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LABOR MOBILIZATION IN MYCENAEAN PYLOS*

Discussions of labor in the Mycenaean world have tended to focus on direct methods of mobilization, in which the palatial authorities recruited groups of laborers, designated by toponyms or ethnics, apparently without any intermediaries between the palace and the affected communities.¹ This paper focuses on potential instances of indirect labor mobilization at Pylos, in which workers are retained for palatial projects, but through the agency of named individuals. I will attempt to show that in some cases the palaces supplemented directly-acquired labor with labor obtained through administrative intermediaries, high-level functionaries who were responsible for furnishing workers for palatial projects. In principle, there is no reason to doubt that the Mycenaean palaces made use of multiple systems to recruit labor, since such heterogeneity is a feature of Near Eastern labor mobilization as well.²

Rowers in the Pylos texts

The rower texts of the **An** series at Pylos are a good place to begin this discussion. There is certainly evidence in these documents for the direct mobilization of labor. John Killen has shown that **PY An 1** is a taxation document in which rowers were recruited from villages, with the numbers of rowers “calculated on the basis of each village’s standard ‘rateable value’”.³ Killen shows that these rateable values also structured the labor recruitment on **An 610**, which records groups of rowers recruited, or available for recruitment, by the palatial authorities.⁴

* I thank Heather Baker and Kostis Kourelis for help with bibliography, and Rodney Fitzsimons for his comments on an earlier draft of this paper.

¹ See, for instance, J. T. KILLEN, “PY An 1”, *Minos* 18 (1983), p. 71-79; J. T. KILLEN, “The Subjects of the *wanax*: Aspects of Mycenaean Social Structure”, in *Ancient Greece: From the Mycenaean Palaces to the Age of Homer*, S. Deger-Jalkotzy, I. S. Lemos (ed.), Edinburgh 2006 (Edinburgh Leventis Studies, 3), p. 87-99. See too P. DE FIDIO, “Palais et communautés de village dans le royaume mycénien de Pylos”, in *Tractata Mycenaea*, p. 130-138; FR. ROUGEMONT, *Contrôle économique et administration à l’époque des palais mycéniens (fin du IIe millénaire av. J.-C.)*, Paris 2009, p. 95-115.

² M. STOL, “Old Babylonian *Corvée* (*tupšikkum*)”, in *Studio Historiae Ardens: Ancient Near Eastern Studies Presented to Philo H.J. Houwink ten Cate on the Occasion of his 65th Birthday*, T. van den Hout, J. De Roos (ed.), Leiden 1995 (Uitgaven van het Nederlands Historisch-archaeologisch Instituut te Istanbul, 74), p. 293-309; J. N. POSTGATE, *Early Mesopotamia: Society and Economy at the Dawn of History*, London 1992, p. 234-240.

³ J. T. KILLEN, “PY An 1”, cit. (n. 1), p. 78.

⁴ J. T. KILLEN, “PY An 1”, cit. (n. 1), p. 76.

PY An 610

(S 1 H 1)

.1	me-za-[]ne , e-re-ta []	vacat [
.2	vestigia[] , ki-ti-ta	VIR 46 [
.3	me-]ta-ki-ti-ta	VIR 19 [	]vac.
.4	]wa , ki-ti-ta	VIR 36 [	]vac.
.5	me-ta-ki-ti-ta	[] VIR 3 [
.6	e-wi-ri-po	VIR 9 po-si-ke-te-re [	VIR
.7	a-ke-re-wa	VIR 25 wo-qe-we [	VIR
.8	ri-jo	VIR 24 wi-nu-ri-jo [	VIR
.9	te-ta-ra-ne	VIR 31 me-ta-ki[-ti-ta	VIR
.10	a-po-ne-we	VIR 37 me-ta[-ki-ti-ta]v.	[VIR qs
.11	ma-ra-ne-nu-we	VIR 40 po-ti-ja-ke-e	VIR 6[
.12	za-ku-si-jo	VIR 7 za-e-to-ro	VIR 3
.13	da-mi-ni-jo[]	VIR 40 e-ke-ra ₂ -wo-no	VIR 40[
.14	we-da-ne-wo	VIR 20 ko-ni-jo 126 me-ta-ki-ti-ta	VIR 26
.15	po-ku-ta	VIR 10 we-re-ka-ra , te-qa-ta-qe	VIR 20
.16	vacat		[
.17	vacat		[
.18	] vacat		[
.19	] vacat		[

Chadwick showed that the obligation to provide service as a rower was linked to landholding.⁵ PY An 724, a document that records absent rowers and is closely related to An 610, includes two terms that specifically relate to land (*ka-ma*, *e-to-ni-jo*).⁶ Service appears to be linked to a status indicated by the term *ki-ti-ta* (and the closely related term *me-ta-ki-ti-ta*), as indicated by the phrase *ki-ti-ta*, *o-pe-ro-ta*, *e-re-e*, “a *ki-ti-ta* being obliged to row” (An 724.3-4).⁷ The term *ki-ti-ta* is probably the agent noun of a verb exclusively associated with landholding: attested forms are *ki-ti-je-si* (3rd person plural present indicative active) and *ki-ti-me-na* (the present middle-passive participle).⁸ Thus, whatever the specific meaning of *ki-ti-ta*, it is clearly related to land.⁹ A general connection between military service and landholding is also suggested by a number of correspondences between the *o-ka* tablets and the Na series, first noted by Mühlestein.¹⁰

⁵ J. CHADWICK, “The Muster of the Pylian Fleet”, *Tractata Mycenaea*, p. 82-83; see too J. T. KILLEN, “Mycenaean Economy”, in *A Companion to Linear B: Mycenaean Greek Texts and Their World, Volume 1*, Y. Duhoux, A. Morpurgo Davies (ed.), Louvain-la-Neuve 2008, p. 170-171.

⁶ J. T. KILLEN, “PY An 1”, cit. (n. 1), p. 74-75.

⁷ J. T. KILLEN, “PY An 1”, cit. (n. 1), p. 73. J. CHADWICK, “Muster”, cit. (n. 5), p. 75-76, showed that the scribe of An 610 began by writing a toponym followed by the number of *ki-ti-ta* men associated with that toponym, and in the following line the number of *me-ta-ki-ti-ta* associated with the same toponym, but then, beginning with line 6, stopped writing the term *ki-ti-ta*. The men listed after a new toponym are presumably to be understood as *ki-ti-ta*.

⁸ DMic s.v. *ki-ti-je-si*, *ki-ti-me-na*. The adjective *a-ki-ti-to* is also built from the same root.

⁹ On the specific meaning of *ki-ti-ta*, see DMic s.v. *ki-ti-ta*; J. CHADWICK, “Muster”, cit. (n. 5), p. 82; P. DE FIDIO, “Palais et communautés”, cit. (n. 1), p. 145.

¹⁰ H. MÜHLESTEIN, *Die oka-Tafeln von Pylos. Ein mykenischer Schiffskatalog?*, Basel 1956, p. 15-18. That the Na series relates to taxes on landholding was shown by Docs², p. 469-471; see too J. T. KILLEN,

Killen and de Fidio have plausibly interpreted these as suggesting that landowners in the Na series were obligated to serve in military contexts.¹¹

Evidence of alternative arrangements is also provided by An 610. Two groups of men are listed in adjacent entries against personal names in the genitive: *e-ke-ra₂-wo-no* (.13) and *we-da-ne-wo* (.14).¹² Chadwick suggested that the obligation to provide military service was tied to landholding and was “met either by appearing in person or by sending another on one’s behalf.”¹³ He tentatively pointed to the first of the two estates of *e-ke-ra₂-wo* listed in Er 880.3 as the possible basis for his obligation, in part because this estate is almost certainly designated as *ki-]ti-me-no*.¹⁴ Unfortunately it is not certain that the numbers match up. *e-ke-ra₂-wo* is responsible for supplying 40 or perhaps more men on An 610.13, and he apparently released five men who owed service as rowers on An 724.5-6.¹⁵ There are six possible sizes for the first landholding of *e-ke-ra₂-wo* on Er 880.3 – they are 30, 43, 40, 42, 50 and 52 – none of which exactly matches the expected number of 45.¹⁶ The basis for *e-ke-ra₂-wo*’s contribution of rowers must therefore remain uncertain, but it seems likely that the rowers contributed by **we-da-ne-u* were associated with landholdings. The two plots of **we-da-ne-u* in the Na series (Na 856, Na 1041) are each measured in 10 units of flax, whose sum equals the number of men he is supposed to provide on An 610.14, as de Fidio has noted.¹⁷

It therefore seems that Chadwick was correct to conclude that some high-ranking landholders were obligated to provide workers. This phenomenon is attested in the Old Babylonian period and probably in Ur III Umma also, where the workers were usually hired men or household slaves.¹⁸ Regardless of whether the number of rowers to be provided by *e-ke-ra₂-wo* and **we-da-ne-u* were determined with respect to landholdings or not, it is apparently the case that these named individuals were personally responsible for furnishing rowers to the central authority. Although the underlying principle may have

“The Linear B Tablets and Economic History: Some Problems,” *BICS* 26 (1979), p. 133-134; E. D. FOSTER, “The Flax Impost at Pylos and Mycenaean Landholding,” *Minos* 17 (1981), p. 76.

¹¹ J. T. KILLEN, “Subjects”, cit. (n. 1), p. 74; “Mycenaean Economy”, cit. (n. 5), p. 170; P. DE FIDIO, “Palais et communautés”, cit. (n. 1), p. 132.

¹² It is possible that the 40 men listed against *da-mi-ni-jo* in An 610.13 relate to a man of that name, in which case we probably ought to restore *da-mi-ni-jo[-jo]*. The personal name *da-mi-ni-jo* is abundantly attested at Knossos in the Da, Dc, Df, Dk, Dq and Dv series (DMic s.v. *da-mi-ni-jo*) and belongs to a “collector”. The word *da-mi-ni-ja*, however, appears as a toponym at Pylos (Aa 96, Ad 697; DMic s.v. *da-mi-ni-ja*), so it is likely that *da-mi-ni-jo* is a plural toponymic (*Damnioi*) modifying these men (DMic s.v. *da-mi-ni-jo*).

¹³ J. CHADWICK, “Muster”, cit. (n. 5), p. 82.

¹⁴ J. CHADWICK, “Muster”, cit. (n. 5), p. 83. The status of the two plots of Er 880 is a knotty issue; see the lucid discussion of R. PALMER, *Wine in the Mycenaean Palace Economy*, Liège – Austin 1994 (*Aegaeum*, 10), p. 66-72.

¹⁵ J. CHADWICK, “Muster”, cit. (n. 5), p. 80-81.

¹⁶ M. DEL FREO, *I censimenti di terreni nei testi in lineare B*, Pisa 2005, p. 165-166, who shows that the first two possibilities are unlikely, but not to be excluded.

¹⁷ P. DE FIDIO, “Palais et communautés”, cit. (n. 1), p. 131.

¹⁸ T. M. SHARLACH, *Provincial taxation and the Ur III state*, Leiden 2004 (Cuneiform monographs, 26), p. 53; M. STOL, “Old Babylonian Corvée”, cit. (n. 2), p. 295.

been the same – certain types of landholding imply military service – there are apparently two ways in which labor was mobilized. Individuals were either personally obligated to serve in groups, or they were obligated to supply laborers to the palatial authority.

Recruitment systems in the o-ka texts

These two systems may also be in evidence in the *o-ka* set. As noted above, it seems likely that certain groups of fighting men were required to serve with respect to their landholdings in the **Na** series.¹⁹ For instance, 70 men are designated as *e-na-po-ro i-wa-so* on the *o-ka* text **An 661.3**, and landholdings of 70 units of flax are recorded at *e-na-po-ro* on **Na 1027**. Likewise, two groups on **An 657.8-10** comprising 30 men designed with the terms *ke-ki-de* and *ku-pa-ri-si-jo* seem paralleled by the landholding of 30 units of flax by *ku-]pa-ri-so ke-ki-de* on **Na 514**. Only a handful of the groups of men can be accounted for in this way, but it is possible to imagine that most troops in the *o-ka* texts owed service with respect to landholdings, the majority of which have left no trace in our partial and fragmentary documentation.

It is therefore clear that the standard, direct method of labor recruitment contributed substantially to the mobilization of the coast-guard in the *o-ka* set. It is also possible that individuals contributed troops as well. The only two groups of men described with the ethnic *a-pu₂-ka-ne* (**An 656.13**, **An 657.13-14**) are directly followed by the *hek^wetai* named *a₃-ko-ta* and *ḍi-ko-na-ro*. This is notable because these men are brothers: they share the patronymic *a-da-ra-ti-jo*.²⁰ The fact that these two brothers are both associated with *a-pu₂-ka-ne* troops suggests that they were connected to these groups of men. Perhaps therefore some *hek^wetai* were responsible for furnishing men, just as *e-ke-ra₂-wo* and **we-da-ne-u* were responsible for furnishing rowers in **An 610**. Strangely, two individuals are also described by the term *a-pu₂-ka* but are otherwise unrelated to the *a-pu₂-ka-ne* men in question: a *hek^wetās* named *ka-e-sa-me-no* (**An 656.19**) and a man named *ma-ra-te-u* (**Aq 218.15**) who must be the same man as the officer in the *o-ka* of **ne-da-wa-ta* (**An 657.7**).²¹ In sum, the evidence is patchy and hardly allows us to be definitive, but it seems possible that named individuals provided

¹⁹ H. MÜHLESTEIN, *Die o-ka-Tafeln*, cit. (n. 10), p. 15-18; J. T. KILLEN, “Subjects”, cit. (n. 1), p. 74; J. T. KILLEN, “Mycenaean Economy”, cit. (n. 5), p. 170.

²⁰ The patronymic of *ḍi-ko-na-ro* is provided on **An 656.14** (*me-ta-qe*, *pe-i*, *e-qe-ta*, *ḍi-ko-na-ro*, *a-da-ra-ti-jo*), whereas *a₃-ko-ta* is not provided with a patronymic on **An 657.14** (*me-ta-qe*, *pe-i*, *a₃-ko-ta*, *e-qe-ta*), probably because the scribe ran out of space. On **Aq 218.6**, however, the entry *a₃-ko-ta*, *a-da-ra-ti-jo* VIR 1 supplies his patronymic. There is a dense web of prosopographical connections between the *o-ka* texts and the **Aq** diptych, and patronymics are virtually restricted to the *hek^wetai* and their brothers, so it is impossible to doubt that *a₃-ko-ta* indicates the same man in both texts (*People*, I, p. 37, II, p. 190-193; D. NAKASSIS, *The Individual and the Mycenaean State: Agency and Prosopography in the Linear B Texts from Pylos*, Ph.D. dissertation, The University of Texas at Austin 2006, p. 407).

²¹ It is also possible that the same *ma-ra-te-u* is a swineherd in **Cn 328**; see M. F. LANE, *Names and Numbers: An Inquiry into Scribal Practice at Late Bronze Age Pylos in the South-Western Peloponnese*, Ph.D. dissertation, University of Sheffield, 2003, §3.2.1.6.

fighting men to supplement forces drawn through regional levies in both the “rower” texts and the related *o-ka* set.

Corvée and other forms of conscription

The evidence for labor recruitment presented thus far suggests that the primary system for raising labor was a direct “tax” on communities in the form of corvée. The best evidence for this comes from connections between the **Na** series and military texts from the **An** series, where there is sometimes a one to one relationship between the number of units of flax by which a landholding is measured and the number of men who are recorded.²² Although this system is largely attested in military contexts, there is at least one piece of evidence that it operated outside of this area. There appears to be a connection between the 10 men designated as *wa-a₂-te-we po-ku-ta* (**An 207.9**) and the landholding of 10 units of flax at *wa-a₂-te-pi* (**Na 1009**).²³ The text **An 207** is a list largely composed of craftsmen – sawyers, potters, gold-workers, bow-makers, and sewing-men – so it seems unlikely that these *po-ku-ta* men were called up for military service.²⁴

It is worth noting that the possession of land in the **Na** series thus apparently relates not only to the direct mobilization of laborers in groups, but also to the individual **we-da-ne-u* and his provision of rowers in **An 610**. Thus, although the manner in which the labor was recruited may have differed (direct or indirect), from an administrative perspective the underlying logic of these conscriptions was the same. From a social perspective, however, the process whereby the labor was provided must have been very different. How named individuals provisioned laborers for palatial projects is a complex question that cannot be definitively answered, but is still worth considering. It might be that the laborers involved were personal dependents on aristocratic individuals who were also high functionaries within the palatial administration. This possibility is suggested by the fact that the four individuals whom we have considered, *e-ke-ra₂-wo*, **we-da-ne-u*, *ḍi-ko-na-ro* and *a₃-ko-ta*, are all high-ranking individuals. The last two are *hek^wetai* and **we-da-ne-u* is one of the four Pylian “collectors,” and they therefore belong to the highest levels of the palatial elite.²⁵ *e-ke-ra₂-wo* is the holder of an extremely large plot of land (**PY Er 880**) and appears in several important religious contexts (**PY Qa 1292**, **Un 219**, **Un 718**, **Un 853**). I do not intend to address here the proposed identification of *e-ke-ra₂-wo* with the Pylian *wanax*, but I simply note that the suggestions to identify him as such indicate that he is a person of considerable standing.²⁶ In any case, it is clear that all four

²² Similar situations are attested in the Old Babylonian period by M. STOL, “Old Babylonian Corvée”, cit. (n. 2), p. 302.

²³ P. DE FIDIO, “Palais et communautés”, cit. (n. 1), p. 136. For bibliography connecting *wa-a₂-te-we* with *wa-a₂-te-pi*, see *DMic* s.v. *wa-a₂-te-pi*.

²⁴ **An 207** is discussed in *Desservants*, p. 105-108.

²⁵ C. W. SHELMEERDINE, “Mycenaean Society”, in *A Companion to Linear B: Mycenaean Greek Texts and Their World, Volume 1*, Y. Duhoux, A. Morpurgo Davies (ed.), Louvain-la-Neuve 2008, p. 131-132.

²⁶ On the activities of *e-ke-ra₂-wo*, see *Royauté*, p. 55-62; J. CHADWICK, “Who was e-ke-ra₂-wo?”, in *Le monde grec, pensée, littérature, histoire, documents: Hommages à Claire Préaux*, J. Bingen,

of these individuals were extremely well-connected elites. Such individuals presumably had considerable numbers of personal dependents or slaves who could fulfill their services to the state.²⁷ Another alternative, suggested by Old Babylonian parallels, would be that these laborers were hired by *e-ke-ra₂-wo* and the others to fulfill their obligations.²⁸ This is essentially a variation of the first alternative, at least from the palace's perspective, since the administration was concerned that a certain number of men were provided, but perhaps not with how these laborers were acquired. A substantially different possibility is that the workers were allocated by the palace to these individuals in the first place. That is, it is possible that **we-da-ne-u* had already been given 20 men by the central authority, which then allocated them to perform various tasks. Certainly there are examples of laborers being assigned to individual supervisors in the Pylian texts, but these assignments seem to be context-specific rather than general.²⁹ For instance, some of the individuals assigned on **An 1281** are allocated grain in **Fn 50**, but the quantities are minimal, and would have supported them for only a couple of days.³⁰ There is also no evidence that any of these groups of laborers were mobilized for military objectives. Since we have some positive indications that landholding and military service are linked, the hypothesis that the laborers were personal dependents or hired laborers of aristocratic landholders seems preferable.

G. Cambier, G. Nachtergaele (ed.), Bruxelles 1975, p. 450-453; *Dosmoi*, p. 131-135; M. LEJEUNE, "Le dossier *sa-ra-pe-da* du scribe 24 de Pylos", *Minos* 14 (1973 [1975]), p. 63-64; *People*, II, p. 153-155. I argue in a forthcoming paper that *e-ke-ra₂-wo* should be identified with the personal persona of the Pylian *wanax* (D. NAKASSIS, "Prestige and Interest: Feasting and the King in Mycenaean Pylos", *Hesperia*, forthcoming).

²⁷ As J. T. KILLEN, "Mycenaean Economy", cit. (n. 5), p. 170, n. 31 points out, this does not imply that Mycenaean society was of a feudal type, since such arrangements can be paralleled in the Ancient Near East; indeed, the personal dependents of elites is consistent with Schloen's argument for Weberian patrimonialism as a model for Ancient Near Eastern society (J. D. SCHLOEN, *The House of the Father as Fact and Symbol: Patrimonialism in Ugarit and the Ancient Near East*, Winona Lake, Indiana, 2001). Feudalism in western Europe is characterized by "a military system in which an essential part of the armed forces is secured through private contracts." J. R. STRAYER, *Feudalism*, Huntington, New York, 1979 [1965], p. 13; J. D. SCHLOEN, cit., (n. 27), p. 188. Most of the Mycenaean troops are not acquired in this way.

²⁸ Although corvée requirements in Ur III and Old Babylonian Mesopotamia were largely assessed on individuals and households, there is also evidence that corvée service of more than one individual was tied to particular landholdings, even small ones. One document, discussed by M. STOL, "Old Babylonian Corvée", cit. (n. 2), p. 302, records that a herder held a field of 2 iku (0.72 hectares) in exchange for the corvée labor of two men.

²⁹ These texts are **An 129**, **An 261/Un 616 verso**, **An 340**, **An 1281**, and perhaps **An 172**, **An 435**, **An 607**.

³⁰ There are two men allotted to *mi-jo-qa* and *a-pi-e-ra* on **An 1281**, and the slaves of these women are allocated HORD V 3, or Z 6 each, perhaps enough to supply them for two days at a rate of Z 3 per day.

Architectural labor

There may also be evidence that named individuals contributed laborers in a non-military context. **PY Fn 7**, a join of **An 7** and **Fn 1427** made by José Melena, records allocations of foodstuffs to two named individuals and three groups of craftsmen.³¹ The description of the craftsmen makes it clear that the purpose of the tablet is to record the provisioning of architectural laborers: there are twenty wall-builders (*to-ko-do-mo*, *toikhodomoi*), one all-builder (*pa-te-ko-to*, *pantektōn*), and five sawyers (*pi-ri-e-te-re*, cf. Greek *πριστήρ*).³²

PY Fn 7		(H 3)
.1		]2 OLIV T 2
.2		] OLIV T 1
.3	to-]k̄o-ḏo-mo HORD [] Z 3	VIR 20[
.4	pi-ri-e-te-re HORD [] Z 3	VIR 5
.5	pa-te-ko-to[] HORD [] V 2 []	
.6	<i>vacat</i>	
.7	qa-ra ₂ -te , o[-pi-me-]ne[]	OLIV 6
.8	pa-ka , o-pi-me-ne , []	OLIV
.9	pa-te-ko-to , o-pi-me-ne [] HORD 1 []	
.10	pi-ri-e-te-si , o-pi-me-ne[] HORD 1 T 4 []	
.11	to-ko-do-mo , o-pi-me-ne[] HORD 7 [] 5	
.12	<i>vacat</i>	

Although the text is fragmentary, enough is preserved to show that there are three levels of allocations. The wall-builders and sawyers are each allocated Z 3 of HORD per day, and there is more than one of each. More elevated is the all-builder, who receives nearly three times as much per day (V 2). This, and the fact that there is only one of him, suggests that he is a foreman or master builder rather than a handyman.³³ The largest payments are given to two named individuals, *qa-ra₂* and *pa-ka*. These men receive large amounts of olives, and at least one of them (*qa-ra₂*) receives a quantity of some other good, since there is a numeral preserved before the break in line 1. In the **Fn** tablets, whenever olives are allocated to individuals, they are always accompanied by some quantity of HORD, so it is attractive to suppose that both *qa-ra₂* and *pa-ka* were allocated large quantities of grain and olives, perhaps even equal quantities of each, as has been

³¹ J. L. MELENA, "13 Joins and Quasi-joins of Fragments in the Linear B Tablets from Pylos", *Minos* 31-32 (1996-1997), p. 171-176.

³² J. L. MELENA, "13 Joins", cit. (n. 31), p. 174-175. Sawyers are associated with sword manufacture at Knossos (see *DMic* s.v. *pi-ri-je-te* for bibliography), perhaps as workers of bone, ivory and wood elements. A. BERNABÉ, E. R. LUJÁN, "Mycenaean Technology", in *A Companion to Linear B: Mycenaean Greek Texts and Their World, Volume 1*, Y. Duhoux, A. Morpurgo Davies (ed.), Louvain-la-Neuve 2008, p. 216-217.

³³ J. T. KILLEN in J. L. MELENA, "13 Joins", cit. (n. 31), p. 175.

suggested by Killen.³⁴ Hypothetically, then, *qa-ra₂* was allocated T 2 of HORD and OLIV per day (Fn 7.1) while *pa-ka* was assigned half as much of each commodity (Fn 7.2).

The tight semantic range of the occupational terms in this tablet leaves no doubt that this record deals with architectural labor.³⁵ The sawyers presumably cut beams and other wooden elements (such as clamps, dowels, wooden door jambs, and so on).³⁶ The wall-builders were presumably masons who actually arranged the construction of the walls and other architectural elements. This was in most cases not as simple as stacking stones in a rubble wall of stone and mud: at the Palace of Nestor in LH IIIB, most walls were built in a pier construction in which workers poured a mix of mortar composed of rubble, mud and lime into a heavy timber framework, which was usually removed after the mortar had set.³⁷ The complexity of this system means that any large-scale job would have required a supervisor to organize the activities of the laborers; this role may have been filled by the *pantektōn*. Perhaps Fn 7 implies five teams of laborers, each with four masons and one sawyer.

It is much less clear what the role of the named individuals *qa-ra₂* and *pa-ka* was. Melena suggests that the named men were “well known specialists” in architecture and that the large quantities of grain and olives “did not represent daily rations, but some sort of wages received by those responsible for the whole team of workers and his deputy (who received a half), and this is possibly why both of them were recorded by name, and not by an occupational noun”.³⁸ *pa-ka* does not appear elsewhere in the Pylian archives, but the name *qa-ra₂* appears on An 39 and An 192. It is not certain that the same person is meant in all three cases, but it may be possible to identify the individuals recorded on An 39 and Fn 7 with each other, since most of the occupational titles and almost half of the personal names on An 39 recur in the Fn series.³⁹ Individuals listed in An 192 tend to be high-ranking functionaries, such as *du-ni-jo* the *du-ma*, *au-ke-wa* the *da-mo-ko-ro*, *a-e-ri-go-ta* the *hek^wetās*, and so on. Prosopographically it is closely associated with On 300,

³⁴ J. T. KILLEN, “Wheat, Barley, Flour, Olives and Figs on Linear B Tablets”, in *Food, Cuisine and Society*, p. 163.

³⁵ Ugaritic references to architectural laborers reveal categories similar to those in PY Fn 7: there are wood-cutters (*htbm*), house-builders (*hrš btm*) and master house-builders (*amilitinnūti*). M. HELTZER, *The Internal Organization of the Kingdom of Ugarit*, Wiesbaden 1982, p. 84-87; J. NOUGAYROL, “Textes suméro-accadiens des archives et bibliothèques privées d’Ugarit”, in *Ugaritica V*, C.F.A. Schaeffer (éd.), Paris 1968, p. 192-193.

³⁶ On such wooden elements in Mycenaean Pylos, see M. C. NELSON, *The Architecture of Epiano Englianos, Greece*, Ph.D. dissertation, University of Toronto 2001, p. 70-95. See too J. W. SHAW, *Minoan Architecture: Materials and Techniques*, Padova 2009 (Studi di Archeologia Cretese, VII), p. 91-125 on wooden elements, and p. 38-54 on wood-working tools in Minoan Crete. There is no evidence of masonry employing cut stone after LH IIIA at Pylos, so the sawyers must have been solely involved with woodworking; M. C. NELSON, *Architecture*, cit. (n. 36), p. 185.

³⁷ M. C. NELSON, *Architecture*, cit. (n. 36), p. 154-169. Only rubble walls would not have employed wood; M. C. NELSON, *Architecture*, cit. (n. 36), p. 169-174.

³⁸ J. L. MELENA, “13 Joins”, cit. (n. 31), p. 175-176.

³⁹ D. NAKASSIS, *Individual*, cit. (n. 20), p. 224-225.

and to a lesser extent with Jo 438 and the *o-ka* set.⁴⁰ This admittedly circumstantial evidence suggests that *qa-ra₂* is more likely to be a high-level supervisor or official rather than a specialist.

A supervisory function for the named individuals on Fn 7 seems the most likely possibility at first glance, but it seems odd that we should have two supervisors in addition to the *pantektōn*, whose elevated pay suggests that he was a foreman. Where we have evidence for traditional systems of organization of architectural labor, there is usually a single supervisor, who is also a master builder. This supervisor is accompanied by skilled and unskilled workers. I suggest that it is probable that *qa-ra₂* and *pa-ka* were responsible for providing what is most obviously missing from Fn 7: unskilled laborers. Mycenaean architectural projects will have required gangs of laborers to perform various tasks. Obviously the activities of these laborers would have varied depending on the type of construction job, but they could have involved excavating foundations, tearing down unwanted constructions, moving earth, procuring and transporting building materials, mixing and preparing mortar, and so on. Fn 7 evidently records enough labor for a fairly major job.⁴¹ The laborers are supported for an entire month, and there are many of them: 20 wall-builders is a relatively large number, when we remember that PY An 35 records a total of 12 wall-builders, of which six are sent off in two groups of three to various sites, presumably to perform work for the palace in outlying communities.⁴² The organizational scale of the operation recorded in Fn 7 makes it all the more probable that some kind of gang labor would have been necessary for the team to work effectively.

If these named individuals were tasked with the provision of unskilled labor, the large amount of foodstuffs given to *qa-ra₂* and *pa-ka* may then have constituted payment for their service; alternatively, it might have been used directly by these individuals to support the workmen whom they hired. Olives are provided as supplements to rations and handouts elsewhere in the Fn series at Pylos, and perhaps at Knossos (Ap 5077).⁴³ If we assume for the moment that *qa-ra₂* and *pa-ka* were allocated an equal amount of HORD in addition to olives, then *qa-ra₂* would have been allocated HORD 6, enough to provide 480 man-days of labor at the standard rate of payment for unskilled labor of Z 3, and *pa-ka* HORD 3, enough to provide 240 man-days of labor. Thus between them they could have provided 24 or more assistants for the entire month. It might seem odd that the number of laborers to be hired by *qa-ra₂* and *pa-ka* was not noted by the scribe, who is very precise and purposeful in his composition of this tablet. But this may be explained by the fact that construction jobs often do not require a fixed number of workers over the entire course of the job. During some periods, doubtless many laborers were required, while in other periods only specialist labor was necessary. There are good parallels for fluctuating

⁴⁰ *People*, II, p. 190-193; D. NAKASSIS, “Named Individuals and the Mycenaean State at Pylos”, in *Colloquium Romanum*, p. 556.

⁴¹ J. L. MELENA, “13 Joins”, cit. (n. 31), p. 176.

⁴² PY An 35 was written by the same scribal hand that composed Fn 7, Hand 3.

⁴³ J. T. KILLEN, “Wheat”, cit. (n. 34), p. 162.

numbers of unskilled laborers involved in building projects in Ur III texts from the Garšana archives, where the daily variations among hired laborers can be observed.⁴⁴

Building documents from the Garšana archives also shed light more generally on the organization of **PY Fn 7**. These documents concern full-time workers accompanied by a foreman. The workers were supplemented with part-time hired labor associated with a named overseer. Large numbers of workers were hired temporarily to complement the labor of the regular, full-time crews; they were involved in a variety of tasks, including construction, moving dirt, and carrying bricks. Several texts simply record the bulk allocation of barley to named overseers in order to hire gangs of laborers; as in **Fn 7**, the scribe does not indicate how the overseer used the staples given to him. This was apparently not the concern of the central authority, so long as the labor was made available and the task was completed. I suggest that **Fn 7** can be interpreted such that it lines up well with the evidence from Ur III Garšana, where approximately 20 full-time laborers (on average) are supervised by a foreman, with supplemental laborers provided by overseers.⁴⁵ Ugaritic documents also suggest that hired (probably unskilled) workers supplemented skilled masons.⁴⁶

Historical parallels can also shed light on the organization of architectural labor at Mycenaean Pylos. Masons in Ottoman and early modern Greece were itinerant specialists, often from mountain villages. The foreman (πρωτομάστορας) supervised and organized teams of 25 workers at the most, typically consisting of 10-12 specialists (μαστόροι and assistant masons called τριότες) and 8-10 assistants (μαστορόπουλα), in addition to 10-15 animals, usually mules and donkeys.⁴⁷ The μαστορόπουλα and the animals hauled materials, while the τριότες prepared mortar; these assistants were usually younger kin of the μαστόροι. Local workers (κοντοτάτοι) were occasionally hired and paid by μαστόροι as supplemental cheap laborers.⁴⁸ Although the work of these laborers was allocated a portion of the pay for the job (μερδικό/μερίδιο), the payment was given to the μαστόροι, who then paid the κοντοτάτοι a wage that had been negotiated in advance

⁴⁴ W. HEIMPEL, *Workers and Construction Work at Garšana*, Bethesda 2009 (Cornell University Studies in Assyriology and Sumerology, 5), p. 51. On “off duty [workers]...acting as free agents, being paid ‘wages’”, see J. N. POSTGATE, *Early Mesopotamia*, cit. (n. 2), p. 237.

⁴⁵ In the Garšana texts, one foreman was on average responsible for a crew of 23 workers. There are, of course, also differences with **Fn 7**: foremen in the Garšana texts were not paid more than highest-paid crew members. W. HEIMPEL, *Workers*, cit. (n. 44), p. 69.

⁴⁶ In text RS 20.425 from Ugarit, master house-builders are allocated jars of wine and oil alongside day laborers who must have been their assistants; J. NOUGAYROL, “Textes suméro-accadiens des archives et bibliothèques privées d’Ugarit”, in *Ugaritica V*, C. F. Shaeffer (ed.), Paris 1968, p. 192-193; J.-P. VITA, “The Society of Ugarit”, in *Handbook of Ugaritic Studies*, W. G. E. Watson and N. Wyatt (ed.), Leiden 1999, p. 489 and n. 220.

⁴⁷ CH. G. KONSTANTINOPOULOS, *Οι παραδοσιακοί χτίστες της Πελοποννήσου. Ιστορική και λαογραφική μελέτη*, Athens, 1983, p. 51, 53; CH. G. KONSTANTINOPOULOS, *Η μαθητεία στις κομπανίες των χτιστών της Πελοποννήσου*, Athens, 1987, p. 54, 56. The πρωτομάστορας was employer, contractor, and master craftsman all in one. The pay structure of the group was, like **PY Fn 7**, hierarchical: the μαστόροι received an entire portion (μερδικό/μερίδιο), the τριότες three quarters of a portion, and the μαστορόπουλα one half.

⁴⁸ CH. G. KONSTANTINOPOULOS, *Παραδοσιακοί*, cit. (n. 47), p. 51-52; *Μαθητεία*, cit. (n. 47), p. 56.

and was always lower in value.⁴⁹ The traditional Greek parallel suggests that Mycenaean specialists (the wall-builders and sawyers) must have required unskilled labor and probably also animal power to haul and prepare materials, and that this team of laborers must have been organized and coordinated by a supervisor (the *pantektōn*).

Kessandrā

The hypothesis that *qa-ra₂* and *pa-ka* provided labor may also be supported by analogous allocations in the Pylos texts. It is tempting to connect the allocations of grain and figs to *ke-sa-da-ra* (*Kessandrā*) in the **Fg** tablets to **An 435**, which has recently been joined with other fragments by José Melena.⁵⁰

PY An 435

(S131 H 1)

.1	]o-da-sa-to , a-ko-so-ṭa[
.2	ke[-]ṣa-da-ra , e-te-ṭe-u[
.3	]te-re-[VIR 1] <i>vestigia</i>	
.4	]na-so[VIR 1]i-ko-[] VIR [1	
.5	]wa-ni-jo[] VIR [1	
.6	]vac.[]vac.[] vac. [
.7	]vac.[] <i>vacat</i>	
.8	]ro-jo [] <i>vest.</i> []vac.[] <i>vacat</i>	
.9	]to []vac.[]qe-re VIR [1	
.10	]ko []-ko[] VIR 1	
.11	]na-o[]wa-[•]-ṭe[
.12	]tu-si-jo [] <i>vacat</i>	
.13	]vacat[] <i>vacat</i>	
.14	]a-re-[]-o[]-jo VIR [1]-ro-jo VIR [1	
.15	]re-[•]-ṣi-jo[VIR 1]-ka-i-jo VIR [1]vac.	
.16	]ṣe-u VIR 1 o-[
.17	] ] [ ] ke-sa-ḏo[-ro] VIR [1	

An 435 is fragmentary, although the general structure of the tablet is clear: it consists of a header, below which is a list of named men. The header in the first line (*o-da-sa-to , a-ko-so-ṭa*), “thus *a-ko-so-ta* distributed”, indicates that *a-ko-so-ta*, one of the four Pylian “collectors”, is the agent responsible for the distribution of male workers.⁵¹ It tends to be the case with headers beginning with *o-* or *jo-* that the verb is followed by the subject, if it

⁴⁹ CH. G. KONSTANTINOPOULOS, *Παραδοσιακοί*, cit. (n. 47), p. 52; *Μαθητεία*, cit. (n. 47), p. 76.

⁵⁰ J. L. MELENA, “28 Joins and Quasi-Joins of Fragments in the Linear B Tablets from Pylos”, *Minos* 29-30 (1994-1995), p. 97, 99-100. The text reproduced here is based on that in the working draft of E. L. BENNET, JR., J. L. MELENA, J.-P. OLIVIER, T. G. PALAIMA, R. PALMER, *The Palace of Nestor at Pylos in Western Messenia. Volume IV. The Inscribed Documents*, Princeton n.d. On the name *ke-sa-da-ra*, see J. L. GARCÍA RAMÓN, “Mycénien *ke-sa-do-ro* /*Kessandros*/, *ke-ti-ro* /*Kestilos*/, *ke-to* /*Kestōr*/: grec alphabétique Αἰνησιμβρότα, Αἰνησίλαος, Αἰνήτωρ et le nom de Cassandra”, *Mykenaiika*, p. 239-255.

⁵¹ G. NIGHTINGALE, “*A-ko-so-ta* and the Economy of Pylos”, in *Colloquium Romanum*, p. 576-577.

is expressed.⁵² *a-ko-so-ta* appears fairly often as the subject of various verbs in the headers of Pylian texts, always immediately following the verb.

The best parallel for the header of **An 435** is the label **Wa 917**:

PY Wa 917

.1]o-da-sa-ṭo , a-ko-so-ṭa[
.2]e-qe-ta , e-re-u-te-re[

(S106? H 1)

The interpretation of this text is debated, but it seems likely that *a-ko-so-ta* is the subject of the verb *-da-sa-to*, for the reasons just discussed.⁵³ This leaves us with the second line to interpret. If we accept that *a-ko-so-ta* is the subject, then *e-re-u-te-re* should probably be dative singular (*ereutērei*).⁵⁴ The title of *e-qe-ta* could be in apposition to either, but we have no other indication that *a-ko-so-ta* is a *hek^wetās*, whereas the only *ereutēr* whose name we know, *Diwiewus*, is certainly also a *hek^wetās*. Indeed, the two texts that name *Diwiewus* as *ereutēr* and as an *hek^wetās*, **Cn 3** and **An 656** respectively, are clearly related to one another.⁵⁵ It therefore seems best to render **Wa 917** “Thus *a-ko-so-ta* distributed to the *hek^wetās/ereutēr*.” The use of two titles to identify a palatial agent is rare, but not without parallel: there is the case of the priest/shepherd on Knossos **Am 821**, and there is also an individual identified as priest/*da-i-ja-ke-re-u* on Pylos **Aq 218.3**.

This interpretation of **Wa 917** conflicts with the argument of Ruth Palmer that the verb *-da-sa-to* does not have to do with distributions here, on the assumption that **Wa 917** is a label of the **Na** series.⁵⁶ Bennett, who assigned **Wa 917** to stylus 106 of Hand 1, presumably connected the label with the **Na** series because of the apparent lexical similarity between *e-re-u-te-re[* in the former and forms of *e-re-u-te-ro* in the **Na** series.⁵⁷ This is a reasonable supposition, but *e-re-u-te-re[* in **Wa 917** can only be the dative of the title **e-re-u-te*, since the final *re* of *e-re-u-te-re[* is inconsistent with the relevant terms in the **Na** series (*e-re-u-te-ra*, *e-re-u-te-ro*, and *e-re-u-te-ro-se*).⁵⁸ Palaima notes that “The

⁵² J. D. HILL, *Observations on Clause Structure in the Linear B Pylos Corpus*, M.A. thesis, The University of Texas at Austin, 2002, p. 42-43, shows that subjects typically occur immediately after the verb with an *o-jo-* construction. Examples include *o-wi-de a-ko-so-ta* (**Eq 213**), *jo-do-so-si ko-re-te-re* etc. (**Jn 829**), *o-do-ke a-ko-so-ta* (**Un 267**), *o-di-do-si du-ru-to-mo* (**Vn 10**), *o-de-ka-sa-to a-ko-so-ta* (**Pn 30**), *o-wi-de pu₂-ke-qi-ri* (**Ta 711**), and *o-ze-to ke-sa-do-ro* (**Vn 130**). Two exceptions are *jo-a-se-so-si si-a₂-ro o-pi-da-mi-jo* (**Cn 608**) and *o-u-ru-to o-pi-a₂-ra e-pi-ko-wo* (**An 657**), where we have verb-object-subject rather than the more usual verb-subject-object; according to Hill the verbs postpone in order to amplify the head term.

⁵³ G. NIGHTINGALE, “*A-ko-so-ta*”, cit. (n. 51), p. 577-578.

⁵⁴ The title **e-re-u-te* is most plausibly rendered *ἐρευτήρ (cf. Cretan ἐρευτάς) and derived from the verb ἐρέω (*DELG* s.v. ἐρέω).

⁵⁵ *Docs*, p. 207; *Interpretation*, p. 172-176; R. J. E. THOMPSON, “Mycenaean mo-ro-qa”, in *Fiscality in Mycenaean and Near Eastern Archives: Proceedings of the Conference held at Soprintendenza Archivistica per la Campania, Naples, 21 – 23 October 2004*, M. Perna (ed.), Napoli 2006 (*Studi egei e vicinorientali* 3), p. 237.

⁵⁶ R. PALMER, *Wine*, cit. (n. 14), p. 79.

⁵⁷ *PTT* II, p. 11.

⁵⁸ The title **e-re-u-te* (from ἐρέω) has no etymological connection to the terms in the **Na** series, which are related to ἐλεύθερος.

association of these labels [i.e., **Wa 917** and **948**] with the **Na** group is, therefore, very tentative.”⁵⁹ The findspot of **Wa 917** is highly unusual; it does not appear in grid 52 of Room 7 with the rest of the label discards, but in a grid square (71) in Room 7 with a number of fragments from other tablets (**An 615**, **Cc 665**, **Cn 702**, **Sa 796**, **Fn 867**). The fragments in grid 71 are isolated from the other fragments belonging to these tablets. These other fragments have no clear distribution pattern; findspot is therefore of little help in this case. Kevin Pluta has argued that the **Na** series was stored in a basket sealed with a sealing; if so, then **Wa 917** would be unlikely to be attached to a transport basket for the **Na** series.⁶⁰

Returning to **An 435**, the woman’s name in line 2, *ke-sa-da-ra*, could be in any case, but it is probably part of the header. Certainly she cannot herself be an individual allocated, since there is no ideogram following her name. As a woman she is also unlike the other entries on the tablet followed by ideograms, which are men’s names. The name could be in the genitive modifying the man’s name *e-te-re-u*, but none of the other entries seem to preserve this pattern. Instead it seems likely that *ke-sa-da-ra* is the dative recipient of the men who are allocated by *a-ko-so-ta*, as the parallel of **Wa 917** suggests.

The fragmentary text **An 435**, then, probably allocates named workers to a woman named *Kessandrā*. It is probably not coincidental that this woman is provided with large quantities of staples in two **Fg** texts:

PY Fg 368

ke-sa-da-ra GRA 5 NI 5

(S186 H 21)

PY Fg 828

ke-sa-da-ra GRA 5

(S240 H 1)

Nine VIR ideograms are preserved on **An 435**, but we can reconstruct a minimum of 19 entries. If hypothetically 20 men were allocated to *Kessandrā*, GRA 5 would divide evenly into allocations of GRA T 2 V 3, an amount allocated for example to *e-ti-me-de* on **Fn 324.1**. This quantity is also equivalent to Z 60, or 20 days’ worth of the standard male ration of Z 3 per day. It is therefore possible that **Fg 828** provides grain for *Kessandrā* to support her 20 subordinates for 20 days.

It is difficult to know what the relationship between **Fg 368** and **Fg 828** is. The former is written by Hand 21, the latter by Hand 1. Palaima has shown that Hand 1 intervenes in the work of Hand 21 on several occasions in the **Cn** series and perhaps wrote a total for Hand 21’s **Ab** tablets, so it is possible that **Fg 368** was a preliminary document that was corrected by Hand 1 and replaced by **Fg 828**, although this is not supported by the findspots of these tablets.⁶¹ Alternatively they could record two separate transactions. Killen has suggested that the figs allocated in ration texts at Pylos might not have been part of the standard ration but rather a supplementary issue provided in an

⁵⁹ *Scribes Pylos*, p. 41.

⁶⁰ K. PLUTA, *The Sealings in the Archives Complex at Pylos*, M.A. thesis, The University of Texas at Austin, 2000, p. 52-54. I thank Kevin for discussing the content and archaeological context of **Wa 917** with me.

⁶¹ *Scribes Pylos*, p. 52. The findspot of **Fg 368** is 8.23; that of **Fg 828** is 7.64.

exceptional month, perhaps for religious reasons.⁶² In this case, the two **Fg** texts would relate to two different time periods: in **Fg 828** the standard grain ration is issued, while in **Fg 368** the grain is supplemented by figs.

This rather long discussion about **An 435** was originally embarked upon to provide a possible analogy to **Fn 7**. That is, the allocation of staples to *qa-ra₂* and *pa-ka* on **Fn 7** might reflect labor management, as the **Fg** tablets allocating grain to *Kessandrā* apparently do. It is hardly certain that **Fg 368** and **828** relate to **An 435**, but it seems probable, especially as it is difficult to imagine why *Kessandrā* should be allocated such large quantities of grain otherwise.⁶³ In this instance, we have one text recording allocations of laborers, and two other texts providing foodstuffs for these men. It seems unlikely that the same should be the case for **Fn 7**, because of the way this document is composed to document carefully not only the number of individuals present, but also the foodstuffs allocated to them, with quite specific calculations made to determine the monthly allocations to each individual or group. I think that it is more likely that *qa-ra₂* and *pa-ka* were administrative intermediaries who provided laborers to the palace, and who received large bulk payments of foodstuffs from the palace in order to do so.

Conclusions

It seems likely that labor was supplied to the palace through multiple recruitment systems, and that these were not limited to one or two sectors of the economy. Certainly it is worth taking a closer look at documents like **Un 1322**, where large amounts of foodstuffs are allocated to individuals as payment, presumably for goods and services rendered to the palace.⁶⁴ Significant quantities of grain and figs are allocated to a net-maker (or net-makers) and a weaver (or weavers) in lines 2-3:

PY Un 1322

.0	<i>supra mutila</i>	
.1	]n̄o-[]o-no[]	GRA 6 NI [
.2	de-ku-tu-wo-ko[]o-no	GRA 2 NI 2
.3	i-te-we , o-n̄o[]	GRA 12
.4	we-a ₂ -no[, ri]-no , re-po-to	*146 GRA 5
.5	we-[a ₂ -no , ri]-no , []	*146 GRA 15
.6	<i>vestigia</i>	
	<i>infra mutila</i>	

(Cii)

Perhaps these reflect the hiring of labor for particular jobs on behalf of the palace, a bulk payment of staples to be used as the supervisor saw fit. This possibility is also suggested by the fact that the same phenomenon occurs in the Ur III documents from Garšana: hired laborers were not only employed by building supervisors, but also by supervisors of

⁶² J. T. KILLEN, "Wheat", cit. (n. 34), p. 161-163.

⁶³ No light is shed by the two other occurrences of *Kessandrā* at Pylos (**Mb 1380** and **Mn 1368**), where she is listed against unpreserved quantities of the textile *146, probably as a recipient; C. W. SHELMEERDINE, "The Southwestern Department at Pylos", in *Studies Killen*, p. 317-318.

⁶⁴ J. CHADWICK, "Pylos Tablet Un 1322", in *Mycenaean Studies*, p. 19-26.

leather workers, fullers and mat weavers.⁶⁵ We might imagine a situation for Pylos similar to that in the Ur III state, in which individuals had an obligation to provide labor for a fixed amount of time, but could also be hired and paid in staples when not actively engaged in fulfilling their corvée requirement.⁶⁶

Individual supervisors, often identified by personal name, seem to have played an important role in the recruitment of labor. It is probably a good working hypothesis that the laborers provided by *e-ke-ra₂-wo* and **we-da-ne-u* on **An 610** were supplied on the basis of landholdings. On the other hand, it seems unlikely that this is true in the case of **Fn 7**, where it seems probable that workers were simply hired by the named individuals *qa-ra₂* and *pa-ka*. Thus it is likely that these supervisors played important roles in all recruitment systems. These individuals were apparently administrative intermediaries, agents who had the rank and resources to ensure that the requisite number of laborers would be supplied. So there is some good evidence to suggest that although most labor at Mycenaean Pylos was directly recruited from communities and other groups on the basis of landholding, this direct method of recruitment was supplemented by another system (or systems), in which named intermediaries provided laborers for palatial jobs. Indirect recruitment may or may not have operated on the same underlying principle as the direct method. The role of named individuals in raising labor is important in two respects: it shows the flexibility and heterogeneity of palatial systems of administration, which harnessed the resources of local communities as well as those of prominent individuals residing within them, and it also demonstrates the importance of high-ranking individuals to the effective implementation of palatial projects.

⁶⁵ W. HEIMPEL, *Workers*, cit. (n. 44), p. 51.

⁶⁶ J. N. POSTGATE, *Early Mesopotamia*, cit. (n. 2), p. 237.