

EVIDENCE FOR GREEK DIALECT IN THE MYCENAEAN ARCHIVES

§ I. THE PROBLEM OF THE 'MINOAN' LANGUAGE

WITH the fuller publication of the material found by Blegen at Ano Englianos in 1939 (*The Pylos Tablets*, Dr. Emmett L. Bennett, Jr., Princeton, 1951) and by Evans at Knossos in 1899–1904 (*Scripta Minoa*, Vol. II, ed. Sir John Myres, Oxford, 1952), it has at last been possible to undertake a systematic study of the Minoan–Mycenaean texts written in Linear Script *B*. Their decipherment is now the central problem in Aegean archaeology, accentuated by the discovery, in the summer of 1952, of many new tablets by Blegen at Pylos and by Wace at Mycenae.*

Evans believed that Linear *B* (first found in the L.M. II palace of Knossos, c. 1400 B.C., and thereafter the exclusive script of the Mainland down to the 'Dorian invasion') was an administrative revision of Linear *A*, designed to express the same 'Aegean' language; and that Minoan colonisation of the Mainland was responsible for its occurrence at Pylos, Tiryns, Thebes, and Eleusis.

Both views have since been discredited. Kober (*AJA* LII (1948), p. 101) and Bennett (letter 28.1.50) both believe that Linear *B* contains a new and distinct language; while a large body of opinion (Blegen, Buck, Furumark, Picard, Schachermeyr, Wace, etc.) holds that the Mycenaean civilisation was an independent adaptation of Minoan forms by Achaean Greeks, some of whom had been in southern Greece since 1900 B.C.

If so, the close correspondence between the Knossos material of 1400 B.C. and the Mycenae and Pylos tablets of 1300–1200 B.C., both in vocabulary and in personal names, must have one of three possible explanations:

1. The Mainland tablets are imports or loot from Knossos (Nilsson, *The Minoan–Mycenaean Religion*, 1950, p. 18). This can safely be ruled out.

2. Linear *B* contains a non-Greek *lingua franca* derived from Knossos as the cultural and economic centre. This does not explain the ultimate origin of this language, apparently intrusive at Knossos itself, or why its use should have survived the fall of Knossos by 200 years.

3. Linear *B* represents an early form of Greek. This is in conflict with the conventional interpretation of Minoan archaeology. Either the economic centre of gravity had already shifted to the Mainland, requiring the use of Greek as the language of commerce; or a Greek aristocracy, despite stylistic indications of Minoan continuity, was established at Knossos in L.M. II.

Bennett has suggested that Linear *B*, and its system of indicating fractional quantities, were in fact 'fashioned to agree with the economic system of the Mainland' (*AJA* LIV (1950), p. 222); and recent archaeological research, ably summarised by Helene Kantor in 'The Aegean and the Orient in the 2nd millennium B.C.' (*AJA* LI (1947), pp. 49–55), has done much to vindicate the ascendancy of Mycenae during 1450–1400 at the expense of the Cretan thalassocracy imagined by Evans. She quotes Wace's suggestion (note 176) that the Knossos Last Palace was the seat of an Achaean prince; the same view has been developed in greater detail by Dr. Stubbings (paper, Hellenic Society, 7.11.52). In the first case the final destruction is attributed to a 'Minoan' rebellion, in the second to the jealousy of another Achaean centre.

Though the historical background is obscure, there are strong indications that Linear *B* was designed for a language which originated on the Mainland, which continued to be spoken there down to the end of the Mycenaean age, and which deserves, whatever its affinities, to be regarded as the characteristically *Mycenaean* idiom.

For some years Sittig's proposal of an 'Aegean' dialect related to Lemnian and Etruscan seemed to be supported by parallels in place-names and in such words as *Φελχάνος* / *Velchan-*, *Υττηνία* / *huth* '4', *πρύτανις* / *purthni*. But the linguistic features evident in the new material have forced us to the conclusion which Wace and Blegen favour on historical grounds: that the main language of the Knossos, Pylos, and Mycenae tablets is not only Indo-European but *specifically Greek*. It is the purpose of this article to examine the new evidence, and to suggest a set of experimental phonetic values which may explain it.

A complete decipherment is still a long way off; but we hope to produce sufficient evidence to show that we are dealing with a true Greek dialect, and not merely with an Indo-European language close to Greek, similar to the 'Pelagian' reconstructed by Georgiev and van Windekens.†

* The Knossos tablets are referenced by Evans' numbering (e.g. 840, 0403), those from Pylos by Bennett's alphabetic classification (e.g. An42, Jn03). We are very grateful to Professor Wace for giving us advance photographs of the new Mycenaean tablets, which are referred to by their inventory numbers in the 1952 dig. The substance of this article has grown out of an idea suggested by M. V. in May 1952, and owes much to the generous advice, criticism, or encourage-

ment of Professors D. L. Page, Sir John Myres, Gudmund Björck, Arne Furumark, and I. J. Gelb.

† A. J. van Windekens, *Le Pélasgique*, Louvain, 1952. Its surviving forms are supposed to show the *satem* characteristics of σ- for *k-, κ- for the labio-velar *qʰ- and retention of initial and intervocalic *s-. On all three criteria our Mycenaean dialect appears to ally itself with Greek rather than with this highly dubious language.

§ 2. THE ANALYSIS OF THE TEXTS BY THE INTERNAL METHOD

When attempting to decipher texts like these, in which both the language and the script are unknown quantities, it is essential to extract as much data as possible from a purely internal study of the material, before making any assumptions about pronunciation or about language affinities. If one neglects this precaution one will arrive, like Hrozný, at unpronounceable words, at inflections which show a bewildering irregularity, and at meanings which are ludicrously out of context with the evident subject-matter of the tablets.

The following preliminary data can be tabulated with reasonable certainty:

(a) The tablets are inventories, accounts, or receipts, which were in all probability written within the last few months before the destruction of the various buildings in which they have been found.

K			P			M			T			K			P			M			T			K			P			M			T		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36

FIG. 1.—MYCENAEAN SYLLABARY (LINEAR SCRIPT B). AFTER BENNETT.
 K = Knossos. P = Pylos. M = Mycenae. T = Thebes, and other Mainland vase inscriptions.

(b) They record the listed commodities by means of ideograms (a kind of commercial shorthand); these are introduced by names, words, and sentences written phonetically (the writing system proper).

(c) The identity of some of the commodities can immediately be recognised from their ideogram (e.g. MEN, WOMEN, CHARIOTS, WHEELS), or from the way they are grouped and differentiated (e.g. HORSES, CATTLE, SHEEP, GOATS, PIGS). In other cases we have an approximate indication in the way they are counted (Bennett, *AJA* LIV (1950), p. 219): metals and precious materials by weight; cereals by volume; liquids by fluid measure; and manufactured or packaged articles by units.

(d) About eighty-eight different phonetic signs have been identified in the Linear B material: these are shown in Fig. 1 in the order which has been used by Bennett. Almost complete uniformity in the shapes of the signs, and in the spellings of words, is shown between Knossos, Pylos, Mycenae, and Thebes.

(e) The size of the signary makes it certain that we are dealing with a syllabary, probably similar in pattern to the classical Cypriot syllabary, to which it may be distantly related. There is no evidence that ideograms or determinatives occur within sign-groups, as they do in Egyptian or Hittite; but one or two very rare signs may be disyllabic. The spelling appears

to be full and regular, within its own rules of orthography, but an internal sign may occasionally be omitted in a longer sign-group.

(f) By means of a statistical count of the whole material one can group the signs as *frequent*, *average*, and *infrequent*, and list those which are predominantly *initial* or *final*. One can also discover which pairs of signs occur particularly often together, and note those which are never associated. These statistics are very valuable in comparing the material with the forms of a known language. It is characteristic, for example, that in nearly all languages when syllabically written the pure vowels *a- e- i-*, etc., will be among the most frequent initials.

(g) The language, which is identical for all Linear B inscriptions, shows inflections for at least two genders, three cases, and two numbers of the adjective and noun. The contexts in which these inflectional forms occur can be analysed, some estimate of their functions can be made, and they can begin to be tabulated as paradigms (see §§ 7 and 8).

(h) In the process of inflection many words show a vowel variation in their final syllabic sign, similar to that which would occur, for example, in Latin *bo-NUS*, *bo-NI*, *bo-NO*, *bo-NAE*,

a	𐀀	a ₂	𐀁	e	𐀂	i	𐀃	o	𐀄	u	𐀅
ai	𐀆			je	𐀇			jo	𐀈		
ja	𐀉			we	𐀊	wi	𐀋	wo	𐀌		
wa	𐀍										
da	𐀎			de	𐀏	di	𐀐	do	𐀑	da ₂	𐀒
ka	𐀓			ke	𐀔	ki	𐀕	ko	𐀖	ku	𐀗
ma	𐀘			me	𐀙	mi	𐀚	mo	𐀛		
na	𐀜			ne	𐀝	ni	𐀞	no	𐀟	nu	𐀠
pa	𐀡	pa ₂ ?	𐀢	pe	𐀣	pi	𐀤	po	𐀥	pu	𐀦
				qe	𐀧	qi	𐀨	qo	𐀩	qo ₂ ?	𐀪
ra	𐀬	ra ₂	𐀭	re	𐀮	ri	𐀯	ro	𐀰	ro ₂	𐀱
sa	𐀲			se	𐀳	si	𐀴	so	𐀵		
ta	𐀶	ta ₂ ?	𐀷	te	𐀸	pte	𐀹	to	𐀺	tu	𐀻
				z?e	𐀼			z?o	𐀽	z?o ₂	𐀾

FIG. 2.—EXPERIMENTAL SYLLABIC GRID.

etc. This gives valuable evidence as to the signs which share the same consonant, and as to the vowels which are characteristic of the different inflectional functions (see § 3).

(i) Finally, by analysing the occurrences of the individual sign-groups, it is possible to divide them provisionally into four categories:

1. Place-names, and the names of buildings or 'departments'.
2. Men's and women's names.
3. The names of trades or occupations, describing men and women (see § 8 and Fig. 3).
4. General vocabulary, describing the commodities and the circumstances in which they are recorded.

In comparing the distribution of sign-groups at Knossos, Pylos, and Mycenae, we may expect vocabulary words to recur most frequently (and in related contexts); personal names to be shared less frequently (and in random contexts); and local place-names to form distinct series.

§ 3. CONSONANT AND VOWEL EQUATIONS BETWEEN PAIRS OF SYLLABIC SIGNS

For ease of printing we have been forced to quote Mycenaean sign-groups in the text by the experimental transliteration shown in Fig. 2 (the small prefixed numerals, e.g. ⁹a-mi-ni-si-jo, refer

the reader to the original spellings given in Fig. 3). But it should be made clear that the consonant and vowel equations tabulated below had all been deduced from internal evidence before any phonetic values were allotted. They are based partly on inflectional evidence, partly on accidental or deliberate spelling variations.

If correctly determined, these equations enable the most frequent signs of the syllabary to be arranged in a two-dimensional pattern, or 'grid', which we must expect to be adhered to by any suggested system of phonetic values. The problem of decipherment is in this way reduced to the correct distribution of five vowels and twelve consonants to the columns of the grid; and since a proposed reading of only two or three words may, by a 'chain-reaction', predetermine rigid values for almost the entire syllabary, a very severe discipline is imposed on the earliest stages of a decipherment. If the initial moves are wrong, it should be quite impossible to force any part of the texts into showing the slightest conformity with the vocabulary or grammar of a known language; even though that might be quite easy if one were free to juggle with the values of eighty-eight mutually unconnected signs.

CONSONANT SERIES

Evidence for orthographic and inflectional variation.

- PURE VOWELS: *A* - *E* - and *O* - are the most frequent initial signs in Linear B. *A* alternates with *JA* in ¹*po-ni-ke-A* 1017.2 / *po-ni-ke-JA* 1568.e; *A*₂ with *JA* in ²*ko-ri-JA-do-no* 415 / *ko-ri-A₂-da-na* Uno8.5; *A* with *A*₂ in ³*pa-we-A* 571 / *pa-we-A₂* Myc. 127; ⁴*qe-te-A* 363.1 / *qe-te-A₂* Uno2.1; *E* with *JE* in ⁵*i-JE-re-u* Eoo4.7 / *i-E-re-u* Eno3.16; *E* with *I* in ⁶*E-pa-sa-na-ti* Eno3.13 / *I-pa-sa-na-ti* Eoo4.4; *O* with *JO* in ⁷*wi-ri-ne-O* 0408 / *wi-ri-ne-JO* 0415; ⁸*a-pi-O-to* An22.r6 / *a-pi-JO-to* An22.6.
- 'J' - ⁹*a-mi-ni-si-JO* 601 / *a-mi-ni-si-JA* 825; ¹⁰*we-we-si-JO* Jno3.18 / *we-we-si-JE-ja* Ab26; ¹¹*po-si-da-i-JO* Kno2.1 / *po-si-da-i-JE-u-si* Fno1.18. 'J' -syllables are extremely rare as initials, often follow the vowel *i*.
- 'W' - ¹²*ko-WO* 87 / *ko-WA* 87; ¹³*me-U-jo* 612.2 / *me-WI-jo* 610.3; ¹⁴*pi-ke-re-U* Epo1.8 / *pi-ke-re-WE* Eoo5.2 / *pi-ke-re-WO* Eoo5.1; ¹⁵*ne-we-U* Ado2 / *ne-we-WI-ja-o* Ado1.
- 'D' - ¹⁶*ko-ri-ja-DO-no* 415 / *ko-ri-a₂-DA-na* Uno8.5; ¹⁷*me-ri-DA-ma-te* Ani8.8 / *me-ri-DA₂-ma-te* Ani8.2; ¹⁸*wi-DO-wo-i-jo* Ad17 / *wi-DA₂-wo-i-jo* Jno8.3 / *wi-WO¹-wo-i-jo* Epo3.12; ¹⁹*DA-??-ra-z?o* Eleusis / *DA₂-??-ra-z?o* 479.1; ²⁰*ke-u-po-DA* 442.1 / *ke-u-po-DE-ja* 820.3.
- 'K' - ²¹*e-KE* Eno2.5 / *e-KO-si* Eno2.4; ²²*ka-KO* Jno2.9 / *ka-KE-we* Jno2.1 / *ka-KE-ja-pi* 0409.1 / *ka-KI-jo* 894.2; ²³*po-ni-KE-ja* 1586.e / *po-ni-KI-ja* 0402; ²⁴*??-ra₂-a-KE-re-u* Nno1.3 / *??-ra₂-a-KI-ri-jo* Na52; ²⁵*o-da-KE-we-ta* 0446.1 / *o-da-KU-we-ta* 0435 / *o-da-TU¹-we-ta* 894.4 / *o-da-KUWE?-ta* 0436.
- 'M' - ²⁶*pa₂-MO* 417 / *pa₂-MI-jo* 749.5; ²⁷*qo₂-ri-MO* 494 / *qo₂-ri-MI-jo* 418; ²⁸*pe-MO* Eno1.1 / *pe-MA* Eno1.2.
- 'N' - ²⁹*u-ta-NO* 13.3 / *u-ta-NI-jo* 749.6; ³⁰*ke-ke-me-NO* Eb20 / *ke-ke-me-NA* Ea11; ³¹*pa-ki-ja-NA* Eb10.1 / *pa-ki-ja-NE* Xco1.1 / *pa-ki-ja-NI-ja* Eno2.1; ³²*wi-ri-NE-jo* 0415 / *wi-ri-NI-jo* 0401; ³³*sa-pi-ti-NU-wo* 1516.15 / *sa-pi-ti-NE-we-jo* 841; ³⁴*pe-ru-si-NU* Ma09.2 / *pe-ru-si-NU₂* 0442.
- 'P' - ³⁵*u-PA-ra-ki-ri-ja* Ano8.1 / *u-PO-ra-ki-ri-ja* Cni3.4; ³⁶*a-re-PA-z?o-o* Uno8.2 / *a-re-PO-z?o-o* Fgo2; ³⁷*e-wi-ri-PO* Ani9.6 / *e-wi-ri-PI-ja* Aao6.
- 'Q' - ³⁸*ai-ti-jo-QO* Eoo4.1 / *ai-ti-jo-QE* Eoo4.2; ³⁹*QO-qo-ta-o* Ea11 / *QO₂-qo-ta-o* Ea10.
- 'R' - ⁴⁰*ta-RA-to* Eoo4.6 / *ta-RA₂-to* Eno3.15; ⁴¹*do-e-RO* Eno2.7 / *do-e-RA* Eno2.8; ⁴²*i-je-RO-jo* Ae08 / *i-je-RE-ja* Ae08; ⁴³*e-re-u-te-RO* Na56 / *e-re-u-te-Ra* Na50 / *e-re-u-te-Re* Cn22.2; ⁴⁴*a-ta-no-RE* Vno4.7 / *a-ta-no-RO* Fno2.3; ⁴⁵*a-ke-ti-RA₂* Aa16 / *a-ke-ti-RI-ja* Aa08; ⁴⁶*??-ra₂-a-ke-RE-u* Nno1.3 / *??-ra₂-a-ki-RI-jo* Na52; ⁴⁷*ku-pa-RO* 517 / *ku-pa-RO₂* Uno8.6.
- 'S' - ⁴⁸*to-SO* 1516.11 / *to-SA* 639.6; ⁴⁹*ko-no-SO* 549 / *ko-no-SI-jo* 56.1.
- 'T' - ⁵⁰*pa-i-TO* 36 / *pa-i-TI-jo* 681; ⁵¹*o-na-TO* Ea01 / *o-na-TA* Eb33.1 / *o-na-TE-re* Eno2.11; ⁵²*e-ri-no-wo-TE* Cno9.5 / *e-ri-no-wo-TO* Eqo1.3; ⁵³*te-mi-??-TA* 0431 / *te-mi-??-TE* 0437; ⁵⁴*e-ra-TO-de* Vno1.9 / *e-ra-TE-i* Cno2.9; ⁵⁵*ko-ro-TO* Myc. 106.1 / *ko-ro-TA₂* 598.2; ⁵⁶*ra-wa-ra-TA₂* Ano8.1 / *ra-wa-ra-TI-jo* Cni3.12.
- 'Z?' - ⁵⁷*wo-Z?E* Epo3.7 / *wo-Z?O-te* Epo3.5; ⁵⁸*wi-wo-Z?O-ko* 1007 / *e-wi-wo-Z?O₂-ko* Va02.
- But: ⁵⁹*a-KE-ti-ri-ja* 739.1 / *a-Z?E-ti-ri-ja* 777.r1; ⁶⁰*KE-i-ja-ka-ra-na* Nno1.3 / *Z?E-i-ja-ka-ra-na* Xao7.

VOWEL SERIES

Criteria for the distribution of vowel values.

- 'A' Forms the feminine variants of masculines in *-o* (*-a*, *-ja*, *-wa*, *-na*, *-ra*, *-sa*). Masculine nouns in *-a* add *-o* in the gen. sing. (*-ta-o*, *-ka-o*). Feminine nouns in *-a* are uninflected throughout the singular, add *-o* in the gen. plur. (*-ja-o*, *-na-o*, *-ra₂-o*).
- 'E' Characteristic of the dat. sing. and nom. plur. of masculine consonant stems (*-e*, *-we*, *-ne*, *-qe*, *-re*, *-te*). The typical and exclusive vowel found before the ending *-u* of masculine names and trades (*-e-u*, *-je-u*, *-we-u*, *-de-u*, *-ke-u*, *-me-u*, *-ne-u*, *-pe-u*, *-qe-u*, *-re-u*, *-se-u*, *-te-u*, *-z?e-u*). Masculine nouns in *-e* add *-o* in the gen. sing. (*-de-o*, *-we-o*), *-i* in the dat. sing. (*-de-i*, *-we-i*).
- 'I' Characteristic vowel in Kober's Cases I and II' (*AJA* L 1946, p. 272) before the adjectival endings *-ja* / *-jo* (*-wi-jo*, *-mi-jo*, *-ni-jo*, *-si-jo*, *-ti-jo*). Rare ending of nominatives except in women's names.
- 'O' Forms the masculine variants of feminines in *-a* (*-o*, *-jo*, *-wo*, *-no*, *-ro*, *-so*). Characteristic of Kober's 'Case III' (*-wo*, *-mo*, *-no*, *-so*, *-to*) and of the gen. sing. of consonant stems (*-wo*, *-no*, *-go*, *-ro*, *-to*). Nouns in *-o* add *-jo* in the gen. sing. (*-o-jo*, *-jo-jo*, *-ko-jo*, *-no-jo*, *-go-jo*, *-ro-jo*, *-so-jo*, *-to-jo*). Universal before the ending *-wo-ko* of agent nouns, and frequent as the connecting vowel in other apparent compounds.
- 'U' Absence of marked characteristics of a fifth vowel. Note that *-u-* plays a very minor part in Greek inflections and word-forming.

§ 4. POINTS OF DEPARTURE FOR AN EXPERIMENTAL TRANSLITERATION

The attempts previously made by Stawell (1931), Hempl (1932), and Persson (1932) to read the Minoan texts in Greek were frustrated by the scanty material then available. These and many other 'decipherments' have at least shown the impossibility of deriving consistent phonetic values

from a rigid correspondence with the forms of the classical Cypriot syllabary. A comparison of the latter with the equations of § 3 will be sufficient to demonstrate this.

But if the Cypriot syllabary's spelling *conventions*, at least, were repeated in Linear B, we should expect to find a regular name-ending to correspond to the nominatives in -os, Cypriot -o-se; and its absence for a long time prejudiced us against any Indo-European language.

In studying the ending -u, very characteristic of men's names and of masculine names of trades, we were struck by the fact that the thirteen signs which are found to precede it all appear, on the evidence of the 'grid' (§ 3), to belong to different consonants but to share the same vowel. When we noticed that the same vowel also occurs in the nom. plur. of this ending (-we, see § 8), we were irresistibly reminded of Greek -εύς, plural -ήφες. But the omission of the final -s, both in singular and in plural, could only be justified if we assumed spelling conventions considerably more rudimentary than the Cypriot.

Since this premise is basic to the whole decipherment, it is worth stating in its fundamental form: *each syllable of the pronunciation is normally represented by only one syllabic sign, provided that all stops (β γ δ θ κ π τ φ χ) and diphthongal -v's are recorded.* The detailed rules which follow from this principle are listed in § 5, but they lead, for example, to κόρ-φοι being written ⁶⁹ko-wo (two syllables in both pronunciation and spelling), but to the expanded spelling of κνα-φεύς as ¹⁴⁹ka-na-pe-u. Such an omission of final -s or -i had already been suspected from the fact that certain declensions (those in -o and -a, see §§ 7, 8) show no inflection in the dat. sing. or nom. plur. (and feminines none in the gen. sing.), even though other declensions, presumably consonantal stems, show well-differentiated forms for these cases. Unless the 'literary' spelling was fuller, these omissions must have had a serious effect on intelligibility, but are not more extreme than the omission of the inflectional vowels from the contemporary West Semitic 'alphabets'.

The ending -u forms the gen. sing. by changing to -wo. This sign belongs to the same vowel series as the nominatives which form their gen. sing. by adding -jo. -jo in its turn contains the same vowel, since we find frequent genitives in -jo-jo. If we interpret the consonant-stem genitive -e-wo as -ήφος, and the vowel-stem genitive -o-jo as -οιο, we are able to give a satisfactory explanation of Kober's Knossos words in -jo / -ja, which resolve themselves into the masculine and feminine forms of ethnics in -ioς (gen. -ίοιο) / -ια. The vowel common to the syllables which precede this ethnic ending must be -i.

These identifications fixed the four vowel series -e, -o, -a, -i and the semi-vowel series in w- and j-. It remained to discover a consistent distribution of the consonant series, and to test whether the resulting transliteration, when applied to the texts, would yield complete and comprehensible Greek words.

The identification of ⁷¹pa-te / ma-te An42 with πατήρ / μάτηρ (see § 6) opens the series p- and m-, and gives us -te, characteristic of agent nouns (-τήρ) and of present participles (-οντες). The opposition between ¹⁸⁷e-ko-te (έχοντες) and a- (ἀ-privative) on Jno1 (see § 9) yields the series k- and the pure vowels a- and e-, very frequent as initials. The value of o derives from its use in the gen. plur. of feminine nouns (-ᾶων) and in the gen. sing. of masculines in -ta (-τᾶο).

The n- series results from the interpretation of the frequent words in -me-no / -me-na as medio-passive participles ²⁰⁰⁻²¹², the value me being supported by the terms ⁷²me-z'o-e / me-u-jo-e = μείζους / μείους applied to two categories of children at Knossos. The series d- and s- are given by the identification of the 'totalling formulae' ⁶⁸to-so (-de) / to-sa (-de) as τοσσοί(δε) / τοσσαί(δε).

Finally, the r- series is indicated for Greek ρ by -te-re, nom. plur. of the same agent nouns (-τήρες), and for λ by po-ro = πῶλοι 'colts' on HORSE tablet 895. The provision of a separate series for d-, and the single series for l- / r-, are surprising features which are not paralleled in the Cypriot syllabary. We cannot get rid of them without throwing the whole 'grid' out of joint, and they may perhaps be inherited from the system of Linear A.

When this distribution of vowels and consonants is applied to the most frequent of the Knossos ethnics mentioned above, a very encouraging series of place-names results:

⁶¹ Ko-no-so Κνωσός	641.4	Ko-no-si-jo Κνώσιο-	168.1	Ko-no-si-ja Κνωσία-	777.1
⁶² A-mi-ni-so 'Αμνισός	705.1	A-mi-ni-si-jo 'Αμνισίο-	601	A-mi-ni-si-ja 'Αμνισία-	777.2
⁶³ Pa-i-to Φαιστός	1156.2	Pa-i-ti-jo Φαιστιο-	681	Pa-i-ti-ja Φαιστία-	777.3
⁶⁴ Ru-ki-l-to Λύκτος	159.2	Ru-ki-ti-jo Λύκτιο-	168.2	Ru-ki-ti-ja Λυκτία-	1568.1
⁶⁵ Tu-ri-so Τυλισός	59.3	Tu-ri-si-jo Τυλισίο-	668.2	Tu-ri-si-ja Τυλισία-	533
⁶⁶ U-ta-no ?Ιτανος	13.3	U-ta-ni-jo 'Ιτάνιο-	749.6		

To these can be added ⁶⁷Ku-do-ni-ja 59.3 Κυδωνία, Ra-to 1209.2 Λατώ, Wi-na-to 606.3 Φίνατος. On 914 A-ka-wi-ja-de is very reminiscent of 'Αχαϊάων-δε (and would support the identification of the Hittite *Ahhijawā* against the objection that the only Homeric form is 'Αχαΐς), but the context may demand a personal name.

Apart from *Pu-ro* Πύλος and *Pa-ki-ja-* Σφαγία?, the Pylos place-names (recurring as a group on tablets An07-09, 12, 14, 19, Cno2-07, 09-15, Jno9, Kno1, Ma01-19, Ono1, Vno1-04) appear to refer to local villages whose classical names are unknown, but several of them reflect Greek vocabulary: *Ka-ra-do-ro* Cno2.10 χάραδρος, *Ri-jo* Cno2.11 ῥίον, *E-wi-ri-po* An19.6 εὔριπος, *U-pa-ra-ki-ri-ja* An08.1 ὑπεράκρια.

We soon discovered, to our surprise, that it would be necessary to allow a separate consonant series for the labio-velars $\kappa^w \gamma^w \chi^w$, only traces of which survive in classical Greek. We had already realised that the button-shaped sign *-qe* represents an enclitic 'and' (clearly shown on 820, Eb32, Ep04, Jno9, Vno3, Myc. 102), even though some of its occurrences (e.g. Eoo1, Kno2), seem more adverbial than conjunctive (cf. 'gnomic' or generic $\tau\epsilon$?). It was impossible to read this sign as *te*, since its alternate *go* seems to anticipate Greek forms with $\pi\omicron$ (e.g. *Ai-ti-jo-go* gen. sing. = Αἰθίοπος). When we applied the labio-velar value to the material as a whole, a consistent series resulted, including *go-u-ko-ro* = βουκόλοι; *a-to-po-go* = ἀρτοκόποι; *qe-to-ro-po-pi* = τετράππο[δ]φι. No sign for *qa* has yet been identified: the deduction to be drawn from the spellings *pa-te pa-si* πάντες πάνσι ($\langle *k\tilde{u}ant-? \rangle$) is uncertain.

Experimental phonetic values for sixty-five of the eighty-eight signs of the syllabary have been determined in this way, and are shown in Fig. 2. Where two signs are shown for the same syllabic value, further study may reveal a more exact differentiation (e.g. $ra_2 = rja?$). For the remaining twenty-three, all of them infrequent, no clues have yet been found in the available material: *mu* and *su* are obvious omissions.

The remainder of this article will be devoted to a more detailed discussion of the vocabulary and grammar of the Mycenaean archives. Suggested spellings, meanings, and compounds which are not paralleled in classical Greek, or implicit in the accepted etymology, will be *obelised* (e.g. †δὐᾶτον), and deserve a fuller treatment than they receive. Where serious difficulties stand in the way of the Greek meaning or spelling proposed, the word will be *queried* (e.g. ?κεκειμένα).

With no bilingual or other external aids to decipherment available, the reality of a proposed transliteration can only be tested by applying it to the material as a whole. If consistent series of vocabulary and grammatical forms result, which are in agreement with the probable context of the tablets, then we may be justified in believing that even those features which remain intractable will eventually be accounted for.

From experience gained in the unsuccessful testing of many previous lines of attack on the Mycenaean script, we are confident that the results so far yielded by this transliteration are too numerous to be attributed to pure coincidence; that some considerable part of our chain of deduction will have to be re-followed by even a rival decipherment; and that it would be very difficult for any system of values to yield a comparable mirage of Greek forms, however uncertain in its outlines, if the language was in fact of a totally different affinity.

But to those approaching the research from the viewpoint of classical scholarship, for whom the transliteration may seem vitiated by the eccentricities of the Greek and by the relatively small proportion of the tablets interpreted, we would offer the following in extenuation:

1. If the language is Greek, we are seeing it at a stage 1000 years older than Plato (a difference in date as great as between Beowulf and Shakespeare), and separated from the classical idiom by a Dark Age. It is set in a different environment, and surrounded, possibly closely intermingled, with barbarian languages spoken by peoples of equal or superior culture. Some elements of the vocabulary may be either 'Aegean', or distorted by non-Greek scribes, or part of an older stratum of Greek unfamiliar to classical philology. There is no doubt that all the Mycenaean archives are in the *same* idiom, whether Greek or barbarian, but there is still the possibility that this idiom contains some fixed proportion of elements too unfamiliar to be comprehensible, more embarrassing in some contexts than in others.

2. The palace archives are written in a highly abbreviated style, in which literary syntax has no place. Their text contains few regular 'sentences' and consists largely of personal names, many of which are probably those of non-Greeks, and of place-names, presumably 'Aegean' in formation. Even the names of Greeks, like many of those in later epic and myth, may be pre-Hellenic in form.

3. The transliteration is the preliminary result of only the first three months of a very laborious investigation. Many of the proposed values may have to be reconsidered, and the rules of orthography may not yet be fully understood: many of their most baffling features are probably due to Linear *B* being a script imperfectly adapted to Greek from the conventions of a quite different language.

4. We believe that prolonged study, and the aid of the new unpublished tablets from Pylos, will eventually enable the whole Mycenaean material to be interpreted in detail. But at this initial stage, when any translation must be extremely tentative, we have preferred to concentrate on a limited number of tablets which typify the most significant contexts and formulae. They together contain all the passages most crucial as linguistic evidence, and the light which they throw on the mechanics of the Mycenaean adjective, noun and verb will be useful, we hope, even to those who doubt whether they are specifically Greek.

§ 5. ASSUMED RULES OF MYCENAEAN ORTHOGRAPHY

1. The syllabary differentiates five vowels *-a -e -i -o -u*, indifferent as to length.
2. The second component of diphthongs in *-u* is regularly indicated (⁸²*na-u-do-mo* †*ναυδόμοι*, *re-u-ko* *λευκοί*, *z²e-u-ke-u-si* †*ζευεῦσι*, *a-ro-u-ra* *ἄρουρα*).
3. The second component of diphthongs in *-i* is generally omitted (¹⁷⁷*po-me* *ποιμήν*), except before another vowel (¹³⁶*i-je-re-ja* *ἰερεία*) and in the initial sign *ai-*. Where *-i* is occasionally added to endings in *-a* and *-o*, these are probably to be interpreted as *-αις*, *-οῖς*.
4. Vowels following *i* generally indicate the semi-vowel glide by *j-* (¹⁸⁷*i-ja-te* *ἰατήρ*), those following *u* by *w-* (*e-u-wa-ko-ro* *Εὔαγρος*). These glides will be omitted from the Greek spelling.
5. Apart from *j-* and *w-* (Ϝ), the syllabary differentiates at least ten series of consonants: *d k m n p q* (κ^w, etc.) *r* (λ ρ) *s t* and *z²* (*gj²*). Doubled consonants are not indicated.
6. There is no sign for the aspirate, nor are aspirated consonants distinguished. ξ, ψ and κ^wσ are spelt *ka-sa-*, *ke-se-*, *pa-sa-*, *pe-se-*, etc., except when final, where they appear to shed the *-s* and take the vowel of the preceding syllable (¹⁸⁶*wa-na-ka* *φάναξ*, ⁸³*ai-ti-jo-jo* = *Αἰθίω*).
7. The consonants λ μ ν ρ σ are omitted from the spelling where they are final or where they precede another consonant (¹⁴⁷*ka-ke-u* *χάλκευς*, ¹⁹⁷*i-jo-te* *ἰόντες*, *pa-ka-na* *φάσγανα*).
8. Initial σ- and Ϝ- are apparently omitted before a consonant (*pe-ma* *σπέριμα*, *ri-jo* *ῥίον*).
9. The consonant group *-νϜ-* is written *nu-w-* (*ke-se-nu-wi-ja* *ξένφια*). ρ before Ϝ is more often omitted (⁶⁹*ko-wo* *κόρφος*, *we-we-e-a* *ῥεῤῥέα*).
10. All stop consonants which precede another consonant are written with the vowel of the succeeding syllable (¹²⁶*ki-ti-ta* *κίτιτᾶς*, *ku-ru-so* *χρυσός*). But analogy may sometimes cause a spelling to be levelled for a number of related forms (¹¹⁷*wa-na-ka-te-ro* †*φανάκτερος* 'royal' on the model of *wa-na-ka* nom., **wa-na-ka-ta* acc.; ⁶⁴*ru-KI-to* *λύκτος* on the model of the ethnic *ru-ki-ti-jo*).

The value given to the 'horns of consecration' sign (*cf.* *περά*??) is based on the probability that *pte-re-wa* 0440 is an alternative for *pe-te-re-wa* 894.1 *πετελέφᾶς* (= OHG *felawa*?) 'of elm wood', describing *WHEELS*; *cf.* *e-ri-ka* 0439, 894.4 *ἑλίκᾶς* 'of willow'. Note that the trade name ¹⁶⁸*ra-pte* †*ραπτήρ* adds *-re* in the nom. plur. (see § 8), as otherwise only agent nouns in *-te* (*-τήρ* / *-τήρες*) appear to do. Compare the feminine trade name ¹⁴²*ra-pi-ti-ra*₂ *Αβοῦ* †*ράπτειραι*; and *tu-ru-pe-te* 986 / *tu-ru-pte-ri-ja* *Αν14.5*.

§ 6. VARIATIONS DUE TO GENDER

Kober in her last article (*Archiv Orientalní XVII/1* (1949), pp. 386–98) showed that, of the two forms of the Linear *B* 'totalling formula', *to-so* occurs exclusively with the ideograms *MEN*, 'DANCERS', *RAMS*, 'ADZES', while *to-sa* is found with *WOMEN*, *EWES*, *SWORDS*, and 'BANNERS'. She concluded that ⁶⁸*to-so* / *to-sa* is an adjective showing a regular alternation of masculine and feminine forms, with no clear evidence of a third gender.

A grammatical distinction between masculine and feminine in adjectives and occupational names is now indicated by at least five further alternations: the words for 'children' ⁶⁹*ko-wo* / *ko-wa*; the descriptions ⁷⁰*do-e-ro* / *do-e-ra*; the adjectival endings *-i-jo* / *-i-ja*; the verbal forms *-me-no* / *-me-na* (see § 9(c)); and the distinction between agent nouns in *-te* / *-te-re* and *-ti-ra*₂ / *-ti-ri-ja* (§ 8). This important characteristic of the dialect is absent in many of the neighbouring languages, both Indo-European and 'Caucasian', notably in Hittite and in its relatives Lydian and Lycian.

⁶⁸*To-so* / *to-sa* appears to represent the Greek *τόσσος* (*χαλκός*), *τόσσοι* (*ΑΝΕΡΕΣ*) / *τόσσα* (*ΓΥΝΑΙΚΕΣ*). Support for this is given by the indifferent addition of *-de* to both forms at Pylos (*τοσσοῖδε τοσσοῖδε*). The apparent additions of *-pa* (*Jn02.9*, 1568.6) are both damaged readings; but Bennett's correction of 1055.9 to *to-so pa-te*: 'Dancers' 213, evidently a cumulative total, would give us *τόσσοι πάντες*. Compare *to-sa pa-ta* on *LIVESTOCK* fragment 918.3, with a subsidiary total in line 1: *to-sa qe-(to-ro-po-da* ??). We had already suspected that a meaning 'so much, so many' would be more appropriate than literally 'all, total', from such phrases as *Jn01.7*, 11, where *to-so* is used without any numerical total, and from the numerous entries of the Pylos En, Eo, Ep tablets, which are separate items varying considerably in size, rather than the totals of previous additions.

Of the words for 'CHILDREN', it is ⁶⁹*ko-wo* *κόρφος* / *κόρφοι* which means 'boys', contrary to general opinion, since it is used to qualify the *MAN* ideogram on Pylos, *Ad01 ff.* (preceded by a number of gen. plur. fem. forms: 'the sons of the women'); leaving *ko-wa* *κόρφα* *-αι* for 'girls'. The reason why 'girls' are always counted before 'boys' on the *WOMEN* tablets is probably that they are potentially more useful in the context for which their mothers are recorded. It need hardly reflect matriarchy.

The long and numerous entries of the Pylos En, Eo, Ep series are, we believe, the record of *ko-to-na* 'parcels of land?' (*cf.* *κτοίνας* *δῆμος μεμερισμένος* Hesychius, and its use on Rhodes, possibly a survival of the Achaean settlement) leased to individuals of the less menial trades by the *ko-to-no-o-ko* †*κτοινοόχοι* and by the *da-mo* *δᾶμος*, and of the amount of grain sown on each in the year under review. The individuals are referred to both by their personal names and by their occupations, the majority being described either as *te-o-jo do-e-ro* or as *te-o-jo do-e-ra* (*θεοῖο?* *Cf.* *-po-to-re-mo-jo do-e-ro-i* *Fn03.27* *-πτολέμοιο?*). Sundwall agrees with us that the distinction must be one of gender, the personal names associated with *do-e-ro* most commonly ending in *-o*, *-e-u* and never in *-ja*, those with *do-e-ra* ending in *-a*, *-i* and never in *-jo*, thus conforming to the endings most

common on the large Knossos lists of MEN and WOMEN respectively (1516-17, 799; 639). ⁷⁰*Do-e-ro* / *do-e-ra*, one of only three Linear B agent nouns to show forms for both genders (see § 8) suggests *δούλος* / *δούλη*, of doubtful etymology, itself one of the very few Greek occupational names to show gender variation by means of -ος / -η endings.

Both terms *do-e-ro* and *do-e-ra* find a balanced, contrasting, use in phrase (c) of WOMAN tablet An42, which provides the most striking evidence for an Indo-European component in the Pylos language. It is here transliterated with suggested punctuation:

- ME-TA-PA: *ke-ri-mi-ja do-qe-ja ki-ri-te-wi-ja*.
 (Place-name) (fem. plur. terms describing the girls generally).
- | | |
|---|----------|
| (a) DO-QE-JA (<i>do-e-ro</i> pa-te, ma-te-de <i>Ku-te-re-u-pi</i>): | WOMEN 6 |
| (b) DO-QE-JA (<i>do-e-ra e-ge-ta-i e-e-to te-re-te-we</i>): | WOMEN 13 |
| (c) DO-QE-JA (<i>do-e-ro</i> pa-te, ma-te-de <i>di-wi-ja do-e-ra</i>): | WOMEN 3 |
| (d) DO-QE-JA (<i>do-e-ra</i> ma-te, pa-te-de <i>ka-ke-u</i>): | WOMAN 1 |
| (e) DO-QE-JA (<i>do-e-ra</i> ma-te, pa-te-de <i>ka-ke-u</i>): | WOMEN 3 |

The meaning of the description *do-qe-ja* ὄρκῳεῖαι is unknown; but the words ⁷¹*pa-te* / *ma-te*, which alternate their positions in the formula in accordance with the gender of its components, can hardly be other than the IE 'father' and 'mother' (radicals which all the Anatolian IE dialects except Phrygian have replaced by *atta-anna-* etc.), the enclitic *-de* increasing the presumption in favour of Greek:

- (a) δόελος πατήρ, μᾶτηρ δὲ †Κυθηρεῦφι. ('with the Cytherian colony?')
 (c) δόελος πατήρ, μᾶτηρ δὲ δίφια δοέλα. ('of Zeus' or 'goodly?')
 (d) δοέλα μᾶτηρ, πατήρ δὲ χαλκεύς.

In clause (b), where the girls are too many to form a single family, the bipartite construction is apparently replaced by:

- (b) δοέλαι ἐκῳέταις ἐέντων *te-re-te-we* 'Let the bondwomen be (??)'.

In 1946 Kober first drew attention (*AJA* L, pp. 268-76) to the alternating spellings of the type ⁶¹*Ko-no-si-jo* / *Ko-no-si-ja* / *Ko-no-so*. New Pylos evidence for declension shows that Kober's 'Cases I and II' cannot simply be oblique cases of the noun; and they probably represent a derivative adjective, analogous or identical to the Greek ethnic -ιος / -ία (see § 4).

On some tablets containing repeated -jo or -ja endings the identity of the qualified noun cannot be guessed (820, 833, Vno3). But the -jo ending is consistent where qualifying MEN or the 'totalling-word' *to-so* (601, 1055, An13); while -ja is typical before the WOMAN ideogram and before *to-sa* (611-613, 624, 629, 694, Aa01-Ab30, Eno2.1). Note *A-mi-ni-si-jo* before MEN on 601, *A-mi-ni-si-ja* before WOMEN on 825.

Though the plural of such masculine and feminine adjectives is made indistinguishable from the singular by the orthography, a neuter gender, unsuspected by Kober, would give -jo in the singular but -ja in the plural. The word for 'swords' on 1540, *to-sa pa-ka-na* *Swords 50*, is evidently a neuter plural if it is to be read as the Greek τόσσα φάσγανα; and it is qualified on 1541 ff. by ¹⁹⁸*a-ra-ru-wo-a* ἀρᾶρῳά, archaic neuter plural of the perfect participle (*cf.* *a-ra-ru-ja* fem. 0401 ff., and see § 10, Morphology).

The forms in -ja which qualify the large number of 'BANNER' entries (471-5, 525-99) may be neuter plural, if the pronunciation of this enigmatic ideogram is represented by the *pa-we-a* φάρφρα 'pieces of cloth?' which introduce them on 571-80 (*cf.* *ri-ta pa-we-a* 594 λίτα φάρφρα?). 'BANNERS' are qualified on 178 and 870 by *we-we-e-a* φερφέα (> Attic ἑρεᾶ 'woollen'), and on 871.2 by ¹⁹⁹*te-tu-ko-wo-a* τετυχῳά = τετυγμένα (for τετευχῳός in passive sense, *cf.* μ 423). Consistent -a endings, and compounds very suggestive of Greek, are shown particularly by 587 (in Bennett's restoration):

1	<i>po-ki-ro-nu-ka</i>	CLOTHS	24	†ποικιλόνυχα (δουξ?? Cf. <i>o-nu-ke</i> 682.1, 1568.e)
	<i>re-u-ko-nu-ka</i>	CLOTHS	372	†λευκόνυχα
2	<i>ko-ro-ta₂?</i>	CLOTHS	14	??
	<i>??-ra-ku-ja</i>	CLOTHS	42	??
	<i>po-ri-wa</i>	CLOTHS	1!	πολιφά 'grey'
edge	<i>to-sa</i>	CLOTHS	149	(evidently not a true total)

GRAIN is qualified by -jo on 668-70, 749, but by -ja on 777; this might point to a declension σῖτος / σῖτα. Compare the alternation of singular and plural in ²*ko-ri-ja-do-no* 415 / *ko-ri-a₂-da-na* Uno8.5 †κορίαδνον > κοριάννον, κορίαδρον 'coriander'. The identity of the two forms is proved by the common ideogram, also used to measure ⁴⁷*ku-pa-ro* 517 / *ku-pa-ro₂* Uno8.6 κύπαιρος, *cuperus rotundus* (a West Semitic loan-word, with Lewy, and not a genetically Doric variant?). Both substances are apparently described as *tu-we-a* Uno8.2 θύφρα 'spices?'

Another heteroclitite κύκλος, plur. κύκλοι / κύκλα, may be reflected in the variations *te-mi-??* / *te-mi-??-ta* (τερμιόφενς / τερμιόφεντα??) and *ka-ki-jo* χάλκιος / *ka-ko-de-ta* χαλκόδετα on WHEEL tablet 894, and in the alternating plurals *te-mi-??-te* / *ta*, *de-do-me-no* / *-na* and *wo-z?* / *o-me-no* / *-na* on WHEEL tablets 0429-0449.

Adjectives which show *no* variation in gender are the two descriptions of CHILDREN on 611 ff.: ⁷²*me-zʹo* and ⁷³*me-u-jo* / *me-wi-jo*: all three spellings add *-e* to form the plural. The lack of gender, the form of the plural, and the shared initial all suggest archaic forms of the Greek comparatives μείζων and μείων, a possibility which Sittig tells us he has also envisaged. They should perhaps be transcribed μέζων μέζοες and †μεφίων μεφιοες (the φ is unexpected, cf. Boisacq s.v.). The value *me* finds support in a number of other words, particularly in the commodity *me-ri* μέλι written next to vases or issuing from them. The 'larger' children on 781-4, 828 have the annotation *di-da-ka-re* διδασκαλε[ῖον]?

Concord between adjective and noun in an oblique case is shown by *ke-ke-me-na ko-to-na* Ep02 ff. (probably gen. sing. fem.) and *ke-ke-me-na-o ko-to-na-o* Eb33 (gen. plur. fem.); and by Ae08: *PŪ-RO*: *i-je-re-ja do-e-ra e-ne-ka ku-ru-so-jo i-je-ro-jo*: *Women* 13 Πύλος· ἱερείᾳς δοέλαι †ἐνεκα χρυσοῖο ἱεροῖο· ΓΥΝΑΙΚΕΣ 13. It is often assumed that West Semitic loan-words such as *hārūz* > χρυσός were introduced by the Phoenicians in the 11th-9th centuries; but it is hard to believe that the Mycenaeans did not already call 'gold' χρυσός. Cf. ⁹⁰*ku-ru-so-wo-ko* An26.8 χρυσοφοροί, and *ku-ru-so* on Knossos tablet 872.3 describing a goblet similar in outline to the gold cup from Vaphio.

§ 7. PERSONAL NAMES: THEIR DECLENSION AND FORMATION

It has generally been supposed that the majority of the Knossos and Pylos item entries are introduced by personal names. Though there are no universal criteria for distinguishing them from place-names and vocabulary words, there are a number of regular contexts in which they can be identified with certainty:

1. Lists of the MAN ideogram followed by the number 1 (799-806, 1516-20; An13, 15-18, 21, 22).
2. Words following the preposition *pa-ro* (Cn03-04, 11-15, Vn04).
3. The first word of each subsidiary entry on the GRAIN tablets Ea01-Eq03, and of most of the LIVESTOCK tablets 1060-1383.
4. The lists of ¹⁴⁷*ka-ke-we* 'smiths' on Pylos tablets Jn01-08.

Feminine names occur on Eb27-Ep05 before the description *do-e-ra*, and probably on 639; but evidence for inflection is confined almost entirely to the more numerous men's names, and to the Pylos tablets.

The three cases which can be distinguished are most clearly seen in the series of names on the GRAIN tablets Ea01-Eq03 which recur in all three forms: the *nominative* as the subject of an entry (*Pi-ke-re-u* Ep01.8), the *genitive* expressing the ownership of a *ko-to-na* (*Pi-ke-re-wo* E005.1), and the *dative* indicating the person by whose dispensation the *o-na-te-re* hold their *ko-to-na* (*pa-ro Pi-ke-re-we* E005.2). The preposition *pa-ro*, which resembles πάρος in form but παρά in meaning, probably signifies 'from', 'belonging to', or simply the French 'chez'. There is no direct evidence for the accusative in names, and the syntax patterns of the tablets perhaps have no place for it.

Clear evidence of a series of parallel genitives, sometimes contrasted with nominatives on the same tablet, is given by An21-23, Cn11-16, En01, Eq01, Jn01, Fn02, Kn02.

From these examples the Mycenaean masculine names can be divided into six inflectional types:

1. Names which add *-jo* in the Genitive

This is the regular declension of names which end in *-o*, remaining unchanged in the dative. Given our rules of orthography, *-o -ojo -o* can be equated with the Greek *-o-* declension *-ος -οιο -ω* (or *-οι* as in Arcadian²). The name-ending *-jo* is frequent in this class, giving rise to the characteristic termination *-jo-jo*, which is always genitival wherever found.

⁷⁵ <i>Wa-na-ta-jo</i> Ep01.3	<i>Wa-na-ta-jo-jo</i> E001.1	<i>pa-ro Wa-na-ta-jo</i> E001.5
†Φαρναταῖος	Φαρναταῖοιο	παρὸ Φαρναταῖω
⁷⁶ <i>A-ke-o</i> An16.14	<i>A-ke-o-jo</i> Cn11.5	
†Ἄρκεος	Ἄρκεοιο	

2. Names in *-a*, forming their Genitive in *-a-o*

This declension is characteristic for the frequent ending *-ta*. It, too, shows no special form for the dative.

⁷⁷ <i>A-ko-so-ta</i> Uno8.1	<i>A-ko-so-ta-o</i> Cn12.2	
†Ἀρξόταξ	Ἀρξόταο	
	⁷⁸ <i>A-ma-ru-ta-o</i> E002.1	<i>pa-ro A-ma-ru-ta</i> E002.4
	†Ἀμαρύνταο	παρὸ Ἀμαρύντα

3. Names in *-e*, forming their Genitive in *-e-o*

Names ending in the vowel *-e* are infrequent, but there are several in *-me-de*, which probably add *-o* in the genitive like *a-pi-me-de-o* Ep03.12 ἀπιμηδέος, *pe-ri-me-de-o* Sn01.7 περιμηδέος (though these two may be offices rather than names, cf. Hom. μέδων / μεδέων 'ruler'). They appear to conform to the Greek declension in *-ης*, gen. *-εος*, which may also include the adjective *a-ko-ro-we*

plur. *a-ko-ro-we-e* †ἀχρόφεις ‘of uniform colour?’ applied to white livestock on Cn23. Their dative may be formed by adding *-i*, to judge from *E-ti-me-de-i* Fno3.1, and ??-*mo-ke-re-we-i* Fno3.2 Δᾶμοκλέφει?.

4. Names in *-e-u*, forming their Genitive in *-e-wo*

This declension, which has distinct forms for the three identifiable cases, is frequent both in men’s names and in masculine names of trades. The dative singular is written with the sign *-we*, also characteristic of the nom. plur. of this declension (*-ῆφεις* see § 8). It perhaps represents the original IE dative in *-ei* rather than the later Greek *-i* (see § 10).

⁷⁹ <i>Pi-ke-re-u</i> †Πικρέυς	Ερο1.8	<i>Pi-ke-re-wo</i> Πικρήφως	Εοο5.1	<i>pa-ro Pi-ke-re-we</i> παρό Πικρήφει	Εοο5.2
⁸⁰ <i>Po-ro-u-te-u</i> Πλουτεύς	Јno1.5	<i>Po-ro-u-te-wo</i> Πλουτήφως	Јno1.12	<i>pa-ro Po-ro-u-te-we</i> παρό Πλουτήφει	Сno4.5

5. Names adding *-ro*, *-to*, *-no* in the Genitive

This declension shows the same final vowels in the genitive and dative as the preceding, but the nominative is one letter shorter due to the omission of the stem consonant or corresponding *-s* from the spelling.

⁸¹ <i>A-ta-no</i> Ἄντᾶνωρ	1520.2	<i>A-ta-no-ro</i> Ἄντᾶνωρος	Fno2.3	<i>pa-ro A-ta-no-re</i> παρό Ἄντᾶνώρει	Vno4.7
⁸² <i>Ko-ma-we</i> Κομᾶφενς	An43.10	<i>Ko-ma-we-to</i> Κομᾶφεντος	931	<i>pa-ro Ko-ma-we-te</i> παρό Κομᾶφέντει	Сno3.1

Cf. also *Ne-ti-ja-no* Cn12.1 > Νέστωρ?? / *pa-ro Ne-ti-ja-no-re*; *Pi-ri-ta-wo-no* gen. Eno1.5 Βριθάφονος? ; ⁸*A-pi-o* / *jo-to* gen. An22.6 Ἀμφίοντος. Compare the declension of the participles discussed in § 9(a).

6. Names identical in Nominative and Genitive

⁸³ <i>Ai-ti-jo-go</i> Αἰθίοκ ^W ς	Ερο1.2	<i>Ai-ti-jo-go</i> Αἰθίοκ ^W ος	Εοο4.1	<i>pa-ro Ai-ti-jo-ge</i> παρό Αἰθίοκ ^W ει	Εοο4.2
---	--------	--	--------	---	--------

This, the only example of its kind, is evidently a consonant stem whose consonant is, for exceptional reasons, retained in the spelling of the nominative. On the rules of orthography (§ 5 No. 6) the only Greek endings which would allow this are *-ξ* *-ψ* *-κ^W*, and it is encouraging that this specimen can actually be equated with a Greek name of this form.

Some of these personal names correspond, on our experimental values, with fully Greek names; but many more recall the imperfectly Hellenised names of Greek epic and myth, and an even greater number, especially at Knossos, may be expected to show a completely non-Greek aspect.

Of interest, in the first category, are the ten names ending in *-o* which show the frequent initial element *E-u*, which can apparently be transcribed as typical Greek names in Eϋ-:

<i>E-(u)-wa-ko-ro</i>	Јno3.23, 1005, Thebes V	Εϋαγρος	<i>E-u-na-wo</i>	799.r2	Εϋνάφος (cf. <i>O-ku-na-wo</i> 60.4
<i>E-u-da-mo</i>	57, Thebes II	Εϋδάμος			Ἐκύνᾶφος)
<i>E-u-de-we-ro</i>	Abo2	Εϋδέφελος	<i>E-u-o-mo</i>	127	Εϋορμος
<i>E-u-do-no</i>	Јno1.4	?Εϋζωνος	<i>E-u-fo-ro-wo</i>	Јno2.2	Εϋπλοφος
<i>E-u-ko-ro</i>	482.1	Εϋκολος	<i>E-u-fo-ro</i>	Myc. 102.4	Εϋπορος -φορος
			<i>E-u-to-ro-go</i>	Јno5.10	= Εϋτροπος??

Note also *E-u-ru-da-mo* 166.2 Εϋρϋδάμος, *E-u-ru-go-ta* 147.2 = Εϋρϋβάτης? (Does the frequent ending *-go-ta* represent *-βάτης*, *-φοίτης*, *-φόντης* or *-βότης*?) Cf. *A-pi-go-(i)-ta* = Ἀμφιφοίτης? *Pe-ri-go-ta-o* = Περιφοίτης? *A-e-ri-go-ta* = Ἡριβάτης? *Qo-u-go-ta* = Βουβότης? *Po-ru-go-ta* = Πολυφόντης?

Among names in *-eús* a frequent ending appears to be *-ke-se-u*, formed from futures: *A-we-ke-se-u* Ἀφεξεύς, *De-ke-se-u* Δεξεύς, *Qo-wa-ke-se-u* Γωφραξεύς, *E-ne-ke-se-u* Ἐνεξεύς, *A-re-ke-se-u* Ἀλεξεύς, *Pa-ra-ke-se-u* Πραξεύς. Note also *Ai-ki-e-u* Αἰγιεύς, *A-ki-re-u* Ἀχιλλεύς, *Do-ro-me-u* Δρομεύς, *E-pe-ke-u* Ἐπειγεύς, *Te-se-u* Θησεύς, *Ke-re-te-u* Κρηθεύς, *Me-to-ge-u* Μετωκ^Wεύς, *Ne-ge-u* Νηκ^Wεύς, *Po-te-u* Ποντεύς, *Ta-mi-je-u* Ταμειεύς, *Ka-ri-se-u* Χαρισεύς, *O-na-se-u* Ὀνάσεύς.

Other apparently Greek names include: *Ai-wa* Αἶφας, *Ai-wo-ro* Αἶφωλος, *Ai-ta-ro-we* Αἰθαλόφενς, *A-ka-ma-jo* Ἀλκμαίων, *A-ka-ta-jo* Ἀκταῖος, *A-pi-a₂-ro* Ἀμφιάλος, *A-ti-pa-mo* Ἀντίφᾶμος, *A-ke-ra-wo* Ἀρχέλᾶφος, *Ka-ra-u-ko* Γλαυκός, *E-ni-ja-u-si-jo* Ἐνιαύσιος, *E-ko-to* Ἐκτωρ, *E-pi-ja-ta* Ἐφιαλτᾶς, *E-ke-me-de* Ἐχεμήδης, *E-ke-da-mo* Ἐχέδαμος, *Wa-tu-(wa)-o-ko* Φαστύοχος, *Wi-da-ma* Φιδάμας, *Ku-ru-me-no* Κλύμενος, *Ku-pe-se-ro* Κύπελος, *Ku-pi-ri-jo* Κύπριος, *Ma-na-si-we-ko* Μνασίφεργος, *Ka-sa-to* Ζανθός, *Ko-so-u-to* Ζούθος, *Pi-ro-we-ko* Φιλόφεργος.

It is conceivable that any arbitrary system of phonetic values would yield the same limited number of correspondences; but coincidence seems insufficient to account for the exceptionally long name *E-te-wo-ke-re-we-i-jo* Sno1.15, which on values and orthography determined beforehand (and out of 200 billion possible permutations of syllables in an eight-sign word) so exactly yields the patronymic Ἐτεφοκλεφῆϊος. Compare Forrer’s much-disputed reading of the name *Tawa-galawas* in the Hittite king’s letter to the king of *Ahḫijawā* c. 1325 B.C.

If names already known to us from Greek mythology are proved to occur at Knossos and Pylos, they will confirm Nilsson's view (*The Mycenaean Origin of Greek Mythology*, 1932) that the majority of these myths were already current in the 15th-13th centuries. More surprising still, two tablets (Knossos 52 and Pylos Kno2) contain consistent lists of words whose correspondence to the names of Greek deities seems ensured by astronomical odds against coincidence:

52: ⁷⁴ A-ta-na-po-ti-ni-ja	Ἀθάνα Πότνια
E-nu-wa-ri-jo	Ἐνυάλιος
Pa-ja-wo	Παιῆφων
Po-se-da-(o) (cf. 5560 for the spelling)	Ποσειδάων

The last name probably recurs on tablet Kno2, in the derivative forms ¹⁴Po-si-da-i-jo gen. plur.? Ποσιδάων (cf. *Po-si-da-i-je-u-si* Fn01.18) and *Po-si-da-e-ja* Ποσιδάεια (a divinity?). The tablet appears to be a list of gold vessels and men and women to carry them (Bennett: figurines?) which are to be sent to various shrines. It contains the following recognisable names, nearly all with a MAN or WOMAN ideogram appropriate to their sex: *Di-we* Δίφει, *E-ra* Ἐρα (is the etymology *Ἐρφα faulty?), *Po-ti-ni-ja* Ποτνια, *Di-u-ja* Δίφια (cf. Δίφια in an early 4th-century Pamphylian inscr., Schwyzer 686¹, = Magna Mater), *E-ma-a₂* Ἐμαά, *I-pe-me-de-ja* (= Ἰφιμηδεία despite lack of F-?).

We do not agree with Sundwall that the tablets as a whole have a religious context, but one or two more divine names may be scattered here and there: *Di-wo-nu-so-jo* Χαοβ Διφονύσοιο, *E-re-u-ti-ja* 705.1 Ἐλευθία (annotation to pots of honey at Amnisos!‡), *Pa-si-te-o-i* 705.2, 13.2 πάνσι θεοῖς, *A-ne-mo-i-je-re-ja* 13.3 ἀνέμων ἰέρεια?

§ 8. NAMES OF OCCUPATIONS: THEIR DECLENSION AND FORMATION

By internal evidence, independent of any decipherment, one can abstract from certain Knossos and Pylos tablets a consistent series of nouns representing the names of *occupations and professions*. Characteristic contexts for these are:

1. Descriptions of MAN ideograms listed generally with numbers larger than 1 (tablets 101, 815-817, 824, 826, 1518; Ae07-09, An04, 06-11, 18-20, 26, 31, 38).
2. Terms used to qualify personal names (821-2, 911-2, 962; Ae03-05, Ea01-Ep05).
3. Introductory phrases to tablets listing MAN and WOMAN ideograms (1055, 1516; An02, 12-14, 19, 42) or containing personal names followed by commodities (En02.4, etc., Eq02, Jn01-09, Vn06).
4. The bottom line of the Pylos Na series.

They are analogous to the use of such agent nouns on economic tablets of Mesopotamia and of Ras Shamra (Virolleaud, 'Les villes et les corporations d'Ugarit', *Syria XXI* (1940), pp. 123-51), and we may expect to find a comparable range of professions represented.

On close analysis they can be divided into six 'declensions', parallel to those we have shown above for personal names. They show a close correspondence with Greek, both in their inflections and in the endings chosen to form different classes of agent noun. Note the clear distinction between the *vowel stems*, which show no written inflection for the dat. sing. and nom. plur. (in conformity with the rules of orthography § 5), and the *consonant stems* which add -e in both cases. The following paradigms tabulate the endings so far identified:

<i>Vowel stems</i>		1		2		3	
Nom. sing.	-o	-o5		-ta	-tā5		-a -ā
Gen. sing.	-o-jo	-oio		-ta-o	-tāo		-a -ā5
Dat. sing.	-o	-ō		-ta	-tā		
Nom. plur.	-o	-oi		-ta	-tai		-a -ai -ταιραι
Gen. plur.	-o	-ōv		-ta-o	-tāōv		-a-o -āōv -ταιράων
Dat. plur.	-o-i	-ois		-ta-i	-tai5		-a-i -ai5 -ταιραι5
<i>Consonant stems</i>		4		5		6	
Nom. sing.	-e-u	-eūs		-te	-tēp		-e -v
Gen. sing.	-e-wo	-ēfos					
Dat. sing.	-e-we	-ēfei		(-te-ri	-tēp(i)		-ne -ve1
Nom. plur.	-e-we	-ēfes		-te-re	-tēpes		-ne -ves
Gen. plur.	-e-wo	-ēfōv					
Dat. plur.	-e-u-si	-eūsi		-te-si	-tēp(i)		

If dual forms, conforming to their classical declension, were used to describe '2 MEN', the orthography would make them indistinguishable from the corresponding plurals.

The following list includes 100 occupational names which can be isolated, even though only a third of them can so far be made to correspond exactly with classical terms. Like the words found at Ugarit (many of which are incomprehensible in spite of the close relationship to Hebrew) they

‡ Cf. Strabo X 476.8: Μίνω δέ φασιν ἐπιπέλω χρήσασθαι τῷ Ἀμμισῷ, ὅπου τὸ τῆς Εἰλειθυίας ἱερόν.

may include many compounds and derivatives whose meaning is so specialised that it can never be recovered.

1. Nouns in -o, nearly all Compounds

The most striking compounds are the seven nouns in *-o-wo-ko*, whose finals are the reverse of the spelling *ko-wo* 'boys'. The meaning 'maker' (*-φοργός* as in **γᾶ-φοργός* > *γεωργός*) seems particularly appropriate for this most frequent agent noun element.

⁸⁴ <i>a-pu-ko-wo-ko</i>	Ab03	†ἀμπυκοφοργοί	(fem.) headband makers?
⁸⁵ <i>e-to-wo-ko</i>	An18.5	†ἐντοφοργοί	armourers
⁸⁶ <i>to-ro-no-wo-ko</i>	1517.11		(θρόνοι? θρόνα?)
⁸⁷ <i>i-je-ro-wo-ko</i>	Ep04.7	ἱεροφοργός	priest
⁸⁸ <i>ko-wi-ro-wo-ko</i>	101	†κοφιλοφοργοί	coopers?
⁸⁹ <i>to-ko-so-wo-ko</i>	An26.10	τοξοφοργοί	bow-makers
⁹⁰ <i>ku-ru-so-wo-ko</i>	An26.8	χρυσοφοργοί	goldsmiths
⁹¹ <i>e-te-do-mo</i>	En02.5	†έντεσδόμος	armourer
⁹² <i>na-u-do-mo</i>	Na65.2	†ναυδόμοι	shipbuilders
⁹³ <i>to-ko-do-mo</i>	An14.1	τοιχοδόμοι	masons
⁹⁴ <i>a-to-po-ko</i>	An07.3, Myc. 102.14	ἀρτοποιάκῳι	bakers
⁹⁵ <i>si-to-po-ko</i>	Ep04.6	†σιτοπόκῳος	cook (cf. <i>si-to</i> 819.2 introducing CEREALS after a list of MEN)
⁹⁶ <i>si-to-ko-wo</i>	An02.1	†σιτοχόροι	(fem.) grain keepers
⁹⁷ <i>re-wo-to-ro-ko-wo</i>	Ab27	?λοφетроχόροι	(fem.) bath attendants
⁹⁸ <i>da₂-ru-to-mo</i>	Vn06.1	δρυτόμοι	woodcutters
⁹⁹ <i>re-di-na-to-mo</i>	Eq02.11		(ῥητινα-? cf. ῥιζοτόμοι?)
¹⁰⁰ <i>ka-ra-wi-po-ro</i> / -jo	Eb32 / Ae09 / Jn09.2	κλαφιφόρος / -οιο / -οι	(fem.) = κλειδοῦχος. cf. κλαϊκοφόρος, apparently the title of a priest at Messene, <i>IG</i> 5 (1) 1447; and ἥρωσ κλαϊκοφόρος at Epidaurus
¹⁰¹ <i>di-pte-ra-po-ro</i>	Fn02.6	†διπθεραφόροι	tanners?
¹⁰² <i>go-u-ko-ro</i> ti-no	An20.9	γῳουκόλοι θινός	cowherds of the coast?
¹⁰³ <i>da-ko-ro</i>	An07.1	δακόροι	sweepers (cf. Boisacq s.v. <i>ζάκορος</i>)
¹⁰⁴ <i>ko-to-no-o-ko</i>	Ep04.11 / Eo04.2	†κτινοσόχος / -ω	property-owner
¹⁰⁵ <i>pu-ka-wo</i>	An04.1	†πυρκάφοι	stokers
¹⁰⁶ <i>a-re-ḫa</i> <i>po-z?</i> o-o	Uno8.2		(compound of <i>a-re-ḫa-te</i> Uno8.3 <i>ἀλειφάται</i> ?)
¹⁰⁷ <i>ku-ḫo₂-to-ro-ḫa₂?</i>	817, Ero2.8		??
¹⁰⁸ <i>do-e-ro</i> -i / -jo	Eb24 / Ae07 / Fn02.11 / 912.b2	δόελος / -οι / -οις / -οιο	bondman
¹⁰⁹ <i>a-ke-ro</i>	Ea03 / Vn03.1	ἀγγελος / -οι	messenger
¹¹⁰ <i>wa-to</i>	902.3, Thebes <i>passim</i>	?φαστός	citizen?
¹¹¹ <i>ge-re-me-ti-wo</i> <i>re!</i>	An24.6 / Cn09.3		??
¹¹² <i>po-ro-ge-re-je-wo</i>	822		(προ- + the stem of the preceding?)
¹¹³ <i>o-pi-ḫo₂-ko</i>	Jn09.2	?όπιγῳοῦκοι	= ἐπιβουκόλοι?
¹¹⁴ <i>o-da₂-ru-we</i> <i>wo</i>	902.6 / 910.1		(δρυγ—'wood'?)
¹¹⁵ <i>o-da₂-ru-wi-jo</i> -ja	902.2, Thebes I / 982.1		
¹¹⁶ <i>ai-ki-a₂-ri-jo</i>	Fn02.4	αἰγιαλίοι	longshoremen
¹¹⁷ <i>e-pi-we-ti-ri-jo</i>	Ea06	†ἐπιμήτριος	Cf. Hom. ἐπήτριμος 'close-woven', and Hesych. ἐπήτριος: λόγιος, πανοῦργος

The following are used to qualify other names of professions:

¹¹⁷ <i>wa-na-ka-te-ro</i> <i>ra</i>	En02.5 / 525	†φανάκτηρος / -α	king's
¹¹⁸ <i>ra-wa-ke-si-jo</i> -jo	Ea09 / Ea25	λαῖφᾶγέσιος / -οιο	commander's
¹¹⁹ <i>po-ti-ni-ja-we-jo</i> -jo	Ep04.14 / Jn01.14 / Eq01.5	?ποτιναφέσιος / -οι / -οιο	of the Magna Mater?

2. Nouns in -ta

¹²⁰ <i>ra-wa-ke-ta</i>	Un11.10	λαῖφᾶγέτας	commander
¹²¹ <i>ku-na-ke-ta-i</i>	Na56.2	κυνᾶγέταις	huntsmen
¹²² <i>ai-ki-pa-ta</i>	Ae03	†αἰγιπιάτας	goatherd
¹²³ <i>te-re-ta</i> -o	Eo02.5 / En02.2 / Ero1.5	?-τάς / -ται / -τᾶων	overseer?
¹²⁴ <i>e-re-ta</i>	An12.1	ἐρέται	oarsmen
¹²⁵ <i>e-ge-ta</i> -i	Eb32 / An42.3	ἐκῳέται / -ταις	followers (adjective <i>e-ge-si-ja</i> 571 ἐκῳέσια)
¹²⁶ <i>ki-ti-ta</i>	An19.4	κτίται	inhabitants
¹²⁷ <i>me-ta-ki-ti-ta</i>	An19.5	†μετακτίται = μέτοικοι, περικτίται	
¹²⁸ <i>pe-(re)-go-ta</i>	An16.12 / Eo06.4	?πρεσγῳύτας / -τα	} old man
¹²⁹ <i>pe-re-ku-ta</i>	An25.2	πρεσγῳύτας	
¹³⁰ <i>po-ku-ta</i>	An26.7		?? (adjective <i>po-ku-te-ro</i> 911.6)
¹³¹ <i>mi-ka-ta</i>	An04 / An18.3	†μικάτας / -ται	??
¹³² <i>we-re-ka-ra-ta</i>	An08.3		(cf. ἐργαλήιον?)
¹³³ <i>te-ḫa₂-ta</i>	An19.15		??
¹³⁴ <i>o-pi-</i> <i>ti-ni-ja-ta</i>	Eb06 / Fn06.3	όπι- †θινιάτας	(θιν- 'shore'?)

3. Nouns in -a

¹³⁵ <i>do-e-ra</i>	Eb27 / Ae08	δοεῶλα / -αι	bondwoman
¹³⁶ <i>i-je-re-ja</i>	Eb10.1 / Ae08, Ep03.7	ἱέρεια / -ᾶς	priestess
¹³⁷ <i>do-ge-ja</i>	An42	?δόρκῳεια / -αι	(δόρπον? δρέπω? δρώπτω?)
¹³⁸ <i>ki-ri-te-wi-ja</i> -i	Eb21 / 777.1	?κριθήφια / -αις	??

The following are masculine in sense:

¹³⁹ <i>pa₂?</i> - <i>si-re-wi-ja</i>	Fn02.1	?βασιληφία	palace workers?
¹⁴⁰ <i>i-na-ni-ja</i>	Ae02		(or an ethnic?)
¹⁴¹ <i>ke-ro-si-ja</i>	An22.7 / r5	†γερονσίας / -αι	page?

Feminine agent nouns:

142 _{ra} -pi-ti-ra ₂	Ab09	†φράπτειραι or φράπτρια	seamstresses
143 _{ra} -qi?-ti-ra ₂	Ab18		(cf. βάκτρια 'harvesting pole?')
144 _{pe} -ki-ti-ra ₂	Ab16	πέκτειραι or πέκτρια	wool-carders
145 _{me-re-ti-ra} ₂ -o / -ti-ri-ja	Ad05 / Aa01	†μελετεριῶν / μελέτρια	??
146 _{a-ke-ti-ra} ₂ / -o a-ke-ti-ri-ja-i	Aa16 / Ado4 Fn01.15, Myc. 101.10	ἀγήτειραι? ἀκέστειραι? †ἀγέρτειραι? / τειράων -τριας	ἀγέρτειραι? / τειράων (dat. plur.)

4. Nouns in -e-u

147 _{ka-ke-u} / we / u-si	An42.6 / Jn01.1 / An15.7	χαλκεύς / -ῆφες / -εὔσι	smith
148 _{i-je} / e-re-u	E004.7 / Eno3.16	ἱερεὺς	priest
149 _{ka-na-pe-u} / wo	Eno3.3 / Eb26.2	κναφεὺς / -ῆφος	fuller
150 _{ke-ra-me-we} / wo	An26.5 / Ea24.1	κεραμηῆφες / -ῆφων	potters
151 _{ka-ma-e-u} / we	Eb24.1 / Ep03.7 / Eb33.1	?κμαεὺς ?χαμαεὺς	agricultural worker? κμα- < κάμνω? Or cf. Hesychius: Cretan κάμαν· τὸν ἄγρον (Huxley)
152 _{wo-ne-we}	Cn14.2	†φοινῆφει	wine dealer?
153 _{pe-re-ke-we}	Ad19, Myc. 130	†πλεκήφες	= πλοκεῖς?
154 _{pa} ₂ ?-si-re-u	Kn01.20	?βασιλεύς	??
155 _{te-re-te-we}	An42.4		??
156 _{e-ro-pa-ke-u} e-ro-pa-ke-ta	0493.2 Myc. 101.9 }		(ἐλάφο- 'deer'? ἐλλοπο- 'fish'? ἀρκυς 'nei'?)
157 _{e-sa-re-u} / we	Na55.2 / 1517.11		??
158 _{we-te-re-u}	Eb32.2	†φειστρεὺς	(Dor. φέστρα 'clothes?')
159 _{ki-ri-se-we}	An08.2	†χρισήφες	anointers?
160 _{ma-ra-te-u} / we	An29.15 / Na67.2		(μάραθον 'fennel')
161 _{tu-ra-te-u} / we / u-si	Ae01 / 755 / Gn01.3		(τυρός? στῦλος? θύρα?)
162 _{ku-re-we}	An43.14		(σκύλος?)
163 _{o-pi-te-u-ke-we} o-pi-te-(u)-ke-e-u / we	798.10 Uno3.2 / An18.4 }	†ὀπιτευχεεὺς / -ῆφες	(ὀπι + τευχες- 'harness? rigging? vessel?')
164 _{o-pi-ka-pe-e-we}	Jn09.2	ὀπισκαφεῖφες = ἐπισκαφεῖς	harrowers

For the declension, compare:

165 _{ka-ra-we}	694.2	γρᾶφες	describing WOMEN ideogram
166 _{a-pi-po-re-we}	160.11	ἀμφιφορήφες	describing two-handled JARS

5. Agent Nouns in -te / -te-re

167 _{i-ja-te}	Eq02.9	ἰᾶτήρ	physician
168 _{ra-pie} / -re	Ea14 / An09.1	†φραπττήρ / -τήρες	tailor
169 _{o-na-te-re}	Eno2.11	†ὄναττήρες	tenants, beneficiaries?
170 _{pi-ri-je-te-re} pi-ri-e-te-si	An26.3 / An30.10	?φριετήρες / -τήρσι	πρω 'saw'? φρήμι / ἰημι; cf. Boisacq cf. φρήσω? Not πρίασθαι 'buy' (qurī). Pi-ri-je-te SWORD tablet 1548 is perhaps the aorist passive rather than the singular noun
171 _{ta-te-re}	An13.1	σταττήρες	??
172 _{a-de-te-re}	An26.4	-τήρες	??
?-te-re	Na57, 159.4	-τήρες	??
?-te-re	101	-τήρες	??
173 _{qo} ₂ -ra-te	Ae03		(Cf. qo ₂ -ra-se, same line, the correspond- ing future or aorist?)
174 _{ko-re-te} / -re	Jn09.4 / Jn09.1		(χωρέω? [ἐπι]κουρέω? κολλάω? κορέν- νυμι?)
175 _{po-ro-ko-re-te} / -re	Jn09.4 / Jn09.2		(προ- = 'subordinate'? Cf. προβοσ- κός)

For the declension, compare:

176 _{tu-ka-te-re}	Myc. 106.2	θυγατέρες	daughters
----------------------------	------------	-----------	-----------

6. Other Consonant Stems

177 _{po-me} / -ne	Ae04 / Ea19	ποιμήν / -ναι	shepherd
178 _{te-ko-to-ne}	826.2	τέκτονες	carpenters
179 _{te-ko-to-a-pe} te-ko-to-na-pe	An24.1 } An20.7 }	τέκτων ἄρπε-	? Or ἄρης 'was absent'?
180 _{me-?} ?-ne	Fn02.4		nom. plur. ??
181 _{da} ₂ -ma / -te	An16.3 / Jn09.1	δάμαρ / -τες	Seems generally to be masculine, pre- sumably in the original sense of 'qui administre la maison' * δαμ-αρτ-, Boisacq s.v.
182 _{po-ro-da} ₂ -ma-te	Fn02.7	†προ- δάμαρτες	
183 _{po-ru-da} ₂ -ma-te	An18.11	†πολυ-δάμαρτες	
184 _{me-ri-da} / da ₂ -ma-te	An18.2/8	†μελλι-δάμαρτες	(= μελλο-?)
185 _{ka-ru-ke}	Fn01.5	κᾶρῦκει	herald
186 _{wa-na-ka} / -te	Na58 / Uno3.1	φάνας / -κτει	king

§ 9. VERBAL FORMS

(a) The Verb 'to have'

The Pylos tablets Jn01-08 all show an identical division into two sections. The first part consists of a list of men's names, each of which is followed by an amount (measured by weight, Bennett, *AJA* LIV (1950), pp. 211 ff.) of a commodity finally totalled with the words *to-so-de ka-ko* τοςσόδε χαλκός. In the second part, more men's names are listed in a continuous sentence, with no commodity attached to them.

It is the phrases which introduce the two sections which are of great interest. Omitting the variable tablet heading (probably a local place-name), the first reads¹⁸⁷:

Ka-ke-we ta-ra-si-ja e-ko-te:
the second: *To-so-de a-ta-ra-si-jo ka-ke-we:*

Ka-ke-we is the plural of the occupational name *ka-ke-u* χαλκεύς (§ 8). The unusual prefixed *a-* and the ending *-jo* of *a-ta-ra-si-jo* evidently show some grammatical modification of *ta-ra-si-ja*; and it is precisely in Greek that we find 'those who have' expressed by ἔχοντες + accusative, 'those who have not' by an adjective combining ἀ- privative with transfer to the -ος declension:

- (1) χαλκῆφες †ταλασίαν ἔχοντες·
(2) τοσσοῖδε †ἀταλάσιοι χαλκῆφες·

What is this ταλασία, whose possession entitles the first smiths to an entry of so much BRONZE each, and whose absence relegates the second group to a mere listing by name? Björck and Chadwick both independently suggested that ταλασία = τάλαντον 'that which is weighed out or apportioned to one'. The semantic development shown by the classical ταλασία 'wool-spinning' is exactly paralleled by the Latin *pensum*.§

Jno1 also lists the *do-e-ro* δόελοι belonging to some of the smiths, and refers to a subsidiary category of *ka-ke-we po-ti-ni-ja-we-jo* χαλκῆφες ?ποτνιαφείοι. The last item of BRONZE on Jno4.7 is introduced, not by a man's name, but by:

to-so-de e-pi-(de)-da-to ka-ko pa-si: BRONZE $\frac{5}{30}$ unit.

'So much bronze was shared among them all'? (Cf. Vno1.1).

The two other occurrences of *e-ko-te* fit a plural participle equally well: Sno1.12 *ko-to-na e-ko-te* 'those who have κτοίνας', introducing four names (cf. *a-ko-to-no* †ἄκτοῖνοι in a similar context on An29.9); and Eb33:

ka-ma-e-we o-na-ta e-ko-te ke-ke-me-na-o ko-to-na-o wo-z?-o-te:
†κμαῖφες †δῶντα ἔχοντες ?κεκειμενάων κτοινᾶων, †φόρζοντες· ΠΥΠΟΣ $30\frac{15}{60}$

'The farmers (?) who have the leases (? from δῶνημι) of the fixed portions of land, and work them.' Compare the corresponding nom. sing. on Eb38.2¹⁸⁸ *ka-ma-e-u wo-z?o* κμαεύς φόρζων, and the dat. sing. on Ep03.5 *pa-ro ka-ma-e-we wo-z?o-te* παρὸ κμαῖφει φόρζοντει. This verb (3rd sing. *wo-z?e* Ep03.7 †φόρζει) is evidently a typical activity of κμαῖφες. From *φάρζω < *wřǵō parallel to *φράζω > ῥέζω? Cf. *γᾶ-φοργός > γεωργός.

The 106 Pylos tablets Eao1-Eq03 are entirely devoted to a record of such *o-na-ta* held by various individuals, and of the *pe-mo* / *pe-ma* σπέρμα? appropriate to each. In the most typical entry it is the 3rd singular of the verb 'to have' *e-ke* ἔχει, sometimes reinforced by an apparently almost meaningless enclitic *e-ke-ge* ἔχει κ^wε, which is the recurrent form:

Ep02.9 *I-do-me-ne-ja te-o-jo do-e-ra o-na-to e-ke ke-ke-me-na ko-to-na pa-ro da-mo, to-so pe-mo:* GRAIN $\frac{9}{60}$ unit
Ἰδομένεια, θεοῖο δόελα, †δῶντον ἔχει ?κεκειμένᾶς κτοίνας παρὸ δάμω, τόσσον σπέρμο· ΠΥΠΟΣ $\frac{9}{60}$

'Idomeneia, servant of the god, has the lease of a fixed portion of ground on the community's land. So much sowing: $\frac{9}{60}$ unit of grain.'

In the introductory phrases on En02, En03 the individuals are referred to collectively as¹⁸⁹ *o-na-te-re* †δῶντήρες 'tenants?', and they govern the 3rd person plural of the verb 'to have' *e-ko-si* ἔχουσι. The word *o-da-a₂* is baffling, but appears from the context to be a conjunction like Latin *item* or αὐτάρ.

En02.1 *Pa-ki-ja-ni-ja to-sa da-ma-te:* DA 40
2 *to-so-de te-re-ta e-ne-e-si:* MEN 14
3 *WA-NA-TA-JO-JO KO-TO-NA KI-TI-ME-NA, TO-SO-DE PE-MO:* GRAIN $2\frac{1}{60}$
4 *o-da-a₂ o-na-te-re e-ko-si* *Wa-na-ta-jo-jo ko-to-na:*
5 *A-TU-KO e-te-do-mo wa-na-ka-te-ro, o-na-to e-ke, (to-so)-de pe-mo:* GRAIN $\frac{1}{60}$
etc., etc.

1 Σφαγιανία τόσσα †Δᾶμάτηρ· ΔΑ 40 ('corn land'?)
2 τοσσοῖδε ?τελεσταί ἐνένσι [= ἐνεῖσι]· ANEPEΣ 14
3 Φαρναταῖοιο κτοίνας κτίμεναι, τοσσόνδε σπέρμο· ΠΥΠΟΣ $2\frac{1}{60}$
4 ? = αὐτάρ †δῶντήρες ἔχουσι Φαρναταῖοιο κτοίνας·
5 *Ατυχος, †έντεσδόμος †φανάκτερος, †δῶντον ἔχει, τοσσόνδε σπέρμο· ΠΥΠΟΣ $\frac{1}{60}$

Compare the paraphrase on Eoo1.2 ff.:

A-TU-KO e-te-do-mo e-ke-ge o-na-to pa-ro Wa-na-ta-jo: GRAIN $\frac{1}{60}$
*Ατυχος †έντεσδόμος ἔχει κ^wε †δῶντον παρὸ Φαρναταῖω· ΠΥΠΟΣ $\frac{1}{60}$ ||

§ Cuneiform economic tablets, particularly those from Ur and Nuzi, suggest many useful context parallels. Compare the large series which record issues of BRONZE to smiths for making various objects. For the phraseology, cf. the Sumerian tablet B.M. 18344 (CT III, Pls. 9f.): *geme-gurus še-ba dib-ba*: 'male and female serfs receiving barley wages': / *geme-gurus še-ba nu-dib-ba*: 'serfs not receiving barley wages':.

|| A similar context is seen on contemporary Nuzi tablets (e.g. AASOR XVI (1935-36) No. 87): "5 imer of BARLEY, given to Kipali for sowing on 5 imer of land belonging to Uzna; the lands of Uzna are for 'partnership', and Kipali shall not dispose of them." At Pylos, too, the acreages are presumably proportional to the amounts of seed.

²⁰⁰*ke-ke-me-na* and ²⁰¹*ki-ti-me-na* are probably synonymous, presumably in the sense of 'established' common to *κεῖμαι (Cf. Skt reduplicated perfect *ῥιγῆ*) and κτίζω. Not 'fallow / cultivated'? An interesting tablet, dealing in large quantities of GRAIN, is ERO1, with its suggestion of two offices φάναξ and λαφᾶγέταξ:

(a) †φανάκτερον τέμνος, τόσσοιο σπέρμα·	ΠΥΡΟΙΟ	30
(b) λαφᾶγέσιον τέμνος·	ΠΥΡΟΙΟ	10
(c) ?τελεστᾶων τόσσον σπέρμα·	ΠΥΡΟΣ	30
(d) τοσσοῖδε τελεσταί	ΑΝΕΡΕΣ	3
(e) <i>Wo-ro-ki-jo-ne-jo</i> ἐρῆμος, τόσσο:ο σπέρμα·	ΠΥΡΟΙΟ	6

te-me-no conforms exactly to the original meaning 'area of cornland reserved for a chief'.

On Eb35, which contains the longest continuous Mycenaean sentence yet found, we see the present infinitive of 'to have', ἔχεεν, the spelling confirming the derivation of the infinitive ending from *-esen:

1	<i>i-je-re-ja e-ke-ge e-u-ke-to-ge e-to-ni-jo e-ke-e te-o</i>
2	<i>ko-to-no-o-ko-de ko-to-na-o ke-ke-me-na-o o-na-ta e-ke-e:</i>
1	ἰέρεια ἔχει κ ^w ε εὔχετό κ ^w ε <i>e-to-ni-jo</i> ἔχεεν θεῶ,
2	†κτοινούχωφ δὲ κτοινῶων ?κεκειμενῶων †δνᾶτα ἔχεεν· ΠΥΡΟΣ 3 ⁵ / ₈ ⁷

As on An42, we find two halves of the formula contrasted by the particle *-de*. There is evidently a parallelism between the words *e-to-ni-jo* and *o-na-ta* (cf. Ep03.14) but the exact interpretation of this sentence must remain uncertain.

(b) Other Active Participles

Other evidence for these masculine qualifiers in *-o*, plur. *-o-te* which we regard as participles is provided by Knossos 823:

¹⁸⁹ <i>ta-ḫa-e-o-te</i> MEN 10;	¹⁹⁰ <i>a-ḫe-o-te</i> MEN 4
ταρπέοντες??	ἀπέοντες

Or †τάρφα ἐόντες 'crowded round', from ταρφέες as θάμα from θαμέες? Note the singular *a-ḫe-o* An20.6 τοιχοδόμος ἀπέων; and the corresponding indicatives *a-ḫe-e-si* 'are absent' Xn86, *e-ne-e-si* 'are in' Eno2.3, and *ḫo-si e-e-si* 'are attached' 0422.2.

Other participles are ¹⁹¹*e-o* Ep04.11 κτοινούχος ἐών; ¹⁹²*pe-re-wo-te* Na08 πλέφοντες?; ¹⁹³*e-ḡo-te* An32.11 ἐκ^wοντες 'engaged in?'; ¹⁹⁴*a-ke-ra₂-te* Vno3.1 ἀγγείλαντες? ἀγείραντες?; and ¹⁹⁵*o-ḫe-ro-te* An29.1 ὀφέλλοντες 'owing?' 'increasing?', of which *o-ḫe-ro-sa-de* Eb20.2 appears to be the fem. sing. ὀφέλλονσα δέ.

Future participles appear in the introduction to some lists of MEN to indicate the jobs assigned to them:

An14: ¹⁹⁶*to-ko-do-mo de-me-o-te* τοιχοδόμοι δεμέοντες 'masons for building work'.

An12: ¹⁹⁷*e-re-ta Pe-re-u-ro-na-de i-jo-te* ἐρέτα Πλευρώναδε ἰόντες, 'oarsmen to go to Pleuron', Homeric city in Aetolia (Κατάλογος Νεῶν B 639). Cf. the singular *i-jo* ἰών 1523.4-5 (but a man's name on Myc. 102.1).

(c) Medio-passive Participles

Kober was the first to suggest (letter 1.4.48) that the endings *-me-no* / *-me-na* which occur in four sets of words on the Knossos CHARIOT and WHEEL tablets are verbal forms, perhaps containing references to workmanship such as one may expect in long phrases dealing with manufactured articles. The new Pylos evidence (e.g. *ke-ke-me-na ko-to-na*, *ko-to-na ki-ti-me-na*, *ko-to-na-o ke-ke-me-na-o*) confirms the presence of a regular grammatical ending, but indicates that the forms in *-me-no* / *-me-na* are adjectives showing the same gender mechanism as the other words in *-o* / *-a* discussed in § 6. Both views can be reconciled by assuming that they are medio-passive participles, for which our transliteration offers an analogy in Greek (-όμενος, -μένος) as well as in Phrygian (e.g. ΕΠΙΤΤΕΤΙΚΜΕΝΟΣ).

Many of them show a reduplicated consonant suggesting a perfect stem, e.g. ²⁰⁰*ke-ke-me-na*, ²⁰²*de-do-me-na* 0440 δεδομένα, ²⁰³*de-de-me-no* Sao3 'bound', *ḡe-ḡi?-no-me-no* Vao2 (applied to a kind of ivory?); and on the CHARIOT tablets from Knossos, ²⁰⁵*me-ta-ke-ku-me-na* (whatever its transliteration and meaning) and ²⁰⁶*a-(ra)-ro-mo-te-me-no* / *na*, which for all the uncouthness of its Attic reduplication (cf. Hom. ἀκαχμένος etc.) may represent a perfect participle from the stem of ἀρμόζω / ἀρμάτ- 'with joinery work complete'. Compare *a-na-mo-to* ἀνάρμοστο- on the tablets (0421 etc.) which show only the bare outline of the chariot frame, *a-mo-te* 0442 ἀρμόσθη?, *a-mo-ta* 0435 ff. ἄρμοστα?, and *a-mo-te-jo-na-de* †ἀρμοστειώναδε or ἀρμάτειώναδε 'to the chariot workshop' (cf. χαλκῶν, etc.) as the destination of 'axles' on Vno6.

An analysis of the long formulae of the Knossos CHARIOT tablets reveals a syntax broken up into a number of short phrases, like those of an auctioneer's catalogue. On most of them, the

second line of text is to be read first. The following translations of three typical formulae must be extremely tentative:

- 0405.1 *wi-ri-ni-jo o-po-go, ke-ra-ja-pi o-pi-i-ja-pi, o-u-ge pe-no:*
 2 *I-QI?-JA po-ni-ki-ja a-ra-ro-mo-te-me-na, a-ra-ru-ja a-ni-ja-pi,*
 2 ἰκκῳῖαι φοινικίαι ἄραρμοστμένοι, ἀρᾶρυῖαι ἀνιάφι,
 1 φιρινιὸς ἄμπροκῳς κεραΐαφι ἰδοπιΐαφι, οὔκῳε ἄπτερο.

‘Horse-(chariots), painted crimson and with joinery work complete, supplied with reins. The rail (?) is of fig-wood, with fittings (?) of horn, and there is (-no?-) “heel?”’

For the ‘rail’ (related in meaning if not in form to ἄντυξ / ἄμπυξ?) cf. Iliad Φ 37-38: ὁ δ’ ἐρινεὸν ὄξει χαλκῳ τάμνε νέους ὄρηκας, ἴν’ ἄρματος ἄντυγες εἶεν. The adjective is also spelt *wi-ri-ne-o* 0428 φιρινεός, *wi-ri-ne-jo* φιρινειός 0417 (cf. χρύσεος / χρύσειος / Aeolic χρύσιος), and is replaced on 0403, by *e-re-ja-te-jo* ἐλεφάντειος ‘of ivory’. *Ke-ra-ja-pi* (. . . *-ra-i-ja-pi* 0483.1) ‘of horn’ is similarly replaced on 0481 by *ka-ke-ja-pi* χαλκείαφι ‘of bronze’.

- 0422.1 *o-u-ge pe-ja₂?-to u-po:*
 2 *I-QI?-JA a-ro-mo-te-me-na, o-u-ge a-ni-ja po-si e-e-si*
 2 ἰκκῳῖαι ἄρμοστμένοι, οὔκῳε ἀνία ποσί ἐενσι,
 1 οὔκῳε ὕπο.

‘Chariots with joinery work complete. And there are (-no?-) reins to them, and (-no?-) . . . under.’

- 0404.1 *do-we-jo i-go-e-ge, wi-ri-ni-jo o-po-go, ke-ra-ja-pi o-pi-i-ja-pi*
 2 *I-QI?-JA Ku-do-ni-ja mi-to-we-sa-e a-ra-ro-mo-te-me-na*
 2 ἰκκῳῖαι Κυδωνιάς ἰμιλτόφεσσαί ἄραρμοστμένοι.
 1 δόρφειος ἰκκῳο- , φιρινιὸς ἄμπροκῳς κεραΐαφι ἰδοπιΐαφι:

‘Chariots of Kydonia, painted red and with joinery work complete. The horse- . . . is of wood (= δούρειος; or ‘of oak’?), and the rail (?) of fig-wood with fittings (?) of horn.’ For *i-go-*, ‘horse’ cf. *e-ne-ka i-go-jo* Eq03.5. With the alternation of φοινικίαι and μιλτόφεσσαί, compare the Homeric epithets of ships φοινικοπάρειοι / μιλοτοπάρειοι.

The perfect participle *a-ra-ru-ja* forms its neuter *a-ra-ru-wo-a* 1541-54 ἀρᾶρῳά (see § 10, Morphology). Other medio-passive participles may include ²⁰⁷*qi-jo-me-no* Uno3.1 = τιόμενο-?; ²⁰⁸*re-go-me-no* 1517.1 = λειπόμενοι (cf. *o-pi-ro-go* Ab15 = ἐπίλοιποι); ²⁰⁹*to-ro-ge-jo-me-no* Eq01.1 = τροπεόμενο-?? A telling example, disturbed only by the lack of ʃ- shared in the Homeric metre, is Ae04²¹⁰:

- KE-RO-WO, po-me A-si-ja-ti-ja o-pi Ta-ra-ma-ta-o ge-to-ro-po-pi o-ro-me-no: MAN 1*
 K., ποιμήν Ἀσιατιάς ἰδοπι Θαλαμάταο κῳετρόπο[δ]φι ὄρομενος.

‘K., a shepherd of the place A., looking after the animals of T.’ Cf. Odyssey ξ 103-104:

ἐνθάδε δ’ αἰπόλια πλατέ’ αἰγῶν ἔνδεκα πάντα
 ἐσχάτην βόσκοντ’, ἐπὶ δ’ ἄνδρες ἐσθλοὶ ὄρονται.

On the parallel tablet Ae05 *po-me* is replaced by *ai-ki-ja-ta* ‘goatherd’. The place-name recurs on Cno9 (*A-si-ja-ti-ja ta-to-mo*) Ἀσιατιάς σταθμός introducing a list of ninety-two sheep.

Two obscure participles show an ending in *-so-me-no* / *-na* (futures?): *z?e-so-me-no* Uno8.4, and Myc. 106 ²¹²*pa-we-a₂ e-we-pe-se-so-me-na* (MV: φάρφρα εὔ ἐψησόμενα ‘cloths which are to be well boiled’?!).

(d) Indicative Forms

We have already discussed the indicatives ²¹³*e-ke* ‘has’ and its plural *e-ko-si*. A serious problem is presented by a number of words which show a distinct prefix in *o-*, *o-u-* or *jo-*. From their context they can all be identified as indicative forms, but the prefixes cannot yet be very satisfactorily explained.

The meaning of *o-u-* is probably the same as that shown by the conjunction *o-u-ge*. But we are not absolutely certain that this represents οὔτε ‘and not’ rather than ‘in addition’ (αὔτε?): is the phrase *e-ke o-u-ge wo-z?e* Ep03.7 ἔχει οὔκῳε ἰφόρζει meant to be synonymous with *ka-ma-e-u e-ke-ge wo-z?e-ge* Ep04.13 ἰκμαεύς ἔχει κῳε ἰφόρζει κῳε or, as the spelling would suggest, its exact opposite?

Again, on the Ma tablets (which record exactly proportional contributions of various unidentified substances, divided under three accountants’ headings) we can see a contrast between ²¹⁴*o-da-a₂ ka-ke-we o-u di-do-si: χαλκῳῖφες οὔ δίδονσι:* ‘and the smiths do not (?) contribute.’ (Ma01.2) and *o-da-a₂ ka-ke-we a₂te-ro we-to di-do-si: χαλκῳῖφες ἄτερον φέτος δίδονσι:* ‘and the smiths contribute next (?) year.’ (Ma13.2). Compare also Ngo2: *to-sa-de o-u di-do-to: τοσσαῖδε οὔ δίδοντο.* The other two regular entries of the Ma tablets are *a-pu-do-si: ἀπύδοσις* ‘payment, repayment?’ and *pe-ru-si-nu / -wo / -wa o-pe-ro: ἰπερυσινφόν ὄφελος* ‘last year’s debt (or surplus?)’.

Equally problematic is the prefixing of *o-* on *SnOI* in the phrase ²¹⁵*to-to we-to o- a-ke-re-se*: τῶτο φέτος ὁ ἄγρησε? ‘what he took (or will take?) this year?’ which alternates with *o-u-ge a-ke-re-se*: οὐκ^{wε} ἄγρησε. Both forms occur together in line 7: *Pe-ri-me-de-o i-?? Po-so-ri-jo-no Te-ra-ni-ja a-ke-re-se to-to-we-to o- a-ke-re-se*: which if it means ἄγρησε τῶτο φέτος ὁ ἄγρησε seems long-winded to say the least.

The same construction occurs in the unparalleled initial *o-o-* on *NnoI.I* ²¹⁶*o-pe-ro-si ri-no o-pe-ro*: ὁ ὀφέλλονσι λίνον (φρινόνς?), ὄφελος ‘the debt (or surplus?) of linen (or hides?)’: and in *Vno6.I* ²¹⁷*o-di-do-si da₂-ru-to-mo a-mo-te-jo-na-de*: ὁ δίδονσι δρυτόμοι ἰάρμᾶτειῶναδε ‘which the woodcutters contribute, to the chariot workshop’ (*a-ko-so-ne* ἄξονες ‘axles’ and *e-pi-pu-ta* ἑπίφυτα ‘saplings?’).

Further examples are the three parallel aorists *PnoI.I* ²¹⁸*o-de-ka-sa-to A-ko-so-ta* ‘which A. has received’; *EqoI.I* ²¹⁹*o-wi-de A-ko-so-ta* ‘which A. has seen’; and *Uno8.I* ²²⁰*o-do-ke A-ko-so-ta* ‘which A. has given’. Also *Eb2o.2*:

- 1 *Ka-pa-ti-ja ka-ra-wi-po-[-ro]-ja-pi e-ke-ge to-so-de pe-mo*:
 2 *ke-ke-me-no ko-to-[no] wo-wo o-pe-ro-sa-de wo-z?o-e o-wo-z?e*:
 1 Καρπαθία, κλαφιφό[ρος ?Σφαγ]ίῳφι, ἔχει κ^{wε} τοσσόνδε σπέρμο·
 2 ?κεκειμένο- κτοί[vo-] φόρφος, ὀφέλλονσα δὲ ?φόρσοι ὁ φόρζει·

The meaning is very uncertain. *Ko-to-no* (which recurs on *EboI*) is probably a genitive, since all the other occurrences of *wo-wo φόρφος* and of its plural *wo-wi-ja* (= ὄρια) are preceded by a genitive. Unless it represents *χθονός*, *ko-to-no* is hard to reconcile with any part of the classical declension of κτοίνᾱ. A gen. dual. fem. in *-oiw*, dating from before the analogical creation of *-aiw*? For the construction with ὄρος, cf. ῥεῖθρον ἠπείροιν ὄρον Aesch. Pr. 790.

In Linear *B* the syllable *jo* (like *ja* and *je*) is almost non-existent as an initial, as it should be in Greek. But it occurs prefixed to three Pylos words ending in *-si*, which are probably 3rd person plurals. They all occur as the first word on their tablets, and the anomalous prefix seems in some way related to the use of *o-* (proclitic ὡς <*jως ‘as’? Cf. Boisacq s.v. ὡς I and IV; and note *jo-A-mi-ni-so-de* 0467.I ὡς Ἀμισόνδε?):

(1) BRONZE tablet *Jno9.I*²²¹

- 1 *jo-do-so-si ko-re-te-re da₂-ma-te-ge*
 2 *po-ro-ko-re-te-re-ge ka-ra-wi-po-ro-ge o-pi-qa₂-ko-ge o-pi-ka-pe-e-we-ge*
 3 *ka-ko na-wi-jo pa-ta-jo-i-ge e-ke-si-ge ai-ka-sa-ma*:
 4 *Pi-??: ko-re-te: BRONZE $\frac{2}{3}$ po-ro-ko-re-te: BRONZE $\frac{3}{120}$*
 etc., etc.
 1 ?ὡς δώσονσι ἰκορεστῆρες δάμαρτές κ^{wε}
 2 ἰπροκορεστῆρες κ^{wε} κλαφιφόροι κ^{wε} ὀπιγ^wοῦκοί κ^{wε} ὀπισκαφεῖφές κ^{wε}
 3 χαλκὸν νᾶφιον, ἰσπαθαίσις κ^{wε} ἔγγεσσί κ^{wε} αἰξιμάν·

‘How the (representatives of the various groups in the different villages) will contribute bronze for ships’ fittings, and the points (IE *aiksmā- Boisacq s.v. αἰχμή) for halberds (?) and spears:’

(2) CATTLE? tablet *Cn22.I*²²²

jo-i-je-si ?ὡς ἰένσι ‘how they send . . .’

(3) PIG tablet *Cno2.I*²²³

- 1 *jo-a-se-so-si si-a₂-ro o-pi-da-mi-jo*:
 3 *Pi-??: PIGS 3*
 etc., etc.
 ὡς ἰσήσονσι σιάλων ὀπιδαμίους·

‘How they will send (??) domestic (local, native?) pigs:’

§ 10. THE POSITION OF THE MYCENAEAN DIALECT

The general reasons for believing the Linear *B* tablets to be written in some form of Greek have been outlined above. If the experimental phonetic values are approximately correct, they provide evidence for a more detailed identification, and enable us to assign the idiom to a specific dialect position. It has long been established that before the Doric invasion an ‘Achaean’ population must have inhabited the Peloponnese and the southern islands, and it is believed that the classical dialects of Arcadia and Cyprus afford a clue to the nature of their speech. Although some familiar Arcado-Cyprian peculiarities (which may well be later developments) are absent, the general features of our Mycenaean dialect contain nothing which conflicts with this theory.

1. *Phonology*

The vowel system is primitive, and agrees with the earliest texts: $\bar{\alpha}$ is never changed to η , and contraction seems to be unknown. The genitives of masculine *-a-* stems are in $-\bar{\alpha}\sigma$, not in $-\alpha\nu$ as in Arcadian and Cyprian. The change of final $-\sigma$ to $-\nu$ does not appear except in the preposition $\acute{\alpha}\pi\acute{\upsilon}$, shared by Arcado-Cyprian and Aeolic. There is some evidence of a change of $\bar{\alpha}$ to σ in contact with ρ , a phenomenon also known in the Aeolic and Arcado-Cyprian dialects: e.g. $\pi\alpha\rho\acute{\sigma}$ = $\pi\alpha\rho\acute{\alpha}$, $\kappa^w\epsilon\tau\rho\sigma$ = $\tau\epsilon\tau\rho\alpha$ (cf. Thess. $\pi\epsilon\tau\rho\sigma\eta\tau\eta\rho\acute{\iota}\delta\alpha$), $\sigma\acute{\pi}\acute{\epsilon}\rho\mu\alpha$ / $\sigma\acute{\pi}\acute{\epsilon}\rho\mu\sigma$. The Arcado-Cyprian change of $\epsilon\nu$ to $\iota\nu$ does not appear ($-\mu\epsilon\nu\sigma$, etc.).

The most striking feature of the consonants is the use of separate signs to indicate the labio-velars. The exact interpretation of the signs in *q-* cannot be deduced, but their sounds presumably differed substantially from those of the series *k-p-t-*; and it is not unreasonable to suppose that the labio-velars, which were certainly present in Common Greek, were actually retained in speech down to the 13th century B.C. This is assumed in the transcription, where the spellings κ^w , γ^w , χ^w , have been used. The original labio-velar still shows traces of differentiation before ϵ and ι in 5th century Arcadian (spellings $\epsilon\acute{\iota}\sigma\epsilon$ and $\sigma\acute{\iota}\sigma$ at Mantinea).

The loss of initial and intervocalic σ is amply attested. The lack of any sign for *h* (a feature shared by the Cypriot syllabary) does not necessarily indicate psilosis. The use of a separate series of signs for *t-* and for *d-* makes it possible to show that the Indo-European $*dh$ has already become voiceless: e.g. *e-re-u-te-ro* Na56 $\acute{\epsilon}\lambda\epsilon\upsilon\theta\epsilon\rho\sigma$; *e-ru-ta-ra-pi* 573 $\acute{\epsilon}\rho\upsilon\theta\rho\acute{\alpha}\phi\iota$.

f seems to be regularly retained in all positions, though it is possible that it is not written initially before ρ . The absence of f from a few words where it was to be expected (e.g. $\acute{\epsilon}\nu\epsilon\kappa\alpha$, $\acute{\iota}\epsilon\rho\epsilon\iota\alpha$, $\delta\rho\acute{\omicron}\mu\epsilon\nu\sigma$) may be due to unexplained circumstances, but perhaps we shall have to revise our etymologies in these cases.

$-\tau\iota$ regularly yields $-\sigma\acute{\iota}$: thus the 3rd person plural is in $-\sigma\acute{\iota}$. Unfortunately the spelling rules allow so much scope that it is impossible to tell if the form *e-ko-si* corresponds to $\acute{\epsilon}\chi\omicron\nu\sigma\acute{\iota}$, $\acute{\epsilon}\chi\omega\sigma\acute{\iota}$, $\acute{\epsilon}\chi\omicron\sigma\acute{\iota}$, or even $\acute{\epsilon}\chi\omicron\sigma\acute{\iota}\sigma\acute{\iota}$. In default of direct evidence we have tentatively written these, and similar, forms with $-\nu\sigma$. The same sound change yields $\pi\sigma\acute{\iota}$ from $\pi\omicron\tau\acute{\iota}$.

2. *Morphology*

The pattern of noun declension discussed in §§ 7, 8 above closely corresponds with the Homeric forms, excluding the Ionicisms. Especially remarkable are the genitives of *-o-* stems in $-\omicron\sigma$, only attested, outside the epic dialect, in some Thessalian inscriptions. The termination $-\phi\iota$ occurs several times, apparently with locative, comitative, or instrumental force. Consonant stems have a dative in $-\epsilon$, presumably to be interpreted as $-\epsilon\iota$. This is known in $\Delta\iota[\text{f}]\epsilon\acute{\iota}$ (also in compounds), and is probably the original IE dative, which was replaced generally in Greek by the ending $-\iota$ of locative origin. Traces of the latter can be seen in the datives $-\mu\eta\delta\epsilon\acute{\iota}$ $-\kappa\lambda\acute{\epsilon}\phi\epsilon\acute{\iota}$ (§ 7.3), *ko-re-te-ri* Ono1.5, and possibly in some Mycenaean forms in $-\epsilon\omega\iota$.

The 3rd person plural of the verb 'to be' has the form *e-e-si* $\acute{\epsilon}\epsilon\nu\sigma\acute{\iota}$, presumably from $*esenti$ with the initial *e-* extended from the other persons. This may be the original form displaced by the curious Homeric $\acute{\epsilon}\bar{\alpha}\sigma\acute{\iota}$ (Iliad H73, etc.), in which the termination $-\bar{\alpha}\sigma\acute{\iota}$ appears to be extended from the perfect.

The infinitive of thematic verbs is exemplified by *e-ke-e* $\acute{\epsilon}\chi\epsilon\epsilon\nu$. This is another form unparalleled in classical inscriptions, though the common type in $-\epsilon\iota\nu$ or $-\eta\nu$ is agreed to be the result of a contraction $\epsilon + \epsilon\nu$. Arcadian usually prefers the infinitive in $-\epsilon\nu$; the Cyprian forms are ambiguous.

The oblique stems of the comparative and of the perfect participle active retain the common IE forms with $*-s-$, and do not show the $-\nu-$ and $-\tau-$ characteristic of later Greek:

IE.	Greek.	Sanskrit.	Latin.
*-joses	$\mu\acute{\epsilon}\zeta\omicron\epsilon\varsigma$ $\mu\epsilon\text{f}\acute{\iota}\omicron\epsilon\varsigma$	-jāmsah	*mag-joses > maiores
	} > -joves } Att. -jous		
*-wosa	$\acute{\alpha}\rho\bar{\alpha}\rho\acute{\omicron}\alpha$ $\tau\epsilon\tau\upsilon\chi\acute{\omicron}\alpha$	-vāmsi	—
	} > -ótα		

3. *Vocabulary*

Not least significant are the apparent omissions. There is no trace of the definite article. The connective $\kappa\acute{\alpha}\iota$ (or $\kappa\acute{\alpha}\varsigma$) seems to be absent, the inherited enclitic $\kappa^w\epsilon$ alone being used: this particle seems to have a wider range of meaning than in classical Greek.

A number of words provisionally interpreted are additions to the known Greek vocabulary, but except where they are compounds their meanings are not at all clear. More interesting are the words which occur in new forms: e.g. $\delta\acute{\omicron}\epsilon\lambda\omicron\varsigma$ (= $\delta\omicron\upsilon\lambda\omicron\varsigma$), $\acute{\alpha}\rho\tau\omicron\pi\acute{\omicron}\kappa^w\omicron\varsigma$ (thus confirming a suggested etymology of $\acute{\alpha}\rho\tau\omicron\kappa\acute{\omicron}\pi\omicron\varsigma$), $\pi\epsilon\rho\upsilon\sigma\iota\nu\acute{\omicron}\varsigma$ (this may explain the Homeric lengthening of this suffix in $\delta\acute{\omicron}\pi\omega\rho\acute{\iota}\nu\acute{\omicron}$ Iliad E 5), $\mu\epsilon\acute{\iota}\omega\nu$ for $\mu\epsilon\acute{\iota}\omega\nu$, $\phi\alpha\nu\acute{\alpha}\kappa\tau\epsilon\rho\sigma$ as the adjective from $\phi\acute{\alpha}\nu\alpha\acute{\xi}$. The frequent agent nouns in $-\tau\eta\rho$ (§ 8. 5), and especially $\acute{\iota}\bar{\alpha}\tau\eta\rho$ for $\acute{\iota}\alpha\tau\rho\acute{\omicron}\varsigma$, confirm the connexion with Homer and with Cyprian. $\acute{\iota}\epsilon\rho\acute{\omicron}\varsigma$ and its derivatives show the forms with $-\epsilon-$ typical of East Greek. The

preposition ἄπύ is restricted to the Aeolic and Arcado-Cyprian dialects. πρῶς is not directly attested elsewhere, but occurs with apocope πός in Arcadian and Cyprian. ἐπί is found occasionally on the tablets, but its place is more often taken by ὀπί, not found as a simple preposition in later Greek, but surviving in ὀπώρα and ὀπιθεν. It is surprising that no certain example of πεδά occurs; μετά, on the other hand, is amply attested.

The form *Po-se-da-o* Ποσειδάων is the Homeric one; and suggests that the Corinthian Ποτειδάφονι is not original, but shows an extension of -f- perhaps on the analogy of Παιάφων. Arcadian has an -o- diphthong in this name, Ποσοιδᾶνος (*cf.* Laconian Ποιοιδᾶν).

4. Conclusion

If our Greek transliteration is justified, it points inescapably to an archaic dialect of the 'Achaean' type; which is precisely what, on historical grounds, we should expect the inhabitants of Pylos and of Mycenae to have spoken. The name 'Achaean' has been used to denote a hypothetical ancestor of the Arcado-Cyprian and of the Aeolic dialects, and it therefore seems the most appropriate term to use for this new dialect. To show that it is the speech of the Ἀχαιοί of Homer, and not of the historical Achaea, it would perhaps be as well to follow the scholars who have referred to it as *Old Achaean*.

If this was the language of Nestor and of Agamemnon, then it was presumably also that of Demodokos and the poets of the time. Should we not conclude that the 'Aeolic' stratum, which so obviously underlies the text of Homer, is not the Aeolic of Lesbos but a much older Achaean form, which had already set the conventions of epic verse within the 2nd millennium B.C.?

Attention has been drawn to similarities, especially in vocabulary, between Cyprian and Homer; but to suppose two transpositions, first from Achaean to Aeolic, and then from Aeolic to Ionic, is stretching credulity rather far. If the original stratum was of this archaic Mycenaean type, many of the difficulties disappear. Certainly the similarities outlined above seem a powerful argument in favour of such a hypothesis. A demonstration and discussion of this theory must await a more complete knowledge of the dialect; but the suggestion will serve to show that the solution of the Minoan script will contribute to our understanding of the literature as well as of the history and religion of early Greece.

MICHAEL VENTRIS
JOHN CHADWICK