SOME FURTHER THOUGHTS ON 'COLLECTORS'

One of the most controversial of all questions in current Mycenaean scholarship is the identity of the so-called 'owners' or 'collectors': clearly significant figures in the Mycenaean state, whose names appear in connexion with flocks of sheep and textile workshops at both Pylos and Knossos, and who there is increasing evidence to suggest also have 'interests' in other aspects of the economy. Thus on the Pylos sheep records (classified as Cn), we find references to flocks 'of' four different individuals a-ke-o, a-ko-so-ta, a-pi-me-de and we-da-ne-u (as well as to large numbers of flocks not attributed to any 'owner'); we find references to what appear to be comparable individuals to these Pylian 'owners' on the sheep records at Knossos (classified as Da-Dg, Dv); some of the 'owners' on these sheep records are attested, together with other persons, as 'owners' of workgroups in the A and L WOMAN and CLOTH records at Knossos; and the individual e-me-si-jo who is named as an 'owner' both on the D and the A/L records at Knossos is also attested on E 843 and E 7338 as the 'owner' of considerable tracts of land (or of large quantities of wheat or barley).

There is not sufficient space here to enter into a full discussion of the identity and rôle of these 'collectors'. There are, however, three points which we need to bear in mind when we are considering who they are:

1. Their activities are recorded in the central palaces, which indicates that the centres have a close interest in and almost certainly control over them.

2. 'Their' flocks and workgroups are treated by the central administrations in a precisely similar manner to all other flocks and workgroups recorded in the archives (given the same rations, assigned the same targets for production), except that separate totals are kept for 'collector' and 'non-collector' activity.

3. In some contexts, references to 'ownership' by 'collectors' are found in parallel with references to 'ownership' by divinities. Thus in the Dl(1) SHEEP and WOOL records at Knossos we find references to 'owners' such as ra-wo-qo-no and e-se-re-a₂ and in parallel position on other records in the same group references to sheep 'of' the goddess Potnia (po-ti-ni-ja-we-jo).

To my own mind, the explanation of the 'collectors' which best fits with this evidence is that they are prominent members of the ruling élite (members of the royal family, high palace officials and the like) who have been assigned part of the productive capacity of the kingdoms for their own benefit (that share, however, still being managed on their behalf by the central authorities) ¹. Encouragement for the belief that this explanation may be on the right lines is provided by comparative evidence: in records from Ur III Mesopotamia, the following are mentioned as owners of sheep and wool besides the king himself: the queen;

J.T. KILLEN, "The Knossos Ld(1) tablets", Colloquium Mycenaeum. Actes du sixième colloque international sur les textes mycéniens et égéens (1979), 177. For a similar view, see J. CHADWICK, The Mycenaean World (1976), 129; L. GODART, "Les collecteurs dans le monde égéen", Mykenaïka. Actes du IXe Colloque international sur les textes mycéniens et égéens, BCH suppl. XXV (1992), 283. (GODART's paper is one of four very useful discussions of the 'collectors' which appear in Mykenaïka, the others being by J. BENNET, P. CARLIER and J. DRIESSEN).

prominent state officials such as the *ensi*; and the temple of Nanna ². Moreover, we know that one 'collector' at Pylos, *a-ko-so-ta*, also performs major administrative duties, including the inspection of land-holdings and the distribution of raw materials to unguent-boilers ³; while another, *a-pi-me-de*, is in all probability an *e-qe-ta* or 'follower', a high official of the Mycenaean state ⁴.

The purpose of this paper is to ask the question: do we have evidence for the activity of 'collectors' in spheres of the economy other than those already mentioned? I begin by considering some possible evidence for 'collectors' in the Jn series of bronze-working records at Pylos; then, in the second section of the paper, I examine what I believe to be strong evidence for the activity of a major 'collector' in the records at Knossos dealing with the manufacture of aromatic unguents.

I.

On several of the Jn records of bronze-working at Pylos we have references to workers 'of' the goddess Potnia. Invariably, these are listed after the main group of workers in the area in question. It is possible that we also have references to 'owner' or 'collector' groupings listed in the same position on other records.

(a) On Jn 725.14, the term]-nu-we-jo appears in initial position on the line, and clearly serves to identify the sub-grouping of workers which is recorded on ll. 14-16 of the tablet. Though this might be a place-name, and a record of a group of workers at a place other than e-ni-pa-te-we, the location of the group listed on ll. 1-8 of the tablet, it is perhaps more attractively interpreted as a possessive adjective in -e-jo indicating the 'ownership' of the group in question ⁵. The use of adjectives of this type to designate workgroups, flocks and perhaps also land 'belonging to' 'owners' is widely attested elsewhere in the records.

(b) On Jn 832, lines 1-8 of the record deal with *ro-u-so ka-ke-we a-ke-te-re*, smiths specialising in finishing (?) work at the place *ro-u-so* ⁶. Then on 1. 9 comes a further heading, *a-to-mo ka-ke-we a-ke-te*. Though some scholars have taken *a-to-mo* as a further place-name, parallel to *ro-u-so*, on all its other appearances on the tablets *a-to-mo* is the title of an official; and while it is obviously possible that this is a case of a homograph, and that the underlying term in each of these instances is a different one, the possibility must come to mind that the reference on 832 is in fact to the same official title ⁷, and that this is a workgroup which is 'owned' by the *a-to-mo* of *ro-u-so*. It is common to find nominatives of rubric in the 'owner' position on records at Knossos; and a possible parallel for 'ownership' of workers by a major official described by means of his title is provided by Le 642 at Knossos, where on 1. 3 of the tablet, following the 'owner' reference]*ri-jo* (possibly *i-se-we-*]*ri-jo*) at the beginning of the line, we find the term *da-mo-ko*[, which is perhaps to be restored as the title *da-mo-ko-ro*.

3 See PY Eq 213, PY Un 267.

4 M. LEJEUNE, Mémoires de philologie mycénienne III (1972), 107-111.

For the suggestion that the a-ke-te-re are laskētēres/, 'finishers' (which would explain why they receive no allocation of raw materials, and yet are not described as a-ta-ra-si-jo, 'without pensum'), see KILLEN (supra n. 1), 166-167.

For the suggestion that *a-to-mo* is likely to have the same sense here as it does elsewhere in the records see F. AURA JORRO, *Diccionario micénico* I (1985), 120.

² H. WAETZOLDT, Untersuchungen zur neusumerischen Textilindustrie (1972), 34.

For the suggestion that]-nu-we-jo is more plausibly taken as a description of the workgroup than a reference to the place where the group is located see M. LEJEUNE, Mémoires de philologie mycénienne II (1971), 184. For the suggestion that]-nu-we-jo is a possessive adjective in -e-jo, see C.J. RUIJGH, Études sur la grammaire et le vocabulaire du grec mycénien (1967), 268 (who, however, takes it as referring only to the smith whose name immediately follows the term).

(c) Finally, as P. de Fidio has recently pointed out, it is attractive to compare the references to the 5 men 'of' to-sa-no and the 31 men 'of' a-ta-wo-no on Jn 431.25-26, and to the slaves 'of' pe-re-qo-no and a_3 -ki-e-u on Jn 605.10, to the references to groups of workers attributed to 'collectors' or 'owners' elsewhere at Pylos and at other sites 8.

II.

It is also possible that we have a reference to a (major) 'collector' in the records at Knossos dealing with the manufacture of perfumed olive oil.

A number of records at Pylos bear witness to this important Mycenaean industry, which has been admirably studied by E.D. Foster ⁹, C.W. Shelmerdine ¹⁰ and others, and which involves the maceration in olive oil of a variety of aromatic substances. PY Un 267, for instance, reads as follows:

Un 267	.1	o-do-ke, a-ko-so-ta				
	.2	tu-we-ta, a-re-pa-zo-o				
	.3	tu-we-a, a-re-pa-te [, ze-so-me]				
	.4	ze-so-me-no [ko]				
	.5	ko-ri-a ₂ -da-na AROM 6				
	.6	ku-pa-ro ₂ AROM 6 *157 16				
	.7	KAPO 2 T 5 VIN 20 ME 2				
	.8	LANA 2 VIN 2				
	.9-11	vacant				

'Thus Alxoitas (vel sim.) gave to Thuestas the unguent-boiler aromatics for unguent which is to be boiled: coriander, six units; cyperus, six units; etc.' (The other commmodities listed include wine and perhaps honey, if ME stands for me-ri).

Evidence for similar production at Knossos is provided by a series of records found in close proximity to one another in the Western area of the palace east of the Long Corridor. These include records, not only of olive oil (in the Fh series), but also of coriander, cyperus and honey (in the Ga and Gg series). On several of the tablets in question we find the term kupi-ri-jo (The texts of the relevant records are set out in Appendix I below). What is the explanation of this word?

There has been much discussion of this question of late. Following the discovery of the term ku-pi-ri-ja, which may well contrast with ke-re-si-ja, 'Cretan', on the newly joined Od 667 + 5898 + 8292 + fr., J.L. Melena has argued that ku-pi-ri-jo, on all its appearances at Knossos, is an adjective meaning 'Cypriot' 11 ; and he has been followed in this view by T.G. Palaima 12 . While, however, ku-pi-ri-ja, on Od 667 almost certainly does have this meaning, and refers to wool (probably for decorating cloth) of Cypriot origin or type, it is in my view extremely unlikely that the oil with which ku-pi-ri-jo is associated on the Fh, Fp tablets can

⁸ P. DE FIDIO, Klio 71 (1989), 23.

⁹ E.D. FOSTER, Minos 16 (1977), 19-51.

¹⁰ C.W. SHELMERDINE, The Perfume Industry of Mycenaean Pylos (1985).

¹¹ E.L. BENNETT et al., Minos 24 (1989), 202-203, 216.

T.G. PALAIMA, "Maritime Matters in the Linear B Tablets", Thalassa. L'Egée préhistorique et la mer. Actes de la troisième Rencontre égéenne internationale de l'Université de Liège, Station de recherches sous-marines et océanographiques (StaReSO), Calvi, Corse (23-25 avril 1990), Aegaeum 7 (1991), 280-281, 291-295.

be of anything other than local Cretan origin 13. (While it is conceivable that high-grade wool for decorative purposes should have been imported from Cyprus, it does not seem likely that large amounts of olive oil, which was clearly available in plenty on Crete 14, should have been brought from overseas). Furthermore, while it is perhaps conceivable that oil which was intended for export to Cyprus should have been described as 'Cypriot' 15, it would be less easy to understand such a use of the term in connexion with spices and honey which are evidently intended for use, doubtless in Crete itself, for the production of aromatic olive oil, even if the oil in question was destined later to be exported to Cyprus. Moreover, not only is ku-pi-ri-jo clearly a personal name Kuprios, 'the Cypriot', on the Pylos records Cn 131, Cn 719 and Jn 320: there is (as I argued in 1979) 16 much to be said for taking it in the same way on the Fh, Fp and Ga, Gg records, and as a reference to a palace official who plays an important rôle in the perfumed oil industry 17. As I pointed out, for example, in a number of instances on these records ku-pi-ri-jo is accompanied by a further term which it is attractive to interpret as a personal name in the dative (see ma-ro-ne on Fh 347, Fh 5246, su-ko-ne on Fp(2) 5472 and ma-ki-ro-ne on Gg(1) 995), or which could be a dative, though there is less positive evidence that it is (like]-ki-ro on Fh 5447,]o-se-ko-do on Fh 371 and u-ne[on Fh 5446); and it is tempting to suppose therefore (a) that ku-pi-ri-jo is involved in issuing the commodities listed on these tablets to the persons concerned, and (b) that he may therefore by playing the same rôle in the perfumed oil industry at Knossos as is evidently played by persons like a-ko-so-ta in the comparable industry at Pylos. (On PY Un 267, as we have just noted, a-ko-so-ta is described as giving aromatics, including cyperus and coriander, to Thuestas the unguent-boiler).

A further argument in support of the view that *ku-pi-ri-jo* is a person has recently been adduced by J.-P. Olivier ¹⁸. As he points out, the amount of oil listed in connexion with *ku-pi-ri-jo* on Fh 372 (150 units) stands in a ratio of roughly 31:69 to the amount of oil listed on the totalling record Fh 367, which lists 330.3 units of the commodity. The texts of these two records run as follows.

This numerical relationship here is immediately reminiscent of the c. 30:70 ratio between 'collector' and 'non-collector' animals on the Da-Dg sheep records at Knossos ¹⁹, and also possibly between 'collector' and 'non-collector' cloth (measured in terms of wool)

13 For the same view, see J.-P. OLIVIER in BENNETT et al. (supra n. 11), 217.

15 For this explanation of the term, see PALAIMA (supra n. 12), 294-295.

16 KILLEN (supra n. 1), 178.

19 J.-P. OLIVIER, SMEA 2 (1967), 71-93.

As witness such records in the Fh series as Fh 349 and Fh 5451, which record the payment to the palace of OLE 53 V 3 and OLE 30[by the places ru-ki-to and a-mi-ni-so, Amnisos, respectively.

¹⁷ For the view that k. is a personal name, see also J.-P. OLIVIER in BENNETT et al. (supra n. 11), 217 (and earlier J.-P. OLIVIER, BSA 62 [1967], 327). L. GODART, SMEA 8 (1969), 51-53 and also in BENNETT et al. (supra n. 11), 216 also takes k. as a reference to a person, but regards it as a description, rather than as a personal name.

¹⁸ J.-P. OLIVIER, "El commercio micénico desde la documentación epigráfica" (Lecture given at the National Archaeological Museum, Madrid, 26 February 1992), forthcoming.

on the Lc(1) CLOTH and WOOL tablets at the same site ²⁰. If there are 'collectors' in the textile industry, it would not come as a surprise to find them also in the olive oil (and unguent boiling) industry. Is in fact ku-pi-ri-jo a 'collector' ²¹; and are the large number of references to him in the F and G series, and the amount of oil with which he is associated on Fh 372, attributable to the same cause viz. that whereas in the sheep and wool industries a number of different 'collectors' are active, in the oil and unguent-boiling industry only one (major) 'collector' has responsibilities, i.e. ku-pi-ri-jo? Note, too, in support of Olivier's hypothesis the possible parallelism, just noted, between the rôle of ku-pi-ri-jo in the Knossos unguent-boiling industry and the rôle of a-ko-so-ta in the comparable industry at Pylos. Not only is a-ko-so-ta clearly an important figure in the administration of the unguent-boiling industry, and in Pylos palace administration more generally: he is also one of the four 'collectors' named in the Pylos Cn sheep records.

Moreover, there is I believe some further encouragement for the belief that *ku-pi-ri-jo* is a 'collector'. On several of the Fh OIL tablets which concern him, including Fh 372 mentioned above, *ku-pi-ri-jo* is associated with the term *o-no*. What is the meaning of this term?

In their contributions to the Third International Mycenaean Colloquium (Wingspread 1961), John Chadwick ²² and Michel Lejeune ²³ independently suggested that *o-no*, here and elsewhere, was most plausibly explained as a transaction term containing the same root as Classical Greek ὀνίνημι, 'I benefit' and the terms *o-na-to*, *o-na-te-re* on the Pylos land tenure tablets. Chadwick further suggested that on the Pylos records An 35.5-6 and Un 443.1, where *o-no* is preceded by the term *tu-ru-pte-ri-ja*, plausibly interpreted as /struptēriā/, 'alum', the effective meaning of the word is 'price' or 'consideration'. Here, as he pointed out, *tu-ru-pte-ri-ja* can neatly be explained as a genitive, /struptēriās/, indicating the reason for giving the price or consideration ('[price] for alum'); while the list of commodities which follows *tu-ru-pte-ri-ja o-no* can plausibly be understood as the price or consideration in question: on An 35, wool, goats, *146 (almost certainly a textile), wine and figs; on Un 443, wool and *146. The full texts of An 35 and Un 443 are set out below:

An 35	.1	to-ko-do-mo , de-me-o-te pu-ro VIR 2 me-te-to-de VIR 3					
	.2						
	.3	sa-ma-ra-de VIR 3 re-u-ko-to-ro VIR 4					
	.4	vacat					
	.5	a-ta-ro, tu-ru-pte-ri-ja, o-no					
	.6	LANA 2 CAPf 4 *146 3 VIN 10 NI 4					

For the suggestion that the totalling records for this series distinguish between 'collector' and 'non-collector' animals, see OLIVIER (supra n. 19), 91; for confirmation of the suggestion, see J.T. KILLEN and J.-P. OLIVIER, BCH 92 (1968), 137. Unfortunately, the figures on Lc(1) 535, which it is attractive to guess was the totalling record for the 'collector' tablets in this series, have not been preserved, and we cannot be certain therefore that a 30:70 ratio between 'collector' and 'non-collector' output, measured in terms of wool units, was maintained in this instance. But the figures on Lc(1) 536 (almost certainly, the totalling tablet for the 'non-collector' records) and on the surviving individual 'collector' records (Lc(1) 532, 551 and 7392) are consistent with the view that it was. Lc(1) 536 records cloth weighing a total of c. 2528 WOOL units; while the surviving individual 'collector' records (assuming that dotted figures are certain) record cloth weighing a minimum of 769.6 WOOL units: giving a ratio between the two 'sectors' of c. 77:23.

²¹ For that suggestion see, besides OLIVIER (supra n. 18), OLIVIER (supra n. 17), 327.

²² J. CHADWICK, "Pylos Tablet Un 1322", Mycenaean Studies. Wingspread 1961 (1964), 19-26.

²³ M. LEJEUNE, "Sur le vocabulaire économique mycénien", Mycenaean Studies. Wingspread 1961 (1964), 77-109.

```
Un 443 [+] 998 (pars inferior sinistra)

.1 ku-pi-ri-jo, tu-ru-pte-ri-ja, o-no LANA 10 *146 10

.2 po-re-no-zo-te-ri-ja LANA 3

.3 Jdo-ke, ka-pa-ti-ja, HORD 2 te-ri-ja GRA 1 LANA 5

reliqua pars sine regulis
```

Furthermore, as Chadwick pointed out, a sense 'price' or 'consideration' will also fit well with the evidence of PY Un 1322. Though this tablet is severely damaged, and many of the readings are difficult to make out, lines 4 and 5 of the record are most plausibly explained as stating the 'price' or 'value' of *146 in terms of wheat; and this in turn makes it attractive to take lines 2 and 3 of the record, which contain (probable) references to o-no, and which begin, respectively, with the terms de-ku-tu-wo-ko[and i-te-we, as references to a payment of some kind to a net-maker (or net-makers) and a male weaver (or weavers). The text of 1322 runs as follows:

Un 1322	.0	supra mutila				
	.1]ùo[]o-no[1		GRA 6 NI[
	.2	de-ku-tu-wo	-ķo[]o-no		GRA 2 NI 2
	.3	i-te-we , o-no[]	GRA 12
	.4	we-a2-no[]-no , re-po-to			*146 GRA 5	
	.5	we-[]no[]*146 GRA 15
	.6	vestigia				

Chadwick's and Lejeune's suggestion is clearly highly attractive; and it has been very widely accepted. Nor, I believe, is there much to be said in favour of an alternative suggestion, recently offered by W.R. Gallagher, that the term is /onos, onoi/, 'ass(es)', and refers to a measure of capacity. (For a full discussion of Gallagher's suggestion, see Appendix II below). But if Chadwick and Lejeune are correct, and o-no is /onon/ (and the word o-na, which occurs on several occasions on the tablets in what appear to be similar contexts to o-no, is the neuter plural of this term), how do we account for the presence of the word on Fh 372, where it accompanies ku-pi-ri-jo?

Here, not only is there no mention of any commodity for which the oil listed on the record is being exchanged: the amount of oil recorded is vast: 150 units, perhaps something of the order of 5,400 litres, and getting on for 50% of the amount listed on Fh 367, which, as we have seen, is evidently some kind of totalling record for the series? Clearly, it is not easy to believe that *o-no* can have a sense 'price' in this context. But if *o-no* here does not indicate a 'price', what then is its force?

If, as we have suggested, ku-pi-ri-jo is a 'collector', a possible answer immediately suggests itself. As we have suggested above, the 'collectors' are most plausibly explained as prominent members of the palace élite who have been allocated part of the productive capacity of the kingdom for their own benefit. Given this possible explanation of the 'collectors' as beneficiaries of the central power, and the evidence just seen that ku-pi-ri-jo might well be a member of this class, is it an accident that he is so regularly associated with a

term which it is attractive to identify as containing the same root as we find in ovivnut. 'I benefit'? Is the basic sense of o-no in fact 'benefit', 'advantage'; and is it used on Fh 372, with its record of 150 units of oil listed in connexion with ku-pi-ri-jo, and perhaps elsewhere on the Fh tablets where there is again mention of ku-pi-ri-jo and o-no, to refer to the 'benefit' in oil which ku-pi-ri-jo receives from the centre in his capacity as a 'collector'? And when we find the term on records like An 35.5-6, Un 443.1 and Un 1322.1-3, does it refer to a 'benefit' of a slightly different kind: the 'benefit' or 'advantage' (in our terms, 'payment') given by the centre in return for commodities acquired or services rendered: in the case of An 35 and Un 443, in return for alum; in the case of Un 1322, in return, perhaps, for services rendered by the netmaker(s), weaver(s), etc.? It is possible, indeed, that in a few instances the references to o-no on the Fh tablets relate to payments of this latter kind. The small amount of oil recorded as we-wo-ro o-no on Fh 347 might be a 'payment' to a worker of a similar status to the netmaker(s) and weaver(s) on Un 1322, rather than a 'benefit' given to a minor 'collector', or a share in the beneficial interest in the palace's oil which is enjoyed by ku-pi-rijo (who is mentioned on line 1 of the tablet, evidently as supplying oil to one *ma-ro (an unguent-boiler in ku-pi-ri-jo's household?). And rather than explaining the reference to o-na de-mi-ni-io on the recently joined Fh 5431 + 5449 + 7896 + 9104 + frr. as 'benefits' or 'payments' given to an individual Demnios, it is perhaps preferable to take it as a record of 'payments' for beds, |demnion| (gen. plur. of the reason why the payment has been given: cf. tu-ru-pte-ri-ja o-no, very likely, as we have seen, /struptēriās onon/, 'payment for alum'). Not only is 'bed, beds' at least a conceivable sense for de-mi-ni-jo, de-mi-ni-ja elsewhere on the records: if de-mi-ni-jo were a genitive plural, indicating the (multiple) objects for which the compensation here were being given, this would neatly explain the use of the plural of ono before the term. Moreover, given the evidence of Un 1322, which appears to indicate that the palace made 'payments' (o-no) to a netmaker (or netmakers) and a weaver (or weavers), quite possibly in return for professional services rendered, it would not be surprising to find the palace also making 'payments' for beds, at least if these were of a simple kind needed for issue to workers (as the beds probably listed on MY V 659, evidently as issues to female workers in the textile industry, might well have been). Whereas it is clear that the palace itself organised the production of high-quality, luxury manufactured goods, the evidence of Un 1322 suggests that it may have acquired goods of a simpler kind (like nets) from independent or semi-independent workers who were not located in palace-controlled workshops.

In sum, then, I should like to suggest that o-no does contain the same root as $\dot{o}v\dot{v}\eta\mu$ (and Myc. o-na-to, o-na-te-re, etc.); that its basic sense is 'benefit'; and that it is used of 'benefits' of various kinds, including 'benefits' given to 'collectors' by virtue of their position and 'benefits' (or 'payments') given in return for commodities or service. But before we leave this term, I should like to offer one further, and (it should certainly be made clear at the outset) rather speculative suggestion.

As has for long been observed ²⁴, it is a curious fact that an association between *ku-pi-ri-jo* and *o-no* is found not only at Knossos, as it is in the Fh series, but also at Pylos, in the first line of Un 443:

```
Un 443 [+] 998 (pars inferior sinistra)
```

- .1 ku-pi-ri-jo, tu-ru-pte-ri-ja, o-no LANA 10 *146 10
- .2 po-re-no-zo-te-ri-ja LANA 3
- .3]do-ke, ka-pa-ti-ja, HORD 2 te-ri-ja GRA 1 LANA 5 reliqua pars sine regulis

²⁴ See e.g. L.R. PALMER, TPhS (1958), 32; CHADWICK (supra n. 22), 22.

How is this phenomenon to be explained, if it is not simply a matter of coincidence that a recipient (?) of an *o-no* at Pylos has the same name as a 'collector' who is in receipt of an *o-no* at Knossos?

In his recent discussion which we have already referred to, Jean-Pierre Olivier suggests an answer ²⁵. Noting my observation in 1979 ²⁶ that there are a number of instances in which the names of 'collectors' appear at more than one site (*a-ka-i-jo* at Thebes and Knossos; *we-we-si-jo* at Knossos and Pylos; etc.), he suggests that this is another example of the same phenomenon: that *ku-pi-ri-jo* at Pylos, as well as *ku-pi-ri-jo* at Knossos, is a 'collector', and that he is associated with *o-no* for precisely the same reason as his namesake at Knossos is associated with the term.

Now it will immediately be noted that, if our previous suggestions are correct, the nature of the *o-no* which *ku-pi-ri-jo* at Knossos is receiving (150 units of oil, in his capacity as a 'collector') will clearly be somewhat different from that of the *o-no* which *ku-pi-ri-jo* at Pylos is being given: a 'payment' in cloth and wool in return for alum. It is also seemingly the case that the persons who are named on the tablets as receiving *o-no* are of a widely different nature: a netmaker (or netmakers) on PY Un 1322; a major 'collector' on the Knossos Fh tablets. Moreover, there is clearly no question of the two other persons who are called *ku-pi-ri-jo* at Pylos being 'collectors': a shepherd on the Cn tablets and a bronze-smith on the Jn records. Nonetheless, we clearly cannot exclude the possibility that *ku-pi-ri-jo* on Un 443 is a 'collector'; and if this is indeed what he is, a further thought immediately comes to mind.

As Ruth Palmer has well observed in her thesis on Mycenaean wine ²⁷, the commodities which are listed on Un 443 and An 35 as (evidently) being given in return for alum (*tu-ru-pte-ri-ja o-no*), *i.e.* wool, goats, *146, wine and figs, do not strike one as particularly suitable for overseas trading purposes. (Indeed, we may note how regularly these items appear elsewhere on the records in the context of what are seemingly internal transactions, like the 'payments' to the netmaker(s) and the weaver(s) on PY Un 1322). Palmer writes as follows:

Alum has to be imported into Messenia (the nearest good source is Melos), but the persons providing the alum in the Pylos *o-no* tablets may have been middlemen, rather than the actual producers of the mineral. The mixed nature of the goods accepted in return suggests that the men selling alum and garments to the palace were local. Although the goods listed in these tablets store well, they are bulky. In particular, the figs and the grain are not of high enough value to repay shipping costs in long distance trade. The only kinds of commodity *not* listed are the aromatics and perfumed oil, which were manufactured for the luxury trade.

If, however, what An 35 and Un 443 are recording is 'payments', presumably by the palace, not to an overseas supplier of alum, but to a person within the kingdom who has gained control of the commodity, either through trade which he personally has conducted, or from a third party who himself was responsible for the trading, and if one at least of the persons in receipt of these (internal) payments is a 'collector' (ku-pi-ri-jo), is it the implication of this that one of the functions of 'collectors' was to organize external trade? If, as I have suggested, the 'collectors' were members of the royal family, high officials of the state vel sim., it would certainly not come as a surprise to find them organising external trade in a kingdom of this kind. As Holly Morris has written ²⁸, 'the paramount [in kingdoms of this type] may sponsor some freelance exchangers who are foreigners or who otherwise have no lineage ties in his region, or he may institutionalize his own trading mechanism, made up

²⁵ OLIVIER (supra n. 18).

²⁶ KILLEN (supra n. 1), 176-179.

²⁷ R. PALMER, Wine in the Mycenaean Palace Economy (Diss. 1989), 96-97.

²⁸ H.J. MORRIS, An Economic Model of the Late Mycenaean Kingdom of Pylos (1986), 56.

of people from elite lineages, those closest to the paramount lineage'. (My italics). Is perhaps therefore ku-pi-ri-jo at Pylos the Mycenaean equivalent of a Near Eastern tamkar; and is it more than simply an accident that his namesake at Knossos has a major involvement in the production of perfumed olive oil: one of the commodities par excellence which Crete is likely to have exported 29 ? And (to be really speculative) is it entirely a coincidence that both these individuals are called ku-pi-ri-jo? As John Chadwick observed long ago 30 , à propos of ku-pi-ri-jo and tu-ru-pt-ri-ja on PY Un 443, Cyprus is one of the places in the Mediterranean which is known to have been a source of alum; and it is also not inconceivable that Cyprus was one of the places to which Crete exported its perfumed olive oil 31 . Is it possible, therefore, the thought comes to mind, that both our ku-pi-ri-jos were given their names for the same reason: that they (or their fathers or grandfathers) were members of the palace élite, one at Knossos and the other at Pylos, who had a particular involvement in the trade with Cyprus 32 ?

J.T. KILLEN

²⁹ J.T. KILLEN, "The Linear B Tablets and the Mycenaean Economy", Linear B: a 1984 Survey (1985), 264.

³⁰ CHADWICK (supra n. 22), 22-23.

³¹ On pottery evidence for Cretan contacts with Cyprus in the Late Bronze Age see O. DICKINSON, The Aegean Bronze Age (1994), 252.

³² It is not unparalelled in Linear B for persons to be named after their professions: note the shepherd po-me (evidently/Poimen/) on KN Dd 1376.B and the smith ka-ke-u (doubtless /Khalkeus/) on PY Jn 750.8. And is it entirely a coincidence that one of the most prominent of all 'collectors' in the sheep and cloth industry at Knossos (who may also have a namesake in the textile industry at Pylos) is called we-we-si-jo i.e. a name which might be connected with the word for 'wool'?

APPENDICES

I.

Texts at Knossos containing ku-pi-ri-jo and/or o-no, o-na

(i)

Fh, Fp OIL records

(a) Texts containing both o-no and ku-pi-ri-jo

Fh 347 (141)

.1 ma-ro-ne / ku-pi-ri-jo OLE 6 S 2 MU 5

.2 we-we-ro, o-no OLE 1 a-ri-to-[·]jo OLE V 2

 $\mathbf{Fh} \ \mathbf{361} + 9069 + 9096 + fr. \tag{141}$

.a OLE 21 S 2 [] vac.

.b ku-pi-ri-jo / o-no zo-a OLE 3 V 3

Fh 372 + 5440 + 5474 + frr. (3) ku-pi-ri-jo / o-no OLE 150

Fh 5447 + 5466 + 7787 + frr. (12)]-ki-ro / ku-pi-ri-jo, o-no OLE 9 S[

(b) Texts containing o-no (or o-na) but not ku-pi-ri-jo

Fh 348 (141)

.1 o-no, i-su-ku-wo-do-to, OLE 1 S 1

.2 qe-te-o , [te-o] OLE 1

Fh 5431 + 5449 + 7896 + 9082 + 9105 + frr. o-na, de-mi-ni-jo OLE 2 S 2

(c) Texts containing ku-pi-ri-jo but not o-no

 $\mathbf{Fh} \ \mathbf{371} \ + \ 5448 \tag{141}$

Jo-se-ko-do / ku-pi-ri-jo OLE 13 S 1 *MU* 10 *MU* 10 written below 13.

 $\mathbf{Fh} \ \mathbf{5246} \ + \ 8504 \ + \ frr. \ \ (4) \tag{141}$

ku-pi-ri-jo / ma-ro-ne OLE 100 [

Fh 5446 (141)

.1 ku-pi-ri-jo / u-ne[.2 to-ro-qa / a-nu-[

Fh 5490 (141)

sup. mut.
]ku-pi-ṛi[-jo
inf. mut.

(135)

II. On a recent interpretation of o-no

ma-ki-ro-ne , / ku-pi-ri-jo , 'ME+RI' *209VAS +A 6[

As we have noted above, the generally accepted interpretation of Mycenaean o-no, in the great majority of the contexts in which it occurs, is as a transaction term lononl. In a discussion of o-no published in 1988, however, W.R. Gallagher has rejected this explanation of the term ³³. Noting that on KN Ca 895 and (probably) Ca 7788 o-no has the value ὄνος, ὄνοι, 'ass(es)', and that in Akkadian the word imēru can mean not only 'ass' but 'ass-load', he suggests that o-no has this second sense in all the non-Ca records in which it occurs: that in records of wool, cloth, etc. it means literally 'ass-load', and that in records involving oil, grain, etc. it denotes the largest units of liquid and dry measure i.e. the units involved when the scribe writes OLE 1, GRA 1, etc.

This proposal, however, is very difficult to accept, for the following reasons:

1. On PY An 35, one of the commodities entered after o-no is CAPf, female goats. As Gallagher says ³⁴, female goats could hardly have been carried by asses; and in order to explain away this entry he suggests that the ideogram here denotes, not she-goats themselves, but their skins. This is of course an entirely arbitrary procedure: while it is true that some scholars have suggested (not in my view very persuasively) that CAP, OVIS, etc. are occasionally used elsewhere in the archive to denote the skins of animals ³⁵, there is nothing to confirm that this is the value of CAPf here.

2. If o-no indicates the largest units of liquid and dry measure, it is not easy to explain why it should be written on so few of the tablets which contain entries involving these measures, and be omitted from the rest. Gallagher ingeniously suggests that the reason why it occurs on Fh 347, Fh 361, Fh 372 and Fh 5447 is that there is a close connexion between ku-pi-ri-jo, which occurs on all four of these records, and the ideogram MU

Ga(2) 995 + 7370 + 7591 + 7764

³³ W.R. GALLAGHER, Minos 23 (1988), 85-106.

³⁴ GALLAGHER (supra n. 33), 89.

³⁵ For this suggestion about the ideogram CAPf on the Knossos Mc tablets, see J.L. MELENA, Minos 13 (1972), 41-42; for the same suggestion about the animal ideograms on the sealings from the NE workshop and on the Cc tablets from Pylos, see Y. DUHOUX, Aspects du vocabulaire économique mycénien (1976), 129; J.L. MELENA, "Further Thoughts on Mycenaean o-pa", Res Mycenaeae. Akten des VII. Internationalen Mykenologischen Colloquiums (1983), 280.

(on Fh 347, a MU entry follows immediately after the OLE entry on line 1), and that the scribe has entered o-no on these records to prevent ambiguity: that MU also indicates a measure, and o-no has been written 'to prevent confusion between the two systems of measurement'. Not only, however, does an explanation along these lines not account for the presence of o-no on Fh 348, where there is no mention of ku-pi-ri-jo: there must be real question (a) whether 'confusion between two systems of measurement' could have occurred on a record like Fh 361, where there is mention of ku-pi-ri-jo and o-no, but, as we can now be virtually certain, no MU entry is present, and indeed (b) whether MU is a measure at all, rather than a container. [As L.R. Palmer long ago pointed out ³⁶, there appears to be a regular relationship between the figures in the MU entries (which are always whole numbers) and the amounts in the OIL entries which immediately precede them; and this could neatly be explained if MU indicates the vessels in which the oil in question was held].

3. A value 'ass-load' for *o-no* is particularly difficult to accept in the cases where it is followed by LANA (wool) (and in some cases also *146, almost certainly a textile). We can be reasonably certain that the major WOOL unit weighs only c. 3 kg.; and it is difficult to believe therefore, even allowing for the fact that different asses may have had different carrying capacities, that the small amounts of LANA following *o-no* on MY Oe 108.1 (four units = 12 kg.) and KN M(1) 559 (two units = 6 kg.) can have constituted the entire load of a donkey ³⁷. Nor will matters be helped much if *o-no* on M 559 is to be taken both with the wool on line 1 and the two (?) units of *146 on line 2. And not only is it difficult to explain the very small amounts in the *o-no* entries on these records: it is also not easy on the 'ass-load' hypothesis to explain the very large difference between the amounts in the *o-no* entries here and the amount of wool and *146 (ten units of each) listed in the *o-no* entry on PY Un 443.

4. As M. Lejeune was the first to point out ³⁸, it is attractive to take the term *o-na* on PY Ua 158 as the (neuter) plural of *o-no*. Although we have no certain parallel elsewhere on the records for a genitive of a man's name, as *ke-do-jo* here appears to be, preceding *o-no* ³⁹, we do have examples of an apparent name in the nominative in this position (see *e.g.* we-we-ro o-no on KN Fh 347) ⁴⁰; and, much more compelling, all the commodities which occur in the list following the reference to *o-na* here (*146, wheat and figs) are also attested in the lists of commodities found in *o-no* records (for *146, see (e.g.) An 35, Un 443; for wheat, see (e.g.) Un 1322.1.2.3; for figs, see (e.g.) Un 443). The text of Ua 158 runs as follows:

Moreover, that these similarities between Ua 158, with its mention of o-na, and the records which contain o-no is not an accident is further suggested by the evidence of Fh 5431. Here, as we have noted earlier, a recent series of joins has provided us with a reference to o-na in a series (the Fh OIL records in h. 141) where there are frequent mentions of o-no, and where it is attractive to explain o-na, which is here followed by de-mi-ni-jo, as having the sense 'prices', just as o-no preceded by tu-ru-pte-ri-ja on An 35 and Un 443 is attractively taken as meaning 'price'.

Now, clearly, if o-na is the plural of o-no, o-no cannot be ovos or ovoi.

³⁶ L.R. PALMER, Language 41 (1965), 319.

³⁷ Note that Veenhof calculates that in ancient Assyria the payload of a donkey was 'at least some 90 kilos', though it may have been at least some 10-15 kilos smaller 'when the load consisted almost exclusively of textiles'. See K.R. VEENHOF, Aspects of Old Assyrian Trade and its Terminology (1972), 45.

³⁸ LEJEUNE (supra n. 23), 84.

Though it is possible (a) that a-ri-to-[·]jo before OLE on Fh 347.2 is the genitive of a MN and (b) that we should understand this as dependent on o-no understood: note the phrase we-we-ro-o-no in the previous entry on this line.

⁴⁰ With this phrase, compare (as many have done) o-no-we-wo-ro[on KN Xe 657.2.

DISCUSSION

- **R. Palmer:** I have a question concerning *a-ko-so-ta* and his oil. I found it very interesting that these people may not only be collectors but they are working for what they are getting as well. *a-ko-so-ta* is obviously carrying out quite a lot of transactions for the palace, maybe even for himself at the same time. So it is not just oil-drums, sitting back, and lapping up the luxury of the land, but they are out there working for it. Would you not agree with that?
- **J.T. Killen**: I think it varies actually, according to the person. Our friend *a-ko-so-ta* plainly is a major palace official, so in a sense he is working for his supper, as it were. But one suspects with others of these people that they are members of the ruling elite, the Queen Mother or something like that, and that they are not necessarily engaged in full-time administration. They are simply beneficiaries of the system. So I would tend to suspect at any rate that there are differences between these people. We have no further clear evidence. *a-ko-so-ta* at Pylos rather stands out as he is clearly involved in all these administrative things, yet none of the others seem to have these functions. But I will say that there is possible evidence that *ku-pi-ri-jo* at Knossos is a rather similar figure to *a-ko-so-ta*. There is a fragmentary tablet in the cloth series which talks of]*pi-ri-jo do-ke* (*i.e.* "gave") and I think that may well be *ku-pi-ri-jo* again, in which case he will be involved in this other sector of the economy as well.
- T.G. Palaima: As usual, J.T Killen has brilliantly organised some very complex material and presented it in a very provocative way. The trouble with all of his papers is that I normally agree with him totally; they are so compelling. This strikes me the same way, even though I was one of the people who had before defended the almost universal adjectival function of ku-pi-ri-jo. N. Hirschfeld at the last Mycenaean colloquium in her study on Cypriote pot-marks argued strongly that, because of Cypriot pot-marks in the Argolid, there was a Cypriote directed trade and a very strong apparatus for Cypriote trade. This requires within the Mycenaean sphere someone who was organising that trade specifically. This would be in line with what J.T. Killen is seeing here as far as having an actual individual of high status in the Mycenaean administration with this function. One question I have on the new join from Knossos that has put ri-no with ke-re-si-jo, would you be taking ke-re-si-jo now as a Cretan, as Mr. /Krésios/ or would you still see an adjectival function in that particular context? The second thing is: I was very intrigued by your parallel discussion of the D-Series at Knossos where you showed ra-wo-po-no parallel to po-ti-ni-ja-we-jo. If you look on Un 443 you not only have ku-pi-ri-jo with the lead entry, with the alum entry, but in line three you have ka-pa-ti-ja who is the keybearer at Pylos, a highly-placed woman official. And the other compelling thing about Un 443: you not only have o-no in the first line, but do-ke, another kind of transactional vocabulary for ka-pa-ti-ja. So I think your idea about o-no makes splendid sense again. So in many ways both with regard to ku-pi-ri-jo and with regard to o-no and with regard to the entire package: it is an extraordinary job.
- **J.T. Killen**: Thank you for the kind remarks. I think that *ku-pi-ri-jo* on the wool tablet which alternates with *ke-re-si-jo* is in fact the adjective in that case. That is not the individual. This, I think, does literally mean special wool for decoration which is being imported from Cyprus, which is being contrasted with Cretan stuff. It is just conceivable that it is a description of a type rather than the actual provenance: of Cypriote type. But I think it is more likely that it is actually an import. On the other point I agree.
- **H. Enegren**: I just have a general reflexion concerning the collectors, mainly at Knossos. Do we have at Knossos evidence maybe for royal trade agents, that is to say a *tamkar* system. Peter Warren has for example shown that there is evidence for a merchant class in Minoan times. A *tamkar* system involving semi-independent merchants could perhaps explain the interest shown by the palace at all stages of production, part of which was perhaps ultimately intended for trade.
- **J.T. Killen**: I deliberately did not use that term *-tamkar* but this is obviously getting rather close to that concept. Actually, in the written version of this I do mention that term. Yes, I do think we may be getting close to something like that.
- **J. Weingarten**: I was not aware of the production of alum on Cyprus. I would like the references please. I have always associated alum with Melos (Melian earth) and Egypt above all.
- J.T. Killen: The reference is in Pliny, Naturalis historia.
- T.G. Palaima: L. Baumbach has a whole article most recently in Parola del passato.

- **P. Carlier**: First, for a very long time we have been looking for merchants in the Mycenaean world in the palaces. Killen has found the last link in the chain of commerce: the middleman linked with the palace. I think that his interpretation of this aspect of the role of the collectors is quite convincing. My second point concerns the term o-no. I agree essentially with the etymology, that it must mean "profit" or "benefit". But to use the translation "benefit" is perhaps a bit misleading, because o-no, if I understood you correctly, means in fact what they receive in return for what they give. So it is not exactly what we mean in modern languages by "benefit". The third point is that, although we now have another very valuable bit of information about the collectors, there still remains an enigma, for we still do not know exactly what their own profits by the system were, as the o-no is what they receive for what they give. Even if they were only functionaries I agree with you that they were not but even if they were mere functionaries, perhaps in the archives the term o-no would be used. So o-no is not exactly "benefit". Even if it is thought of as a "benefit", it does not function as that which we call a "benefit" today. The exact function of the collectors is still one of the main problems of interpretation in Mycenaean society and remains an enigma.
- **J.T. Killen:** On this *o-no* problem: I do not see a tremendous difficulty in having a term in Mycenaean which has slightly different implications in different contexts. Living in the kind of society in which we do we feel perhaps that there ought to be a special term for "price". But in this society I cannot see why they could not use the term "advantage" or "benefit" or "bonus" or whatever in one context for what one receives in return for a commodity and also in another context for benefits of a different kind. It is essentially the same underlying concept, I think, although it does in particular contexts take on different nuances. I do not see any tremendous difficulty with that. As far as your last remark about the exact function of the collectors still being enigmatic is concerned, I quite agree: there are still enormous problems.
- **H. van Effenterre**: In French we have a term: monnaie de change. I am sorry that it includes the word "money", but it is exactly what you mean, I think, by *o-no*.
- **T.G. Palaima**: The following question for J.T. Killen, which concerns the irony of having these important persons, whose titles, as far as I can tell, we do not know. They are found in the genitive and in all these different locations, and we call them collectors or owners, as you have said, because of the term *a-ko-ra*. But they are still not specified as to their title. Would you care to speculate on this? Do you think that it is because their status is somehow connected to the royal household or is an extension of it? I think that J. Bennet might have some qualifying statements to make on that depending on what one sees as working in Messenia as opposed to Knossos. Could you imagine a situation in which these individuals, if they were specified by title, may in fact have different titles and different administrative functions within the bureaucracy but are somehow in these particular economic contexts simply listed in the genitive?
- **J.T. Killen**: I think there may be cases of these people appearing elsewhere in the documentation simply under an official title, *da-mo-ko-ro*, or something of that kind. I think there may actually be one instance where one can identify one of these collectors with the class of *e-qe-ta*, the "followers," who, whatever exactly they may be, are obviously people of great importance. One can actually show, and Lejeune showed it a long time ago, that *a-pi-me-de*, /Amphimēdēs/, one of the collectors at Pylos, is also named elsewhere as an *e-qe-ta*. I suspect that there are other cases in which we simply cannot tie up the two things, since it is simply a lucky chance that we can do it in the case of *a-pi-me-de*. Some of these people, I am sure, appear simply under their official titles.