic value *dz*, for this was, on the other hand, the probable pronunciation of one of the two sounds associated with the Mycenaean „Z-", while there is no inconsistency in the application of D- and „Z-" signs (Lurja himself was conscious of it, and that is why he transcribed the Mycenaean „Z-" as C-, not paying, however, sufficient heed to the fact that the Mycenaean „Z-" very likely represented two sibilant phonemes, a voiced one and a voiceless one; see later sub B 4b).

c) The Mycenaean velars had likely combinatory variants of a spirantic character when succeeded by *e*; probably we have to deal with palatalized or assibilated velars (see frequent inconsistency in the use of KE and ZE, e. g. in a-ke-ti-ri-ja/a-ze-ti-

ri-ja = *akestriai* [Nom. Pl.]; cf. *ἀκέστρια*); but cf. also the special case dealt with sub B 4bε.

d) And finally about the labiovelars: It seems that the Mycenaean Era witnessed already the progress of their liquidation, as we can see from the inconsistent use of the type ra-qi-ti-ra$_2$/ra-pi-ti-ra$_2$ = *raptriai* [cf. *ῥάπτρια*], upon the whole, however, we must count with the fact that they were still in use. to a great extent.

4. Fricatives

a) Phone h

In proto-Greek there likely existed only one fricative phoneme, i. e. *s* with its combinatory variant *z* before voiced explosives[29a] (e. g. in the expression **ozdos*, „branch" [see the German *Ast*]; cf. the Attic *ὄζος* with the doubtless pronunciation of [*ozdos*]). In initial position before a vowel and also before *r, l, m, n, w*, as well as in the middle of a word between vowels, *s* was gradually changing into *h*, so that immediately after the accomplishment of this change the above-mentioned phoneme had three phonetically rather different combinatory qualities, i. e. *s, z*, and *h*. In the course of further development, however, — while a new *s* was originating from other sources, viz. from *t* in the suffix *-ti*(—) [cf. e. g. the Attic-Ionic *φέρονσι*, Arcadian *φέρονσι*, Lesbian *φέροισι* <* pheronti], from the heteromorphemic *s-s, t-s, d-s* [cf. the Attic-Ionic and Arcadian *γένεσι* < *ssi*, *σώμασι* < *tsi*, *φυγάσι* < *dsi*], or from the homomorphemic *t(h)j*[30] [cf. the Attic-Ionic and Arcadian *μέσος* < <**methjos* <* *medhjos*]) — *h* very likely got independent, but not being capable, due to its rather rare occurrence, of performing the function of an independent phonemic unit, disappeared soon altogether from the middle of the word, while still preserving its initial position for a certain time (this period, however, not being equally long in all the Greek dialects), even if only in the function of a mere ʕ, indicating along with ʔ a vocalic opening of a word. And finally, in the Hellenistic Era, even this ʕ disappears everywhere. As for the Mycenaean situation, we may say that it either represents the stage when *h* was still a combinatory variant of *s* (i. e. the sources of the secondary juxtavocalic *s* had not yet left the stage of *ts*, or perhaps of some *ss*), or else it belongs to that comparatively short period in which *h* had the value of an independent phoneme (i. e. the above-mentioned sources of the secondary juxtavocalic *s* had already reached the position of *s*, while the intervocalic *h* kept still existing, as we may judge from the Mycenaean spelling of the type pa-we-a$_2$ = *pharweha* < *-esa*, e-ke-a$_2$ = *eŋkheha* < *-esa*). Of the two possibilities we prefer the second, for — according to our opinion — there really exists no safe documentary evidence of the Mycenaean substitute for the proto-Greek suffixal *-ti*(—) or for the heteromorphemic *s-s, t-s, d-s*, as well as for the homomorphemic *t(h)j* still being at that time different from the value *s*. In our opinion, the Mycenaean *h* was therefore most likely an independent phoneme, even if of rare occurrence and with the perspective of an early liquidation.[31]

b) Sibilants

The Mycenaean *s*, which was the continuation of the proto-Greek *s*, and which very likely also represented by that time the substitute for the *t* of the proto-Greek suffixal *-ti*(—), as well as the substitute for the heteromorphemic *s-s, t-s, d-s* and for the homomorphemic *t(h)j*, was probably not the only Mycenaean sibilant. Besides

signs of the S-series, we meet in Mycenaean also with signs of the so-called „Z-" series, the phonetical value of which is subject to controversion. The author attempted a new analysis of the whole problem in his recent article „The Phonic Evaluation of the S- and Z- Signs in Mycenaean", SPFFBU E9 (1963), 89—102, and the results arrived at therein are briefly as follows:

α) From the historical standpoint, signs of the Mycenaean Z- series can mask either some proto-Greek palatalized dental or velar („inter-morphemic" *t(h)j*, any *dj*, *k(h)j*, *gj*), or phonic groups $k^{(w)}i$, *gi* before a succeeding vowel, or finally the initial *j-* and maybe also *tw*. For this reason the view was at times expressed that the Mycenaean Z- itself covers some „palatalized consonant intermediate between *δ* and *γ*" [*Palmer*;[32] similarly *Scherer*[33]]. Considering the above-mentioned variety of the phonetic character of phonic formations that are supposed to have been the sources of the phonological content of the Mycenaean „Z-", this interpretation, however, does not appear to be fully justified, at least respecting the period of the preserved Mycenaean documents.[34]

β) In alphabetic Greek the phonic formations quoted sub *α*) (excluding phonic groups of the type $k^{(w)}i$ + vowel, *gi* + vowel), find their graphic counterparts mostly in signs *ΣΣ* (for the voiceless formations) or Z (for the voiced ones). A sibilant interpretation seems acceptable also for the Mycenaean Era, especially in regard to the fact that the Mycenaean spelling does not differentiate the above-quoted dental and velar phonic formations any more from each other.

γ) From what was said sub *α*) and *β*) it may at the same time be concluded that „Z-" spelling masks both phonic formations that had been originally voiced and those that were voiceless at the time. This is in full accord with the principle of Mycenaean spelling to reproduce with signs of one series both voiced and voiceless consonants (the only exception is the series of dental explosives; see above sub B 3b). Thus nothing can hinder us in taking two consonants into consideration when meeting the Mycenaean „Z-".

δ) Apart from this, however, the inter-morphemic *t(h)j* and any sort of *k(h)j*, and perhaps also *tw*, may be also reproduced with signs of the S- series. We must not forget, nevertheless, that this practice is not observed in respect to the „hiatus" group $k^{(w)}i$ + vowel, and for this reason we may take here the said spelling for a special one, its origin probably being the following: the Mycenaean substitute for the inter-morphemic *t(h)j* and any sort of *k(h)j*, and perhaps also for *tw*, may have been shifted — very likely just in connection with the accomplishment of the new „hiatus" assibilation, which will be discussed sub *ε*) — in the course of time to a position comparatively near the phone *s*, so that people ceased associating it with its palatalization origin, which kept linking it for a long time — maybe partly just through the mediation of the „Z-" spelling — with the substitute for proto-Greek *dj*, *gj*, *j-*; even the latter got very likely shifted in the same direction, i. e. towards the articulation *z*, in the course of time, but because phone *z* did not exist in Mycenaean as an independent phoneme and had not its own special spelling-series, the substitute for proto-Greek *dj*, *gj*, *j-* kept being consistently reproduced with the traditional spelling for substitutes of palatalized velar and dental explosives, i. e. with the signs of the „Z-" series.

ε) In contrast to it, the rather late affricate substitutes for phonic groups $k^{(w)}i$ + + vowel and *gi* + vowel are always in our Mycenaean texts reproduced with the „Z-" spelling; this concerns even the former of the two substitutes, i. e. the voiceless one, for its pronunciation was then — in contrast to that of the voiceless substitute

discussed sub δ) — very likely not close enough yet to the articulatory position of *s* to be definitely dissociated from its own palatalization origins, and thus to enable the S- spelling to assert itself also in the reproduction of the substitute for the "hiatus" group $k^{(w)}i$ + vowel. — Let us add that from the phonemic point of view the substitutes for original $k^{(w)}i$ + vowel and *gi* + vowel — which may have been pronounced at the times of the preserved Mycenaean documents as *tʃ* and *dʒ* — were probably, at least at the beginning of their existence, mere combinatory variants of phones *k*, *g* (cf. B 3c).

ξ) The certain medial position of the Mycenaean substitute for the inter-morphemic *t(h)j*, for any *k(h)j*, and maybe also for *tw* — i. e. the assumed position of this substitute between *s*, on the one hand, and the alluded to *tʃ* arisen from $k^{(w)}i$ + + vowel, on the other hand — is most likely to attribute this substitute the affricate character *ts*, whereas the then existing substitute for proto-Greek *dj*, *gj*, *j* may analogically be ascribed the phonetic character of *dz* — in contrast to the probable *dʒ*-substitute for *gi* + vowel.

η) Phonetic values *ts* and *dz* behaved to each other as independent phonemes, as we can judge from their occurrence in precisely the same position in a word (cf. ka-zo-e = *katso(h)es* < **kakjohes* and me-zo-e = *medzo(h)es* < **megjohes*).

Thus in the matter of Mycenanean sibilants we are not one with *Vilborg*. He speaks only of *s* and *z*, while a more thorough analysis of these problems suggests the existence of three independent phonemes: they probably are *s*, *ts*, and *dz*. Here we approach closely *Lejeune's* view;[35] he, however, only pointed to the possibility of a double character of the substitute masked by Mycenaean „Z-", i. e. the voiced and the voiceless one, but he did not draw phonemic conclusions from it. On the other hand, *Lurja*'s standpoint, quoted above sub B 3b, is not satisfactory, for even though Lurja found for Ventris's and Chadwick's „Z-" series a new designation by naming it C- series (i. e. attributing to it approximately the value *ts*), his view was again onesided inasmuch as he stressed only the voiceless consonantal value hidden under the signs of this series.

The Mycenaean consonantal subsystem comprised therefore very likely 22 phonemes at least, and its scheme would probably look as follows:

p	t	k	k^w	j	w	h	s	ts	r	l	m	n
b	d	g	g^w					dz		⟨ll?⟩		
ph	th	kh	k^wh									

When comparing to Vilborg, we have therefore included one fricative more, whereas we have left our again the combinatory variant η.

When trying to compare this system of ours to analogical systems in Classical Greek dialects, it must be stressed first of all that in the case of Mycenaean we deal with a very archaic system, still preserving a number of phonemes that are no more present in Classical Greek, such as the labiovelar phonemes k^w, g^w, k^wh, further phoneme *j*, and also phoneme *h* — that is as long as we take, in accord with what we have said before, the Classical Greek *h* for one of the two possible signals of the vocalic opening of a word. In contrast to a number of Greek dialects of the Classical Era (above all in contrast to the Attic-Ionic dialects and to the Aeolic of Asia Minor) also the position of *w* is firmly established in this system. When compared to the Attic-Ionic and Aeolic dialects as well as to some others (e. g. Argolic, or the later stages of Elean, Laconian, and Central Cretan), Mycenaean had in addition preserved *dz* (in some of the enumerated dialects *dz* changed into *z-d* by metathesis, while in

the rest it was transformed into *dd*).[36] On the basis of this rough but essentially complete differential enumeration we could draw the conclusion that all the differential consonantal features which separate Mycenaean from the Greek dialects of the Classical Era indicate a mere preservation of an archaic situation, without supplying us as yet with any direct support of the frequently repeated view of a close kinship of Arcadian-Cypriote and Mycenaean, but neither may we say that it positively refutes this view.

* * *

Let us finish by stating that our present attempt to give a phonemic analysis of Mycenaean Greek has led us to a sketch of the Mycenaean vocalic and consonantal subsystems, which, to be sure, does not greatly differ from a similar sketch offered by Vilborg, but which, nevertheless, tries, as we believe, to add — in some respect at least — to the precision of the latter's work. At the same time our discussion showed us that also from the point of view of a complex phonemic analysis of the Mycenaean phonology Mycenaean Greek appears to be a very archaic dialect, which was different — sometimes more and sometimes less — from all the other Greek dialects of the Classical Era.

NOTES

[1] By „Classical Greek" we mean here the pre-Hellenistic Greek of the 1st mill. B. C.

[2] S. J. Lurja, Jazyk i kultura mikenskoj Gretsii, Moskva 1957, pp. 43 sqq.

[3] Sometimes the sign No. 43 is transcribed as A_3; see M. Lejeune, Observations sur le signe 43 (ai), Études Mycéniennes, Paris 1956, pp. 39—50 = M. Lejeune, Mémoires de Philologie Mycénienne I, Paris 1958, pp. 93—107; it is perhaps true that the value *ai* is hardly to be accepted as the original value of the sign No. 43 (cf. E. Vilborg, o. c. 26), but it is also true that No. 43 has mostly the value *ai*, the *a*-examples being uncertain (cf. E. Vilborg, o. c. 31).

[4] S. J. Lurja, o. c. 175 sqq.; cf. also his article Obzor novejšej literatury po grečeskim nadpisjam mikenskoj epochi, Vest. drev. ist., 1957, 3, pp. 196—213.

[5] As for the problems connected with the Boeotian monophthongization of *ai*, see M. S. Ruipérez, Esquisse d'une histoire du vocalisme grec, Word 12 (1956), 67—81, and also A. Bartoněk, The Boeotian and Thessalian Narrowings of Long Vowels: a Comparative Study, SPFFBU A 10 (1962), 167—179.

[6] S. J. Lurja, o. c. 47 sq.

[7] V. Georgiev, Issledovania po sravniteľno-istoričeskomu jazykoznaniu, Moskva 1958, p. 74.

[8] The sign ^ denotes here the possibility of *ê* being either long *ē* or having some diphthongal character.

[9] E. Vilborg, o. c. 41.

[9a] E. Vilborg, o. c. 42.

[10] Cf. E. Schwyzer, Griechische Grammatik I, München 1950, p. 199, 348; of IE. origin is *ui* — according to Schwyzer — only in *vĭ(ϝ)oς*, *vĭ(ϝ)ι*.

[11] This is Merlingen's interpretation of the Mycenaean -a-i, -o-i in the function of the Dat. Plur. (see W. Merlingen, Bemerkungen zur Sprache von Linear B, Wien 1954, pp. 27 sqq.), accepted also — among others — by V. Pisani, Die Entzifferung der ägäischen Linear B und die griechischen Dialekte, Rhein. Mus. 98 (1955), 1—18, M. Ventris—J. Chadwick, Documents in the Mycenaean Greek, Cambridge 1956, p. 85, V. Georgiev, La *κοινή* créto-mycénienne, Ét. Myc. 178—188, A. Scherer in Thumb's Handbuch der griechischen Dialekte, Heidelberg 1959, p. 341, whereas another group of scholars interprets the said Linear B spelling as *-ois*, *-ais*, e. g. E. Risch, La position du dialecte mycénien, Ét. Myc. 167—172, C. J. Ruijgh, Les datifs pluriels et la position du mycénien, Mnemosyne 11 (1958), 97—116, and perhaps also E. Vilborg, o. c. 56 sq.

[12] When dealing with the *u*-diphthongs, the same is true about their position before *r*; in this case the *u*-element of the diphthong is expressed by the means of the W-sign having the vocalic quality of the next syllable; see, e. g., ra-wa-ra-ti-ja = Lauranthia?

[13] See E. Schwyzer, GG I 348, Zusatz 4.

[13a] Cf. E. Vilborg, o. c. 40, 42, 144, 150; a detailed analysis may be found in the quoted A. Bartoněk's study, published in Minos.

[14] The sign No. 43 alternates here, of course, with A (occasionally) or with A-I- (exceptionally); see p. 197.

[15] Cf. A. Bartoněk, Zur Problematik der phonematischen Wertung der altgriechischen Diphtonge, SPFFBU E 5 (1960), 85—88.

[16] See A. Bartoněk, Remarks to the Chronology of the *ei*, *ou* Monophthongization in Greek, SPFFBU E 6 (1961), 135—146.

[17] The sign < > denotes phonemes, the existence of which is not quite certain.

[18] This problem was very thoroughly examined by D. A. Hester, The i/e Alternation in Mycenaean Greek, Minos 6 (1958), 24—36, the said alternation being — according to the author — for the most part due to the influence of the pre-Greek substratum.

[19] There is also another alternation, i. e. between U and I in Mycenaean; see, e. g. E. Vilborg, o. c. 41, Note 2; 42, Note 1—2.

[20] M. S. Ruipérez, o. c. 68.

[21] See A. Bartoněk, The Problem of the Primary and Secondary *ē*, *ō* in Ancient Greek Dialects, Charisteria Francisco Novotný oblata, Praha 1961, 79—92.

[22] M. Ventris—J. Chadwick, Evidence for Greek Dialect in the Mycenaean Archives, JHS 73 (1953), 91.

[23] M. Ventris—J. Chadwick, e. c.

[24] E. Vilborg, o. c. 44.

[25] M. Ventris—J. Chadwick, Documents in Mycenaean Greek, Cambridge 1956, p. 77.

[26] V. Georgiev, Das Problem der homerischen Sprache im Lichte der kretisch-mykenischen Texte, Minoica und Homer, Berlin 1961, p. 11; cf. also V. Georgiev, Issledovania 64.

[27] See C. Gallavotti, Il carattere eolico del greco miceneo, Riv. di Fil. Class. 36 (1958), 113—133.

[28] Cf. A. Bartoněk, Vývoj konsonantického systému v řeckých dialektech (= Development of the Consonantal System in the Ancient Greek Dialects, Praha 1961, pp. 51 sqq., 143 sqq.

[29] S. J. Lurja, o. c. 50 sqq.

[29a] This holds good, provided we do not see pure fricatives in the Mycenaean *j*, *w*.

[30] Concerning the terms homomorphemic and inter-morphemic *-t(h)j-* see W. S. Allen, Some Problems of Palatalization in Greek, Lingua 7 (1958), 113—133; the original homomorphemic *-t(h)j-* was in Ionic *ὅσος*, *τόσος*, *πόσος*, *μέσος*, *πρόσω*, *ὀπίσω*, the original inter-morphemic *-t(h)j-* e. g. in *ἐρέσσω*, *μέλισσα*, *κρέσσων*. As for the whole theory of the two types of proto-Greek *-t(h)j-*, see already E. Risch's article Die Gliederung der griechischen Dialekte in neuer Sicht, Mus. Helv. 12 (1955), 61—76. See also A. Bartoněk, Vývoj 62 sqq., 148 sqq.

[31] See also A. Bartoněk, Vývoj 44 sqq., 141 sqq.

[32] L. R. Palmer, Observation on the Linear B Tablets from Mycenae, Bull. of the Inst. of Class. Stud. of the Univ. of London 2 (1955), 36—45.

[33] A. Thumb—A. Scherer, Handbuch der griechischen Dialekte II[2] 334.

[34] J. Chadwick, La réprésentation des sifflantes en grec mycénien, Ét. Myc. 83—91.

[35] M. Lejeune, Les sifflantes fortes en mycénien, Minos 6 (1958), 52—104.

[36] See A. Bartoněk, Vývoj 69 sqq., 150 sqq.

NÁSTIN HLÁSKOVÉHO SYSTÉMU MYKÉNSKÉ ŘEČTINY

Autor upozorňuje na závažný nedostatek, že doposud nebyl proveden žádný pokus o stanovení počtu mykénských fonémů, a pokouší se takový pokus podniknout. Dochází k závěru, že mykénština měla trojstupňový trojúhelníkový systém jak u krátkých, tak u dlouhých vokálů (přičemž není vyloučeno, že se v ní k systému dlouhých vokálů družily tři monofonémické diftongy, totiž *ai*, *ei*, *oi*) a že měla nejméně 22 fonémů konsonantických (mezi nimi byly nejméně tři afrikátně-sibilantní kontinuanty, totiž *s*, *ts*, *dz*). Z hlediska svého hláskového systému se nakonec mykénština jeví autorovi jako dialekt velmi archaický, který byl opravdu podstatně — i když tu o něco více a jinde o něco méně — odlišný od všech řeckých dialektů doby klasické.