FORUM

Redistribution in Aegean Palatial Societies

By Appointment to His Majesty the *Wanax*: Value-Added Goods and Redistribution in Mycenaean Palatial Economies

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Abstract

Rather than treating redistribution as an undifferentiated economic function, scholars currently recognize that multiple forms may occur simultaneously. In this Forum Article, I focus on one such form in detail, specifically, the redistributive system that financed the production of prestige goods at the Palace of Nestor at Pylos. I employ the manufacture of chariots, perfumed oils, and textiles as case studies. The three industries had a number of features in common. They required raw materials that were dispersed. Their managers collected dispersed raw materials and allocated them to specialists, who added value to them through skilled labor and who produced composite artifacts that were then redistributed by palatial authorities to an exclusive group of recipients. While similarities in the management of the industries reflect an overall policy of resource mobilization through which palace authorities garnered the loyalty of an emergent class of secondary elites, the inconsistencies in the manner in which the industries were run also suggest that redistribution was not fully standardized.*

INTRODUCTION

The concept of redistribution is of ongoing interest to archaeologists who study ancient economies, and steady progress is being made in elucidating the contexts in which it may have operated. In the Aegean, however, research has been hampered by the semantic debate over how appropriate the term is as a general label for describing Late Bronze Age political economies. Only recently have scholars sought to outline in detail the materials, mechanisms, and motivations that underlie the formation of redistributive economic institutions in the Mycenaean world. Such a bottom-up perspective, as called for by Nakassis et al. in their contribution to this Forum, holds greater potential for helping researchers compile the data sets required to formulate adequate macroeconomic models.[1]

The most prominent advocate of rethinking redistribution has been Halstead, who applied Earle's notion of mobilization to the Aegean context.[2] Two points raised by Halstead are especially germane here. First, Halstead differentiates between the systems of wealth finance and staple finance that operated concurrently in the Mycenaean Bronze Age economy.[3] Second, Halstead convincingly argues that numerous economic transactions must have taken place outside palatial purview.[4] Halstead's framework redefines redistribution as a directed, purposeful economic policy related to centralizing economic and political power and goes beyond seeing it simply as a descriptive "things come in, things go out" economic structure. Furthermore, Halstead notes that the Mycenaean economies changed over time. He calls for more diachronic study, a perspective that has been integral to the understanding of social dynamics in studies of settlement patterns, monumental architecture, and the like but has not been typically taken in studies of the Mycenaean economy.[5]

*I offer many thanks to the organizers and participants of the colloquium "Redistribution in Aegean Palatial Societies," held at the 2009 Annual Meeting of the Archaeological Institute of America in Philadelphia, for their spirited conversation and insights into the complexities of redistribution. I also express my gratitude to Emma Blake for her thoughtful comments on earlier drafts of this essay and to the anonymous reviewer for the *AJA* who made numerous helpful suggestions that improved the final version. All errors and misinterpretations, however, are entirely my fault.

[1] Nakassis et al. 2011.

[2] E.g., Halstead 1988, 1992, 1999.

[3] See D'Altroy and Earle (1985) for definitions.

[4] Halstead 1992; Parkinson 1999.

[5] Halstead 1999, 41. See Schon (2010) for a diachronic treatment of import consumption.

Killen's work with the Linear B tablets has also been instrumental in elucidating the finer mechanisms behind Mycenaean financial systems.[6] Palatial authorities used terms such as *ta-ra-si-ja* and *o-pa* to describe various contractual relationships with craft producers, and Killen has shown the range of contexts in which these systems operated (even in some cases in which the tablets do not mention them).[7] However, contrary to Halstead and the general consensus of this Forum, Killen states that "nothing that has emerged as a result of these investigations and new discoveries has suggested that we need alter his [i.e., Finley's] basic conclusions about the nature of the society: that it is a redistributive (or command) economy of the Near Eastern (or 'Asiatic') type."[8] I contend that palace authorities did not have full control of their regional economies, and therefore, when we infer meaning from the tablets preserved from bureaucratic activities in the palaces, we must read them as attempts (albeit often successful ones) to exert authority rather than as reflections of authority that was already a fait accompli.

In this article, I build on previous work by focusing on one aspect of the redistributive economy at the Late Bronze Age Palace of Nestor at Pylos: the manufacture of prestige goods. Specifically, I examine three industries that were without question controlled by palatial authorities: chariots, perfumed oils, and textiles. While scholars have outlined the inner workings of each industry individually, when we view them in concert, we can see beyond the context of their immediate functions and understand them as part of a palatial strategy of resource mobilization. In addition to being well documented, they have certain key features in common. In all three cases, palace authorities collected materials from various regional sources using a range of methods, added value to those materials by means of specialized industrial production (some of it outsourced), and subsequently redistributed—or mobilized—those finished goods to select individuals. Both elites and nonelites were involved in the manufacturing process. An examination of these industries can help us identify the materials, processes, and people involved in a Mycenaean redistributive economy and thus achieve a more nuanced understanding of it.

But this is not to say that the evidence permits us to define a unified Mycenaean redistributive system, sensu stricto. While there are similarities in the manner in which economic resources were mobilized among different industries within the polity of Pylos, and in the manner in which different political centers around the Mycenaean world practiced redistribution, the inconsistencies between these cases are equally noteworthy. It is true that transactional terms (e.g., for taxation and subcontracting work) and the spatial networks underlying the movement of resources within a polity were enduring and somewhat standardized. However, a number of transactions were ad hoc, and certain individuals involved in the industries operated with relative autonomy. Therefore, I suggest that while the mobilization of value-added prestige goods was certainly an active policy of the authorities at Pylos, the implementation of this policy was not fully standardized, most likely because the manufacture of prestige goods at Pylos began relatively late in the history of the palace. In what follows, I briefly outline the flow of materials and labor for each industry; then I proceed to a synthetic discussion of their collective roles in the palatial economy.

THE INDUSTRIES

Case 1: Chariots

During his excavation of the Palace of Nestor at Pylos, Blegen recognized right away that chariots had something to do with the Northeastern Building, initially labeling the structure the palace armory and then modifying his interpretation, calling it a workshop.[9] Subsequent scholars have helped refine this picture, and now it is clear that chariot manufacture was administered in that building.[10] While other activities related to the redistribution of goods seem to have been supervised in the Northeastern Building, I focus in this article on chariots alone.[11] Textual and archaeological evidence provides us with information concerning their raw materials, component parts, labor force, sources of financing, and distribution.

The main raw materials that went into a Mycenaean chariot were wood (for the frame, traction system, yoke, axles, and wheels), leather (for the floor, screens, bridles, reins, padding, and binding), and bronze (in the wheel assembly and control mechanism and as fasteners and decoration). Optional materials included gold, silver, and ivory, which could have been used as adornment.[12] Although the material remnants of

[6] E.g., Killen 1999, 2001.
[7] Killen 2001.
[8] Killen 2008, 160. Killen's reference is to Finley 1957.
[9] Blegen and Lang 1958; Blegen and Rawson 1966.
[10] Schon 1994, 2007.
[11] See Tegyey (1984) and Bendall (2003) for more general treatments of the building.
[12] Crouwel 1981.

chariots and chariot production in the Northeastern Building are limited, the structure did contain numerous clay Linear B tablets with references to chariot parts and aspects of their production.[13] Raw materials such as bronze, animal hides,[14] and wood are listed on tablets and/or inscribed seals, as are finished chariot parts such as wheels, reins, and axles. Admittedly, it is possible that some of the materials listed were not destined to become parts of chariots. However, my point here is simply that all the major raw components (and some processed ones) required to construct a chariot were monitored in that one place by palace scribes. The few tablets that directly reference chariot parts, in both the Archives Complex and the Northeastern Building, are sufficient to indicate that the headquarters of the chariot industry at Pylos was indeed the latter structure.

In addition to materials, the chariot industry at Pylos employed workers, supervisors, and administrators. In this regard, the tablets are highly revealing.[15] In the PY Ac series, anonymous men were recruited from various towns in the polity in proportions similar to those of taxed commodities.[16] On tablet PY An 1282, they were assigned to work on various chariot parts. Members of the elite were also involved in the industry, as tablet PY An 1281 demonstrates. The names of several supervisors on that tablet can be cross-referenced to other tablets that reveal their status and other vocations. For instance, a man named **au-ke-i-ja-te-u*, who was assigned to supervise two men—at least one of whom was certainly a bronzesmith—at the shrine of *po-ti-ni-ja i-qe-ja* (the Horse Mistress), received hides to produce leather goods (PY Ub 1318 [found in the Northeastern Building]). His men also received work ration payments from the palace (PY Fn 50).

In terms of financing the industry, the administrators of the Northeastern Building employed a wide range of mechanisms. They collected taxes in the form of raw materials and laborers, contracted specific work to craft specialists, and made payments. General taxation, *a-pu-do-si*, is evident in the tablets that refer to men and deerskins as *o-pe-ro* (owed), a term often used at Pylos for taxes that had not yet been paid.[17] The *ta-ra-si-ja* system involved supplying craftspeople with raw materials and represented an obligation on the specialist to supply a finished good.[18] Indirect evidence for *ta-ra-si-ja* in chariot manufacture is supplied by one tablet, PY Ub 1318, which lists hides going to certain individuals to make finished items such as straps and saddlebags. This certainly seems to be *ta-ra-si-ja* work, although the term itself is not written on the tablet. At Knossos, chariot wheels were manufactured under the *ta-ra-si-ja* system, so this is, nevertheless, a possibility for Pylos as well, especially considering the highly specialized skill set required for that job. The term *o-pa* most likely designates the "refurbishment" or "finishing" of goods.[19] It complements the *ta-ra-si-ja* system of allocation of resources to craftspeople.[20] *O-pa* work was performed on chariot wheels at Knossos (KN So 4430) and corselets at Pylos (PY Sh 736) and may be linked to repair work (*wo-ka*) in the Pylos Sa series, if the men listed on the tablets are chariot-wheel repairmen rather than owners.[21] In addition, the term is inscribed on sealings in the Northeastern Building, and in three cases, the sealing also contains the ideogram for hides (PY Wr 1325, PY Wr 1331, PY Wr 1332). Finally, in addition to receiving goods, either directly or via the central bureaucracy, the Northeastern Building was authorized to make payments. Such payments are designated by the term *o-no*, which appears with wheat and figs on PY Un 1322. This tablet was found in Area 92 of the Northeastern Building, and while the craftspeople that received the payments listed on the tablet were not chariot workers, we may infer that the administrators of the building would have been able to make *o-no* payments to chariot workers as well. Such payments are evident on PY Fn 50 (as noted earlier), and I consider it likely that the *do-e-ro-i* of **au-ke-i-ja-te-u* are the same chariot workers mentioned on PY An 1281.[22]

Not mentioned in the tablets from the Northeastern Building, but clearly a part of this financial network, is long-distance trade. Bronze, silver, gold, and ivory are not indigenous resources at Pylos. The tablets do not specifically mention trade, but the listing of exotic materials as chariot adornments and their actual presence as artifacts in the Northeastern Building indicate at least that they were part of the chariot-manufacturing process.[23]

Finally, I turn to the consumers. Palace officials kept records concerning who would be the recipients

[13] Schon 2007, table 13.1.

[14] Whether some of these documents refer to hides or live animals is a contentious issue. The tablets are varied enough that some cases clearly imply one or the other, while either identification is possible in other cases.

[15] Schon 2007, table 13.2.

[16] Shelmerdine 1987a.

[17] Bendall 2003.

[18] See Killen (2001) for a thorough discussion of *ta-ra-si-ja* and industrial production.

[19] Melena 1983; Killen 1999.

[20] Shelmerdine 1987a.

[21] Nakassis 2006, 212 n. 225.

[22] See Nakassis (2006, 194) for a more tempered view.

[23] Hofstra 2000.

of chariot wheels and, possibly by extension, chariots themselves. Thirteen leaf-shaped tablets of the PY Sa series list pairs of chariot wheels either owned by or assigned to named individuals.[24] Other Sa tablets with higher totals list pairs of wheels that are *e-qe-si-ja* (for followers). In this latter case, the reference can only be to chariot riders, not repairmen.

Case 2: Perfumed Oils

There is evidence that perfumed oils were manufactured at a number of Mycenaean centers, although the industry at Pylos remains the best understood, thanks to Shelmerdine's seminal study.[25] Perfumery at Pylos was a centralized industry. While ingredients were obtained from locations throughout the polity, they were brought to the palace by palatial elite (the "collectors"), and the craftspeople who made the final product were attached specialists.[26] The workshop itself was in Court 47, and tablets related to the industry were found primarily in Rooms 23, 32, and 38.[27] The administrators of the industry seem to have had full access to the north and east wings of the palace building. As before, I begin with the raw materials and then move on to the people and administrative systems involved in the industry.

Four tablets (PY An 616, PY Un 249, PY Un 267, PY Un 592) found in the palace archives provide us with a partial list of the raw commodities required for the manufacture of perfume. These are nut grass (*Cyperus rotundus* L.), coriander (*Coriandrum sativum* L.), fruit, wine, wool, honey, and must (a sweet wine).[28] In addition, rose and sage, components that provide the pleasing aroma to perfumes, are listed on the PY Fr series, as is *e-ti-we* scented with **e-ti*, a substance Shelmerdine suggests is a red dye, possibly henna.[29] Plain oil itself is conspicuously absent from the lists of ingredients, although it clearly would have been widely available, and it may appear on PY Fr 1184, which documents the transfer of oil between two perfumers.[30]

Four men mentioned on tablets from the palace archives—Kokalos, Eumedes, Philaios (also described as Potnian), and Thyestes—are perfumers and craft specialists. Their names are listed along with their professional title: *a-re-pa-zo-o* (or *a-re-po-zo-o*). One agent of the palace, Alxoitas, provides Thyestes with his raw materials (PY Un 267). Alxoitas is one of four so-called collectors at Pylos, people who, as Killen describes, "are prominent members of the ruling elite (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)."[31] Killen further speculates that some "collectors" are actively involved in long-distance trade.[32]

The most prevalent records of perfumed oils concern their disbursement.[33] Quantities of perfumed oil were distributed to townsfolk (e.g., *pa-ki-ja-ni-jo-i* [PY Fr 1216]), attendants (e.g., PY Fr 1205), individuals (including the *wanax* on PY Fr 1215), and deities (such as Poseidon [PY Fr 1224] and Potnia [PY Fr 1225]). They were also distributed for special purposes such as anointing (PY Fr 1223) or specific festivals (PY Fr 1222). Archaeologically, we can recognize the social importance of perfumed oils through the distribution of stirrup jars (their typical containers), which were among the primary pottery exports (along with drinking paraphernalia) of the Mycenaeans.[34]

Case 3: Textiles

While the manufacture of textiles had a long-standing vernacular tradition in prehistoric Greece, the textile industries of the Mycenaean palaces were far more sophisticated. In terms of the amounts of raw materials, degree of organization, scale, and specialization required for their production, textiles rivaled the industries discussed above.[35] At Pylos, the industry seems to have been administered in the second story of the palace, in the vicinity of the megaron. Palatial

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[24] *Docs*^{2}, 373–75. However, Nakassis interprets them as wheelwrights (supra n. 21). If that is the case, then they fit well as evidence for *ta-ra-si-ja*.

[25] Shelmerdine 1984, 1985; see also Foster (1974, 1977) for Knossos.

[26] E.g., coriander, one of the ingredients in Pylian perfume, occurs throughout the Old World as a cultivated crop and as a weed (Zohary and Hopf 2000, 205–6), and there is no evidence that it was specifically cultivated in Bronze Age Greece. See Negbi (1992) for cyperus and Costin (1991) for an outline of the various types of craft specialization.

[27] Shelmerdine 1984, 89 (table).

[28] *Docs*^{2}, 223; Shelmerdine 1985, 19–23; Palmer 1994, 88–91.

[29] Shelmerdine 1985, 21, 26–31. If **e-ti* is indeed henna, then it would have been imported. Similarly, there is some evidence on KN Ga 517 from Knossos that nut grass might have been imported (*Docs*^{2}, 223), although it most likely was readily available in the wild throughout Messenia (Negbi 1992).

[30] The other possibility is that PY Fr 1184 reflects the transfer of a form of perfumed oil (Shelmerdine 1985, 24; Killen 2001, 179–80).

[31] Killen 1995, 213. At Knossos, *ku-pi-ri-jo* (The Cypriot) (see, e.g., Palaima 1991, 281; Killen 1995) may be a "collector" who plays a similar role in the industry as *a-ko-so-ta* at Pylos (Killen 1995, 215–17; see esp. Olivier 1996–1997).

[32] Killen 2008, 187–88.

[33] Bennett 1958; Shelmerdine 1985, 63–106; Bendall 2007.

[34] Leonard 1994; van Wijngaarden 2002; Dabney 2007.

[35] In this essay, I focus solely on woolen textiles and leave out flax/linen.

authorities were involved from "flock to finish" monitoring sheep (e.g., PY Cn 655), overseeing semiskilled spinners and weavers (e.g., PY Aa 240, PY Aa 695), allocating cloth to highly skilled decorators and finishers (PY Aa 770, PY Ab 210), and even designating the recipients of various types of garments. Some textile workers had generic titles, such as *ra-pi-ti-ra*$_2$ (seamstresses), *i-te-ja* (weavers), or *pe-ki-ti-ra*$_2$ (wool carders), while others had more specialized designations such as *a-pu-ko-wo-ko* (headband makers), *o-nu-ke-ja* (women who make *o-nu-ka*), and *te-pe-ja* (makers of *te-pa* cloth). Finally, nonspecialized laborers such as *me-re-ti-ri-ja* (corn grinders) and *pa-wo-ke* (maids of all work) may have been employed in supporting roles.

We also have some evidence for the financial mechanisms involved in the industry. One type of garment, **146*, was collected via taxation (*a-pu-do-si*), and Killen, noting certain parallels with the Knossos tablets, plausibly suggests that the *ta-ra-si-ja* system was part of the Pylian textile industry as well.[36] The textile industry, like that of chariots, was semicentralized. Work took place throughout the polity, in both the Hither and Further provinces, but the most skilled and specialized workers were situated either at the palace itself or at places directly affiliated with the palace (a religious shrine for chariots and the regional capital of Leuktron for textiles).[37] It is not certain who received the finished products, although they likely would not have been available to just anyone. It is plausible that some textiles were distributed at feasts, and if the yet-unidentified item designated by ideogram **189* on the PY Qa series does represent a textile, as Ventris and Chadwick suggest, then we would have evidence of the distribution of some textiles, at least, to elites.[38]

DISCUSSION

Figures 1–3 summarize the movement of goods in each industry. Two structural similarities are most notable. First, raw materials and finished goods moved both into and out of the palace building during the manufacturing process. Second, the most specialized work took place at the palace proper or at locations controlled by palace elite—therefore, the industries may be considered centralized, even if they were not centralized spatially.[39]

When it comes to their place in the Mycenaean redistributive economy, all three industries described above share a number of common features. They required raw materials that were dispersed, sometimes even beyond the limits of the polity. These materials were then allocated to specialists who added value to them through their skilled labor and who produced composite artifacts that were then redistributed by palatial authorities to an exclusive group of recipients, many of whom were among those very authorities. This system reflects a form of mobilizing craft goods, as described by Halstead, "that were not merely valued objects but prestige goods playing an active role in the affirmation and negotiation of status."[40]

On the surface, Mycenaean palace economies fit the general model of redistributive mobilization well. There was certainly some standardization when it came to financing industrial production: *a-pu-do-si*, *ta-ra-si-ja*, and *o-pa* are official terms and financial mechanisms that were in place in multiple industries and at multiple palaces. There is also agreement and precedent (even "internationally" among Bronze Age elites) concerning the type of industry that merited palatial sponsorship and, more generally, concerning the role of prestige goods production as a social strategy.[41] Chariots, perfumed oils, and textiles were all a part of this elite koine. When viewed in this light, the production of prestige goods at Pylos becomes something more than the sum of its parts. These industries did not simply fill a functional niche, providing objects that were in demand for their own merits; they also played a broader role in establishing palatial power. They materialized palace ideology.[42] By directly controlling the production of certain prestige goods, palace officials had a say in determining what those goods—and by extension, their possessors' affiliations with the palace—looked like. Indeed, very similar strategies were adopted vis-à-vis feasting and the display of antiques.[43]

But to what degree was this policy embedded in the Pylian economy? We would be rash to assert that the Pylian economy was one of "instituted process," to use Polanyi's phrase.[44] A number of inconsistencies are still recognizable in the administering of single industries, among the industries of a single palace and between palaces. For instance, it is impressive that the chariot industry had such a range of options in collecting raw materials and allocating work, but there does not seem to have been any set rules for how to do so. Leather goods, for example, may have come in as personal deliveries or taxes. They could appear as live animals,

[36] Killen 1994, 2001.
[37] Killen 1984 (with references).
[38] *Docs*^{2}, 484; Killen 1994.
[39] Killen 2001; Schon 2007.
[40] Halstead 1999, 40.
[41] Feldman 2002, 2006; Dabney 2007.
[42] DeMarrais et al. 1996.
[43] See Wright (2004) for feasts and Bennet (2008) for antiques.
[44] Polanyi 1957.

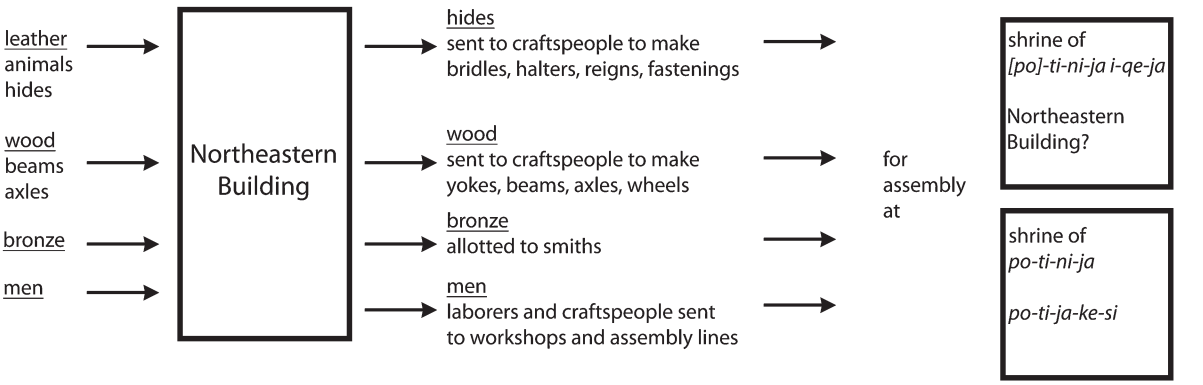

Fig. 1. The supply chain of the chariot industry at Pylos.

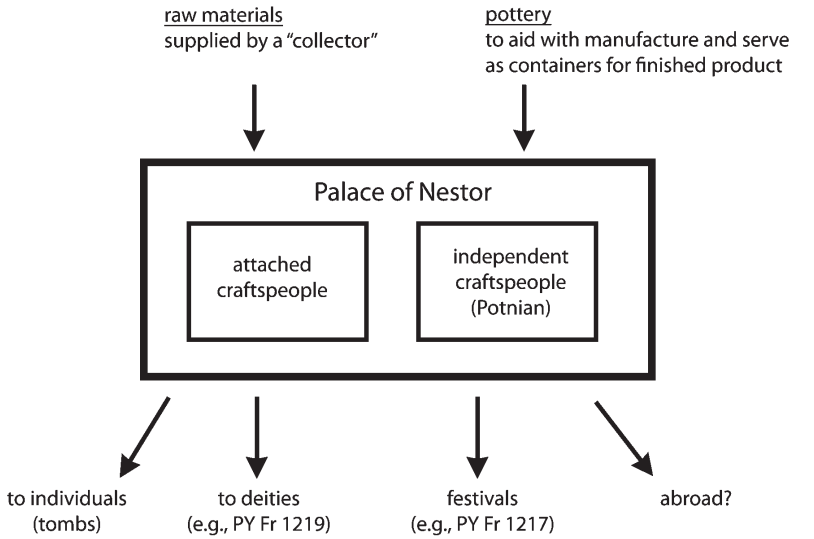

Fig. 2. The supply chain of the perfume industry at Pylos.

skins, or finished parts. While chariot and textile managers received raw materials through taxes and direct deliveries, the perfumery relied on a "collector" to bring in its raw materials. When comparing industries at Pylos with Knossos, there are ideograms and terms used in chariot manufacture at Knossos that do not appear at Pylos. In terms of organization, Killen notes that the textile industry at Knossos was decentralized, with activities taking place in a number of locations, while at Pylos, it was centralized.[45]

In addition, industrial production at Pylos appears late in the architectural history of the palace. Spaces devoted to perfume making and chariot manufacture were among the last additions to the palace structure. Many have argued that these architectural modifications reflect defensive maneuvers, bringing industries

[45] Killen 1984.

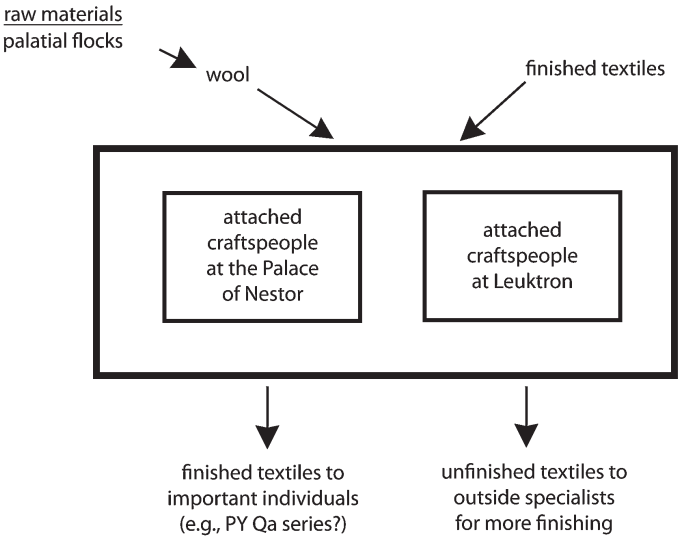

Fig. 3. The supply chain of the textile industry at Pylos.

to the palace to protect them and to limit access in a period of possible turmoil.[46] These interpretations are based on the insecure mood reflected in the *o-ka* set of tablets and on the assumption that the industries in question previously were located near, but not at, the palace itself. However, we do not have any evidence of large-scale industrial production of chariots, perfumes, or textiles prior to their establishment during the Late Helladic IIIB period. Since Pylos did not have a fortification wall on the scale of Mycenae or Tiryns at this time, it is difficult to see how moving the industries to the palace proper would have had any defensive benefit from the kind of external foe implied by the *o-ka* set. I propose that it is equally likely that the aforementioned architectural modifications reflect the initial establishment of these industries at the palace, perhaps specifically as part of a new political strategy of enfranchisement and materialization of ideology. Palace authorities made and distributed luxury goods to individuals to foster their loyalty at a time when the territory under the political control of the palace seems to have been expanding.[47] These were not preexisting industries in a state of decline but rather new ones that were in the process of being institutionalized. The possibility then emerges that the mobilization of value-added commodities at Pylos was not an enduring state institution but rather a strategic attempt to create one.

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[46] E.g., Wright 1984; Shelmerdine 1987b.

[47] Bennet and Davis 1999.

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