

The Landholders of Pylos

EMMETT L. BENNETT, JR.

ONE group of tablets from the archives of the Palace of Nestor at Pylos has been particularly helpful in the first steps of the decipherment of the Mycenaean script which has by now gained general acceptance. It is doubly interesting in that it gives not only linguistic evidence of considerable value in the reconstruction of the language written in these documents, but also some clues to the economic organization of the territory of Pylos in Mycenaean times. There have already been several partial treatments of this material,¹ but they have been limited by the unfortunate delay in the publication of the Pylos tablets found since the excavations at Pylos were resumed in 1952. It is here proposed to treat the evidence of all the inscriptions of this group, and in doing so to demonstrate how the analysis of the tablets without decipherment or transliteration can be made to show the nature of the accounts contained therein. This discovered nature is then seen to correspond with the sense of the tablets as they have been interpreted through their deciphered texts.

¹ The present study had its beginning as part of a proposed commentary to *The Pylos Tablets* while I was a member of the American School of Classical Studies, Fulbright Research Fellow, and Morse Fellow of Yale University. An abbreviated version of the study of the E₁ tablets was delivered before the joint meeting of the American Philological Association and the Archaeological Institute of America at Boston, December, 1954.

Among the many studies of the Archives of Pylos which have appeared since Ventris' decipherment, these are particularly pertinent to the interpretation of the E tablets:

Ventris, M. and Chadwick, J., "Evidence for Greek Dialect in the Mycenaean Archives," *HIS* 73, (1953) 84-105.

Ventris, M., *Glossary*, Privately Circulated (1953).

Furumak, A., "Agrarische Texte in griechischer Sprache," *Franos* 51 (1953) 102-120; 52 (1954) 18-60.

Pugliese Carratelli, G., "La Decifrazione dei Testi Micenei," *La Parole del Passato* 35 (1954) 87-117.

—, "Novi Studi sui Testi Micenei," *La Parole del Passato* 36 (1954) 215-228.

Webster, T. B. L., "Pylos E Tablets," *Bulletin (of the Institute of Classical Studies of the University of London)* 1 (1954) 13-14.

Chadwick, J., "Mycenaean: A Newly Discovered Greek Dialect," *Transactions of the Philological Society* (1954) 1-17.

Pulmer, L. R., "Mycenaean Greek Texts from Pylos," *Transactions of the Philological Society* (1954) 18-53b.

—, *Achaean and Indo-European* (Oxford 1955).

² Bennett, E. L., *The Pylos Tablets, Texts of the Inscriptions Found, 1929-1954* (Princeton 1955) 143-161. This revised and augmented edition replaces *The Pylos Tablets, A Preliminary Transcription* (Princeton 1951).

³ The sign is identified as 120 in the list of ideographic signs in *Pylos Tablets* (1955) 202, numbered to conform to

The group of tablets which we shall consider is that which was classified in *The Pylos Tablets*² as E, on the ground that they all dealt with a measured commodity represented by the sign 120,³ frequently found at Pylos, and rarely at Knossos. This large group of tablets was subdivided, by no means perfectly, into classes identified as E_a, E_b, etc. We shall here be primarily concerned with classes E₀ and E_n, secondarily with E_b and E_p, and to some extent with E_a, E_c, and E_q. With the republication of all the Pylos tablets to include the newly discovered texts, the arbitrary system of numeration adopted in the *Preliminary Transcription* is replaced by the use of the inventory numbers of the tablets, prefixed by their classification. Moreover, a few tablets within the E classification have been shifted from one subclass to another. Therefore, a brief concordance of the tablets cited in this article is given below in the footnote for those who will refer to the *Preliminary Transcription*.⁴ But reference will also have to be made to new inscriptions, some new readings, and more nearly

the list in a forthcoming book by Ventris and Chadwick. Cf. Ventris, M. F., "Numerical References for the Mycenaean Ideograms," *Minos*, 4 (1955) 5, Tables I-III. The sign 120 is to be transcribed conventionally as WHEAT.

⁴ Concordance of the inscriptions quoted:

The list number is that of *Pylos Tablets* (1955); the number in parentheses is that of the *Preliminary Transcription* (1951).

Ea28 (14)	12464 (27)	Fa274 (02)
71 (23)	473 (34)	247 (04)
132 (09)	495 (05)	168 (Ea20)
270 (12)	493 (28)	269 (Ea16)
309 (38)	501 (04)	276 (13)
480 (10)	506 (02)	278 (Ea01)
	818 (Ea21, 32)	281 (Fa14)
Ea156 (24)	842 (Fa33)	251 (Ea02)
159 (22)	846 (08)	371 (Ea24)
160 (43)	862 (38)	444 (06)
177 (25)	901 (36)	471 (Ea25, Fa03)
236 (33)		
292 (37)	Ea211 (07)	Fa213 (05)
297 (35)	481 (01)	301 (01)
317 (32)		539 (03)
321 (21a)	Ea74 (03)	617 (04, Xa24)
338 (20)	467 (01)	705 (05)
347 (29)	609 (22)	
369 (09)		Ea59 (03)
377 (03)	Ea16a (05)	
409 (10)	173 (Ea05)	Fa112 (01)
416 (30, 44)	311 (01)	880 (02)

Full concordances appear in *Pylos Tablets* (1955) xvii-xxxii.

complete copies than were available in 1951, made possible by the joining of newly found pieces to the published fragments. Furthermore, in quoting the texts, the transcription of Ventris will be used rather than the signs of the script.⁶ Though the pronunciation of these transcriptions will often suggest the Greek they represent, they may be considered for the beginning and the greater part of this article as uncommunicative.

The tablets of the E series are among those with the longest preserved texts in Mycenaean epigraphy, and their texts are highly formulaic. To some extent the set patterns of the words of the text are the basis for their classification, which is designed to bring together for more significant comparison texts of similar contents. Variations of the same few formulae comprise most of the text of the Ea, Eb, En, Eo, and Ep tablet with which we are concerned. Differences in the formulae or combinations of formulae, and in the number and size of the transactions recorded on the several tablets led to the establishment of the subgroups. But at the same time, this subdivision can be accomplished almost equally well by a sorting of the tablets on the basis of their physical appearance, of the arrangement of the texts, and of the handwriting. Ea tablets, for instance, are all written by one hand, Eb and Eo by another, and En and Ep by a third. Ea tablets are all long and narrow and rather tapered to the right, with one line of writing, although occasionally words, too many to put on one line, are inscribed above the others without ruling. Each tablet is a single entry in the bookkeeping of the scribes, and begins at the left, where the first word is likely to be in somewhat larger characters, and ends with the ideogram, metrical signs, and numerals. The Eb's generally are written on somewhat thicker and broader, but still long and narrow tablets, with two lines of writing separated by a rule. The single entry is disposed in the two lines of text, since the number of words is often greater than in the Ea series and the hand is a bit larger. The ideogram and quantity often occupy the space of both lines of text at the right end of the tablet. Broken Eb tablets normally show the hole left by a cord of dried grass running through the length of the tablet. A few tablets still classified as Eb are inscribed by another hand and differ also in their textual formula. The relationship of their content to that of the rest of the Eb tablets remains uncer-

tain. These include Eb236, 317, 817, 901, and Eo411. Some of the Eo tablets are hardly distinguishable from the Eb tablets, or in arrangement from the Ea tablets, when the text consists of only one or two entries. But most of them have more than two entries, and so require several lines, each a complete entry with its formula of words, ideogram, metrical signs, and numerals. Therefore the scribe used a broader blank of clay and ruled sufficient lines to contain his text.

The Ep and En tablets are both inscribed on broad blanks, nearly made and relatively thin, with many lines of text. The En tablets may be distinguished by the fact that the text is broken up into paragraphs, each with an apparent heading, and separated from the next by a narrow ruled space left uninscribed. The Ep tablets have no paragraphs, nor are the first lines of the text apparently different from the rest. In the subclass Ec are three long narrow two-lined miscellaneous tablets. Of these, 481 is to be taken with the Ea tablets and 411 with the special Eb group. The Eq's are broad tablets, of which 59 belongs in content with Ea. The others are not uniform, but are distinct from other E tablets. The Er's are two broad tablets by a single hand and have a distinctive text. The Es's form a group not by a single hand, but they are put together because of the uniformity of their content, in which the same set of thirteen names appears in two extensive texts in the same order and with nearly the same proportions of quantities assigned to them. The differences in arrangement and in some of the physical characteristics of these groups may be seen in the drawings of these tablets which appear in the *Pylos Tablets*.⁸

I

Purely external criteria will almost serve to distinguish these classes, but the variations between and within the formulae are far more instructive. They may be approached by citing some examples, from which we may see their elements and composition and be in a better position to understand their significant variants. The several parts of the formulae to which we shall refer are marked off by the sign |.

Ea824: Ko-do po-me | e-ke o-na-to | pa-ro da-mo |
WHEAT o/4

Ea825: Tara-ma-ta | e-ke o-na-to | pa-ro Ko-do
po-mo-ne | WHEAT o/1

transcribed sign, for which no value is yet established.

⁸ *Pylos Tablets* (1955) 1-112.

⁶ See the list of signs and their values, *Pylos Tablets* (1955), 201. In the transcription a * precedes the number of an un-

Ea754: *Ti-ri-da-ro ra-pte | e-ke o-na-to | Ko-do-jo
ko-to-na | WHEAT* 0/6

Ea480: *E-ri-qi-jo | e-ke o-na-to | ke-ke-me-na
ko-to-na | su-qa-tu-o ko-to-na | WHEAT* 0/2

En609.6: *I-ni-ja te-o-jo do-e-ra | a-na-to e-ke |
to-so-de pe-mo | WHEAT* 0/2/1

Eo211.2: *A-tu-ko e-te-do-mo | e-ke-ge o-na-to |
pa-ro Wa-na-ta-[jo] | WHEAT* 0/-/[1

Ep212.2: *E-ri-ko-wo te-o-jo do-e-ro | o-na-to e-ke |
ke-ke-me-na ko-to-na | pa-ro da-mo | to-so pe-mo |
WHEAT* 0/-/3

Eb866: *Ma-ra^h-wa te-o-jo do-e-ra | e-ke-ge o-na-to |
ke-ke-me-na ko-to-na | pa-ro da-mo | WHEAT*
[0/2]

Ea71: *Ko-do-jo po-me | ko-to-na ki-ti-me-na |
WHEAT* 1/4/3

The first word is the most variable element in the formulae. At the same time it is the most essential, aside from the quantity noted with it. Its importance is sometimes emphasized by the greater size of its characters. It is absent only in En609.4, second half, where it may be supplied from the surrounding entries, and in Eb818—Ep301.1 where the sense may require none. While the same first word may appear in several entries, and even with the same following words, though mostly with different quantities, the same formula will exhibit a great variety of first words. Thus we are led to suppose that this is the name of the person, place, group, or thing to which the transaction is credited. It is simple enough to show that this name is also a personal name when we examine such texts as En609.6 and Ep212.2 just quoted. Such entries altogether make up about half of those in Eb, En, Eo, and Ep tablets. It is the first three words which are to be considered. The first is the name, the second is invariable, and the third has two forms: do-e-ro and do-e-ra. It is obvious by a simple inspection of the names in these two versions of the phrase, and it is confirmed by a sorting, that the names preceding *do-e-ro* end predominantly in one set of signs (which turn out in the decipherment to have values mostly ending in -o), while the names with *do-e-ra* end in another set (mostly in -a). These appear with *do-e-ro*:

O-re-a²; Pu-[.]da-ka; I-na; E-ru-wo-ta;

Wi-wo-wo-i-jo, Da²-ni-jo; Ka-ta-no;

*Ka-ra-u-da²-ro, E-sa-ro, Ai-ki-u-ro, Ka-wa-do-ro,
So-u-ro, Ra-su-ro; —]ru-so, Ka-ru²-56-so, Ku²-63-so;
Ko-sa-ma-to, Ya-ra²-tu (Tu-ra-to), E-ko-to, E²-65-to;
We-da-ne-wo, Pu-ko-wo, E-ri-ko-wo, E-ni-to-wo;*

*E-do-mo-ne-u, Me-re-u, Te-te-re-u, Te-se-u,
To-wa-te-u.*

These appear with *do-e-ra*:

*Te-pa²-ja, Ai-wa-ja, I-do-me-ne-ja, Po-so-re-ja,
U-wu-mi-ja, I-ni-ja, E-ri-qi-ja, Ko-ri-si-ja, To-ro-ja;
Re-ka, Ta-ra-mi-ka; Si-ma; Ko-pi-na, Pi-ro-na;
E-ra-ta-ra, Mi-ra; I-ru-ta, Qe-ri-ta; Ma-ra³-wa
(Ma-ra-wa);*

*Tu-ri-ja-ti, E-pa-sa-na-ti (I-pa-sa-na-ti), Mu-ti
(Mu-ti-ri);*

Mu²-79.

By mistake, since it is the name of only one person, there appears with both *do-e-ro* and *do-e-ra*:

Ma-re-ku-na.

Notice that some of these names seem to form pairs, masculine and feminine forms of the same name: *I-na, I-ni-ja; E-do-mo-ne-u, I-do-me-ne-ja; E-ri-ko-wo, E-ri-qi-ja.* Thus these names may be divided by gender, and we must suppose them to be men and women. The phrase *te-o-jo do-e-ro* (*do-e-ra*) is of course some qualifying phrase which agrees in gender with the name. Among the given examples of formulae, the words *ra-pte* (Ea754), *po-me* (*po-me-ne*) (Ea824, 825), and *e-te-do-mo* (Eo211.2) are of the same order, and their function is to qualify the name.

We may call the name which appears as the first word of each entry the subject of the entry, but not in any grammatical sense. A pair of texts such as Ea71 and 824, for example, show a difference in spelling of what must be the same name when it appears in the same position in two different formulae. Not all names show different spellings when they occur as subjects in both these formulae, but enough do regularly to show that some regular variation of syntax is involved.

From tablets like Ea825 and 754, it is seen that these names (they may be distinguished by capitalization in our transcription) may also be found in another position within the formulae. When they are so found we may call them references, since they plainly have some secondary interest in the transaction, while the subject has a primary interest. There are in general two forms of reference with obviously different syntax. One is seen in 825 in the phrase *pa-ro* Name, the other in 754 in the phrase Name *ko-to-na*. A clear demonstration that these two phrases are equivalent in meaning may be found in comparing the En and Eo texts, as will be done further on. Again there are variations in spell-

ing for the same names in these two forms of reference.

To discover the inflectional pattern which these names display as they appear as subjects and references in these tablets is not our primary purpose, and other texts than these add materially to the available evidence. Therefore a summary of the types of inflection met in the E tablets we are discussing will suffice. The first case is shown in a subject before the word *e-ke* (*e-ke-ge*). The second appears before the word *ko-to-na* in subjects of the type of Ea71 and in references of the type of Ea734. The third appears in references after the word *pa-ro*. Included here are those names which appear in at least two different forms, as well as other words which either qualify the names or are used in their stead in certain entries.

Ru-ko-ro, Ru-ko-ro, Ru-ko-ro-jo.

Similarly: *Mo-ro-ko-ro, Ra-ku-ro, Ko-du.*

Ti-pa²-jo, ra-wa-ke-si-jo, Wa-na-ta-jo, A-ku-ta-jo, A-da-ma-o.

Pe-re-qa-tu, Pe-re-qa-tu, Qe-re-qa-ta-o.²

Similarly: *A-ma-ru-tu, su-qa-tu, Ta-ra-ma-ta.*

I-ma-di-ja, I-ma-di-jo, —.

Sa-ke-re-u, Sa-ke-re-we, Sa-ke-re-wo.

Similarly: *Pi-ke-re-u, i-je-re-u (i-e-re-u), pa-da-je-u,*

(pa-de-we-u), ka-na-pe-u, Ai-ge-u.

Ai-ti-jo-qa, Ai-ti-jo-ge, Ai-ti-jo-qa.

—, *Ru *83e, Ru *83o.*

po-me, po-me-ne, po-me (po-me-no?)

The second element in all the examples except Ea71, following the name and the qualifying words, is the phrase *e-ke o-na-to* and its easily recognized variants. Whether there is a real difference in meaning between *e-ke* and *e-ke-ge* is difficult to say, and for our present purpose it is immaterial.

The reference, third element in Ea824, 825, 754, and Eo211.2, fourth in Ea480, Ep212.2, and Eb866, has been discussed with the subject. Notice that except for the word *ki-ti-me-na*, the whole verbal part of Ea71 is in the form of a reference.

The phrases *ki-ti-me-na ko-to-na* in Ea71 and *ke-ke-me-na ko-to-na* in Ea480, Ep212.2, and Eb866 form another element, in which we may assume that *ki-ti-me-na* and *ke-ke-me-na* are in agreement with *ko-to-na* and qualify it. They neither appear alone, as *ko-to-na* does, nor together in the same tablet.

The third element in En609.6, *to-so-de pe-mo*,

and its variant, *to-so pe-mo*, in Ep212.2 and Eb866 are apparently quite equivalent in meaning.

The final element, more necessary even than the subject, is the quantity shown by the ideogram 120, transcribed as *WHEAT*, the metrical signs, 112 (=1/10 of the quantity represented in 120) and 111 (=1/6 of 112), and numerals. E.g., the quantity *120 1, *112 2, *111 3 will be transcribed as *WHEAT 1/2/3*.

Other words and phrases, found in a good number of entries but not regularly, need not be considered as regular parts of the formulae, but will record unusual details of the transactions in particular entries.

II

When we begin a more thorough comparison of the E tablets, we may immediately reduce the volume of our material and at the same time increase the value of some of it, by noticing that several en-

Correspondence of Text in En/Eo and Ep/Eb Tablets

En 74.1-9	Eo276	Ep301.11	Eb501
.11-18	247	.12	377
.20-24	160	.14	895
467.1	278	539.3	885
.3	268	.8	1176
.5	371	.10	1187
609.3-8	211	.11	1188
.10-18	224	.14	473
659.1-6	444	617.3	862
.8-10	351	.6	177
.12-13	471	.8	842
.15-16	281	.9	156
.18-19	269	.10	159
Ep617.11-12	173	.11-12	Eo173
		.13	Eb839
Ep212.1	Eb886	.16	995
.4	347	.17	900
.6	858	701.1	294
.8	915	.2	416
.9	498	.3	409
.10	1174	.4	321
301.1	818	.5/6	297
.2	846	.7/8	338
.3	369	705.1	866
.4	747	.2	890
.8	496	.3	169
.9	566	.5	838
.10	893	.10	464

² The variation of the initial syllable is not inflectional. Despite their different appearance the two forms are of the same

name.

tries of the Ep series are each a more or less free transcription of one of the Eb tablets, the same names with the same quantities, and that each paragraph of the En series is a more or less free transcription of one of the Eo tablets, where the same names and quantities appear in the same order.

Aside from the simple probability that one of the larger tablets would be a fair copy of many smaller tablets, the evidence seems to show that the En and Ep tablets are in fact copied from the Eo and Eb tablets. However, it cannot be said that all the evidence suggests this conclusion without question, and there remains a small chance that both Eb/Eo and Ep/En tablets were copied from still another set of texts, or that the original Eb and Eo texts, after being copied, were still kept as an active record, and corrected independently of the copy. Therefore a statement of the regular differences between the Eb and Ep texts, and between the Eo and En texts, plus an indication of the number and kind of failures of proper correspondence, and of other irregularities, will be useful.

The normal formulae of Eo and En texts are as follows, with regularly differing elements underlined:

Eo first lines: Subject¹ *ki-ti-me-na ko-to-na*
WHEAT, etc.

En first lines: Subject¹ *ki-ti-me-na ko-to-na to-so-de*
pe-mo WHEAT, etc.

En second lines: *o-da-a² o-na-to-re e-ke-si* Name¹
ko-to-na (but in En659.13.16.19 this is abbreviated to *o-da-a²*)

Eo following lines: Subject² qualifier *e-ke-ge*
o-na-to pa-ro Name¹ *WHEAT*, etc.

En following lines: Subject² qualifier *o-na-to e-ke*
to-so-de pe-mo WHEAT, etc.

Additional rules for Eb and Ep texts are:

Where Eb writes *e-ke-ge o-na-to*, Ep writes *o-na-to e-ke*;

But in Ep301.2-6 *e-ke-ge* is retained regularly;

Where Eb writes *to-so-de*, Ep writes *to-so*.

Many of the instances in which the entries of Eo and En do not correspond as closely as the regular differences of their formulae require can be considered simply the result of the copying scribe's desire to make the record regular. This practice, not

commendable in the copyist of a literary manuscript, is quite acceptable in a bookkeeper contemporary with the original record. But we cannot consider such variation good evidence for the direction of copying. More telling evidence comes when the copy retains an irregularity found in the original, and when the copy is less regular than the original.

If we assume that En and Ep are copies of Eo and Eb originals, there are:

20 entries in which the differences are to be taken as normalization (note², list A),

3 entries in which abnormalities are retained (list B),

4 entries in which abnormalities are introduced in En/Ep (list C),

5 entries in which words, spellings, order, *vel sim.*, normal in Eo/Eb are irregularly retained (list D), and

3 entries in which new information, not in the Eo/Eb texts, nor inferable through the formulae, is introduced (list E).

If we assume that Eo and Eb are copies of En and Ep originals, there are:

4 entries in which the differences are to be taken as normalization (list C),

3 entries in which abnormalities are retained (list B),

20 entries in which abnormalities are introduced in Eo/Eb (list A),

4 entries in which words, spellings, order, *vel sim.*, normal in En/Ep, are irregularly retained (list F), and

13 entries in which new information, not in En/Ep texts, nor inferable through the formulae, is introduced (list G).

A consideration of these figures and an examination of some of the instances will show that Eo/Eb can hardly have been copied from En/Ep, and will support the conclusion that En/Ep were instead copied from Eo/Eb texts. The clearest example, in which the peculiar arrangement of an Eo text is apparently preserved in an En copy, is the pair E0371—En467.5. In E0371 the text is so arranged that the first word occupies the whole height of the tablet, while the following words are in two lines. In this arrangement the lower line is normally writ-

² List A: E074.11.7-11.15.17.18 -467.13 -809.5.16 659[.1].5
6.8.17 Ep301.4 -539.10.11 -617.11 -704.6

List B: En467.5 -659.5 Ep67.11

List C: E074.1.4 -659.1.9.10 Ep704.3

List D: En659.5 Ep301.1 -617.12.13 -704.2

List E: E0609.5 Ep704.3.5

List F: En74.11.20 -659.17.18

List G: En74.1.17.18 -467.1 -659.1.3.4.5.6.17 E2201.3.4
-617.10.

ten first and the upper second. If the sequence 1, 2, 3, . . . represents the normal arrangement of words, we may summarize Eb866 as:

1 $\frac{6 \ 7 \ 8 \ 9}{2 \ 3 \ 4 \ 5}$ WHEAT, etc.,

and Eo269 as:

1 $\frac{3 \ 4}{2}$ *to-so-de pe-mo* WHEAT, etc.

These are copied in Ep212.1 and Eo659.18 in normal order. The arrangement of Eo371, however, is:

1 $\frac{2 \ \textit{wa-na-ka-te-ro}}{3 \ 4}$ WHEAT, etc.

The copy in Eo467.5 is: 1 3 4 2 *to-so-de pe-mo* WHEAT, etc.

The failures of correspondence which suggest that Eo/Eb texts are the copies are not all easily explained away. In Eo609.5 *wa-na-ka-te-ro* is added to the qualification *e-te-do-mo* of *A-tu-ko*. In Ep 704.3.5 the word *e-ri-ta*, whether it is a name or a qualifier, is added before the subject *i-je-re-ja*. In

Eo247.4 the subject was written *E-pa-sa-na-ti* (which is the reading of the corresponding Eo74.13 and of Ep212.5), the *E* was erased and *I* substituted. In Eo224.2.3.7 the referee *A-ma-ru-ta*, who is implied by Eo609.10 and not excluded in the corresponding lines Eo609.12.13.17, is erased and the referees *Pa-ra-ko* and *Ta-ta-ro* substituted. There are several other differences between original and copy, including some differences in the quantity recorded, which do not help in determining the direction of copying. To account for these corrections in Eo/Eb and not in Eo/Ep, we must either suppose them to be deliberately ignored by the copying scribe, or else suppose that both original and copy were kept as active records and that later corrections got entered in only one set, as sometimes happens in amateurish double-entry systems of bookkeeping.

It is not easy to guess at the occasion for two copies of the same set of records in different form. The difference in convenience and in the formulæ or arrangement of the two copies, and perhaps the circumstances of finding, may all be significant. Eb,

Eo211

- | | | |
|----|---|--------------|
| 1 | <i>Wa-na-to-jo-jo ko-to-na ki-ti-me-na</i> | WHEAT 2/-[1] |
| 15 | <i>A-tu-ko e-te-do-mo e-ke-ge o-na-to pa-ro Wa-na-ta-[jo]</i> | WHEAT 0/-[1] |
| 16 | <i>I-ni-ja te-o-jo do-ero e-ke-ge o-na-to pa-ro Wa-na-ta-[jo]</i> | WHEAT 0[2/4] |
| 17 | <i>E*65-to te-o-jo do-ero e-ke-ge o-na-to pa-ro Wa-na-ta-[jo]</i> | WHEAT 0[2] |
| 18 | <i>Si-mu te-o-jo do-ero e-ke-ge o-na-to pa-ro Wa-na-ta-jo</i> | WHEAT 0/1 |

Eo224

- | | | |
|----|--|-------------|
| 2 | <i>A-ma-ru-ta-o ko-to-na ki-ti-me-na</i> | WHEAT 2[3] |
| 19 | <i>So-u-ro te-o-jo do-ero e-ke-ge o-[na]-to pa-ro [A-ma-ru-ta] Pa-ra-ko</i> | WHEAT 0/-/3 |
| 20 | <i>E-do-mo-ne-u te-o-jo do-ero e-ke-ge o-[na-to] pa-ro [A-ma-ru-ta] Pa-ra-ko</i> | WHEAT 0/1 |
| 21 | <i>E-sa-ro te-o-jo do-ero e-ke-ge o-[na-to] pa-ro A-ma-ru-ta</i> | WHEAT 0/-/3 |
| 1 | <i>Wa-na-tu-jo te-re-ta e-ke-ge o-na-to pa-ro A-ma-ru-ta</i> | WHEAT 0/1 |
| 22 | <i>E-ra-ta-ru i-je-re-ja do-ero Pa-ki-ja-na e-ke-ge (o-na-to) pa-ro A-ma-ru-ta</i> | WHEAT 0/1 |
| 23 | <i>Po-so-re-ja te-o-jo do-ero e-ke-ge o-na-to pa-ro [A-ma-ru-ta] Ta-ta-ro</i> | WHEAT 0/1/3 |
| 24 | <i>i-je-re-ja Pa-ki-ja-na e-ke-ge o-na-to pa-ro A-ma-ru-ta</i> | WHEAT 0/3 |

Eo173

- | | | |
|----|---|-------------|
| 3 | <i>Pa-ra]-ko e-ke-ge ka-ma ko-to-no-(o)-ko [e-o]</i> | WHEAT 1 |
| 23 | <i>Po-so]-re-ja te-o-jo do-ero e-ke-ge o-na-to pa-ro [Pa-ra-ko]</i> | WHEAT 0/1/3 |

En, Eo, and Ep tablets are all found within one room, with a reasonable spillover into another. The En and Eo tablets, at least, are a complete set. Despite their poor condition and the presence of many unjoined pieces, there is no Eb tablet which we can show did not have a corresponding entry in the Ep tablets. Thus at the time of the destruction of the palace, original and copy, if they are that, were still preserved side by side. Moreover, before Ep704 was put aside, a blank piece of clay was cut off the bottom, just as many tablets were trimmed of excess and reusable blank clay. Such blank pieces were often either inscribed without reshaping, or else lumped (there are crumpled and twisted pieces at both Pylos and Knossos) and fashioned into new tablets. But the blank piece cut from Ep704 is still preserved, uninscribed, as number 619, shown with Ep704 among the drawings of the *Pylos Tablets*. Thus it seems likely that Ep704 and, by inference, the rest of the En and Ep texts were copied very shortly before the palace's destruction.

III

The comparison of the En and Eo tablets is most rewarding, and deserves the space required to present a full transcription. The tablets of the Eo series and the corresponding paragraphs of the En series may have one or more lines. The first lines normally correspond, while to the second and following lines of the Eo tablets the third and following lines of En paragraphs normally correspond. The second line of the En paragraphs is not an entry, having no quantity, and it follows a formula of its own. This formula of the second line will readily appear to be a sort of collective reference. It will be noticed that the references in each Eo tablet are to the name in the first line, and that the En paragraphs have no explicit reference in each entry, but that the second line contains the name of the subject of the first line together with *ko-to-na*. The numbers preceding the entries run from 1 through 40, and are arbitrarily assigned to the subjects.

En609.1-8

Pa-ki-ja-ni-ja to-sa da-ma-te
to-so-de te-re-ta e-ne-e-si

DA 40
MEN 14

- | | | |
|----|---|-------------|
| 1 | <i>Wa-na-ta-jo-jo ko-to-na ki-ti-me-na to-so-de pe-mo</i>
<i>o-da-a² o-na-te-[re] e-ko-si Wa-na-ta-jo-jo ko-to-na</i> | WHEAT 2/-/1 |
| 15 | <i>A-tu-ko e-te-do-mo wa-na-ka-te-ro o-na-to e-ke (to-so-)de pe-mo</i> | WHEAT 0/-/1 |
| 16 | <i>I-ni-ja te-o-jo do-era o-na-to e-ke to-so-de pe-mo</i> | WHEAT 0/2/4 |
| 17 | <i>E-⁶⁵to te-o-jo do-era o-na-to e-ke to-so-de pe-mo</i> | WHEAT 0/2 |
| 18 | <i>Si-ma te-o-jo do-era o-na-to e-ke to-so-de pe-mo</i> | WHEAT 0/1 |

En609.10-18

- | | | |
|----|---|-------------|
| 2 | <i>A-ma-ru-ta-o ko-to-na ki-ti-me-na to-so-de pe-mo</i>
<i>o-da-a² e-ko-si A-ma-ru-ta-o ko-to-na o-na-te-re</i> | WHEAT 2/3 |
| 19 | <i>So-u-ro te-o-jo do]-ero o-na-to e-ke to-so-de pe-mo</i> | WHEAT 0/-/3 |
| 20 | <i>E-do-mo-ne-u te-o]-jo do-era o-na-to e-ke to-so-de pe-mo</i> | WHEAT 0/1 |
| 21 | <i>E-suro te-o-jo do]-ero [o-na-to] e-ke [to-so-de] pe-mo</i> | WHEAT 0/-/3 |
| 1 | <i>Wa-na-ta-jo te-re-ta o]-na-to e-ke to-so-de pe-mo</i> | WHEAT 0/1 |
| 22 | <i>I-ra-ta-ra i-e-re-ja do-era] Pa-ki-ju-nu o-na-to e-ke to-so-de pe-mo</i> | WHEAT 0/1 |
| 23 | <i>Pa-so-re-ja te-o-jo do-era o]-na-to e-ke to-so-de pe-mo</i> | WHEAT 0/1/3 |
| 24 | <i>i-e-re-ja Pa-ki-ja-na o-na]-to e-ke to-so-de pe-mo</i> | WHEAT 0/3 |

Ep617.11-12

- | | | |
|----|--|-------------|
| 3 | <i>Pa]-ra-ko [e-ke-ge] ka-ma ko-to-no-o-ko e-o to-so pe-mo</i> | WHEAT 1 |
| 23 | <i>Pa-so]-re-[ju te-o]-jo do-era e-ke o-na-to pa-ro Pa-ra-ko to-so pe-mo</i> | WHEAT 0/1/3 |

E0276

- 4 Ru-*83-o] *te-u-ta-ra-ko-ro ki-ti-me-[na ko]-to-na* WHEAT 1/5
- 25 Pe]-*ki-ta ka-na-pe-u wa-na-ka-te-ro e-ke-ge [o]-na-to (pa-ro) Ru-*83-e* WHEAT 0/1
- 26 Mi-ra *te-o-jo do-e-ra e-ke-ge o-na-to pa-ro Ru-*83-e* WHEAT 0/1
- 27 Te-se-u *te-o-jo do-e-ro e-ke-ge o-na-to pa-ro Ru-*83-e* WHEAT 0/4
- 28 Ma-re-ku-nu *te-o-jo do-e-ra e-ke-ge o-na-to pa-ro Ru-*83-e* WHEAT 0/1
- 29 E-ko-to *te-o-jo do-e-ro e-ke-ge o-na-to pa-ro Ru-*83-e* WHEAT 0/1/3
- 30 Mu-*79 *te-o-jo do-e-ra e-ke-ge o-na-to pa-ro Ru-*83-e* WHEAT 0/1/3
- 17 E-*65-to *te-o-jo do-e-ro e-ke-ge o-na-to pa-ro Ru-*83-e* WHEAT 0/1/1

E0247

- 5 Ai-ti-jo-gu *ki-ti-me-na ko-to-na* *to-so-de pe-mo* WHEAT [1/5/4
- 29 I-ko-to *te-o-jo do-e-ro e-ke-ge o-na-to pa-ro Ai-ti-jo-ye ko-to-no-o-ko* WHEAT 0/1
- 35 Ka-ri-si-ja *te-o-jo do-e-ra e-ke-ge o-na-to ki-ti-me-na ko-to-na Ai-ti-jo-[go]qc* WHEAT 0/5
- 31 [[E]] *I-pa-sa-na-ti te-o-jo do-e-ra e-ke-ge o-na-to pa-ro Ai-ti-jo-ye* WHEAT 0/2
- 32 Ku-*63-to *te-o-jo do-e-ro e-ke-ge o-na-to pa-ro Ai-ti-jo-ye* WHEAT 0/1
- 33 'A-ra-to *te-o-jo do-e-ro e-ke-ge o-na-to pa-ro Ai-ti-jo-ye* WHEAT 0/1
- 31 *we-te-re-u i-je-re-u e-ke-ge o-na-to pa-ro Ai-ti-jo-ye* WHEAT 0/5

E0160

- 6 Pi-ke-re-wo *ko-to-na ki-ti-me-na* *to-so-de pe-mo* [WHEAT] 2/6
- 36 Ai-wa-ja *te-o-jo do-e-ra e-ke-ge o-na-to pa-ro Pi-ke-re-we* WHEAT 0/1
- 25 Pe-ki-ta *ka-na-pe-u wa-na-ka-te-ro e-ke-ge o-na-to* { Pi-ke-re-we
pa-ro } WHEAT 0/2
- 35 Ko-ri-ti]-ja *te-o-jo do-e-ra e-ke-ge o-na-to pa-ro Pi-ke-re-we* WHEAT 0/5

E0444

- 7 Pe-ro-go-ta-o (*pu-du-je-wo*) *ko]-to-na ki-ti-me-na* WHEAT 2/3
- 37 Ra-su-ro *te-o-jo do-e]-ro e-ke-ge o-na-to pa-ro pa-da-je-we* [WHEAT 0/1
- 34 *we-te-re-u i-je]-re-u e-ke-ge o-na-to pa-ro pa-da-je-we* WHEAT 0/1
- 38 Tu-ri-ja-ti *te-o-jo do-e-ra] e-ke-ge pa-ro pa-da-je-we pe-go-ta* WHEAT 0/1(+?)
- 33 'A-ra-to *te-o-jo do-e]-ro e-ke-ge pa-ro pa-da-je-we* WHEAT 0/1/3
- 38 Tu-ri-ja-ti *te-o-jo do-e-ra] e-ke-ge pa-[ro pa]-da-je-we pe-go-ta* WHEAT 0/4(+?)

E0351

- 8 A-da-ma-(o)-jo *ko-to-na ki-ti]-me-na* WHEAT 1/8
- 33 Ta-ra-to *te-o-jo do-e]-ro e-ke-ge o-na-to pa-ro A-da-ma-o* WHEAT 0/2/4

E0471

- 9 A]-i-[ge-wu *ko]-to-na ki-[ti]-me-na* WHEAT 1/2
- 33 Ta-ra-to [*te-o]-jo do-e-ro e-ke-ge o-na-to pa-ro Ai-ge-we* WHEAT 0/1/3

En74.1-9

4	<i>Ru*83-o ko-to-na ki-ti-me(na) to-so-de pe-mo</i> <i>o-da-a² o-na-ter-e Ru*83-o ko-to-na e-ko-si</i>	WHEAT 1/5
25	<i>Pe-ki-ta ka-na-pe-u wa-na-ka-te-ro [o]-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/1
26	<i>Mi-ra te-o-jo do-e-ru (o-na-tu) e-ke to-so-de pe-mo</i>	WHEAT 0/1
27	<i>Te-se-u te-o-jo do-e-ro o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/4
28	<i>Mare-ku-na te-o-jo do-e-ro o-[na-to e-ke to-so-de pe]-mo</i>	WHEAT 0/1
29	<i>E-ku-tu te-[o]-jo do-e-ro o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/-/3
30	<i>Ma*79 te-[o-jo do-e]-ra o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/[3
17	<i>E*65-to te-o-jo do-e-[ro] o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/-/1

En74.11-18

5	<i>Ai-ti-jo-qa ko-to-na ki-ti-me-na to-so-de pe-mo</i> <i>o-da-a² o-na-ter-e e-ko-si Ai-ti-jo-qa ko-to-na</i>	WHEAT 1/5/4
31	<i>E-pa-sa-na-ti te-o-jo do-e-ru o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/2
32	<i>Ku*63-so [te]-o-jo do-e-ro o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/1
33	<i>Ta-ra²-to te-o-jo do-e-ro o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/1
34	<i>we-ter-e u i-c-re-u o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/5
29	<i>E-ko-to te-o-jo do-e-ro o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/1
35	<i>Ko-ri-si-ja te-o-jo do-e-ra o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/5

En74.20-24

6	<i>Pi-ke-re-wo ko-to-na ki-ti-me-na to-so-de pe-mo</i> <i>o-da-a² o-na-ter-e e-ke-si Pi-ke-re-wo ko-to-na</i>	WHEAT 2/6
36	<i>Ai-wa-ja te-o-jo do-e-ra o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/1
25	<i>Pe-ki-ta ka-na-pe-u wa-na-ka-te-ro o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/2
35	<i>Ko-ri-si-ja te-o-jo do-e-ra o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/5

En659.1-6

7	<i>Qe-re-qa-ta-o (ko-to-na) ki-ti-me-na to-so-de pe-mo</i> <i>o-da-a² o-na-ter-e e-ko-si Qe-re-qa-ta-o ko-to-na</i>	WHEAT 2/3
37	<i>Ru-su-ra te-o-jo do-e-ra o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/1
31	<i>we-ter-e u i-c-re-u o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/1
38	<i>Tu-ri-ja-ti te-o-jo do-e-ra e-ke pa-ro Pe-re-qa-ta pe-qa-ta to-so(-de) pe-mo</i>	WHEAT 0/9
33	<i>Ta-ra²-to te-o-jo do-e-ro o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/-/3

En659.8-10

8	<i>A-da-ma-o-jo ko-to-na ki-ti-me-[na] to-so-de pe-mo</i> <i>o-da-a² o-to-ter-e e-ko-si A-da-ma-o-jo ko-to-na</i>	WHEAT 1/8
33	<i>Ta-ra²-to te-o-na do-e-ro o-na-to e-ke to-so-de [pe-mo]</i>	WHEAT 0/2/4

En659.12-13

9	<i>Ai-ge-wo ko-to-na ki-ti-me-na to-so-de pe-mo</i>	WHEAT [1]/2
33	<i>o-da-a² Ta-ra²-to te-o-jo do-e-ro o-na-to e-ke to-so-de pe-mo</i>	WHEAT 0/1/3

En659.15-16

- 10 *Ra-ku-ro-jo ko-so-na ki-ti-me-na | to-so-de pe-mo* WHEAT 1/1/3
 39 *o-du-a² I-ra-ta te-o-jo do-e-[ra o]-na-to e-ke to-so-de pe-mo* WHEAT 0/-/3

En659.18-19

- 11 *A-ka-ta-[jo]-jo ko-to-na ki-ti-me-na to-so-de pe-mo* WHEAT 3/2
 40 *o-du-a² Ka-ra[-*56-so te]-o-jo [do]-e-ro o-na-to e-ke to-so-de pe-mo* WHEAT 0/2

En467.1

- 12 *Ti-pa²-jo-jo ko-to-na ki-ti-me-na to-so-de pe-mo* WHEAT 8/3

En467.3

- 13 *Po-te-wo ko-to-na ki-ti-me(-na) to-so-de pe-mo* WHEAT 2/4

En467.5

- 14 *Pi-ri-ta-wo-no ko-to-na ki-ti-me-na ke-ra-me-wo to-so-de pe-mo* WHEAT 1/1

Ea². The remaining Ea tablets of the general form of Ea824, together with Ea487 and Ea59. A minority of entries contain the phrase *ke-ke-me-na ko-to-na*, which is a characteristic of the Ep group, while the majority resemble the text of the En² group.

Eb². The tablets Eb236, 317, 847, 901, and Ea411.

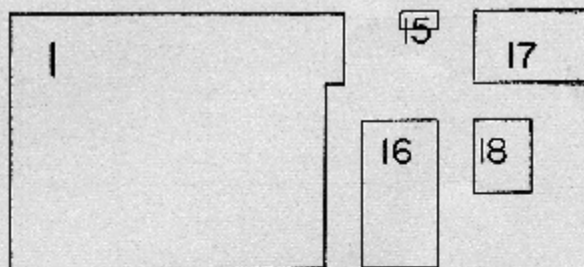
Thus the differences of the formulae are reflected significantly in the sizes of the transactions recorded by them, and while this variation in size may not in itself suggest an interpretation of the formulae, it may help to eliminate fanciful guesses. The distributions and averages show clearly enough the similarity between En¹ and Ea¹, which have nearly the same formulae; the similarity among En², Ep, and Ea², which have somewhat similar formulae; and the unique character of Eb². The difference in average and in the most frequent quantity between En² and Ep may reflect the absence and presence of the phrase *ke-ke-me-na ko-to-na*, and this may be reflected in the higher average of Ea². In this Ea² group, there are at least eight entries with *ke-ke-me-na ko-to-na*, and others where, as we shall see, it is implied, while the rest are more like the En² formulae.

IV

At a time when the peculiar quantitative relationships in the Eo and En tablets were being con-

sidered, it seemed useful to abbreviate, in graphic form, the available information, in the hope that some reasonable interpretation might suggest itself. The results were far better than the expectation.

The first step is the representation of the individual entries. The quantity is represented by an area drawn at a suitable scale (the quantities recorded in the tablets are, at least nominally, dry volume), marked by a number arbitrarily assigned to each one of the names. And since the formula of the entry is apparently significant, the two types of formula will be distinguished by heavy outlines for the first line entries, and light outlines for the following entries. Thus Ea211's entries are drawn:

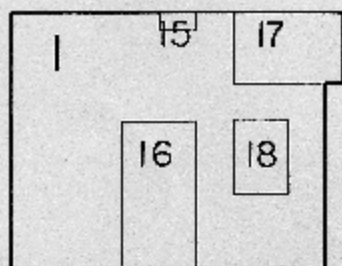


Then, since it was apparent that each tablet or paragraph represented a group discrete from the rest, the problem of how to represent this fact had to be solved. Now in the Eo series the second and

Frequencies of Quantities in Groups of Ea, Eb, Eu, and Ep Entries

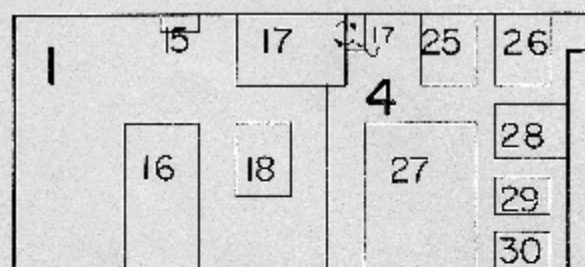
Quantity	En ¹	En ²	En ³	En ⁴	Ep	Ea ¹	Ea ²	Eb ²
0/-/1		2	1	1				
0/-/2					3			
0/-/3		6	4	4	5		1	
0/-/4				1				
0/1		13	9	8	6		14	
0/1/3		3	1	1	3			
0/2		4	2	2	11		5	
0/2/1		1	1					
0/2/3				1				
0/2/4		2	1	1			1	
0/3		1	3	3	2		3	
0/3/2					1			
0/4		1	1	1	4		1	
0/5		3			2		2	
0/5/4			1	1			1	
0/6			1	2	1	1	4	
0/7					1			
0/8				1	1			
0/9		1	1	1			1	
1	1		1	3	4			
1/1	2			2	2	1		
1/2	1							
1/3					2			1
1/4				1	1	2	1	
1/5	2			2	1			
1/6							1	
1/8	1			1			2	
1/9					1			
2	1						5	
2/3	2				1	1		
2/4	1			1				
2/5					1			
2/6	1						1	
3				1		1		1
3/1						1		
3/2	1							
3/5						1		
3/9					1			
4/6					1			
5						2		
6						1		
8/3	1			1				
10/1					1			
21/6								1
30/2								1
44								1
68/5								1
Total	32/4/2	6/5/1	6/5/1	32/4/2	46/4/2	32/4	28/0/5	170/3
Average	2/3	4/1/5	0/2/2	0/8	0/8	2/9	0/6	28/5

following lines each contain a reference, and this reference is to the name which appears in the first line. Thus there is a real relationship between the subject of the first line and each subject in the rest of the tablet. The same relationship exists in the En paragraphs, differently expressed in what appears to be a complete statement, in a sort of collective reference to the name of the first line.¹⁶ And since in every case the first quantity is larger than the rest, and larger than their sum also, it can, though it certainly need not, be represented as containing them. Thus the entries of Eo211 may be redrawn:



Since we have chosen to represent the relationship in this manner we may call the subject of the first line the principal subject, and the others secondary.

It is next seen that some names of subjects are repeated within this collection of entries. There are six of the secondary subjects, 17, 23, 25, 29, 34, and 35, which appear in two paragraphs, one, 33, in four, and one principal subject, 1, appears once also as a secondary subject. This fact can also be represented, by putting the areas marked by the same number in different paragraphs in contact. To make the diagram clearer without the use of colors or shading, arrows are drawn from one to the other. Thus the tablets Eo211 and 276 may be drawn:



The corollary of the juxtaposition of shared secondary subjects is that principal subjects having a

common secondary subject will have a common boundary, those not having a common secondary subject will not. However, common boundaries among the secondary subjects and their relative positions within the areas of primary subjects will have no significance.

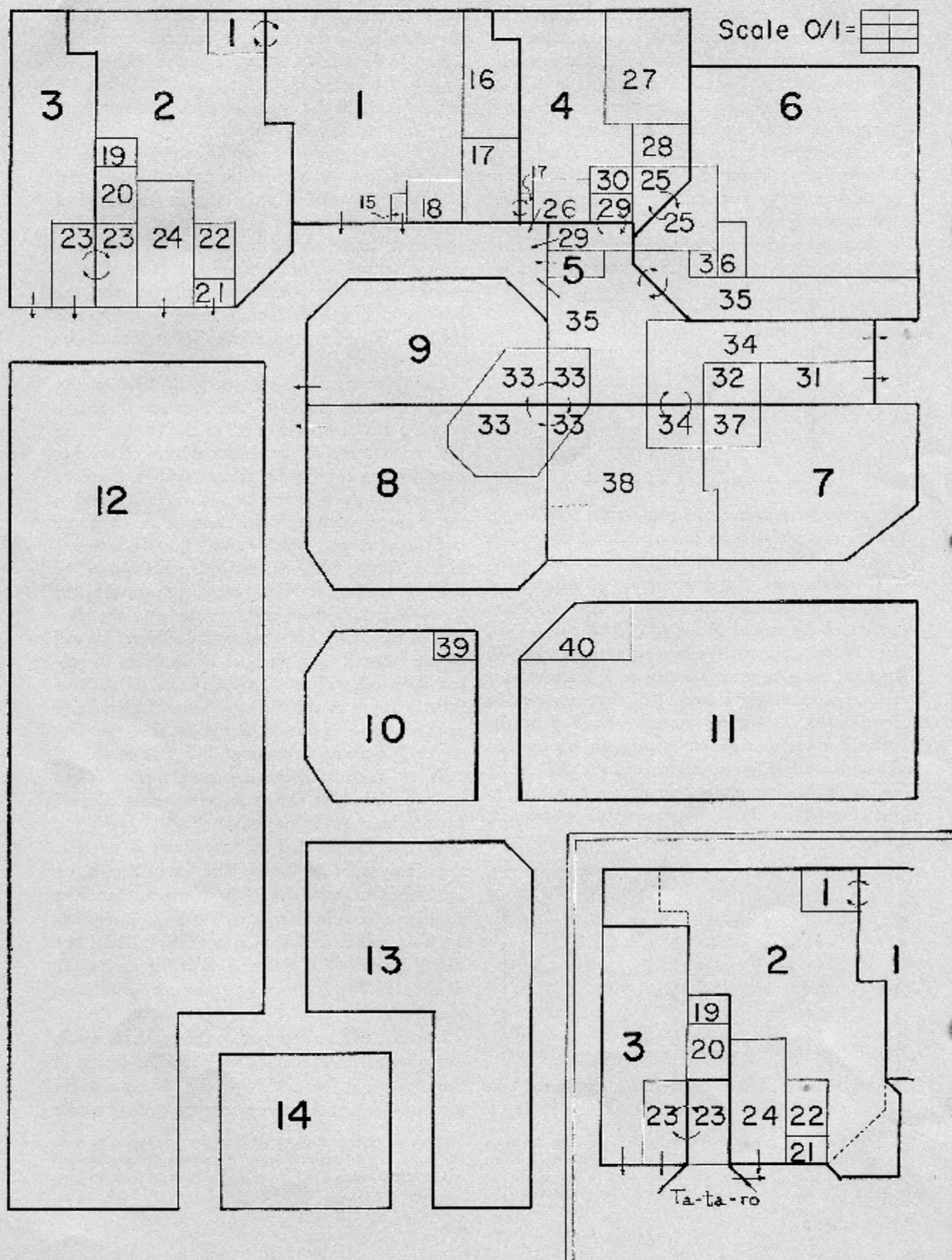
In this way the whole set of entries in En and Eo tablets can be represented in a diagram, and from that diagram, we may infer the meanings of some of the terms used in the text and proceed to an interpretation which we may find to agree with the translation of the decipherment. It must be remembered that in this diagram, only the areas, the lines bounding them, their relative positions, and the identifying numbers are significant. The shapes are entirely arbitrary.

The elements of the diagram which have not yet been explained are first: The presence of arrows pointing outward from some of the blocks. These indicate that the subject is the subject of another entry among the Eh/Ep tablets, with a reference in the form *pa-ro du-mo*, or with none. Second is the alternate portion of the diagram in the lower right-hand corner, which shows the corrected readings of Eo224, while the main diagram shows the original readings of Eo224. Here by redrawing the heavy boundary lines, without changing the position of the secondary subjects, the subjects 19 and 20 are referred to 3, and one of the areas of subject 23 is referred to *Ta-ta-ro*, instead of to 2, as they appeared in the earlier version of Eo224 and as they appear in En609. The problem of the sizes of the *ki-ti-me-na ko-to-na* of 2, 3, and hypothetically of *Ta-ta-ro* in the corrected version is not easily solved. The dotted lines represent the old boundaries according to which 3 will have $0/1/3$ more than is recorded in Eo173, and 2, $0/3$ less than is recorded in Eo224. The heavy boundaries are shifted to make these figures correct. In either case there is no indication of *Ta-ta-ro's ki-ti-me-na ko-to-na*, and its boundary is not closed. Third, the dotted line in 38 is intended to represent Eo444's division of 38's holding into two entries in lines 4 and 6.

One fact will be apparent in the diagram, which may give an additional indication of the design of the copying scribe. Although this diagram might be drawn in any number of shapes, as long as the

¹⁶ Although in Eo the references are always in the form *pa-ro Name* (except for Eo247.2.3), two forms, *pa-ro Name* and *Name(-o-jo) ko-to-na*, are found side by side in the Eo tablets. The unusual reference in En782 (*pa-ro Mo-ro-qa-ro-jo*

ko-to-na pa-ro-ro) provides still another compromise between the two forms. Where in Eo444.4 the reference has an additional qualifier, the form of reference proper to Eo is kept for that line only in Eo659.5.



Schematic diagram of the relationships of subjects and quantities in the En and Eo tablets

common secondary subjects are drawn adjacent to one another, the assignment of paragraphs to the tablets will be reflected in the diagram. 1 and 2, which lie adjacent, occupy En609. The group 4, 5, 6, each touching the other two, occupies En74. The group 7, 8, 9, and the independent 10 and 11 occupy En659. The three paragraphs which have no secondary subjects, 12, 13, and 14, occupy En467. It is probable that this order, i.e. En609, 74, 659, 467, is the order in which these tablets were written. En609 is proved to be the first by the first two lines, which are a heading summarizing the whole set of En texts, as will be shown later. The distribution of the paragraphs among the tablets shows that those paragraphs which share secondary subjects are put together deliberately, and in reconstructing the order of writing we may follow the same practice, working backward from the diagram. The isolation of Ep617.11-12 remains. That it is part of the En set is shown by its content, and by the fact that it must be included to justify the numbers in the summary, En609.1-2, despite the fact that it was copied among the Ep's. We may suppose that it had been copied by mistake among the Ep's, when the En's were about to be copied, and that although it was noticed properly in composing the summary heading of En609, it was not thought necessary to recopy it in the correct place. Or we may suppose that in sorting the tablets for copying (and the grouping of entries within the Ep tablets does illustrate this sorting) Eo173 was mislaid, or incorrectly sorted, among the Eb's while the Eo's were being copied. Eo173 does look like an Eb tablet, since it has two lines and is by the same hand. The unusual formula for its first line also looks like the formulae of the Eb tablets which are copied near it in Ep617. The heading of En609 must then have been composed from some source other than the group of Eo tablets remaining.

V

Now it seemed a remarkable thing, when this diagram was first devised, that all the many relationships of the En and Eo tablets could so successfully be represented geometrically, and inevitably it was suggested that this was possible because the records here preserved themselves represented geometrical facts. In other words, this might be a sort of map, or surveyor's plot, or at least a land-registry, of some region of Pylos, with

owners and sizes of the parcels marked, and only the shapes and exact positions of the parcels missing. The facts that a fair copy was required beside an original, and that the "transactions" recorded are carefully grouped and summarized, might also indicate that these are records rather of continuing conditions than of perfected transactions. And at very nearly the same time, the decipherment of Ventris and Chadwick appeared, in which the translation of some of these tablets yielded statements about land tenure.¹¹ Thus the two approaches to the interpretation of these tablets confirm one another. We must only assume, and it is an easy assumption, that land is measured in the units by which dry volumes of the commodity conventionally transcribed as *WHEAT* are measured, in some fixed and arbitrary scale of so much *WHEAT* for so much land. The temptation to look upon this diagram too literally as a map must be avoided, however. It may be that the secondary areas should have been drawn outside and touching, rather than inside, the areas of the principal subjects. This would have removed the doubt about the sizes of 2 and 3 when the corrections of Fo224 are used, and perhaps have introduced other difficulties. Also, though related areas have been drawn with common boundaries, this need not be the case in the actual lands represented, where an owner or tenant of land might have plots in two or more distinct places. This is perhaps the case with 38 in Eo444.46, who may have had two distinct plots within or connected with 7's area, which were recorded separately in Eo444, while perhaps only the size of the total holdings, 0/9, was considered of importance in the copy on En659. However, the possibility of making such a diagram, and the deliberate progression from one principal subject to another through common secondary subjects in the apparent order of writing of the En tablets do suggest that the diagram is not far from the representation of the real spatial relationships of the various parcels of land described in this register.

Let us now identify the terms used in the text for the elements of the diagram. We have disposed of the subjects in the numbers identifying the areas, and the references by their position relative to other areas. The phrase *to-so-de pe-mo* generally in the lin's and particularly in Eo247 and 160 is written close to the ideogram, sometimes removed from the rest of the formula, and sometimes in

¹¹ JHS 73 (1953) 98-101.

smaller characters. It may then be taken as descriptive of the quantity which is shown by the size of the area. This leaves only the phrases *o-na-to e-ke* in the secondary, and *ki-ti-me-na ko-to-na* in the principal entries. These have been represented by thin and thick lines, respectively. We may separate the substantive halves of these phrases by noticing that *e-ke* (and *e-ke-ge*) appear in other contexts, while *o-na-to* does not, and that *ki-ti-me-na* alternates with *ke-ke-me-na* in apparent agreement with and qualification of *ko-to-na*. Thus we may assume that the lands held by secondary subjects were called *o-na-to* (we shall anticipate the argument and refer to them in the plural as *o-na-ta*) and the lands held by primary subjects as *ko-to-na*.

We may now look for the appellation of the holders of these different kinds of land. In the second lines of En paragraphs the word not otherwise accounted for, and obviously related to *o-na-to* in formation, is *o-na-te-re*, which we may take as meaning "holders of *o-na-ta*."¹² We may use this term for singular and plural as does our scribe in En639.2.6, without considering its grammatical correctness.¹³ Thus on the diagram, the *o-na-te-re* are numbers 1, and 15 through 40.

For the holders of the *ko-to-na* we must look further. In Eo247.2 and in Ep301.2[3—Eh369] [4—Eh747] 8.9.12.14, we find the word *ko-to-no-o-ko* closely associated with the names of holders of *ko-to-na*. To that fact, and to the similarity of their initial sounds, we may add the substitution in Eo173—Ep617.11 for the normal formula of another containing *ko-to-no-o-ko* apparently qualifying the subject. Therefore the holders of *ko-to-na* are *ko-to-no-o-ko*, and they appear on the diagram as numbers 1 through 14.

But there is another word equally useful. It is *te-re-ta* in En609.2, which reappears qualifying one of the primary subjects, 1, when he is listed as an *o-na-te-re* in Eo224.5=[En609.15]. We may ignore the other words in En609.2, *to-so-de* "so many" and *e-noc-e-si*, and point out that the quantity recorded is 14 MEN. Now there are, counting Ep617.11-12 among the En's, or counting the Eo's, 14 paragraphs, and 14 *ko-to-na ki-ti-me-na*, and 14 holders of *ko-to-na*, who are persons, and to judge by the endings of their names, probably men. We may assume

then that En609.2 counts these 14 men and calls them *te-re-ta* (singular and plural). They appear on the diagram as numbers 1 through 14.

We are now led to the first line of the heading, En609.1, where it will be noticed that the quantity is shown as *DA 40*. Now there happen to be forty different names in the whole set of Eo/En tablets (ignoring *Ta-ta-ro* of Eo224, who does not reappear in En), and it seems proper to identify these two forties. But there is nothing to show that *DA 40* means 40 men, while there is evidence against that identification. The word in this line for "how many," *to-so*, is in another gender from that in line 2, *to-so-de*. The value of the ideogram *DA* is to be found. It seems more probable that in this line, at least, it is an abbreviation for the word *da-ma-te*, though it need not be in other contexts, such as the Aa and Ab tablets. On the diagram, these *da-ma-te*, which may for the moment be considered the total holdings of each of the forty persons named, will be found as the areas marked by the forty numbers, whether composed of one, two, or four parcels. For the principal subjects, the *da-ma-te* may be taken as the *ko-to-na* minus the *o-na-ta* within it.

The only remaining word is *Pa-ki-ja-ni-ja*, which is a form of one of the more prominent place names in the Pylos tablets, and must indicate the region of Pylos in which the land detailed in Eo and En tablets is situate.

Among the Ea tablets there are, as has already been indicated, several texts which have formulae of the varieties found in En/Eo. From these also a diagram can be made, and it is of the same sort, that is, no more complex than can be represented in a plane geometrical figure. It is not worth the trouble to draw it, however, since we are by no means sure that we have the whole set, as is the fortunate and unique circumstance of the Eo and En texts.

VI

We may now consider the suggestions which have been made for the interpretation (into Greek) and translation of the text of the En and Eo tablets. The difficulties of that interpretation arise partly from the syllabic nature of the Mycenaean writing,

¹²The fiction of not understanding these transcribed words may be annoying, but will perhaps be pardoned for a few paragraphs more. *o-da-ti* is found in other contexts, *e-ko-si* is shown by Ep704.4 to be parallel to *e-ke*, and Name *ko-to-na ki-ti-me-na* are accounted for as the suitable form of reference.

On the surface there is a possibility that *o-na-te-re* is a plural form of *o-na-to*.

¹³Palmer, *Trans Philological Soc* (1954) 25, uses an undoubtedly correctly reconstructed singular, **o-na-te*.

and from the ability of the Mycenaean readers and writers to use and understand somewhat less explicit symbols for the sounds of their speech than those of the later Greeks. Reference to Ventris and Chadwick's "Evidence for Greek Dialect in the Mycenaean Archives" will bring to mind the apparent rules and the obvious difficulties of the Mycenaean orthography. We shall for the moment ignore the subject and its qualifying words, and the variant formulae, and proceed to an interpretation and translation of the normal formulae. The several proposed translations of the terms of these formulae do not differ greatly among themselves, and this one can be original only in the combination of terms it employs.

Pa-ki-ja-ni-ja τόσσα *da-ma-te* *DA* 40
 τοισσάδε τελεσται ἐνέενσι *MEN* 14
 Subject(-o-ja, e.g.) κτόνα κτιμένα
 τοισσόνδε σπέρμον *WHEAT* x
o-da-a' ὄνατῆρες ἔχουσι Subject (-o-ja)
 κτόνας κτιμένους
 Subject ὄνατων ἔχει
 τοισσόνδε σπέρμον *WHEAT* x
 Subject ἔχει-ge ὄνατων παρὸ Subject(-we, e.g.)
WHEAT x

(There are?) so many *Pa-ki-ja-ni-ja*
 homesteads: 40 (II.)
 So many barons are therein: 14 (MEN)
 The private estate of John Doe:

so great an area: x units
 N.B. lessees have (leaseholds)
 of the private estate of John Doe:
 Richard Roe has a leasehold:
 so great an area: x units
 Richard Roc has a leasehold from John Doe:
 x units

Where there still seems to be some reasonable doubt about the Greek form to be expected, the syllabic spelling has been kept. The translation is less careful of etymologies than of setting down meanings for the terms suitable to the context of the tablets. Thus *pe-mo* is likely to be literally "seed," but refers throughout these tablets to a volume of seed as the nominal measure of land area.

It would be tedious to list and comment upon all the various suggestions which have been made for the translation of these formulae. In most cases they deserve linguistic comment rather than such as is appropriate here. But for the interpretation of

some words, the comparison of the senses of the translations with the actual situation represented by the diagram will permit us to justify the choice we have made. The most striking example of this is the word *da-ma-te*. The suggestions for it include: *a. Δαμάτηρ*, the goddess, as an equivalent of cornland; *b.* a plural of an unknown word denoting a unit of land; *c. δάμαρες*, those who are joined in the house, or collectively for the whole household; *d.* homestead; *e. δαμαντήρ*, tamer. (For *DA*: *a.* with *da-ma-te a.* or *b.* taken as a measure of land; *b. Δᾶ*, equivalent to γᾶ). The interpretation *Δαμάτηρ* is attractive; it supports an instinctive feeling that the Mycenaean, being early Greeks, must be primitive and therefore likely to identify things with the divine powers active in them. But with that interpretation, *DA* can hardly be an abbreviation or ideogram of *da-ma-te*, which it does seem to be. *DA* and *da-ma-te* must then be something countable, or measurable with *DA* representing both the thing measured and the unit of measurement. If then we can find such a unit of measurement, *Δαμάτηρ* would be possible. But the land is already measured by another unit, in the ideogram 112, which is transcribed as *WHEAT*. The total area recorded in the En tablets, no matter whether the secondary areas are counted within or without the quantity of the primary areas, does not add up to anything like the necessary 40 units. Thus *DA* as a unit would be incommensurate with the unit used throughout the record. The coincidence of *DA* 40, however, with 40 names, each with an amount of land, whether it be large or small, and composed of one or more parcels, of one or another kind, guarantees that the *DA* or *da-ma-te* are counted, which cannot, any more than measuring, properly be done to *Δαμάτηρ*.

If *DA* be counted, it might then in some way refer to the 40 holders of land. But it cannot easily refer to them as persons, considering the gender of *to-sa*, when in the next line some of them are described as *to-so-de*. It might then refer to them as households, making a reasonable sequence of sense with the following line. "(There are) so many *Pa-ki-ja-ni-ja* households (i.e. groups of men), in which there are so many barons (i.e. men)." The two things counted in the heading, *DA* and *MEN*, would then be of the same general category, though of different genders and composition. However, let us remember how those "households" are identified on the tablets—by the name of the person of either gender, who has a *ko-to-na* or an *o-na-to*. Now of

those persons, some (identified by the outward pointing arrows in the diagram) are reported as holding other land in the Eb/Ep tablets, along with others whose names are recorded in exactly the same forms, and who share the peculiarities of qualification which we shall find to be unique in the En/Ep tablets. If all these names equally represent households, including one name in Ep which is plural and takes a plural verb *e-ko-si* instead of *e-ke*, and if the first line of En609 is correct, the territory of *Pa-ki-ju-na* must be composed only of the *ki-ti-me-na ko-to-na* recorded in the Eo/En tablets, while some of these households also have leaseholds within *ke-ke-me-na ko-to-na*, all situated without the *Pa-ki-ja-ni-ian* territory. It seems more reasonable to suppose that the territory of *Pa-ki-ja-na* is more extensive, divided at least into *ki-ti-me-na* and *ke-ke-me-na ko-to-na* (otherwise, in what territory does the *ke-ke-me-na ko-to-na* lie?), and recorded uniformly by the two scribes of Eo/Eb and En/Ep tablets, chiefly held by a group of persons of peculiar qualifications. We would suppose then that the territory of the Ea tablets, of another scribe and format, and held by persons of different qualifications, is outside the boundaries of *Pa-ki-ja-na*. Thus there are difficulties in translating *da-ma-te* as "households," and we are left to suppose that *DA* refers to the land the 40 persons hold, somehow counted in 40 parcels.

Those 40 parcels cannot be the 36 *o-na-ta*, nor the 36 *o-na-ta* plus the 14 *ko-to-na*. We must take them as the holdings of the individuals, whether composed of a simple *ko-to-na*, as 12's, a *ko-to-na* reduced by an *o-na-to*, as 11's, a single *o-na-to*, as 40's, four *o-na-ta*, as 33's, or a *ko-to-na* reduced, plus an *o-na-to*, as 1's. Thus the *da-ma-te* are the whole lands directly held by one individual. The term "homestead" seems reasonably close to this definition. The *da-ma-te* are also apparently confined to the *ki-ti-me-na* land, unless there are unexpressed restrictions to be understood in the heading of En609, which would lead back perhaps to a preference for the translation "household."

We have another choice of translation to make for the word *e-ke-ge*. Most interpretations take it as $\epsilon\chi\epsilon\iota$ plus a particle, which would be assumed not seriously to affect the sense, either *-ge*, a generalizing particle of obscure function, or $\tau\epsilon$ "and," or $\gamma\epsilon$, a particle, or $ge=qi=ti$. Two recent proposals, however, take it as $\epsilon\chi\epsilon\sigma\kappa\epsilon$ or as *e-ke-ge* =

e-ke-ge $\epsilon\chi\epsilon\iota$, "is to have."¹⁴ This last suggestion implies that the occasion for the inscription of the original Eo tablets was a preliminary suggestion for the allocation of the land, and for the En copies, the final record when the allocation was firm. The former suggestions imply nothing about the occasion, and might record conditions of many years' standing as well as recently completed, perfect or continuing, transactions. Is there anything in the undeciphered texts, or in the diagram, to give us a clue to the occasion, with which we might resolve this problem?

Let us consider first the occasion for such a record if it is not an allocation or distribution of land, for the last few days before the destruction of the palace would seem an unlikely time for such a division. We notice that the record is of the names of the holders of land, of relationships among two not entirely exclusive groups of landholders, and of the sizes, but not of the boundaries or position of their holdings. The most likely purpose for information so limited would appear to me to be an assessment for the levying of taxes or of services. Possible, but less likely to be so complete, would be the record of the receipt of such taxes. This business of assessment would of course be proper at any time, and perhaps especially so in a time of emergency or threatened invasion. The fact that the *ko-to-no-o-ko* are also found to have another name, *te-re-tu*, may easily be brought into this argument. The word *ko-to-no-o-ko* must simply indicate our fourteen men's possession of *ko-to-na*; another word for the same men might reflect another aspect of their possession, or express their performance of a different function. We could look for the nature of that function in the name *te-re-tu* which, interpreted as $\tau\epsilon\lambda\epsilon\sigma\tau\acute{\alpha}\varsigma$, and translated as "baron,"¹⁵ may be connected with $\tau\acute{\epsilon}\lambda\omicron\varsigma$, among whose meanings are those of "tax" and "assessment."

If the occasion were an assessment, we would suppose that the ownership of the land as it is recorded in the texts had been fixed for some period before the record was made. The *ko-to-na ki-ti-me-na* may then be the private property of the man or family who won it from the wilderness, or who received it in some ancient distribution. From these *ko-to-na* and from their individual holders, certain parcels are leased (we cannot translate "sold" while the *ko-to-no-o-ko* retains an interest) as *o-na-ta*. Finally the name *da-ma-te* might be applied to

¹⁴ Georgiev, V., *Risat actuel de l'interprétation des inscriptions créto-myéniennes* (Sofia 1954) 37; Palmer, *Trans Philological*

Soc (1951) 53-53b, in an "Excursus on Sign 78."

¹⁵ Palmer, *Trans Philological Soc* (1954) 49, note 2.

the total direct holding of the individual or of his household.

To this scheme the principal objection is the difficulty of explaining away the corrections in Eo224. For we must assume that the *o-na-ta* and *ko-to-na* mentioned are specific parcels of land, even though their boundaries are not given. And their ownership could not have been in doubt. This should be even more true of the *ko-to-na* than of the *o-na-ta*, for the possession of an *o-na-to* seems to be conditional, since it is part of a *ko-to-na* belonging to someone else, while the possession of a *ko-to-na* is simple. Yet in the changes in Eo224, the ownership of the plots of *o-na-ta* is not questioned or changed, but rather their ascription to *ko-to-na*. Thus the boundaries of *ko-to-na* either could change, could be mistaken, or were in dispute on the occasion of the writing of Eo224. We might have to suppose that a transfer of two *o-na-ta* from one *ko-to-na* to another, and of another *o-na-to* to a perhaps newly acquired or established *ko-to-na* was proposed at that time. But the proposal would have been imperfect, for the sizes of the *ko-to-na* were not adjusted to the new arrangement.

Suppose then we take *e-ke-ge* as future, "is to have." Eo211, for example, would embody preliminary suggestions for the allocation of the *o-na-ta* within the *ko-to-na ki-ti-me-na* of 1. Line 2 would be translated as "A-tu-ko is to have a leasehold. . . ." Eo609.5, on the other hand, would be the final record when the allocation is firm. Hence it would read "A-tu-ko has a leasehold. . . ." Thus the Eo/En tablets are the record of an allotment of *o-na-ta*. (Shall we imagine it done by authority, or by negotiation between the *ko-to-no-o-ko* and their prospective *o-na-te-re*?) But Eo173.1=Ep617.11 shows that it is at the same time an allotment of *ko-to-na*, for Eo173.1 also has *e-ke-ge*, while most Eo first lines have no verbs at all. We must suppose that the whole of the *ki-ti-me-na ko-to-na* was divided among the *ko-to-no-o-ko*, and that on the same occasion some of the *ki-ti-me-na ko-to-na* (and by a reasonable extension, some of the *ke-ke-me-na ko-to-na* in the Eb/Ep texts) was divided among *o-na-te-re*.

It is in this hypothesis, with its assumption that the original is only a proposal partly effected in the final copy, that the simplest explanation of the corrections in Eo224 is to be found. An original proposal was made that 2 should have a *ko-to-na* including the *o-na-ta* marked 19, 20, and 23 which were to be leased to those persons. An amended

proposal was made that *Ta-ta-ro* should also receive a *ko-to-na* which was to include the *o-na-to* marked 23 and perhaps other unknown parcels besides, while the *o-na-ta* marked 19 and 20 were to be assigned to 3's *ko-to-na* rather than to 2's. But the revised proposal was not followed, and the final transaction was like the original proposal. The embarrassing failure to adjust the sizes of the *ko-to-na* of 2 and 3, and the failure to record the proposed size of *Ta-ta-ro*'s *ko-to-na* would show that the proposal itself was incomplete, and that the boundaries of the *o-na-ta*, or perhaps of the *da-ma-te*, were relatively stable, while those of the *ko-to-na* were easily shifted. Here the drawing of the *o-na-ta* outside the area of the *ko-to-na* could explain and justify a failure to change the quantity of the *ko-to-na*s of 2 and 3, but could hardly explain the absence of any area known as the *ko-to-na* of *Ta-ta-ro*, who presumably is in Ep301.6 a *ko-to-no-o-ko*. But other subjects in Ep301 are known as *ko-to-no-o-ko* though they are not among the 14 *te-re-ta* of the En texts; their *ko-to-na* may be in the *ke-ke-me-na* land.

If the occasion were a general distribution, one would expect some record of boundaries or locations. One would not expect such uneven distribution of quantities of land as *o-na-ta* ranging from 0/-/1 to 0/9, *ko-to-na* ranging from 1/1 to 3/3, and *da-ma-te* ranging from 0/-/1 to 8/3. One would imagine that such a distribution could be accomplished only by an authority, whom we should have to discover. One would find the allotment of two or four *o-na-ta* from different *ko-to-na* to the same person, and particularly the allotment of a *ko-to-na* and an *o-na-to* to the same person, rather difficult to explain. Finally the whole problem of why there should have been a general distribution of the whole *ki-ti-me-na ko-to-na* and probably of the *ke-ke-me-na ko-to-na* of *Pa-ki-ja-na* (but these need not be all the lands of the territory) will arise. Unless, forsooth, these are the records of those destroyers of the palace, who just before its destruction captured the palace and its territories and divided them anew among themselves.

Thus neither a census nor a general distribution is entirely satisfactory as an occasion for these records, and some other occasion may well be suggested and gratefully received. Apparently we cannot immediately prove or disprove the interpretation of *e-ke-ge* as a future on these grounds. In the meantime, it would be well to consider thor-

oughly the tense of *e-ke-ge* (and its frequent parallel in Ep texts, *wo-so-ge*, which, in the copy Ep617-3, is used to replace the present participle *wo-so* of the original Eb862) on linguistic grounds. A demonstration that it is not a future form would not settle the problem of the occasion, but on the other hand, a demonstration that it is a future would require an immediate investigation into the occasion and into the historical situation of Pylos at the time of these records.

VII

If we turn now to the Eb/Ep tablets in the hopes of finding further evidence of the sort we have found in the Eo/En tablets we will not be entirely disappointed, though there is less that we can do. We may, however, look at the arrangement of the entries, the difference in the sizes of the formulae, before we turn to the names and the qualifiers, in which investigation we shall treat En and Ep texts together, and compare them with the distinctly different Ea texts. It will be found, unfortunately, that portions of the following argument cannot easily be understood without the new texts published in the *Pylos Tablets*, since they cannot all be transcribed here.

It is clear that some principles of order do operate in the arrangement of the entries in the Ep tablets, but it is not possible to define them precisely, or to be sure that they were strictly applied by the copyist. The fragmentary state of many of the Eb tablets, for example, makes it difficult to tell whether the appearance and arrangement of text in them determined their position in the Ep series. The two Eb tablets, 818 and 866, which begin with one line of text instead of the normal two at the left, find their places in the first lines of two Ep tablets. Sequences of entries corresponding to Eb tablets of the same ruling are found in Ep301.2-4 (two lines with the ideogram occupying both at the right), and in 704.1-2 (two lines simply). Sequences of entries corresponding in the arrangement of text, as shown by the first word of the second line, are found in Ep301.2-4 — 8.12, 539.10-11, 704.1-2, — 3-5, 705.2-3, 617.16-17. Most of these might be extended if more Eb tablets were better preserved.

When we turn from form and arrangement to contents, the evidence is found to be more nearly complete. The variations in the formulae may be most easily seen if we take the formula:—Subject

o-na-to e-ke ke-ke-me-na ko-to-na pa-ro da-mo to-so pe-mo WHEAT, etc.,—as "normal," and note those entries which differ from it as "abnormal." Then Ep212 and 705 are each composed of ten normal entries. The entries of 539, except for lines 5, 7, and 14 are normal (line 5 has the same subject as line 4, the subject of line 7 has the same qualifier as line 8, and the subject of line 14 appears in the qualifying phrase in lines 10-12). In 704 only line 3 is entirely normal, but it has the same subject as another entry of the same tablet in line 5. Ep301 is set apart by the presence of *ko-to-no-o-ko* in its formulae, except for line 1 which is quite abnormal; lines 2-6 are uniform, with *ko-to-no-o-ko* added to the normal formula in the original Eb's, though it is copied only in line 2, and in the copies the normal order of the Eb's is uniformly inverted; lines 8-14 are uniform, with the peculiar formula: Subject *e-ke-ge ke-ke-me-na ko-to-na ko-to-no-o-ko to-so pe-mo WHEAT*, etc. In 617 only lines 14-20 are normal: lines 11-12 are of course the displaced Eo text, and as far as the broken text is legible, the most distinctive peculiarity of the rest is the presence of the words *ka-ma* or *ka-ma-e-u*. Another form of the word, *ka-ma-e-we*, appears elsewhere in Ep only in 539.5-7, and it seems possible that the presence of *ka-ma* in Eor73 is one factor which led to its displacement, aside from the absence of the expected *ki-ti-me-na*. We may assume that the tablets were sorted on the basis of their formulae with the presence of *ka-ma* or *ka-ma-e-u* as one criterion.

Besides having the words *ka-ma* or *ka-ma-e-u*, these entries generally lack the phrases *ke-ke-me-na ko-to-na* and *pa-ro da-mo*, and some the word *o-na-to* also. It is uncertain whether the land described in these entries is properly to be counted among the rest of the *ke-ke-me-na* land. It seems probable from Ep617-3, where *ke-ke-me-na ko-to-na* and *ka-ma-e-u* do appear side by side. A look at the original Eb852, however, shows that the original thought of the scribe was to write a thoroughly normal formula. The decision to write *ka-ma-e-u wo-so* then caused the erasure of *pa-ro da-mo*, although there was quite enough room simply to add it. Are then the phrases *pa-ro da-mo* and *ka-ma-e-u wo-so* incompatible? Had the scribe been more fully aware that he was to write *ka-ma-e-u wo-so*, would he have included *ke-ke-me-na ko-to-na* as he did here but not elsewhere? Perhaps we should say that these words were not essential, as is shown by their ordinary absence from *ka-ma-e-u* formulae,

but not paradoxical, as is shown by the scribe's failure to crase them, by the copyist's failure to change the wording, and by the text of Eb236.

Another possible principle of arrangement lies in the qualifier of the subject. In Ep301.1 there is none, nor even a proper subject; in .2-4 none, in .5 *e-te-do-mo*, in .6 and .8-14 none. But the *ko-to-no-o-ko* in 2[.3-6].8-14 might serve as a qualifier. In 212, 705, 539.1-6, and 617.15-20 the qualifier is uniformly *te-o-jo do-ero* or *do-ero*, and also in 704.2, 617.9, and in 617.12 which is the misplaced Eo text. *Do-ero* other than *te-o-jo d.* are together in 539.7-12, *i-je-re-ja d.* in .7-8, and *A-pi-me-de-o d.* in .10-12. Other subjects unqualified or qualified by a considerable variety of words, with few repetitions to demonstrate a reasoned order, are found in 539.13-14, 617.6-14, and 704.

Another possible factor in arrangement is the identity or similarity of names. We find *Pa-so-re-ja* in Ep539.4-5, *Pu-ra-ko* subject and referee in the Eo text, Ep617.11-12, *eri-ta i-je-re-ja* 704.35, *A-pi-me-de* and *A-pi-me-de-o do-ero* in Ep539.14 and .10-12. But we also find *E-ko-to* in 212.3 and 705.8; *Ka-pa-ti-ja* and *Ka-pa-ti-ja do-ero* in 539.9 and 704.7. There seems a possibility also that entries of the two tablets Eb472 and 477 were consolidated as Ep539.13, which has the same subject, differently qualified, a quantity equal to the sum of the two quantities, and none of the irregularity of the formulae of Eb472 and 477, unless in the broken, but probably blank space between *da-mo* and *to-so*.

In the search for principles of order in the Ep tablets, one is led back to the Eo/En tablets. It seems of course likely or possible that the Eo's themselves are copies of single-entry tablets. If so, we can hypothetically reconstruct the methods of sorting these lost originals and the order in which the Eo tablets were written. The scheme proposed may seem overly neat and ingenious, but it is saved by a few exceptions. Leaving aside Eo268, 281, and 371, for which there is no evidence at all, the order of writing of the Eo tablets which seems likely is: 278, 173, 211, 224, 276; 471, 351, 444, 247, 160, 269. To achieve this order, it is assumed that the single entries were sorted by the scribe first according to the referee, to bring together all the entries pertaining to each *ko-to-no-o-ko*; second by the formula: *a.* irregular, *b.* regular; third by subjects: *a.* those not met before, *b.* those met before; fourth by qualifier: *a.* *te-re-ja*, *b.* *e-te-do-mo* or *ka-na-po-u*, *c.* *te-o-jo do-ero* or *do-ero*, *d.* *i-je-re-u* or *i-je-re-ja*. With this arrangement the words *to-so-de pe-mo*

are added in the last three tablets only, and the "geographical" order is to a considerable extent preserved. The exceptions then are that in Eo224, 22 and 24 might be expected to precede 1; in Eo444, 38 and 38 might be expected to precede 34. In both these cases, the similarity of the subjects may have made them seem similar to "entries met before," which could justify their present position. When the En tablets were written, the two entries of irregular form which began the secondary entries in Eo247 were put at the end, perhaps because of their original irregularity. Thus parallels with the sorting of the Eb/Ep tablets may be found in the arrangement of the Eo tablets.

Beside the tabulation of frequencies of quantities in various sections of the En tablets, a similar tabulation was made for the Eb/Ep tablets, in which it was seen that the most frequent quantity in Eb/Ep texts was 0/2, compared to 0/1 in En², that the total of Ep quantities was somewhat higher, and that the average size was 0/8, as against 0/1/5 in En². The slight discrepancy between the most frequent quantity (two times as great) and the average quantity (four times as great) suggested manipulation of the figures, with the following results. If the six greatest quantities of the Ep column in that tabulation (p. 114) be removed, the average becomes about 0/4, or twice the average of En². Now can this separation of the six quantities be justified? If we look at the quantities of the entries of the "normal" formula, we find only two as large as 1 or greater, of which *wc-to-re-u i-e-re-u* (Ep539.13) has one of the six quantities in question. Of the "abnormal" entries in 301, only lines 1 and 2 have quantities greater than 1. With those abnormal formulae characterized by *ka-ma* or *ka-ma-e-u*, more quantities range from 1 to 1/5 than are below 1, while among those entries with other abnormal formulae, mostly found in 704, the remaining five of the six greatest quantities are to be found.

Nevertheless, these high quantities might perhaps be as closely associated with certain of the qualifying words as with the abnormal formulae, for each of the names of the six entries is the only one found with its particular qualifier, while among the normal and smaller entries many names are found with the frequent qualifiers with *do-ero* and *do-ero*. If we wish to manipulate the figures still further to bring the average quantity down to about 0/2, and comparable to the En²s, we must eliminate those entries with *ka-ma* and *ka-ma-e-u*, leaving

only the entries of Ep301 beside those of thoroughly normal formula. Or we may accomplish the same lowering of the average by considering only those entries in which *do-ero* or *do-eru* is one of the qualifying words.

There is then clearly some correlation among the factors of qualifying word, formula, and size of the quantity recorded. But we cannot readily sort out cause and effect. We might suppose, comparing En texts with *ki-ti-me-na*, and Ep texts with *ke-ke-me-na*, that their modal and average quantities differ as 1 to 2 or more. The consideration that the primary sorting of the entries was apparently done on the distinction between *ki-ti-me-na*, which went into the En texts, and *ke-ke-me-na*, which went into the Ep texts, shows that this difference in the description of the land was the most obvious to the scribe. We should therefore be justified in comparing the statistics of *ke-ke-me-na* land as a whole with those of the *ki-ti-me-na* land in the effort to find some difference in the character or use of these kinds of land and determine what they are. Or we might suppose that while there was no difference in the size of *o-na-ta* to be expected in *ki-ti-me-na* and *ke-ke-me-na* as such, persons with the rarer qualifiers are more likely to have larger lots, and their possession is likely to be expressed in more complicated formulae, or that larger lots are likely to be held by complicated formulae, and that larger lots or complicated formulae or both are more likely to require men of peculiar qualifications.

An appeal to the evidence of the Ea tablets, which lack the particular complications of formula seem most often in Ep617 and 704, will fail to indicate the proper choice among these possibilities, because of insufficient materials, and because of other complicating variations of formula which may have no proper counterparts in Ep. Further, since the qualifiers in Ea are of a different set from those in En and Ep, as we shall see, and more varied, we cannot determine whether they have the same sort of correlation with the quantities in Ea as they have in En and Ep.

There are no regular relationships of the quantities in Ep and En for those names which appear in both sets, despite the equation of quantities in these lines: En617.11 minus .12 and Eo224.2,3 as corrected equals Ep301.12; En74.4 equals Ep617.6; En747 plus .17 equals Ep212.3 (ignoring 705.8); En74.18 plus .24 equals Ep212.4. For this, among other reasons, the *ki-ti-me-na* and *ke-ke-me-na* lands are distinct, and the two words cannot be counted

as synonymous, but are of contrasting meanings. The arrangement of entries in Ep gives no suggestion of the geographical positions of the plots recorded, and it is worthwhile noticing only that we could suppose that the holdings of the persons who have both *ke-ke-me-na* and *ki-ti-me-na* were continuous, on the condition that the *ke-ke-me-na* land lies adjacent to, or surrounds, the *ki-ti-me-na*. It is clear that there is all told a greater extent of *ke-ke-me-na* land than of *ki-ti-me-na*. The incomplete preservation of the Eb/Ep texts makes it uncertain by how much it is greater.

VIII

If this is the limit of information to be had from the quantities and the arrangement of the texts, we may find further instruction in the formulae themselves. We have already seen in the En and Eo texts that there are alternative ways of expressing some of the relationships recorded in these tablets; and in the fuller variety of statement in the Ep and the Ea tablets, still other alternatives may be found. In the En texts, the words *e-ke* and *e-ke-ge* appear to be equivalent; there are three equivalent phrases for the principal entry: Subject (*-o-jo*) *ko-to-na* (*ki-ti-me-na*), or Subject *e-ke-ge* *ka-ma ko-to-wo-o-ko e-o*, or Subject *e-ke-ge wo-wo ko-to-no*; and in the expression of the reference to the subject of the principal entry there are two equivalent forms: *pa-ro* Name, and (*ki-ti-me-na*) *ko-to-na* (Name (*-o-jo*)), to which, in the second lines of En paragraphs, the words *o-da-a² o-na-te-re e-ko-si* are added probably to make the reference apply to each following entry.

In Ea the varying forms of reference already met are augmented by others. For those *o-na-ta* from the *ko-to-na* of persons, *pa-ro* Name is normal, but in Ea754, there is one example of Name (*-o-jo*) *ko-to-na*, and in 782 occurs the unique *pa-ro* Name (*-o-jo*) *ko-to-na*. The reference to *da-mo* is normally both in Ea and Ep *pa-ro da-mo*, but in Ea803 the word *da-mi-jo* might be understood either as the equivalent of *o-na-to pa-ro da-mo*, or perhaps as an incomplete reference, (*o-na-to*) *da-mi-jo* (*ko-to-na*). Other apparent references in Ea normally take the other form: *me-ri-te-wo* (771), *a-mo-te-wo ra-wa-ke-si-jo-jo* (809), *go-go-ta-o* (270), and *su-go-ta-o ko-to-na* (132). These referees are distinguished in that, like *da-mo*, they never appear as subjects of other entries, and that they appear nowhere in the same text with *ki-ti-me-na*, but some-

times, except for *a-mo-te-wo ra-wa-ke-si-jo-jo*, with *ke-ke-me-na*.

Here then is one of the distinctions between *ki-ti-me-na* and *ke-ke-me-na*. As far as our records go, *ki-ti-me-na ko-to-na* is wholly divided into smaller *ko-to-na* attributed to individual persons. Those portions which are recorded under the form of *o-na-to* are described as being either *pa-ro* that person or of the *ko-to-na*s of that person. For the *ke-ke-me-na ko-to-na*, however, the situation is already more complex. In Ea some part is described as being of the *ko-to-na*s of the *su-go-ta-o*, the *go-go-ta-o*, the *a-mo-te-wo ra-wa-ke-si-jo-jo*, or the *me-ri-te-wo*, which we may probably take as referring not to four single individuals (but cf. Ea822, *pa-ro su-go-ta-l*), but to four groups. All the rest, by far the greater portion, is described as *ke-ke-me-na ko-to-na* without further qualification, and *o-na-ta* within it are described as being *pa-ro* the impersonal *da-mo*.

We may notice that while it was possible to extend the diagram of the Ea tablets to show the *o-na-ta* of the Ep texts in the space adjacent to or surrounding the *ki-ti-me-na ko-to-na*, with all *o-na-ta* attributed to the same subject contiguous, it is not possible to do so in a plane figure for the *o-na-ta* recorded in Ea, when the *ko-to-na*s of these last four groups are added. Thus if lands are represented, some persons must have *o-na-ta* from various kinds of *ko-to-na* in separate spots. And as we have said before, even one person's *o-na-ta* within different *ki-ti-me-na ko-to-na* need not actually lie adjacent to one another.

In Ep there are no records of *o-na-ta su-go-ta-o ko-to-na* or the like, and no *o-na-ta ke-ke-me-na ko-to-na* are described as other than *pa-ro da-mo*. But there do seem to be some *ko-to-na* within the *ke-ke-me-na ko-to-na* ascribed to individuals. In 3012-6, we appear to have *ku-to-nu-o-ko* qualifying the subjects, and of these the subjects in 2-4 and by Eo224's correction 6 are *ko-to-no-o-ko* of *ki-ti-me-na ko-to-na*. We might guess that *A-tu-ko* in line 5, who has no *ki-ti-me-na ko-to-na*, was not in fact described as *ko-to-no-o-ko*; the broken text permits this. But in the following section, there are four of those who have *ki-ti-me-na ko-to-na* and three who do not, all described as *ko-to-no-o-ko*. Moreover, in their formula the word *o-na-to* does not appear and can hardly be supplied. Therefore the subjects in

these lines at least must have personal *ko-to-na* within the *ke-ke-me-na ko-to-na*. But there has not yet appeared any record of *o-na-ta* within them. The only possible instance of an *o-na-to ke-ke-me-na ko-to-na pa-ro* anything other than *da-mo* is found in Ep539.7 *pa-ro* —] *re-ma-ta ka-ma-e-we*, where we might have to complete —] *re-ma-ta* as a personal name, and supply the words *ke-ke-me-nu ko-to-na* in the formula. The form *ka-ma-e-we* in 539.5 would also be appropriate after a lost *pa-ro*, perhaps with another word.

The *ke-ke-me-na* land then seems to be for the most part a single *ko-to-na* from which *o-na-ta* portions are held by individuals directly from the impersonal *da-mo*.¹⁶ A second division of the *ke-ke-me-nu* consists of the *ko-to-na* of certain groups, and *o-na-ta* are held within these from those groups. A third division consists of the *ko-to-na* of individuals, within which no *o-na-to* is held, as far as we know. Are we to assume, taking Ea and Ep tablets as a single record, and taking Ea609.2 as a complete accounting, that *ko-to-no-o-ko* and *te-re-ta* are not synonymous, and that the extra *ko-to-no-o-ko* of Ep301 are *ku-to-nu-o-ko*, but not *te-re-ta*?

The word *ka-ma* is one of the terms for a kind of holding, and the holder of a *ka-ma* is a *ka-ma-e-u*. *Ka-ma* is perhaps partly a word of more general application, since it can be used in place of *ko-to-na* and perhaps in place of, or in apposition to, *o-na-to*. At the same time, it seems to have a particular specialized meaning of its own in these entries. It is easy to show its parallelism to *ko-to-na*. Eo173, *e-ke-ge ka-ma ko-to-no (o)ko e-o*, and Eo278, *e-ke-ge wo-wo ko-to-no*, are equivalents of the phrase *ko-to-na ki-ti-me-na*. *Ka-ma e-ke-ge* (e.g. in Ep617.6) and *e-ke(-ge) ke-ke-me-no (ko-to-no wo-wo)* in Eb338 = (Ep704.7/8) are the only phrases used with the peculiar set of words centered about *wo-ze* shortly to be discussed. The generally larger quantities with such entries increases their resemblance to *ko-to-na* entries. On the other hand, the use of *o-na-to* beside *ka-ma*, or alone with *ka-ma-e-u*, shows that a portion called *ka-ma* may be either *o-na-to*, or *ko-to-na*, or perhaps neither. When it appears alone in Ep617 and in Ea28, it is more likely that it refers to an *o-na-to*; in Eo173 it is certainly a *ko-to-na*. Whether it is either if the *o-na-ta* in Ep539 are parts of one, is quite beyond discovery.

Among the variants of *wo-ze*, which Eb336 shows

¹⁶ The plural *ke-ke-me-na-o ko-to-na-o*, does appear, e.g. in Eb297, 473, and 236. But within the Ep tablets, there is no indication of distinct parcels of land so described. There is no

great difference in English at least between "the common estate" and "the common estates."

to be closely connected to the *ka-ma-c-u* of these formulac,¹⁷ *wo-ze-ge* and *wo-ze* in Eb862 and Ep617.3 seem to be equivalent expressions; *o-wo-ze* and *o-u-wo-ze* in Eb338 and Ep704.7 variant spellings of a phrase equivalent to *o-u-ge wo-ze* in Ep539.7. If the first preserved word of Lib940 is to be restored *o-pe-ro-ge*, it is probably equivalent to *o-pe-ro-sa* and *o-pe-ro-sa-de* in Eb338 and Ep704.7. The words *te-re-ja(-e)* and *wo-ze* and its variants are apparently qualified by a series of other words which precede them. The combinations which occur may be shown thus:

<i>o-pe-ro-ge</i>	<i>te-re-ja-c</i>	}	<i>o-pe-ro-sa-de</i>	<i>wo-ze-ge</i>
] <i>du-wo-u-pi</i>	<i>te-re-ja-e</i>		<i>wo-ze</i>	<i>wo-ze-ge</i>
	<i>e-me-de te-re-ja</i>	}	<i>o-pe-ro-sa</i>	<i>du-wo-u-pi wo-ze-e</i>
	<i>o-u-ge te-re-ja</i>		<i>o-u-ge</i>	<i>wo-ze</i>
			<i>o-u-wo-ze</i>	<i>o-wo-ze</i>

Equivalent expressions are bracketed. Before *du-wo-u-pi te-re-ja-e*, it is possible that an equivalent to *o-pe-ro(-sa)* was written in the parts now broken off. It appears from this table that the meanings of *wo-ze* and *te-re-ja* are to some extent parallel, and that *o-u(-ge)*, *e-me-de*, and *du-wo-u-pi* may form a series of qualifying words. The apparently unnecessary addition of *du-wo-u-pi* in 704.7, however, may not add much to the meaning of *o-pe-ro-sa-de wo-ze-e*, unless, as now seems unlikely, it is the equivalent of Eb338.1 —] *ja-pi*.

Finally *ko-to-na a-no-no* and *ko-to-na-no-no* seem simply to be variant spellings of the same phrase, though we have no case of one being copied as the other. *A-no-no*, by its use in formulac without *o-na-to* and without subjects, seems to be related to *o-na-to* in formation, and contrasted in meaning. The word *e-to-ni-jo*, for similar reasons, may also be related in formation. The indications of its meaning must be discussed later. The alternation of *wo-c* and *to-me* in Eb842 and Ep617.8, and of *si-ri-jo-jo* and *si-ri-jo* in Eb159 and Ep617.10, and of *wo-ze-e* and *wo-ze-e* in Eb338 and Ep704.7, might be significant or might be simply errors or corrections made in copying. But the most striking

alternation of text within the Ep texts is shown in the substitution in Ep704.5 of the words *da-mo-de-mi pa-i* for Eb297's *ko-to-no-o-ko-de*. The discussion of this also must be postponed until we have more fully defined the sense of the normal formulac of the Ep texts.

IX

The interpretation and translation of the normal formula of the Ep texts present few difficulties. It is generally read about as follows:

Subject ὄνατον ἔχει κτήνας κεκειμένους παρὸ δάμου
τόσσου σπέρμιον WHEAT x
John Doe has a leasehold of the common estate
from the damos; so great an area: x units.

The obvious difference in the use of *ki-ti-me-nu* and *ke-ke-me-na*, and their disposition on the diagram rule out the suggestion that they are variants of equivalent meaning, and that they are "sown" and "fallow." The attribution of some *ke-ke-me-na* to the estate of swincherds (*su-go-za-o, συβωτάων*) and the like is compatible with the translations "private" and "common," but it must be admitted that the *ko-to-na* of Ep301.8-14, associated with individuals and still *ke-ke-me-na ko-to-na*, are hardly thoroughly common. To the normal formula in 301.2-6 is added the word *κτοινοόχος* "estate-holder," probably to be taken as qualifying the subject. The following lines, 8-14, have the formula:

Subject ἔχει-ge κεκειμέναν κτήναν κτοινοόχος
WHEAT x
John Doe has a common estate, (being) an
estate-holder: x units.

The group of entries characterized by the presence of *ka-mu* or *ka-ma-c-u* will begin either as:

in poor condition, and from the photograph alone, one cannot be sure whether it has been properly classified.

¹⁷ The only instance of this word in Ea, Ea209, looks somewhat like the end of a tablet corresponding to Ep617.1/2. It is

Subject, *καμαεὺς ἔχει (ἄνατον) (κεκειμένως κτοίνας)*—

John Doe, a farmer has a farm? (a leasehold) (of the common estate)—, or

Subject *ἔχει-γε κάμαν (ἄνατον)*—

John Doe has a farm (a leasehold)—

The formula is completed either by:

—*wo-z-ei-ge* (*wo-z-wn, wo-s-orres*)

—*wo-z'*es (*wo-z'*ing, singular or plural), or by:

$\left\{ \begin{array}{l} \text{ὀφέλλων} \\ \text{ὀφέλλωντα (δέ)} \end{array} \right\} (\delta\text{νοῦφι})$	$\left\{ \begin{array}{l} \text{te-re-ja-ev} \\ \text{wo-z-eev.} \end{array} \right\} \left\{ \begin{array}{l} \text{ἐμεὶ δὲ} \\ \text{οὐ-ge} \end{array} \right\} \left\{ \begin{array}{l} \text{te-re-ja} \\ \text{wo-ze} \end{array} \right\}$
$\left\{ \begin{array}{l} \text{obliged} \\ \text{(with?) two} \\ \text{(or twice or} \\ \text{double?)} \end{array} \right\}$	$\left\{ \begin{array}{l} \text{to te-re-ja.} \\ \text{to wo-z.} \end{array} \right\} \left\{ \begin{array}{l} \text{(with?) one (or} \\ \text{once or single?)} \\ \text{does not} \\ \text{does not} \end{array} \right\} \left\{ \begin{array}{l} \text{te-re-ja's.} \\ \text{te-re-ja.} \\ \text{wo-z.} \end{array} \right\}$

I have left *wo-z* and *te-re-ja* un-Greeked and untranslated. Suggestions for the interpretation of *wo-z* include: *a.* "cultivates"; *b.* "works on the *ka-ma*," more or less synonymous with *te-re-ja*, equivalent to *φρέζω*; *c.* "inhabit," "occupy," derivative of *φοικ*—. Suggestions for *te-re-ja* include: *a.* "perform," connected with *τελέω*; *b.* that it is connected in sense with *te-re-ta*. We may also notice Webster's suggestion that "some arrangement for double payment because of past failure seems to be referred to" in Ep617.1/2, 4/5.¹⁸ These various suggestions do not entirely fit the context, and perhaps something better may be found.

To *wo-z* is plainly an obligation of one who is *ka-ma-e-u*, or who has a *ka-ma* in its technical use,¹⁹ or in Eb338 of one who has a *ke-ke-me-no ko-to-no wo-wo*. Normally that obligation is fulfilled, as can be seen from Eb236, in which alone of its series of texts such a word as *wo-zo-te* qualifies the subject, in this case the plural *ka-ma-e-wo*. It can be seen also in the majority of *ka-ma* entries in which the simple *wo-zo-ge* appears. When the obligation is not fulfilled, when *wo-ze* is qualified by *o-u(-ge)*, there is also a statement including *o-pe-ro(-sa)*, for which, even without translation, the Ma texts and others had demonstrated a sense of "lacking" or "owing." Here we may guess that to *wo-z* is almost the same thing as to *te-re-ja*, since it is only when the unqualified *wo-ze-ge* is absent that *o-pe-ro(-sa) te-re-ja-e* appears, since *te-re-ja* never appears unqualified, and since in Ep617.4 [*o-pe-ro*] *du-wo-u-pi te-re-ja-e o-u-ge wo-ze* seems to mean that "what

ought to have been done (*te-re-ja*) was not done (*wo-z*)." Perhaps the relation between to *te-re-ja* and to *wo-z* is that of antecedent and subsequent actions. But the completion of some of these entries may show *wo-z* and *te-re-ja* to be unrelated in sense.

Since to *wo-z*, as an obligation of a *ka-ma-e-u*, may be taken as a condition of his holding, which may be fulfilled wholly, partially, or not at all, we

should like to know whether the noted failures to fulfil it are the results of the suspension of a normal obligation or are simply temporary failures at the moment of the record, which will be effaced by later action on the part of the *ka-ma-e-wo*. If it is the latter, and the scribe records a present and temporary situation, we might suppose that *wo-z'*ing was an action to be done once and for all by the *ka-ma-e-u* at some time during his tenure, or periodically, say once a year, or continuously. But the verbs used here seem all to be present and are not likely to record a complete action. Thus we must suppose the action to be taken continuously, or if periodically also habitually. Then, if a strictly present and transitory situation is reported, some *ka-ma-e-wo* are failing to perform their obligation but may later mend their ways. Otherwise, we may suppose that the normal obligation is suspended or modified for some *ka-ma-e-wo* or *ka-ma*. This supposition has the advantage that these entries, like the rest we have so far considered, will record only permanent conditions of tenure.

These considerations, plus the fact that to *wo-z* is either never required of other landholders, or else never omitted by them, suggests that *wo-z'*ing cannot be any normal operation of farming, and argues against such meanings as "to cultivate." It is possible that to *wo-z* and to *te-re-ja* do not necessarily have the land (*ka-ma*) as their object, but that they are intransitive verbs. Here again the gradation of *du-wo-u-pi, o-me-de*, and *o-u-ge*; two, one, and zero, presents a problem. In such an entry

obligation is apparently passed on to the *o-na-te-te*.

¹⁸ Webster, *Bulletin Inst Class Stud* v (1954) 14.

¹⁹ If in Ep539.5-7 *o-na-te* from a *ka-ma* are recorded, the

as Ep617.3, when the simple *wo-ze-ge* is written, we, being uninstructed, should imagine that if a numeral were to be supplied it should be "one." Yet when the copyist read Eb338 *u-je-ro-su-de wo-ze-c*, he apparently understood, and unhesitatingly supplied, *du-wo-u-pi*, "two." And perhaps in Eb940 also, an unexpressed *du-wo-u-pi* may be understood. We should like to know whether there was a *du-wo-u-pi* in Eb495. If by some chance it were not expressed, the *e-me-de te-[re]-ja* would show clearly that the normal obligation was *du-wo-u-pi te-re-ja-e* or *wo-ze-e*, and that *du-wo-u-pi* might be understood also when *wo-ze-ge* appears alone. But what sort of action is it which can be done two-wise, one-wise, or zero-wise? Normal farming operations are still difficult to imagine, especially such as ought to be done two-wise, and continuously or periodically.

We may not yet have exhausted the indications that the text can give us, but we have enough perhaps to set down a sample of the sort of statement we might expect in these entries. Remembering the primary importance in all En and Ep tablets of the names of the holders, and of the nature and size of their holdings, we thought a census or an assessment a likely occasion for the compilation of this record. Remembering this and also remembering that the possession of the *ka-ma* carries with it particular and probably continuing obligations, which at least in practice are variously fulfilled, I should suggest some such sense as this, following the statement that the subject (a farmer) has a farm:

—and he pays (normal (=double?)) rates, or
—(though) obliged

{	to be rated (double),	{ he is rated single,
		he is not rated,
{	to pay (double),	he does not pay rates.

One could perhaps find an appropriate Greek word related to *τέλος*, which could be spelled *te-re-ja* and mean "to be assessed" or the like. There may be more difficulty with *wo-x*. For that reason, the interpretation and translation at the beginning of this section are left with *wo-x* and *te-re-ja* unchanged. Yet in spite of these verbal difficulties, some such sense as this seems at the moment more appropriate to the probable occasion and purpose of these records, and to the peculiarities of these entries, than the other proposed interpretations.

²⁰ Chadwick, *Trans Philological Soc* (1954) 10.

The formula of Eb278, *e-ke-ge wo-wo ko-to-no*, would be interpreted simply as *ἔχει-γε φόρον χθόνος* "has a plot of land," if it were not for Eb338, in which *ke-ke-me-no* is added to the phrase, apparently qualifying *ko-to-no* and alone representing it in the copy Ep704.7. This text leaves one in doubt whether to look for a form of *χθών* or of *κτοίνα*, which will share some Mycenaean spellings. But it is as difficult to find some form of *κτοίνα κεκειμένα* so spelled as it is to have *ke-ke-me-no* agree with *χθόνος*. The suggestion that a genitive dual of *κτοίνα*²⁰ might be read is objectionable for its hypothetical ending, and equally for the unsuitability of two *κτοίνα* to the context. Therefore, though the general sense is clear enough, we await a more precise interpretation.

The last term we shall consider is the *e-to-ni-jo*, for which again we shall produce no Greek form. It is found in two places, Ep539.14 and 704.5. In each case, there appears with it one of the persons who are fortunate enough to have *do-e-ro*. In 539.14 *A-pi-me-de*, who in earlier lines has three *do-e-ro*, is the subject and he has an *e-to-ni-jo*. In 704.5 appears *te-o*, who everywhere has *do-e-ro* and *do-e-ra*, and the subject *i-je-re-ja* also has *do-e-ro* and *do-e-ra*. Perhaps *A-pi-me-de* too is a divine, or a reverend person. But to come nearer the sense of *e-to-ni-jo* we must read the whole of 704.5/6 and its corresponding Eb297. Since much of the wording of this tablet is unique, the occurrence of different versions in original and copy may assist us. For this interpretation, I acknowledge gratefully that I draw heavily upon suggestions received in a letter from Ventris. The verb "to have" appears three times in this long sentence, and thus we may divide it into three statements of possession. But there is only one subject, and only one quantity, and we will therefore expect three descriptions of the same possessing. We may divide the sentence:

1. Subject *e-ke-ge*;
2. *e-u-ke-to-ge e-to-ni-jo e-ke-c te-o*;
3.

}	<i>ko-to-no-o-ko-de</i>	}	<i>ko-to-no-o</i>
}	<i>da-mo-de-mi pa-si</i>		

ke-ke-me-nu-o { *o-na-ta* } *e-ke-e*
 o-nu-to

The division between clauses 2 and 3 is indicated in Eb297 by the leaving of space after *te-o* in the first line and beginning *ko-to-no-o-ko-de* in the sec-

ond, and in Ep7055 by the increased size of the signs of *da-mo-de-mi* after a relatively small *e-ke-e-to-o*. The first statement is that the subject has—, but what has she? It is measured at the end of the sentence, so it is laud. The description of the land is necessary. There are in what follows two statements about it which might be complementary, but appear to be opposed. If we compare these statements section by section, *e-u-ke-to-ge* is opposed to *ko-to-no-o-ko-de* and to *da-mo-de-mi pa-si*; *e-to-ni-jo* is opposed to *o-na-to*. *Te-o* by its position falls outside the dispute. There is doubt, then, whether the land is *e-to-ni-jo* or *o-na-to*; there is no reason to suppose that it can be both. *E-u-ke-to-ge* is easily read as *εὔχετο-γε* (present, or *εὔχετο-γε* imperfect); its subject is that of *e-ke-ge*. For the third statement there is possibly a subject, *ko-to-no-o-ko-de*, but no verb parallel to *e-ke-ge* or *e-u-ke-to-ge*. In its copied version, in which we may assume that the copyist will have tried to eliminate ambiguities, there is both a subject and a verb, the subject in *da-mo-de-mi* and the verb in *pa-si*. Φασί will correspond to *εὔχετο*; the subject claims (about herself) and the second subject states (about her). There is no division within the four signs of *da-mo-de-mi*, and a very firm one after *-mi*, yet it seems necessary to divide it into three parts, *da-mo* for the subject of the verb, *de* corresponding to the *-de* of *ko-to-no-o-ko-de*, and *mi*, a more explicit identification of the subject of the second *e-ke-e*.

The interpretation then runs:

Subject *εὔχει-γε*,

εὔχετο-γε e-to-ni-jo εἴχεν θεῶ,

*κτοινόχοι δὲ
δάμος δὲ μὴ φασί* } *κτοινάων*

κεκεμνάων { *ἀνάτα
ἄνατο* } *εἴχεν.*

Mary Smith has;

and claims that she has an *e-to-ni-jo* for the god;

but the { *cstate-holders that (she)*
damos states that she } has

(a) leasehold(s) of the common estates.

The opposition of *e-to-ni-jo* to *o-na-to* thus becomes clear, though its precise nature remains to be shown by its etymology. It is probably to be divided as *e-t-o-ni-jo*, and the second element should contain the root of *o-na-to*.

In *e-to-ni-jo* we have treated the last of the recurrent terms for kinds of land tenure in the Ea, En, and Ep tablets. There remain a few phrases which

occur but once each. Their explication might add to our understanding of the system of landholding, but since it must depend primarily on the discovery of suitable interpretations into Greek, we shall not consider them here, trusting that they will not tear down the edifice we have tried to reconstruct. The other kinds of tenure named in other tablets, notably the *te-me-no*, *τέμενος*, "precinct" of Ep312 and 880, must also be left for another discussion.

X

To fill out the picture of landholding in Pylos, the landholders themselves must be considered. Some indication of this necessity has already been given in the suggestion that the size and kind of holdings may be in some way related to the various words used to qualify the names of the landholders. Since most of the qualifying words can easily be translated, we may try to discover in them the basis of these apparent correlations. But there is even more to discover about the landholders of *Pa-ki-ja-na*, by comparing them with the landholders in the other unnamed region partly described in the Ea tablets. The Ea and En/Ep texts share only one name, probably no persons, and few of the qualifying words. Moreover, while the set of qualifiers found in Ea when translated shows no central tendency, most of those in En/Ep plainly have some religious connection. Finally, while all the names of landholders in Ea seem to be masculine, there are only somewhat fewer feminine than masculine names in *Pa-ki-ja-na*. The qualifications of the landholders must be carefully looked into, for some explanation of these phenomena.

In some of the Ea tablets, the qualifier of the subject is set off from the rest of the text either by being written in signs intermediate in size between those of the subject and those of the following formula, or by appearing after the subject but in a line above the rest of the formula. The qualifier is not always present; some names qualified in one text are not in another, some are not at all in the texts preserved to us. The referres also are sometimes qualified and sometimes not. Two of the qualifiers are applied to three names each, *ra-pte* and *ra-wa-ke-si-jo*, one to two, *po-me*, and the rest to only one, *a-ke-ro*, *a-re-po-so-o*, *di-ra-po-ro*, *ē-pi-we-ti-ri-jo*, *e-te-do-mo*, and *i-je-re-u*. Two of the *ra-wa-ke-si-jo* have *ko-to-na ki-ti-me-na*, both the *po-me-ne*, and the *i-je-re-u*. The rest have *o-na-ta* of various sorts. There seems to be no pattern to the

qualifications of those who have *u-nu-ta* of the *ko-to-na su-qa-ta-o*, *qa-qa-ia-o*, *me-ti-te-wo*, and *a-wo-te-wo ra-wu-ke-si-jo-jo*.

The interpretation and translation of these names is of varying difficulty, "ἄγγελος," "messenger," ἐντεσθόμενος "armorer," ῥαπτήρ "tailor," ποιμήν "shepherd," ἱερεὺς "priest" are more certain than the rest. Ἀραγήσιος clearly has the elements of the name Ἀγγελίασος and very likely the meaning. He should be some sort of official and we may call him a "commander." *E-pi-wo-i-ri-jo* seems most likely to be compounded of ἐπί and the *we-te-re-u* of the Ep series. Let the rest remain doubtful. Those words we have read we can call the names of occupations, particularly the shepherd, tailor, and armorer. But it seems possible to wonder whether these employments are those by which these persons gain their livelihood. Some of them can be equally well taken as official positions, e.g. commander, priest, herald, and perhaps the shepherd as well, if we remember that to Homer Agamemnon was one. If we could take it so, the *ko-to-na-o-ko* whose titles we know would be two "commanders," two "shepherds," and a "priest."

The four groups who have *ko-to-na* of *ke-ke-me-na* land in Ea are designated by occupational names. They may be read as *συσβάτων*, *βουβοτάων*, and probably *μελιττέων* and *ἄρμουςτα λαφαγησίου*; the "swinherds," the "cowherds," the "beekeepers," and the "commander's guards."

Among the qualifiers within the Ea and Ep series, the *te-o-jo do-e-ro* and *do-e-ra* are by far the most frequent. In Ea there are ten *do-e-ro* and ten *do-e-ra*,²¹ and one, *Ma-re-ku-na*, whose gender one scribe or the other mistook. There are then approximately equal numbers of each. This is not the only place in Mycenaean bookkeeping where the number of persons involved in particular sets of transactions has some significance. The most striking examples are to be found in the Jn tablets from Pylos. But the equality of sexes in the Ea texts is carried further in the Ep texts, and if *Ma-re-ku-na* were certain, and if we had all Ep entries, we might indeed find that there were exactly equal numbers of *te-o-jo do-e-ro* and *do-e-ra* listed as having land in *Pa-ki-ja-na*. As it is, there are 20 certain *do-e-ro*, and 22 certain *do-e-ra*, plus the one whom a careless scribe has doomed to remain forever a hermaphrodite.

Of course it is a fitting and proper thing that there should be as many men as women, but it is

surely unusual to have equal numbers of male and female landholders in a community of such limited size as this. The equality then must be contrived and maintained, by authority or custom, and since these are the "servants of the god," as θεοῦ δοῦλοι should be translated, these equal numbers must have some significance in the cult of the god, whoever he may be. A further instance of this equality may be seen in those who must hold higher positions in the same service. There is one ἱερεὺς "priest" and one ἱερεῖα "priestess." Beyond this, equality breaks down, and except for *E-ra-ta-ra*, the female servant of the priestess, there are no other women. Since in Ea also only men are landholders, we must suppose that either a religious calling gives women privileges otherwise natural to men, or else that there is something about *Pa-ki-ja-na* itself which gives them this advantage. Very likely both are true.

The entries of the *i-je-re-u* and the *i-je-re-ja* are peculiar in that they are not clearly named, and that in some entries other words are added. Let us consider those words which come with *i-je-re-u* and *i-je-re-ja*. In no entries except Ep704.35 does any word come with *i-je-re-ja* which could be the name of the priestess. She is sometimes more closely identified by being called the priestess of *Pa-ki-ja-na* and her servant is called the servant of the priestess of *Pa-ki-ja-na*. But since she so often appears nameless, it may be that the *e-ri-ta* of Ep704.35, supplied by the copyist, is not her name but some further description of her office. Let us turn to the priest for help. He appears as *we-te-re-u i-je-re-u* most often. By its position alone one would expect *we-te-re-u* to be a proper name. If Eb472 and 477 are the originals of Ep539.13, it would appear that *o-pi-ti-ni-ja-ta* might be an equivalent of *i-je-re-u*. The word *o-pi-ti-ni-ja-ta* might also be parallel to the *Pa-ki-ja-na* found with *i-je-re-ja*, as a local designation, especially if it be read ἐπιθιναίας "of the Sea-coast." But *we-te-re-u* cannot be the name of the priest, and to show that this is so, we must consider the special set of Eb tablets, particularly Eb317.

The elements of the formulae of these tablets, Eb236, 317, 847, 901, and 11c411, though they appear in no fixed order, are *o-da-a*² Subject(s) *e-ko-si o-na-ta* (*ke-ke-me-na-o ko-to-na-o*) *to-so(-de)* *pe-mo WHEAT* x. With the subject *ka-ma-e-we* the verb appears as *e-ko-te* with the additional *wo-ro-te*. The subjects found are *ka-ma-e-we* (236), *i-je-re-ja*, *ku-ra-wi-po-ro*, *e-qa-ta*, and *we-te-re-u* (317), *e-ge-*

²¹ With the not quite certain restoration of *do-e-ra* after *I-ra-u* in En654.16.

si-jo do-ero (847), *ko-to-ne-tu* (901), and *te-re-ta*, *ka-ma-e-we*, *te-o-jo do-ero* (Ec411). The reappearance of many of these subjects as qualifiers in En/Ep texts shows that this group of tablets might be a kind of summary of those texts, or be otherwise related to them. The *ka-ma-e-we* will be taken to include those who on Ep539 are primarily qualified as *a-si-to-po-go*, *i-je-ro-wo-ko*, *te-o-jo do-ero* (1), and *pa-de-we-u* (2). The *i-je-re-ja* and *ka-ru-wi-po-ro* are met on Ep704. To the *e-ge-tu*, singular if like its fellows, we do not know what corresponds, but the priest is identified not as *i-je-re-u* but as *we-te-re-u*. In the context of these special Eb tablets, the subjects are titles or occupations, not names, so that *we-te-re-u* must be one of these too. The word perhaps implies *i-je-re-u*, and indicates some additional function, or superior authority, in the priestly office. The *e-ge-si-jo do-ero* should be connected with the *e-ge-tu*, but whether to identify them with some or all of the *do-ero* of *i-je-re-ja*, *Ka-pa-ti-ja* (the *ka-ru-wi-po-ro*), and *A-pi-me-de*, is impossible to decide. The *ko-to-ne-tu* may be *κρονωτάι*, equivalent to *ko-to-no-o-ko*. If so, presumably they are those in the upper section of Ep301, who, like the *ka-ma-e-we* of Eb236, have *o-na-ta ke-ke-me-na(-o) ko-to-na-u*. The *te-re-ta* of Ec411 may be the fourteen of the En texts, but we do not know whether the quantity would refer to their *o-na-ta* or their *ko-to-na* if this is a summary, and we cannot check the addition. The *te-o-jo do-ero* of the edge of the tablet are plain, but we miss the *te-o-jo do-ero*. We should like to compare the quantities and see whether these tablets are in fact summaries of the En or Ep texts. But none of the necessary sums is recoverable, chiefly because of broken tablets. But it may be that different lands are referred to, or a different scale of measurement may be used. Certainly the quantity $6\frac{8}{5}$ attributed to *ka-ma-e-we* in Ec411.2 is far above the sum to be found in entries of *ka-ma-e-we* in Ep.

We have now determined that *we-te-re-u* is the priest's office, not his name, and if so he is left nameless. Perhaps the priestess is also, so that *e-ri-ta* may merely describe the priestess' office more fully. On the other hand, we may be able to find the priest's name, and not prove, but make it probable, that it is really his name. Let us recall the symmetry of the population of the servants of the god, with approximately equal numbers of men and women, and with one priest and one priestess. Now the priestess has one female servant for herself, as is proper, and two male servants, but nowhere is

there mention of servants of the priest, unless in a broken Ep text and missing Eb tablet. But there are servants of *A-pi-me-de*, three in number. If we supposed *A-pi-me-de* to be the priest, the numbers of servants would balance. Let us look next at the arrangement of the text. In Ep539.7-8 are the two priestess' servants, in .9 (the *κλαφιφόριου*, "key-bearer's") *Ka-pa-ti-ja*'s servant, in .10-12 (the priest's) *A-pi-me-de*'s servants, in .13 the priest (*A-pi-me-de*), in .14 (the priest) *A-pi-me-de*. If *A-pi-me-de* is the priest we have a solid block of five entries connected with him. But we shall have to wonder why the priest is not named *A-pi-me-de* in 539.13 when, if it is true that this line corresponds to Eb472 and 477, the copyist has already made some revision of the wording. Probably the cause lies in the difference of the holdings described in these two lines. The priest has an *o-na-to*; *A-pi-me-de* an *e-to-ni-jo*. Here again symmetry is found, for the priest has an *o-na-to* (539.13), the priestess has an *o-na-to* (704.3); *A-pi-me-de* has an *e-to-ni-jo* (539.14), the priestess claims to have an *e-to-ni-jo* (704.5). The *e-to-ni-jo* seems now to be a particular kind of landholding which is the prerogative of the priesthood, in which prerogative the priestess stubbornly claims she should share.

There are then a priest (*A-pi-me-de*) who has three servants, a priestess (*ti-ri-ta*?) who has three servants, one of them female, and probably equal numbers of male and female servants of the god, twenty-four of each at a guess. Priest and priestess each have *o-na-ta* of *ki-ti-me-na* and *ke-ke-me-na* land, and each claims a large *e-to-ni-jo* of *ke-ke-me-na* land as well. The priestess' servant (female) has an *o-na-to* of *ki-ti-me-na*, her other servants and those of the priest, *o-na-ta* of *ke-ke-me-na*. Almost equal numbers of the servants of the god, perhaps slightly less than half of each sex, have *o-na-ta* in *ki-ti-me-na* land, an unequal number (4 *do-ero*, 2 *do-ero*) have *o-na-ta* in both, and the rest have *o-na-ta* in *ke-ke-me-na* only. Only one *do-ero* seems also to be a *ka-ma-e-u*. The remaining qualifiers in En/Ep are *ka-na-pe-u* (*wana-ka-te-ro*) *γραφεύς* (*φανάρτερος*) "(royal) fuller" (2, one a *ko-to-no-o-ko*), *ke-ra-me-u* (*wana-ka-te-ro*) *κεραμεύς* (f.) "(royal) potter" (a *ko-to-no-o-ko*), *e-te-do-mo* (*wana-ka-te-ro*) *ἐντεσδόμος* (f.) "(royal) armorer," *te-utara-ko-ro* (a *ko-to-no-o-ko*), *po-me ποιμήν* "shepherd" (a *ko-to-no-o-ko*), *pa-da-je-u* (*pa-de-we-u*) (3, one a *ko-to-no-o-ko*, two *ka-ma-e-we*), *ka-ru-wi-po-ro κλαφιφόρος* the "key-bearer," *Ka-pa-ti-ja*, the servant of the "key-bearer" (*Ka-pa-ti-ja do-*

e-ro, like *A-pi-me-de-o d.*, not *ka-ra-wi-po-ro-jo d.*), *ge-ja-me-no*, *i-je-ro-wo-ko* ἱερούργος "sacrificer" (a *ka-ma-e-u*), *a-si-to-po-go* (a *ka-ma-e-u*), and in Ep677.14 —]*ti-ni-ja-we-jo*.

The rest are identified by their names only, except that there seems to be an *o-na-ro* held by a group with perhaps an occupational name, the *ki-ri-te-wi-ja* of Ep7044. Their position between two entries of the priestess lets us suppose that perhaps this is less an occupation (the "barleyers") than a religious title. We might compare the κριθολόγος among the Opuntians (Plu. 2.292c).

The majority of the landholders of *Pa-ki-ja-na* then have some connection with the cult, and in this *Pa-ki-ja-na* is set apart from the only other similar territory for which we have comparable evidence. It is surely reasonable to assume that the cause of this phenomenon is the presence in *Pa-ki-ja-na* of some sanctuary, to the service of whose cult these religious persons are devoted. Their livelihood is provided, no doubt, by the lands which they hold as described in the accounts of our scribes.

XI

The conclusion of such an inquiry as this can only be a résumé of the problems left unsolved in its course, and an indication of these other problems which are brought to our attention by the partial solutions which have been found.

The identification of proper names has not been attempted, though it would be very good to know what and where *Pa-ki-ja-na* is. Some names are obvious: our priest should be Ἀμφιμήδης, Amphimedes, and one of the servants of the god is *Te-se-u*, Θησεύς, Theseus, but not the son of Aigeus. Only such of the titles or occupations of these landholders as are nearly self-evident have been translated with confidence, although possible interpretations of others have been suggested. The titles of the greater and the lesser persons have been read. We know the barons and the lessees, the shepherds, the potters, the priests, and the servants of the god. The persons of middle status remain in doubt. If all had been translated, a better picture of the economic basis and the social structure of the Mycenaean state could have been presented. For some of the terms which are regular parts of the formulae, no exhaustive search for a properly corresponding Greek word has been made, and it has seemed sufficient to establish enough of its general sense for the course of the argument. The distinctions among

the various kinds of landholding are discernible in the leasehold, the estate, the farm, the *e-to-ni-jo*, and probably the homestead. The distinction between common and private estates is certain, at least as a legal or economic distinction, though there is no indication that they are put to different uses, or are different in nature.

Although the terms used for landholding have been classified, have revealed some of their characteristics, and have been given conventional translations, we cannot be sure of every meaning nor of their relationship to other terms found in other landholding texts, such as the E₁ and E₂ tablets. We do not know the size of the plots, nor whether the measurements recorded are of the area of the land, of its value as in an assessment, or for example of its yield on some particular occasion. We do not know whether the diagram built out of the E₁ texts bears any relationship to the actual local disposition of the estates, homesteads, and leaseholds in *Pa-ki-ja-na*. We do not know to what use the lands are put, whether they be orchards, fields, pastures, or, as only seems suitable for a lot of the minute dimensions of *o/-/1*, house-plots.

We do not know the occasion for the compilation of these records, which if known could do much to illuminate the history of Pylos shortly before its destruction. It might, besides the possibilities already mentioned, have been undertaken to settle the squabble about the priestess' claims to an *e-to-ni-jo*, or to establish the proper attribution of certain leaseholds to the estates of which they are parts. The apparent irregularity of the system of landholding, the inequality of the lots and of individual possessions, and the possibility of dispute over the possession of the land, will not seem unnatural in a settlement of some antiquity. We will do well not to expect here a record of a recent or present, equitable and systematic division of the land. All the more then, will we be impressed with the system evident among the religious element of the community, with its balance of numbers of priests, servants of the god, and perhaps other officials as well.

The clues given in the titles or occupations of these landholders to the constitution of Mycenaean society and their position in it are most tantalizing. Surely the *do-e-ro* are not in fact slaves, but are honored, though perhaps humble, members of the community. The designation of the potter, the fuller, and the armorer as royal, *wa-na-ka-te-ro*, (and when the word is omitted it seems to be im-

plied in the simple "potter," "fuller," or "armorers"), suggests a dignity of position beyond that of tradesmen. The composition of the damos, too, is hinted at in the correction of the long statement about the priestess' holdings. The damos is there the group of the estate-holders. But whether they are members of the damos by virtue of their holding, or hold land as a privilege of their membership; whether all estate-holders or only some, or other persons beside constitute the damos cannot be discovered from this set of texts alone.

The greatest puzzle produced by these texts is that of the religious community of *Pa-ki-ja-na*. A great amount of information about its constitution does lie in the records of the members' real possessions. We can discover their numbers and the titles of perhaps all members of their hierarchy. We can guess that it is a community of long standing, in which the passage of time has wrought changes in the economic standing of its members and has led to the division of opinion on the privileges inherent in the priesthood. We can assume without hesitation that the community serves a still unidentified god, in a sanctuary established in *Pa-ki-ja-na*, located perhaps near the shore. We see that the service of the sanctuary has become the primary activity of the inhabitants of *Pa-ki-ja-na*: there are few landholders who are not expressly connected with the cult of the god, and most of them are holders of the private estates. Their holdings of this kind of land are large, and of the common land small; of the common land, the holdings of the more important sections of the hierarchy are most extensive. Shall we find in this distribution the traces of the growth of the sanctuary? Was it established in a region which before had common fields and private fields held now by no more than a score of persons, who retain by inheritance (or receive

by royal favor?) possession of considerable estates? Shall we then suppose that the establishment of a sanctuary increased the landholding population and required the leasing of such portions of the private estates as could be spared for their sustenance? And since these lands were not enough to support the whole community, or sufficiently unencumbered for the hierarchy, shall we add that the common land also was divided up into leaseholds similar to those in the private estates, and given in other kinds of holding, with particular privileges and obligations, to the members of the hierarchy?

The Mycenaean inscriptions pose many problems, and those of the E series from Pylos are among the most interesting. There is plenty of material for such conjectures as these; there is not enough for certain reconstructions of Mycenaean society. It has not been feasible to discuss all the suggestions which have been published for the solution of the problems involved in these texts. Their authors have brought to bear on the limited material of the *Preliminary Transcription of the Pylos Tablets* the resources of many branches of inquiry, philological, linguistic, and historical. It is not surprising that most of their suggestions are consistent with the conditions of landholding which have been discovered with more limited means in the now more nearly complete archives of Pylos. The authors of these studies will find in the texts which are now available ample materials to clarify and elaborate their reconstructions of Mycenaean economy, society, and language. In these pages, the reader perhaps will have become aware of the wealth of information which is at their disposal in the archives of Mycenaean palaces.