

## RECENT DEVELOPMENTS IN MEDITERRANEAN «SUBSTRATE» STUDIES

### A. INTRODUCTION

The Minoan civilisation, arising like Aphrodite from the sea to our startled eyes at the beginning of this century, continues to present us with many unsolved problems. In particular, to those who disbelieve in supernatural births, the search for a legitimate parentage is of the first importance. The archaeologist has no doubt much to contribute; if any of the current attempts to decipher Linear A should prove itself soundly based this could help even more. The present paper has a far more restricted object; to bring to the notice of students of Minoan the various opinions which have been held about the linguistic background of Crete, and of the Aegean and Mediterranean world in general, and also to discuss how far these theories have been modified in the light of modern extensions of knowledge. It will not therefore concern itself with the attempted interpretations of Linear A by S. Davis, C. R. Gordon, L. R. Palmer<sup>1</sup>, and W. M. Pope, but rather with the more general question of how much we know about the languages in the Mediterranean area during the second millennium B. C. which have not survived but have left scanty traces in other languages.

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<sup>1</sup> Readers may, however, be interested in the attempts of J. Zafiropoulo, *Histoire de la Grèce à l'âge du bronze*, Paris 1964, pp. 34-41, to meet difficulties in the Luwian theory. He accepts Palmer's equation of the Luwians with 'Minyan' pottery (and hence with the invasion of Greece c. 1900 B. C. usually ascribed to the Greeks) and also the evidence for bringing Luwians to Crete. Crete however has only one sherd of Minyan pottery (clearly imported) and no convenient major cultural break. Zafiropoulo's solution lies in postulating a double Luwian invasion of Crete; the first invasion c. 2200 B. C., before the Luwians had started using Minyan pottery, the second c. 1700 B. C., after they had stopped using it. The similar culture of the two invasions accounts for the lack of a clear break c. 1700. For another new theory based on Palmer's dating but rejecting his Luwians see J. Alsop, *From the silent earth*, New York 1964, especially pp. 168-170, 235.

The study of such «survivals» is of course beset with particular difficulties. The most enduring element is the place-names, which have in addition the advantage that they provide geographical and, to some extent, chronological data as well as linguistic data. But their very permanence increases the chance of several different strata being inextricably superimposed, and their great disadvantage linguistically is the lack of semantic control. Vocabulary words carry their meaning with them (possibly somewhat distorted) but encounter other difficulties, the greatest one being the problem of deciding which words belong together in which linguistic group when they are not attested in the same text; the danger of a «vicious circle» is always present, the composition of a group being determined by theories of its nature and *vice versa*. In my discussion I shall classify the suggested linguistic groups by their postulated extent but also make clear how much they rely on place-names and how much on vocabulary words; I shall not attempt a complete bibliography but shall give references to recent works with comprehensive bibliographies, from which the reader can easily compile his own bibliography.

#### B. THE «AEGEAN» PLACE-NAMES

This is the earliest, best-known, and most «respectable» of the substrate theories; in its developed form it first appeared in P. Kretschmer's famous *Einleitung* in 1896<sup>2</sup> and its chief modern advocate is F. Schachermeyr<sup>3</sup>. The theory contains two basic assumptions that can be taken separately; that the place-names in the Aegean area with *-nth-* and *-ss-* suffixes belong with other less clearly defined place-names to a linguistic stratum which existed before the Linear B tablets; and that this stratum was related to the non-Indo-European language(s) of Anatolia, as shown in particular by the *-nd-* and *-ss-* place-names common in Asia Minor. Other deductions can be made (e.g. that this

<sup>2</sup> For further references see my articles in *Lingua* 13-4 (1965) pp. 337-8 and 18.2 (1967) p. 171.

<sup>3</sup> His fullest treatments are Pauly-Wissowa *RE* 22.2 cols. 1494-1548 and *Die ältesten Kulturen Griechenlands*, Stuttgart 1955, pp. 227-263; his latest *Die minoische Kultur des alten Kreta*, Stuttgart 1964, pp. 228-267, and «Agäis und Orient», *Österr. Akad. der Wissens., Denks., Phil.-hist. Klasse* 93, Vienna 1967, pp. 12-18.

language is represented in the Linear A tablets<sup>4</sup>) but these are not basic to the theory.

The first of these assumptions was tested in my article in *Revue hittite et asianique*<sup>5</sup> in which I demonstrated that place-names with sufficiently distinctive suffixes (-*nth*-, -*rn*-, -*mn*-, -*tt*-, -*nd*-) also show a distinctive root pattern, i.e. a strong preference for open syllables and in particular an almost total absence of medial consonant groups beginning with a stop. The -*ss*- and -*nt*- names were less distinctive and the alleged single-letter suffixes not distinctive at all. Schachermeyr mentions my article with approval but has not made use of it to prune his list of names, which is certainly overinflated in its range of suffixes and possibly so in its geographical extent.

The second basic assumption will be rejected by those who believe (with Palmer) in an Anatolian migration to Greece and Crete by Indo-European speakers bringing their place-names with them. If the first Indo-European speakers in Greece and Crete were the Greeks who arrived c. 1900 (the majority view) the postulated connexion is pushed back to before 1900 B. C. and becomes non-Indo-European. But here the classical scholar relies on the Anatolian specialist. Are the Anatolian names attested early enough? are they explicable by the patterns of the languages in which they occur, or are they foreign to these languages? Recent articles have not, on the whole, been favourable to Schachermeyr's theory; the account of E. Bilgiç<sup>6</sup> which set back the -*ss*- and -*nt*- names of the Cappadocian tablets to a «Proto-Luwian» non-Indo-European stratum, is challenged by H. Kronasser<sup>7</sup>, who maintains that these tablets are in fact our earliest source for the place-names, thus separating them from the Hittite-Luwian material (especially the Luwian -*ass*- suffix) with which they have been associated. He had already<sup>8</sup> assigned *Parnassos* (analysed as *p-arn-ass-os*, cf. *Larnassos*) to a different —prefixing— speech

<sup>4</sup> See *Die minoische Kultur*, pp. 253-262.

<sup>5</sup> 61 (1957) pp. 107-119.

<sup>6</sup> *AfO* 15 (1945) pp. 1-37.

<sup>7</sup> *Etymologie der hethitischen Sprache* 1, Wiesbaden 1966.

<sup>8</sup> In *Indogermanica, Festschrift W. Krause*, 1960, pp. 51-62.

with Luwian and Greek suffixes added<sup>9</sup>. Furthermore E. Laroche<sup>10</sup> points out that some of the Hittite-Luwian names are explicable throughout as Indo-European, others are inflected as Indo-European and should not be labelled «proto-Luwian» (this latter point seems rather a dispute about terminology, as all the Greek *-ss-* names and most of the *-nth-* names belong to the commonest Greek declensions); also he asserts that the identity of the *-nt-*, *-nd-*, and *-nth-* suffixes has been stated rather than proved<sup>11</sup>. R. Crossland<sup>12</sup> stresses the difficulty of equating Anatolian *-ss-* with names that show a *-tt-* variant in Attica and Boeotia. Finally, my own researches have put the *-ss-* names under a cloud. Further investigations will no doubt help to elucidate these problems, but in the meantime the Anatolian situation seems more complex than the theory allows and the Anatolian-Aegean link hypothetical at best. Still more hypothetical are further speculations on the dating of the Anatolian-Aegean stratum, which Schachermeyr believes to be neolithic and not early Bronze Age as the older view had it, its further relationships, and the language of Linear A<sup>13</sup>.

<sup>9</sup> For a possible Luwian-Cappadocian separation cf. also A. Kammenhuber, *Das Altertum* 4 (1958) pp. 131-141.

<sup>10</sup> Μνήμης χάριν, *Gedenkschrift P. Kretschmer* 2 (1957) pp. 1-7; *RHA* 19. 69 (1961) pp. 57-94.

<sup>11</sup> Cases do occur of apparently the same name (though applied to different places) being attested in both *-nd-* and *-nth-* forms (e.g. *Larynthios*: | *Laranda*, *Pyranthos* | *Puranda*, *Oiantheia* | *Oianda*, *Linthos* | *Linda*, and perhaps also *Labyrinthos* | *Labra(u)ndalist* from Schachermeyr), but before these can be taken to prove the identity of the *-nd-* and *-nth-* suffixes two other possibilities must be ruled out; that the similarities are the result of chance; and that people to whom the *-nth-* suffix was normal, on encountering a *-nd-* name, 'normalized' it by changing the suffix (the reverse transfer is also possible). I do not see how these possibilities can be ruled out.

<sup>12</sup> *Atti e memorie del 7.º Congresso internaz. di Scienze Onomastiche*, Firenze 1963, 1 pp. 375-6.

<sup>13</sup> It may however be pointed out that the Linear A script, if functioning in the same way as Linear B, would be particularly suited for writing names consisting mainly of open syllables. On the other hand, the medial consonant groups found in the names are those which Linear B does not write; and the palatalized and labialized signs of Linear B (*rja*, *rjo*, *tja*, *nva*, *twe*, *dwo*, etc.) seem (*pace* Schachermeyr) far more likely to reflect the peculiarities of the Linear A language than to have been

## C. «MOTS VOYAGEURS»

Also widely accepted is the theory of A. Meillet<sup>14</sup> and A. Cuny<sup>15</sup>, who demonstrated that certain 'cultural' words (e.g. μόλυβδος / *plumbum*, ὑάκινθος / *vaccinium*, κυπάρισσος / *cupressus*, μίνθος / *menta*, ρόδον / *rosa*, λείριον / *lilium*, σῦκον / *figus*, φοῖνος / *vinum*, ἐρέβινθος / *ervum*, θώραξ / *lorica*, μύρμηξ / *formica*) occur in both Indo-European languages and non-Indo-European languages (especially Semitic) without apparent etymology in any of the languages in which they occur and in a form which usually rules out borrowing from one of these languages into others<sup>16</sup>. These words presumably come as common loans from some other language(s) not otherwise attested. The name most often applied to them is «Mediterranean», but this is confusing because of other «Mediterranean» theories for which see below; the obvious link is rather with «Aegean», but as they do not stand or fall together with the «Aegean» theory, a non-committal term is probably best. As is to be expected in view of the different natures of vocabulary and place-name material, the association of these words is both more convincing and less helpful than that of the place-names. Coincidence does seem to be excluded. But what is the origin of the words? Have they, indeed, any common origin?

The first statement of this theory was before the decipherment of the Anatolian languages; it is therefore reassuring that the decipherment has strengthened rather than weakened the theory, several of the words turning up in Hittite without Hittite etymologies<sup>17</sup>. Of course a common origin in a known language cannot

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added for the purpose of writing Greek; Greek can well dispense with them and in fact often does, writing *ri-ja*, *nu-wa* etc.; on the other hand, the existing Linear A corpus is too small to enable deductions to be drawn from the non-appearance of rare signs. If this is so, the lack of evidence for palatalized or labialized consonants in the Anatolian names is a serious obstacle; on the other hand, the transmission of the names into Greek would presumably have eliminated such evidence, unless indeed the *-ss-* / *-tt-* alternation is evidence for an original *-tw-*, which would not help the Luwian link (J. Chadwick).

<sup>14</sup> *MSL* 15 (1908-9) pp. 161-4.

<sup>15</sup> *REA* 12 (1910) pp. 154-164.

<sup>16</sup> For further references see *Lingua* 13.4 (1965) p. 339, 18.2 (1967) pp. 171-2.

<sup>17</sup> See E. Benveniste, *BSL* 50 (1954) p. 43; E. Laroche, *BSL* 51 (1955) p. xxxi-xxxiv.

always be completely ruled out, and Laroche is right in warning against abuses of the theory. R. Lafon<sup>18</sup> who introduces dubious evidence from Georgian, and J. Huber<sup>19</sup> who gives a very long list of 'culture-words' which may be for the most part totally unrelated, may be guilty on this count.

#### D. «MEDITERRANEAN»

The «Mediterranean» theories have been many and various, and are particularly hard to classify; perhaps the simplest classification is 'exuberant', i.e. containing the maximum of material and the minimum of method<sup>20</sup> versus 'restrained', i.e. attempting to classify the material and to reject some of the more dubious in order to make the remainder more convincing<sup>21</sup>. Unlike the two theories already mentioned, these theories include both place-name and vocabulary material of very wide extent both geographically and temporally, and by comparing vocabulary words with names risk getting the worst of both methods, abandoning the semantic control while leaving the geographical position vague. The following material is common to most theories of this type:

1. Basque.
2. The various Caucasian languages.

The relationship of Basque to Caucasian is fundamental to most Mediterranean theories (not, however, to Capovilla)<sup>22</sup>. But the difficulty of bringing the Caucasian languages themselves together is very great, and the alleged similarities between them and Basque are regrettably unsystematic<sup>23</sup>.

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<sup>18</sup> *REA* 36 (1936) pp. 32-46.

<sup>19</sup> *Commentationes Aenipontanae* 9, 1921.

<sup>20</sup> E. g., H. Lahovary, *La diffusion des langues anciennes du Proche-Orient*, Berne 1957; G. Capovilla, *Praehomerica et Praeitalica*, Rome 1964.

<sup>21</sup> E. g., G. Ivănescu, *Studia et Acta Orientalia* 1 (1957) pp. 199-231; J. Hubschmid, *Mediterrane Substrate*, Berne 1960. For further references see *Lingua* 13.4 p. 338. Capovilla's bibliography is particularly full.

<sup>22</sup> For arguments in favour of it see, e. g., N. M. Holmer, *Studia Linguistica* 1 (1947) pp. 11-44; K. Bouda, *Baskisch-kaukasische Etymologien*, Heidelberg 1949; R. Lafon, *Word* 7.3 (1951) pp. 227-244, 8.1 (1952) pp. 80-94.

<sup>23</sup> For arguments against the relationship see H. Vogt, *BSL* 51 (1955) pp. 121-147,

3. Etruscan.
4. Words common to various Romance languages but not derived from Latin (Capovilla's «Praeitalica»).
5. Various fragmentary inscriptions, especially in Sicily.
6. Glosses.
7. Place-names.
8. Personal names, especially of gods or heroes.

«Optional extras» are:

9. Apparently non-Greek material in Linear B (Capovilla's «Praehomerica»).
10. Dravidian (Lahovary).
11. Sumerian, Elamite, etc. (Ivănescu as uncertain; Lahovary).
12. Hattic, Hurrian, etc. (Ivănescu, Lahovary), etc., etc.

The use made of the material and the nature of the theories put forward also varies greatly. A long exposition would be tedious; it is however interesting that Western (especially Italian) scholars stress the rôle of Basque and the Romance elements, preferring «Mediterranean» or «Basco-Caucasian» as a name for the group; Eastern scholars stress the Caucasian elements, preferring «Japhetic» (the name is analogous to «Semitic» and «Hamitic»). At one stage indeed «Japhetic» threatened to replace Hebrew as the original common language of the world, but Ivănescu repudiates such extreme views. Common to all treatments are a suspicious disregard for systematic phonology (Ivănescu considers that the Indo-European comparative method is inappropriate in such a field, and Lahovary's phonological table on p. 61 is little more than a list of the random variations he is prepared to allow himself in each language, the basic phonology of all the languages being the same or nearly so). Of the many

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*Norsk Tidsskrift for Sprogvidenskap* 17 (1954) pp. 537-549, 20 (1965) pp. 28-37 especially 36-37. I owe these references to W. S. Allen.

blunders which have called down the wrath of reviewers<sup>24</sup> one instance I myself noticed will suffice; Lahovary's list<sup>25</sup> of North Dravidian numerals from 5-10 runs «*pan, shesh, haft, hash, noh, dah*»; he is prepared to admit the 'possibility' of borrowing from Indo-European for *pan*, *noh*, and *dah* only. Of course this is an extreme example and there are also far more rational and restrained treatments of parts of the material; for example, the Sicilian evidence is critically examined by U. Schmoll<sup>26</sup> and still more critically by O. Parlangèli<sup>27</sup>. The possibility that some of the material put together actually belongs together cannot be ruled out and indeed is very likely, but the amount of wheat among the chaff is probably too small to be worth the sifting, especially as a suitable sieve is difficult to design. So even my original classification of articles fails; in a hopeless quagmire the rash and the rational sink together.

#### E. «OLD-EUROPEAN»

This 'substrate' is included for the sake of completeness, although its postulated main area is continental Europe from the British Isles to the East Baltic coast and from Scandinavia to the Alps, with secondary penetration further south, especially into Italy and Southern France. Its creator and chief advocate is H. Krahe. His fullest treatment is in the early issues of *BzN*;

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<sup>24</sup> E. g., J. André, *BSL* 56 (1961) pp. 76-78 (Hubschmid); J. H. Betts, *Cl. Phil.* 62 (1967) pp. 69-71 (Capovilla); J. Davison, *Erasmus* 18 (1966) pp. 167-170 (Capovilla); A. Heubeck, *Gnomon* 37 (1965) pp. 514-5 (Capovilla); D. M. Jones, *CR* 17 (1967) pp. 184-5 (Capovilla); Y. Malkiel, *Language* 38 (1962) pp. 151-185 (general); H. H. Paper, *Language* 34 (1958) pp. 555-8 (Lahovary); M. Agud Querol, *Emerita* 30 (1962) pp. 321-3 (Hubschmid); J. Raison, *REG* 79 (1966) pp. 774-5 (Capovilla); K. H. Schmidt, *IF* 67 (1962) pp. 89-91 (Lahovary); O. Szemerényi, *Romance Philology* 17.2 (1963) pp. 404-418 (general); J. Untermann, *IF* 67 (1962) pp. 298-303 (Hubschmid). Ivănescu seems to have been totally ignored, whether because of the inaccessibility of his article or his use of the discredited term «Japhetic»; but there may be reviews of him I am not aware of.

<sup>25</sup> *Op. cit.* pp. 130-1.

<sup>26</sup> *Die vorgriechischen Sprachen Siziliens*, Wiesbaden 1953.

<sup>27</sup> *ΚΩΚΑΛΟΣ* 10-11 (1964-5) pp. 211-58.



he has also written many books on the subject<sup>28</sup>; but the most convenient summary of his theory is in three articles<sup>29</sup>. The last contains the clearest synopsis; the river-names of Northern and Central Europe are largely derived from an Indo-European language which existed before 1500 B. C., after the first division of the Indo-European group but before the development of the individual languages of Europe. It cannot be equated with either common Indo-European or any of its derived families (Celtic, Italic, etc.); rather it forms a bridge between these two stages. Its characteristics are largely those found in the later West European languages (i.e. Celtic to Baltic); how far it can be equated with common West-European is not altogether clear, the position of the Baltic languages being especially difficult.

How can we tell which names belong to this language? Principally by a recurring pattern of roots and suffixes; a table is given<sup>30</sup> showing that the roots *Aga, Aisa* | *Isa, Ala, Alba, Ara, Arga, Ava* | *Avos, Drava* | *Dravos, Kara* | *Karos, Pala* | *Pola* | *Pela, Sala, Sara* | *Sora* | *Sera* | *Saros, Sava* | *Savos, Tara* | *Taros, Vara* | *Vera* | *Varo*, and *Visa* are frequently found either alone or compounded with one or more of the suffixes *m, n, r, nt*, and *s* (*st, k*, and *t* are rarer); the majority of the possible combinations of root and one suffix actually occur, and Krahe is rather apologetic about those that do not. Doubts may be created by the almost mathematical precision of the morphology, which seems neater than that of any known language when it is considered that the suffixes seem to have no semantic function, and also by the non-distinctive character of both roots and suffixes. The fact that the phonology *ex hypothesi* closely resembles that of the later Indo-European languages of the same area is not reassuring, nor is its nature; the only clear rules are that Indo-European voiced aspirates become voiced stops and *\*o* becomes *a*, but as the 1959 article shows there are cases in the South where the initial voiced aspirates become *f* (apparently a dialectal division within

<sup>28</sup> E. g. *Unsere ältesten Flussnamen*, Wiesbaden 1964.

<sup>29</sup> In *Mainzer Akad. der Wiss. Abhand. der geistes- u. nd sozialwiss. Klasse* 1957.1 pp. 103-21, 1959.1 pp. 3-24, 1962.5 pp. 285-341.

<sup>30</sup> *Op. cit.* p. 296.

Old-European, as doublets occur with both treatments, though there is no clear linguistic boundary) and in the North names occur with or without the Germanic soundshift (attributed to different times of borrowing, as are doublets which show *o* as well as *a* from original \**o*). This tendency to develop dialects suggests disturbing parallels with the languages listed below, which have not found wide acceptance although their phonology is far more detailed than that of Old-European; are we not again relying on mere 'look-alikes'? The theory does not seem well enough established to justify the attempts made to extend the names to Spain<sup>31</sup> or to provide it with a background in anthropology ('Central European')<sup>32</sup> or archaeology ('Early Metallic')<sup>33</sup>. The difficulty of reconciling archaeological and linguistic evidence even when the linguistic evidence is much clearer than it is in the case of Old-European is well demonstrated by H. Henccken<sup>34</sup> and F. T. Wainwright<sup>35</sup>.

#### F. «PELASGIAN»

This Indo-European language, reconstructed by V. Georgiev on the evidence of vocabulary survivals and proper names in Greek, and taken up by A. J. Van Windekens, the late A. Carnoy, W. Merlingen, and O. Haas, has been fully discussed by me already<sup>36</sup>

<sup>31</sup> J. de Hoz, *Emerita* 33 (1965) pp. 15-22.

<sup>32</sup> See B. Lundman, *Studia Linguistica* 9 (1955) pp. 1-7.

<sup>33</sup> See R. Pittioni, *Anzeiger der phil.-hist. Klasse der Osterr. Akad. der Wiss.* 95 (1958) no. 16 pp. 203-228; *Propyläen Weltgeschichte*, ed. G. Mann / A. Heuss, 1, Vienna 1961, p. 277; Pittioni wisely disclaims responsibility for the linguistic argument.

<sup>34</sup> *American Anthropologist* 57.6 part 3 (1965) (= Memoir no. 84).

<sup>35</sup> *Archaeology and Place-names and History*, London 1962, especially pp. 107-112. For those who wish to pursue the study of river-names further a useful starting point is P. Lebel, *Principes et Méthodes d'Hydronomie Française*, Paris 1956, which has a very full bibliography. His pp. 205-235 make an interesting comparison with Krahe. Cf. also E. Ekwall, *English River-names*, Oxford 1928, pp. xlvi-lv. For reviews of Krahe see especially: G. Bonfante, *Paideia* 11 (1956) pp. 299-303; H. Kronasser, *Ling. Balk.* 4 (1962) pp. 5-23; F. Mezger, *ZVS* 73 (1956) pp. 122-4; A. Nehring, *Gnomon* 29 (1957) pp. 1-7; H. Rix, *IF* 63 (1957) pp. 89-93; E. Risch, *Kratylos* 5 (1960) pp. 89-90.

<sup>36</sup> My articles are in *Lingua* 13.4 (1965) pp. 335-384, 16.3 (1966) pp. 274-8, 18.2 (1967) pp. 168-178; to the references there given should be added: P. 336 fn. 5;

and there seems little point in repeating my arguments here. By comparison with Old-European it has in its favour its more precise phonology and its more limited geographical range, also its principle reliance is on vocabulary words where semantic control is possible. But it suffers from the miscellaneous nature of its vocabulary, its complicated dialects (see *G* below) and the great divergencies of opinion among its advocates. It seems necessary to once more protest against the application of the word «Pelagian» to this and indeed to almost any other hypothetical language in the Aegean area<sup>37</sup>. Kretschmer was no doubt

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Georgiev's *Issledovanija* has appeared in an Italian edition *Introduzione alla Storia delle Lingue Indoeuropee*, Rome 1966; «Pelagian» is discussed on pp. 107-119 without introducing any significant innovations; see the review by H. Kronasser, *IF* 13 (1967) pp. 97-110 especially 98-101.—P. 345 fn. 27; add to the list of Van Windekens's articles: *Orbis* 14 (1965) pp. 120-5, 15 (1966) pp. 87-9, *Die Sprache* 12 (1966) pp. 94-7, *Studi Micenei ed Egeo-Anatolici* 2 (Rome 1967) pp. 110-113.—P. 346 fn. 30; add to the list of Carnoy's articles *L'Ant. Class.* 27 (1958) pp. 305-327; also *passim* references in *REG* 69 (1956) pp. 279-289, 71 (1958) pp. 87-99, *Dictionnaire Etymologique des Noms grecs de Plantes*, Louvain 1959.—A further contributor to «Pelagian» is L. Gindin; see his bibliography in *Voprosy Jazykoznanija* 1959.5 pp. 105-114; general articles (mainly on Balkan place-names) in *Ier Congrès des Etudes Balkaniques (Sofia 1966) Communications de la Délégation Soviétique*; *Anatolijskie jazykovye elementy v drevnej toponimii juga Balkanskogo poluostrova*, Moscow 1966; «Issledovanija po drevnej top. yuga Balk. pol.» *Akademiya Nauk SSSR Inst. Russkogo Jazyka*, Moscow 1966; «Yazyk drevnejšego naseleniya juga Balk. pol.» *ibid.*, Moscow 1967 (pp. 38-42 on Pelagian, and extensive general bibliography). He is willing, unlike Georgiev, to admit the existence of non-Indo-European elements in Europe. I am indebted to him for copies of these last three articles. J. Harmatta, in *Linguistique Balkanique* 9 (1964) pp. 5-39, attempts to demonstrate a close connexion between the Pelagian and Hittite phonologies.—P. 347 fn. 31; add to reviews: Favourable: C. García Gual, *Emerita* 35 (1967) pp. 189-193; F. Hestermann, *DLZ* 75 (1954) cols. 324-6; H. Kronasser, *IF* 13 (1967) pp. 97-110 (with many reservations); I. I. Russu, *Studii Clasice* 7 (1965) pp. 109-117. Agnostic: R. Hausschild, *Die indogermanischen Völker und Sprachen Kleinasiens*, Berlin 1964, pp. 54-6; M. Mayrhofer, *Die Sprache* 10 (1964) pp. 183-4. Unfavourable: H. Krahe, *BzN* 9 (1958) p. 312; J. Pokorny, *Indogermanisches etymologisches Wörterbuch*, Berne 1950, introd. pp. 3-4 (both Krahe and Pokorny think a small number of etymologies may be correct); E. Risch *IF* 69 (1964) pp. 75-9.

<sup>37</sup> Cf. *Lingua*, *loc. cit.* p. 336 fn. 4; as examples of further attributions of the term «Pelagian» see S. N. Konda, *Buletin i Universitet Shtetëror të Tiranës*, Seria Shkencat Shoqërore, 1962. 3 pp. 181-192 (ancient Albanian), I. Thomopoulos, *Pelagica*, Athens 1912 (predecipherment Hittite etc.); see also Lochner-Hüttenbach, *loc. cit.*, pp. 135-139.

chiefly responsible, but he has had many imitators. Of the five scholars mentioned above, only Georgiev maintains a connection (based on two dubious name-etymologies) between his language and the Pelasgians of history; to Carnoy and Van Windekens the term is «purely conventional», Haas and Merlingen altogether reject it. It is interesting to compare with this the earliest and most recent articles by scholars concentrating on the literary references to the Pelasgians: E. Meyer<sup>38</sup> and F. Lochner-Hüttenbach<sup>39</sup>. They agree:

1. That before the time of Herodotus (our fullest source) the traditions concerning the Pelasgians had already become thoroughly confused.

2. That the term 'Pelasgian' is applied in three ways: to Pelasgians in the true sense of the word, to Tyrrhenians (who were not related to them, but became confused with them), or to almost any 'ancient' people or things (Meyer stressing the use of the term by the genealogists as a 'status symbol', Lochner-Hüttenbach the influence of the poets).

3. That the genuine Pelasgians were closely connected with Thessaly.

The earliest and presumably the best evidence is in Homer. The *Iliad* lists the inhabitants of 'Pelasgian Argos' among Achilles's men in the Greek catalogue (2.681) and Pelasgians from 'fertile Larisa' in the Trojan catalogue (2.840-3) led by Hippothoos and Pulaios, the two sons of Lethos, son of Pelasgos, son of Teutamides. *Odyssey* 19.177 lists Pelasgians among the seven peoples of Crete, in suspicious juxtaposition with Dorians. There are other minor references, but none of the evidence is particularly enlightening; Meyer thinks that only the Thessalian references are original and that the Pelasgians were among the elements that made up the Penestae; Lochner-Hüttenbach that many of the names given to Pelasgians by Homer and others are in fact Illyrian and that the Pelasgians were an Illyrian tribe<sup>40</sup>.

<sup>38</sup> *Forschungen zur alten Geschichte*, Halle 1892, 1.1 pp. 1-124.

<sup>39</sup> *Die Pelasger*, Vienna 1960.

<sup>40</sup> He relies heavily on Teutamides, cf. \**teuta* «people» (Oscan *touto*, Irish *tuath*, Gothic *þiuda*); the names Hippothoos and Pulaios, which suggest that Pelasgians

Both reject the idea of the Pelasgians as a widely spread pre-Indo-European nation.

In short, it should be clearly stated that the literary sources for «Pelasgians» are most unreliable, and whoever they may have been, there is no valid reason for connecting them with any known or part-known language. They are, in fact, linguistically a non-entity.

#### G. «Psi-GREEK»

A refinement of Georgiev's theory has been worked out by W. Merlingen<sup>41</sup>. He believes in the existence of Georgiev's speech, which however he calls «Akhaean», believing that some of the early references to «Achaeans» (it is not altogether clear which) refer not to Greeks but to the speakers of a non-Greek Indo-European language who once ruled the Greeks («loan-words come from a superstrate, not a substrate») and from whom the Greeks took over their name, as the French from the Franks; he also claims to have traced by the same methods as Georgiev another Indo-European language, this time a *centum* one, which he originally called (in a privately circulated work) «Old Cretan» but now «Psi-Greek», from its postulated assibilation of the Indo-European voiceless stops<sup>42</sup>; This is also a superstrate, older than «Akhaean» and probably going back to before 2000 B. C.; its centre is probably Crete, its extent very wide; its influence on «Akhaean» is very strong, most of its vocabulary words being transmitted to Greek via «Akhaean» and undergoing «Akhaean» sound-changes. Its speakers must therefore once have ruled the «Akhaeans». Its direct influence on Greek is much weaker, being seen especially in the *-ss-* place-names, which are not from Georgiev's language, as Georgiev claimed (rightly in the case of the *-nth-* names), but which show phonological evidence of direct transmission from «Psi-Greek». Merlingen refuses to make archaeological comparisons, but those who place greater reliance

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need not have Pelasgian names, are not stressed. The term «Illyrian» is itself a disputed one.

<sup>41</sup> References *Lingua* 13.4 pp. 342-3, 18.2 pp. 168-178.

<sup>42</sup> See *Eine ältere Lehnwörterschicht im Griechischen* 1, Vienna 1963, and 2, Vienna 1967.

on archaeology will probably be able to suggest cultures reflecting both «Akhaean» and «Psi-Greek» without any great effort of imagination. Merlingen also thinks he has found traces of an Asia Minor *centum* language characterized by the change of \*-nt- to -nd-<sup>43</sup> and his «Akhaean», like his «Psi-Greek», has two chronological stages, most of the words showing a change of voiceless stops to voiceless aspirates<sup>44</sup> but some not<sup>45</sup>.

The results of this method of procedure are interesting. If we summarize Merlingen's phonologies, using A for Akhaean, OA for Akhaean without the sound-shift, PSI for Psi-Greek, OPSI for Old Psi-Greek<sup>46</sup>, and ND for the Asia-Minor language we get the following Table 1.

TABLE 1

IE	Greek	A	OA	PSI	OPSI	ND
*p	π	φ	π	ψ	ψ	π
*t	τ	θ	τ	σ	σσ / ττ	τ
*k̂	κ	σ	σ	ξ	ξ	κ
*k	κ	χ	κ	ξ	ξ	κ
*k <sup>w</sup>	π	χ	κ	φ	π	π
*b	β	π	π	φ	π	π
*d	δ	τ	τ	θ	τ	τ
*ĝ	γ	σ	σ	χ	κ	κ
*g	γ	κ	κ	χ	κ	κ
*g <sup>w</sup>	β	κ	κ	φ	π	?
*bh	φ	β	β	β	β	β
*dh	θ	δ	δ	δ	δ	δ
*ĝh	χ	σ	σ	γ	γ	γ
*gh	χ	γ	γ	γ	γ	γ
*g <sup>w</sup> h	φ	γ	γ	β	β	?
*tek	τεκ	τεχ	τεκ	θιξ	τιξ	τεκ
*dhegh	δεχ	τεγ	τεγ	σιγ	σιγ	?
*sV	·	σ	σ	·	·?	?
*VsV	zero	σ	σ	zero	† h	?

<sup>43</sup> See *Studia in honorem D. Dečev*, Sofia 1958, pp. 133-140.

<sup>44</sup> *Ling. Balk.* 4 (1962) pp. 25-55, especially 38-48, 5.2 (1962) pp. 5-44.

<sup>45</sup> *Ibid.* 4, pp. 39-40, 49-50.

<sup>46</sup> See especially *op. cit.* 2, pp. 56-81.

† Lengthens preceding vowel.

It should be noted that variant forms conditioned by the context are not given, as these do not increase the number of alternatives possible in a given context. Exceptions are the last four lines, which show the effect of postulated dissimilations in two imaginary roots *\*tek-* and *\*dhegh-*, and the treatments of *s* initially before a vowel and between vowels. Only the end result in Greek is given; for postulated intermediate stages, such as IE *\*b* passing through OPSI *\*p* to A *\*ph* whence it is borrowed into Greek, readers should consult Merlingen. There are difficulties that Merlingen has not fully explained; for example, the OA reflexes of IE *\*p t k* and the OPSI reflex of IE *\*k<sup>w</sup>* must be similar enough to the OA reflexes of IE *\*bdg* and the OPSI reflex of IE *g<sup>w</sup>* respectively to be confused with them in Greek but at the same time different enough to be kept distinct from them in A. What is their phonetic nature? Of the consonants not listed in the table, *\*l m n r* are preserved in all the languages, *\*y* lost, and *\*w* has very complex reflexes.

It will be seen that Merlingen, having six phonologies to choose from, instead of the one postulated by more conservative philologists, has a magnificent range of new etymologies open to him. Or is it merely that the consonants do not count for very much? What of the vowels? Here the greatest variety comes in cases where IE has a liquid or nasal in a syllable which shows vowel gradation; in A and PSI as in Greek the reflex of the weak grade can have the vowel preceding or following the consonant. The results appear in table 2. Can it be that the vowels count for nothing?

TABLE 2

IE	Greek	A	PSI
<i>*er</i>	ερ	ερ	†† ερ
<i>*or</i>	ορ	αρ	υρ,ορ
<i>*r</i>	αρ,ρα	υρ, ορ, ιρ, ρυ, ρο, ρι	≠ ερ, ορ, αρ, ρε, ρο, ρα

†† A conditional variant; normally *\*e* becomes *ι*.

≠ There are also traces of secondary *e/o* gradations

This type of etymologizing was once summed up by Carnoy as «a collective solution of the *crucis* of Greek». Merlingen himself

stresses the simplification of Greek etymology produced by assigning 'irregular' forms to one of the new languages and thus eliminating unexplained variants. It is disquieting that irregularities occur in the new languages also, but even if we ignore them, we are entitled to ask whether this kind of 'solution' really involves fewer hypotheses than the traditional approach. A particularly interesting example is the word κυψέλη which Merlingen<sup>47</sup> derives from the same root as Boisacq and others, i.e. \*kup-; the traditional view presents the word as Greek with an -s- root extension; Merlingen postulates that the \*p becomes ψ by *Psi*-Greek phonology, that \*k does not become ξ because *Psi*-Greek dissimilates its sibilants, that the (retained) k would undergo the soundshift to χ if the word were borrowed in the usual way through Akhaean, but does not do so because the word is one of twenty or so vocabulary words borrowed directly into Greek (i.e. Old *Psi*-Greek). This suggests to my possibly over-active imagination a game I used to play as a child in which one had to change one word into another by altering one letter at a time, e.g. *dog/dot/cot/cat. Entia non sunt multiplicanda praeter necessitatem*<sup>48</sup>.

## H. CONCLUSIONS

The tentative nature of the theories discussed above does not permit any firm conclusions at this stage. As far as a *communis*

<sup>47</sup> *Op. cit.* 2, p. 60.

<sup>48</sup> For reviews of «*Psi*-Greek» Part I see P. Burguière, *REA* 67 (1965) pp. 180-2; J. Chadwick, *JHS* 85 (1965) pp. 186-7; A. Heubeck, *IF* 70 (1965) pp. 89-92; M. Lejeune, *BSL* 59.2 (1964) pp. 76-7; R. Rocher, *L'Ant. Class.* 32 (1963) pp. 693-4; C. J. Ruijgh, *Lingua* 13.1 (1964) pp. 76-81. Merlingen discusses the last five *op. cit.* 2 pp. 5-7. Reviews of part II are starting to appear; see W. Dressler, *Die Sprache* 13.1 (1967) p. 158; H. Kronasser, *ibid.* 14.2 (1968) pp. 166-177; R. Rocher, *L'Antiquité Classique* 36.2 (1967) pp. 700-701. It is interesting to note that Merlingen's views on «*Psi*-Greek» often bring him into conflict with advocates of «*Pelasgian*»; on an approximate count of etymologies (approximate because a group of etymologies assigned to one root is counted as one, and the grouping varies) he has produced 159 etymologies which do not conflict with «*Pelasgian*» (80 *PSI*, 15 *OPSI*, 33 *PSI* or *OPSI*, 31 *PSI* or some other language(s)), 72 which do (16 where only the language to which the word is to be attributed is in dispute, 56 where the root is disputed).



*opinio* can be said to exist, it is that Greek probably contains both place-names and vocabulary words which are borrowed from both Indo-European and non-Indo-European sources; and that we must proceed with caution.

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