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Ayia Triada:

A New Perspective on the Minoan Villa*

LIVINGSTON V. WATROUS

Abstract

The Late Minoan I villa at Ayia Triada in Crete functioned as part of a larger administrative system. It is here suggested that the well known building there is in fact two separate villas; Linear A records and artifacts from the larger of the two indicate that it was the center of an estate. Produce and other items from this estate were collected at the villa and dispersed as rations and wages to local workers and as tax payments to the palace of Phaistos. Neopalatial Crete was organized into an extensive system of such manorial estates which contributed to the palatial centers.

Since the beginning of this century, archaeologists working in Crete have excavated luxurious Bronze Age houses which have come to be called Minoan villas. While it is obvious that these impressive structures were the residences of a high ranking group in Minoan Crete, it is not clear how these villas actually functioned or what their relationship was to the palaces. This article describes and interprets the newly published Late Minoan I settlement at Ayia Triada,¹ and especially the famous building complex there, in an effort to explain how the Minoan villa functioned in Neopalatial Crete.

Ayia Triada is located in the western part of the Mesara plain, near the Libyan sea coast, approximately three km. west of the palace at Phaistos. The well known "villa" at Ayia Triada, because of its size and luxury, has been variously identified as a palace, a grand villa, or even a royal summer residence for the ruler at Phaistos.² These interpretations are almost certainly incorrect; the building complex at Ayia Triada is probably two separate villas (ill. 1: villas A and B).³

* This study of Minoan society cuts across several areas of special expertise, and consequently I have been fortunate to receive the knowledgeable advice of Vincenzo La Rosa, Erik Hallager and John Bennet. Professor La Rosa discussed with me the results of his recent excavations at Ayia Triada. Dr. Hallager and Mr. Bennet suggested a number of improvements in my discussion of the Linear A evidence. The plan in ill. 1 was traced by J. Warzeski from the original in Banti (infra n. 1). The original plan of Villa A, as I define it, is shown in ill. 1 with solid black walls, Villa B with unfilled walls. All other structures are dotted. Hatched walls represent later LM I remodeling.

¹ L. Banti, F. Halbherr and E. Stefani, *Haghia Triada nel periodo tardo-palaziale* (ASAtene 55, n.s. 39, 1977, published 1980; hereafter cited as Banti).

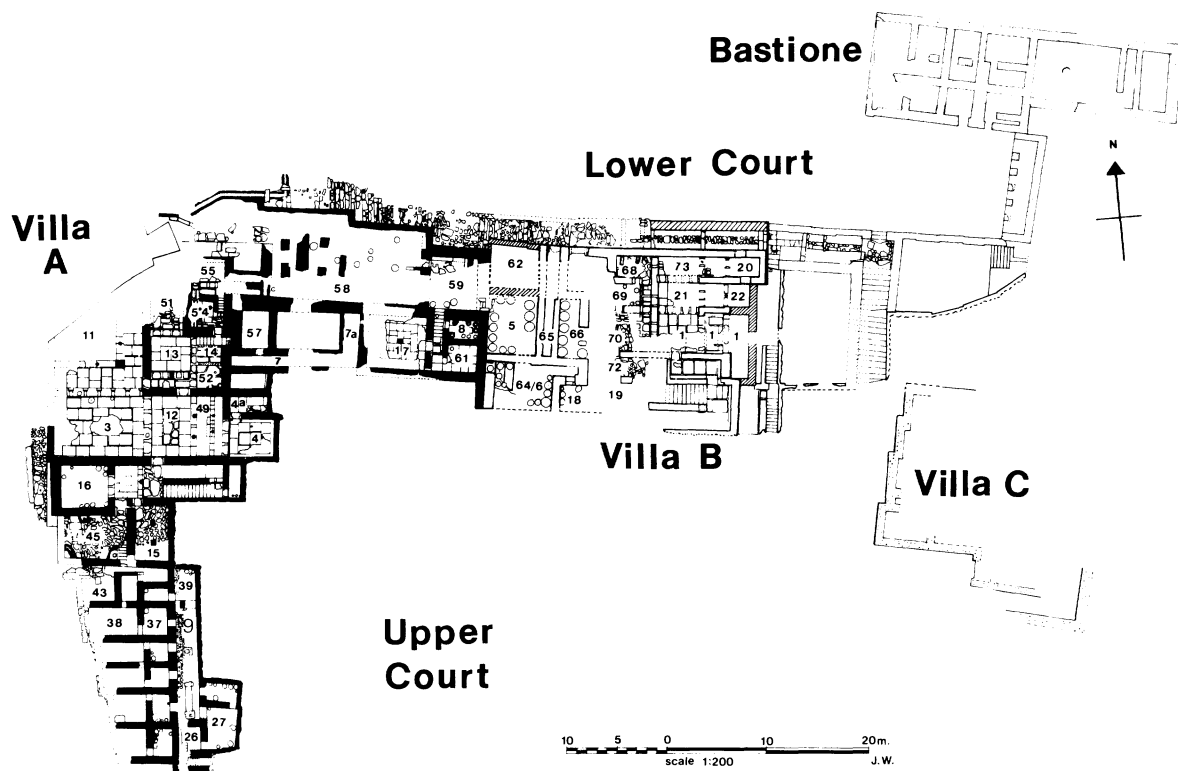
The residential rooms (e.g., 1, 21, 22) at the east end of the complex duplicate the living quarters (e.g., 3, 4, 12) on the west.⁴ Moreover, it can be shown where the division between the two separate villas was originally. A clear break in the north facade wall of the preserved structure is evident between rooms 59 and 65/66. (Walls which are certainly of a later date than the original construction of Villas A and B are indicated by hatching on the plan in ill. 1.) A small rubble wall north of 62 can also be seen to join, but not bond with, the ashlar facades on either side of it. This wall, then, must be a later addition. In fact, the excavators noticed that the surface of area 62 (ill. 1) south of the later wall was unique in being at the same level as the ramp to the north, and concluded that it had originally been an open space accessible from the ramp. Thus, the original east facade of Villa A was formed by the heavy east wall of rooms 61, 8 and 59 (ill. 1). At some later point during LM I, area 62 was walled shut. The stairway and door into room 59 had been the east entrance of Villa A. This suggestion would explain the curious fact that the western group of storerooms in the building (e.g., rooms 5, 58, 59) apparently had no outside access from either the north or west. Therefore, Villa A was constructed in the shape of a right angle enclosing the western end of the upper court (ill. 1).

It is hard to be sure exactly where the west facade of Villa B was originally (ill. 1), but the plan indicates that in its final period of use it included rooms 64/6 and 66. After the construction of the two villas in LM I, the area which includes rooms 62, 5, 64/6 and probably 65 appears to have been divided between the

² J. Graham, *The Palaces of Crete* (Princeton 1962) 50, and S. Hood, *The Minoans* (London 1971) 79, refer to the building as a palace. Banti (31–35) regards it as a single outsized villa. F. Halbherr, *MonAnt* 13 (1903) col. 7, was the first to suggest that this building was a royal summer residence.

³ After I had finished this article, J. McEnroe kindly sent me his discussion of the Ayia Triada villa in his unpublished Ph.D. dissertation, *Minoan House and Town Arrangement* (University of Toronto 1979), in which he also suggests that the building consists of two separate houses.

⁴ Banti (167) also points out how similar the pottery stored in room 69 was to that found in room 15, which would make sense if each pantry was serving a separate establishment.



Ill. 1. Ayia Triada, plan showing villas, upper and lower courts, and "Bastione"

two villas. A wall was built against the east facade of Villa A to form room 64/6 of Villa B (the north wall of the room is partly missing but restorable because of the position of the pithoi along either face of it). The architectural sequence of the other walls is less clear because of LM III construction in the area, but a wall between rooms 5 and 62 (indicated by the position of the pithoi in room 5) was apparently built to form room 5, and the wall between space 65 and rooms 62 and 5 may also have been added at that time, creating a stairway in 65.⁵ Villa B then consisted of living quarters at the east end of the building and the storage rooms (64/6, 66 and 18) along its west side (ill. 1).

Villa A was composed of three groups of rooms: servants' quarters (rooms south of 45 and 15); a main

residence (e.g., rooms 3, 4, 11, 12, 13, 51, 55) and storage rooms (e.g., 7, 8, 17, 57–59, 61). On the south, the servants' quarters consisted of six sets of rooms opening onto a long N–S corridor.⁶ The room at the north end of the corridor was plausibly interpreted by Halbherr as a kitchen because it contained a hearth, a tripod cooking pot and carbonized food remains. In the two rooms to the right as one enters the corridor from the south were found 45 clay sealings (in room 27), and many loomweights, as well as storage pithoi and other vases. A group of clay female statuettes was recovered in one of the rooms west of the corridor (9).⁷ Banti plausibly identifies the six sets of rooms as living quarters for servants and storage areas because of: a) the strict organization of the quarter into cubicle-

⁵ According to V. La Rosa (personal communication), a sounding which he made in 1980 in room 62 revealed that the foundation of the wall between 62 and 65 is shallower than that of the two N–S walls on either side of it; it is thus probably not an external wall, but a later addition. The same sounding also revealed a section of an E–W wall under the west wall of room 65 which La Rosa be-

lieves would have come from an earlier north wall to room 65. This seems to me unlikely. Halbherr, Stefani and Banti (183) believed the area was originally open.

⁶ For the servants' quarter, cf. Banti 37–61.

⁷ Banti 53–56. It was impossible to determine the precise find-spot of these figurines.

like rooms, b) the absence of gypsum wall and floor slabbing; c) the plain character of the pottery (e.g., small pithoi, conical cups, dishes, cups, tripod cooking pots); and d) their location immediately south of the large kitchen (45) and pantry (15) servicing the main residence (NW quarter). There was probably a second floor in this area which may have served as living quarters and/or workrooms for servants.⁸

From the north end of the servants' quarters, there is access to a stone-paved room (45) with three circular limestone platforms, two of which have a depression preserved on their upper surfaces. R. Paribeni, the excavator, thought that the platforms were ovens, while Halbherr identified the room as a kitchen, which is probably correct.⁹ The platforms, however, are most likely heavy-duty mortars which were built into place, since their indented upper surfaces resemble those of portable stone mortars (*gournes*) which are common at Minoan sites.¹⁰ An adjacent pantry (15) contained stacks of domestic vessels—conical cups, bridge-spouted jars, jugs, stirrup jars, amphorae and two bronze basins—lined up along the walls. North of the kitchen a storeroom (16) contained pithoi, four bronze double axe heads and a hoe. All these rooms open onto a corridor (the drain of which contained animal bones) which leads to a staircase on the right, and to the main hall (12) of the NW quarter on the left.

The main residential (NW) quarter of Villa A is famous for its luxurious architecture and wall paintings.¹¹ The main suite consists of an inner room (4), with an attached cubicle (4a), a lightwell (49) and two halls (12 and 3). Banti believes that this suite was used to receive friends, guests and visitors, in contrast to the more intimate rooms, such as the bedroom (14).¹² In room 3, pithoi had been placed so as to block three of the doors, thus separating the area somewhat from nearby rooms. The pithoi and a plate found in room 3, and a bridge-spouted jar, tripod cooking pot, and twenty conical cups in rooms 12 and 49 as well as animal bones (from the drain in room 49) indicate that meals were eaten there.

⁸ Banti (38–39) believes that there was no second storey in this quarter. The staircase south of room 27 and the presence of the Chieftain Cup at an upper level in the area of rooms 37, 38 or 43 make this position unlikely in my opinion.

⁹ *RendLinc* 12 (1903) 325; F. Halbherr, *Memorie del Reale Istituto Lombardo* 21 (1905) 237.

¹⁰ See, e.g., H.B. Hawes, *Gournia, Vasilike and other Prehistoric Sites on the Isthmus of Hierapetra* (Philadelphia 1908) pl. 3 no. 46. At Gournia many of the houses have similar but smaller mortars built into their floors.

¹¹ Banti 50–63; Graham (supra n. 2) 49–51 and 95–96.

¹² Banti 69.

¹³ Cf. Graham (supra n. 2) fig. 31.

¹⁴ Evans, *PM* 2.391–413 (House of the Chancel Screen and

There are signs, however, that this suite was not strictly private, even though the cubicle (4a) can probably be identified as a bedroom because of its dais. The size of the main suite and its ancillary kitchen and pantry to the south surpasses the needs of the number of individuals who could be housed in the main residential quarter. (The occupants of the servants' quarters had their own kitchen in room 39.) The seating capacity of the bench in room 4 (if one allows an ample 60 cm. of bench space per sitter) could be at least 17 persons. Similar halls in other Minoan villas also appear to have an official ceremonial character. At Nirou Chani, for example, the main hall faces directly onto a court so as to allow for the reception of visitors.¹³ Three villas at Knossos are constructed with a dais and niche (for a seat?) at one end of the main suite, giving those rooms the appearance of an audience hall.¹⁴

A second bedroom (14), with a raised dais and walls decorated with colorful frescoes, seems to have been part of a complex of rooms to the north. Room 52 next door contained a spouted basin and numerous small decorated vases, and may have been a bathroom.¹⁵ The larger room 13 also had frescoed walls and three closet-like compartments along the south wall, the central one of which was provided with a hole in the floor, connected to a "reservoir" below. The excavators identified this room as a latrine but, as Banti observed,¹⁶ if it is a latrine, it is unusual since it lacks a drain and is centrally placed within the building. Rooms 13, 14 and 52 resemble a unit, common in Late Minoan I villas, which clusters around a room identified as a "Queen's (or Women's) Hall."¹⁷ Since the northern facade of the residential quarter is not preserved, we do not know where the north entrance to Villa A was, but it may have been through area 51 or through portico 11.¹⁸

A stairway north of room 14 leads to a small porticoed lightwell (54). From there one can ascend a flight of stairs to the second floor, or pass through a doorway into room 55 to the north. On the south wall of the lightwell (54) were once inscribed three graffiti-

Royal Villa); *PM* 4.202–15 (House of the High Priest). Ian Begg has pointed out to me that these suites with a mixture of public and private features can be compared to the *tablinum* in a Roman house where the patron received his clients, aides and supporters; cf. A. McKay, *Houses, Villas and Palaces in the Roman World* (Ithaca 1975) 38, fig. 8.

¹⁵ Cf. the same arrangement of bathroom-bedroom in the south-east corner of the Royal Villa: J. McEnroe, "A Typology of Minoan Neopalatial Houses," *AJA* 86 (1982) 4, ill. 1b; and in the West House at Thera: S. Marinatos, *Excavations at Thera* 6 (Athens 1974) 24, rooms 4 and 4a.

¹⁶ Banti 86–87.

¹⁷ Graham (supra n. 2) 84–99.

¹⁸ Banti 104–105.

ti.¹⁹ One of these was read as a list of fractions which Pope has interpreted as a geometrical progression: 1, 1½, 2¼, 3⅜, each figure being one-and-a-half times the preceding one.²⁰ Pope has also shown that this sequence could have been used to compute 95% of a given total, and has pointed out that a number of totals on Linear A tablets seem to be 95% of a round number. The graffito may then have been a “ready reckoner,” and the existence of two other graffiti in the same room suggests that there may have been scribal activity there. Moreover, a gypsum chest which contained 200–300 clay sealings or *cretulae*²¹ was located between room 54 and room 55. Since these *cretulae* were used to seal containers and the twine around papyrus or perhaps parchment rolls,²² it is almost certain that the chest held written documents of some sort. This area, then, had some kind of administrative or archival function.

Finds and fresco fragments recovered at an upper level of the NW quarter indicate that over this area there was a second storey with wall paintings. This upper floor would have been level with the open court to the east, and probably had an entrance onto the court. Banti believes that the upper floor was a grand hall for official receptions.²³ The finds, however, suggest otherwise. For the sake of clarity, the artifacts reported to have fallen from the upper storey are listed in the Table by the room into which they fell.

Any interpretations of the finds, of course, are bound to be tentative because our list is incomplete and the findspots of the objects are not precisely known. Still, if we look at the finds room by room, some of them do appear to form meaningful groups. The bronze tools (a hammer, a chisel, two sledge hammers and the head of a hafted tool) from above room 4a were probably stored as a group there. Additional bronze tools, listed as coming from the area combining rooms 4, 11, 14, 15 and 51, may also be-

long to this group. Above portico 11 there must have been an archive and/or scribal workroom as indicated by the tablets, *cretulae* and clay discs from this area. The large number (864) of *cretulae* and the 18 inscribed discs also suggest that the room was an archive.²⁴ Many stone vases were kept in the upper rooms. These vessels—the Harvester Vase, the Boxer Rhyton, three additional rhyta, three chalices, two alabastra and bowls—may also have been valuables stored in the upper storey for safekeeping. While pedestaled stone lamps provided light on the ground floor, clay lamps were the rule upstairs.

Clay and stone vases were found in separate groups and appear to have been stored in different areas upstairs. The pottery from the upper storey, much of which was painted with floral or marine motifs, was of a finer character than the plain domestic ware stored downstairs in the pantry (15). Of course, these fine ware vases may have been used on the second floor, but since Villa A lacks a “pillar crypt” on the ground floor for the storage of valuables (as at Tyllissos A and at the Royal Villa),²⁵ I think that they were probably stored upstairs for use in the main suite (rooms 3, 12, 49) below. This suite with its ancillary rooms (15, 16, 45) and fine vases resembles Platon’s Hall of Ceremonies (room XXVIII at the palace at Zakros) with its cache of stone vases, pithoi, amphorae and jugs stored in adjacent service rooms (XIII, XV, XXV and XXVII).²⁶

We can reconstruct some upstairs activities in the villa from other fallen finds. The 80 loomweights from the upper storey (unfortunately we do not know their precise findspot) may have been stored there or may be evidence for the use of looms upstairs.²⁷ Wooden furniture certainly existed on the upper floor since rock crystal meant for inlay on a wooden backing had fallen down into rooms 45 and 11. The serpentine mortar, not a luxury object like the other

¹⁹ G. Pugliese Carratelli, “Le iscrizioni preelleniche di Haghia Triada in Creta e della Grecia peninsulare,” *MonAnt* 40 (1945) 590 nos. 155–57; L. Godart and J.-P. Olivier, *Recueil des inscriptions en Linéaire A* (Études Crétoises 20.4, Paris 1982) 130–35.

²⁰ M. Pope, “The Cretulae and the Linear A Accounting System,” *BSA* 55 (1960) 204–205. For the values of Minoan fractional signs, see E.L. Bennett, Jr., “Fractional Quantities in Minoan Bookkeeping,” *AJA* 54 (1950) 207.

²¹ Cf. Pugliese Carratelli (supra n. 19) 432. Banti, curiously, does not mention these *cretulae*.

²² E. Fiandra, “A che cosa servivano le cretule di Festos?” *Πεπραγμένα τοῦ Β' Διεθνoῦς Κρητολογικοῦ Συνεδρίου*, A' (Athens 1968) 383–97; and “Ancora a proposito delle cretule di Festos: connessione tra i sistemi amministrativi centralizzati e l'uso delle cretule nell'età del bronzo,” *BdA* 60 (1975) 1–25.

²³ Banti (60); Graham (supra n. 2) 114–24; Evans, *PM* 1.442 and 526. Graham’s and Evans’s idea that the second floor of the Minoan palaces contained official reception halls is based on a Renaissance analogy of questionable relevance and needs to be re-

evaluated. The contents of the upper floors of the palaces, which include grain (Phaistos), Palace Style storage jars, inscribed tablets, grain, fresco fragments (Knossos), copper ingots, elephant tusks, loomweights, amphorae, bronze tools (Zakros), suggest that they were for storage and various types of work.

²⁴ W. Brice, *Inscriptions in the Minoan Linear Script of Class A* (Oxford 1961) 10–11; Pope, (supra n. 20) 203, suggests that each disc may have described the contents of a container.

²⁵ Cf. Graham (supra n. 2) pls. 19 and 14, respectively.

²⁶ N. Platon, *Zakros* (New York 1971) plan p. 81.

²⁷ Groups of stored loomweights have been found at Chania, according to Erik Hallager (personal communication) and at Thera: see S. Marinatos, *Excavations at Thera* 1 (Athens 1968) 24, fig. 27 (stored in a jar in a room above the basement); 2 (1969) 47 and pl. 39. Hallager also found 12 loomweights in a line on the floor of a room at Chania, indicating the presence of a loom there.

Finally, I cannot resist referring to Penelope, who wove at her loom upstairs in her room: *Od.* 2.94–109, 21.350–59.

TABLE: LIST OF ARTIFACTS

Room

3.....	Stone:	gypsum threshold block
4.....	Stone:	Harvester Vase
4a.....	Clay:	three lamps, plate(?), one large spouted cup, plate, several juglets, one four-handled vase, two lids, a slender amphora
	Bronze:	figurine of a woman in a pose of adoration, one chisel, two sledge hammers, one razor, two wires, a ring, one hammer, one oddly shaped tool
	Lead:	a disc, probably a weight (51 g.)
11.....	Clay:	at least 15 Linear A tablets, many sherds and <i>cretulae</i>
	Stone:	Boxer Rhyton, limestone rhyton, conical rhyton, chalice, marble alabastron, three rock crystal discs
13.....	Stone:	alabaster boat, obsidian conch
14.....	Clay:	four alabastra, one pyxis, many sherds with floral and marine motifs
	Stone:	marble chalice, pedestaled lamp, five lids, vase fragments
	Ivory:	pyxis
45.....	Clay:	two small vessels, one lamp, tripod brazier, one strainer
	Stone:	slab, rock crystal fragments
52.....	Bronze:	one razor
51, 54, 55.....	Clay:	two lamps, plus six additional fragments, one lid, a small lid(?), one plate, one four-handled jar
	Stone:	vase fragments
	Bronze:	two sledge hammers, other fragments
	Lead:	three discs, probably weights
4, 11, 14, 15, 51.....	Clay:	five tablets, Marine Style alabastron, one jug, ca. 80 loomweights, one perforated disc
	Stone:	one chalice, alabastron, conical rhyton, globular bowl, alabaster vase, serpentine mortar, rock crystal fragments
	Bronze:	two large saws, two chisels, two small double axes, one knife

stone vases from the second floor, may indicate that certain substances were ground in the upper storey.²⁸ If the highnecked amphora,²⁹ strainer, alabastra and pyxides fallen into rooms **4a**, **49** and **14** can be interpreted as an assemblage, then it is possible that scented oil may have been stored upstairs. Finally, objects usually connected with cult (i.e., bronze female figurines, two small double axes, an alabaster boat and an obsidian conch shell) might be cited as evidence for a domestic shrine in the second storey.³⁰

²⁸ In the House of the Sphinxes at Mycenae, a pestle and mortar from an upper room were reported by the excavators. A second room in the upper storey was said to have contained seeds of vetch and lentil. The Linear B tablets from the house speak of spices, herbs and condiments. Cf. E.L. Bennett, Jr., ed., *The Mycenae Tablets* 2 (TAPS 48, 1958) 11–12, fig. 64.

More straightforward cult paraphernalia, however, such as horns of consecration, offering tables and snake tubes, are missing, so it also remains possible that the finds fallen from the second storey were simply stored items which would be used elsewhere.

The storage wing of Villa A was located in the NE quarter of the building.³¹ No direct access is preserved between the residential (NW) quarter and the storage wing but there may have been a connecting passage north of room **55**. From the portico south of room **55** a

²⁹ A similar amphora is illustrated in Banti 117, fig. 83.

³⁰ Cf. Banti 68, fig. 39; 90, figs. 56 and 57; M. Nilsson, *MMR*² 77–116; N. Platon, “Τὰ μυρωϊκὰ οἰκιακὰ ἱερά,” *KrChron* 8 (1954) 454–55; *BSA* 60 (1965) 257; *AJA* 80 (1976) 254–55.

³¹ For the storage wing, cf. Banti 121–50.

stairway leads to the second floor above the storage wing and from there wooden stairs may have led down into the storage area. Room 7 held the famous 19 copper oxhide ingots and the adjacent area (7a) produced bronze figurines of men, women, and goats, and two small pyramidal stone bases for double axes.³² This last area may have communicated through a narrow doorway with room 17 to the east. Because room 17 has a central pillar, walls of ashlar masonry and a slabbed floor and is next to 7a, Halbherr and Nilsson called it a "pillar crypt" for cult purposes.³³ Banti points out that there is no evidence for cult in the room (it was found empty), and convincingly identifies it as a storeroom on the basis of similar storerooms elsewhere at Ayia Triada and other sites.³⁴ The remaining rooms in this wing were also storerooms, several of which were badly damaged by the LM IB destruction and subsequent reconstruction. Nevertheless, a minimum of 21 pithoi was preserved. Some were inscribed in Linear A and others contained the remains of cereal, beans, goat horns and oil (the last by implication because of the severe burning on the floors as if oil had spilled). Several stone rhyta (rooms 5, 66), conical cups (room 5), a jug and a stool (room 5) were found beside or in the pithoi and were probably used in dispensing the stored commodities. The goat horns may have been intended as trade items, since they are shown being carried by Minoans in Egyptian wall painting.³⁵ The small storerooms south of room 59 apparently contained wooden vessels set on circular gypsum bases (the room was badly burned, was filled with carbon and did not contain any pottery).

The Linear A tablets, *cretulae* and discs (roundels) provide information on the administrative system of Villa A. Records on the ground floor were kept at the south entrance of the villa (one tablet in antechamber 26, 45 *cretulae* on the window-sill of room 27), and in the gypsum chest between rooms 55 and 54 (200–300

cretulae). On the second floor, a large group (11 tablets, 18 inscribed discs, 864 *cretulae*) was stored above portico 11. The presence of records at the south entrance of the villa suggests that commodities coming in or going out of the servants' quarters were recorded.³⁶ These commodities may have been the servants' rations. On the second floor, above portico 11, records were kept on clay tablets and on papyrus or parchment. Clay discs which had a word (probably a name) or words on the obverse and an ideogram (wheat, barley, grapes or wine, "deficit") on the reverse may have served as labels for groups of tablets or other records, although this is far from certain.³⁷ Pope has pointed out that of the 147 seals which were stamped on the *cretulae* and discs from the villa, 17 of them are counterstamps (restamped over earlier sealings) and thus are likely to belong to officials working within the villa.³⁸ While Pope estimated that 17 scribes worked in the villa, this number may be high since individuals could own more than one seal.³⁹ Could some of these scribes have lived in the south quarter of the villa?

If Linear B is any guide to interpreting the Linear A tablets,⁴⁰ the types of transactions at Ayia Triada are varied; that is, they are not simply tax records.⁴¹ Using formal parallels between the lists in Linear A and B, we might reasonably guess that the Linear A tablets included lists of personnel (HT 1?), rations for persons (HT 88?), payments (HT 18?), and vessels (HT 31). Many of the tablets then would appear to record the collection and redistribution of commodities as on the Linear B and Mesopotamian tablets.⁴² Those commodities which we can recognize by their ideograms on the tablets include wheat, olive oil, olives, barley, figs, wine, spices, and probably wool, cloth and copper.⁴³ On analogy with the practice in the Linear B tablets, we may suggest that these agricultural products were collected at the villa and some were then redistributed, that is, doled out as rations or wages to groups of personnel who did other kinds of

³² Banti 123, fig. 85; 125, fig. 86; 126, fig. 87.

³³ Halbherr (supra n. 9) 238; Nilsson (supra n. 30) 93–94.

³⁴ E.g., rooms 8 and 18 at Ayia Triada, 33 at Phaistos, and 3 in House A at Tylissos. Cf. Banti 139–40, and B. Rutkowski, *Cult Places in the Aegean World* (Warsaw 1972) 93–94.

³⁵ E.g., in the Dynasty XVIII Theban tomb of Men-kheper 'rasenb, illustrated in *PM* 2.746, fig. 482. Evans suggested that the horns may have been used to make composite bows; cf. *PM* 2.50 n. 2.

³⁶ D. Was, "The Land Tenure Texts from Hagia Triada," *Kadmos* 17 (1978) 91 and n. 3. Was also identified the personnel listed on HT 1 as dependents of Villa A.

³⁷ Pope (supra n. 20) 209, fig. 2.

³⁸ Pope (supra n. 20) 203–206.

³⁹ Cf., e.g., the Cup-Bearer at Knossos: Evans, *PM* 2, color pl. opposite p. 725.

⁴⁰ Most studies of Linear A have assumed that the similarity be-

tween the Linear A and B tablets goes beyond identity in phonetic values for similar signs to administrative practices. Since the accounting system recognizable on the Linear A tablets seems essentially the same as that on the Linear B tablets, it is likely that many of the signs and the basic accounting system of Linear B are borrowed from Linear A.

⁴¹ This is corroborated by the fact that there is no consistent relationship among the commodity totals as one would expect in tax records; cf. Pope (supra n. 20) 204–205.

⁴² Cf. J. Chadwick, *Documents in Mycenaean Greek*² (Cambridge 1973) 35–36, 113–17.

⁴³ E.g., wheat, L42; olive oil, L89; olives, L49; barley, L67; figs, L60; wine, L82; spices (coriander, L45, cyperus, L71); wool, Lc46; cloth, L75; copper, L8. A table of correspondences appears in J. Raison and M. Pope, *Corpus transnuméré du Linéaire A* (Louvain 1977) 81.

work. If this interpretation is correct, its implications are important, for it follows that Villa A is not simply an affluent Minoan townhouse but should more properly be envisioned as the center of an extensive estate. Villa A was not unique in this regard, for both the House of the Tripod Cauldron (Casa del Lebete) in the settlement and Villa B also possessed records written in Linear A.

From the finds in the villa we can suggest some of the types of labors for which the villa was paying with rations. Some of the residents of the servants' quarters were probably kitchen workers. The farm tools (a hoe from storeroom 16 and a pick-axe from room 27) suggest that a certain amount of field work was also involved. The two large saws from upstairs and two double axes from downstairs (room 16) are tools probably primarily intended for the cutting and trimming of lumber, while the six hammers and the three chisels were suitable for stoneworking.⁴⁴ Since most of these tools were stored on the second floor in the NW quarter, they may have been issued on specific occasions to a work force. While Shaw is probably correct in stating that most of the lumber and stone prepared with these tools was for local construction, it is also possible that the lumber may have been an item readied for foreign trade.⁴⁵

The scenes on the well known Chieftain Vase and Harvester Vase may also illustrate activities which can ultimately be connected with the villas.⁴⁶ On the Chieftain Vase, an armed man leads a procession of three men usually interpreted as bearing offerings of animal hides to a fourth figure.⁴⁷ This last figure is distinguished as a personage of noble status by his superior size, his staff, and the visible signs of wealth he wears (necklaces, bracelets on his wrists and upper arms). The key to understanding the scene may be the

noble's pose, which is clearly Egyptian in origin. He has the same stance as Egyptian nobles in tomb paintings who receive offerings from their estates.⁴⁸ One possible interpretation of the scene is that it represents a Minoan official who receives animal hides. Similar collecting of hides is recorded in the Linear B tablets at Knossos and Pylos.⁴⁹

The Harvester Vase may show another conventional representation of work on a Minoan estate. A line of twenty men carrying what appear to be winnowing forks, and four singers are led by a man in a priestly cloak. The men seem to be agricultural workers either on the way to, or coming from, the fields under the supervision of the cloaked official. Similarly, in Egyptian wall paintings peasants who work in the fields are depicted under the scrutiny of an official.⁵⁰ The patterned, fringed cloak of the official on the Harvester Vase, however, is probably based on a priestly garment popular in the Near East, where officials who supervised groups of harvest workers are also known.⁵¹ Thus, the procession on the Harvester Vase may be a conventional representation of one of the groups which receives rations as described on the Linear A tablets.⁵²

The villa may also have supervised a local metalworking industry. Although no evidence of metalworking was discovered within Villa A, the existence of a local industry at Ayia Triada may be inferred from the 19 copper ingots stored in the north storeroom. Elemental analysis of the ingots indicates that the metal is relatively free of impurities, a fact which, while certainly not diagnostic, may suggest that the ingots were obtained from Cyprus.⁵³ We can interpret these ingots in two ways: they are in the villa 1) to be distributed for local use, or 2) as objects of future trade. On present evidence both explanations are pos-

⁴⁴ Cf. J. Shaw, *Minoan Architecture: Materials and Techniques* (ASAtene 49, 1975) 44–75.

⁴⁵ A passage from the annals of Tuthmosis III speaks of ships of Keftiu in Levantine ports laden with poles, masts and great trees destined for Egypt: J. Breasted, *Ancient Records of Egypt 2* (New York 1962) 206. Syria and Lebanon have been assumed to be the sole source of wood for Egypt (M. Astour, "Ugarit and the Aegean," in H. Hoffner ed., *Orient and Occident* [Neukirchen-Vluyn 1973] 21–22 and n. 57), but the presence of large bronze saws at Zakros, Ayia Triada, Mallia and Knossos suggests that Crete too may have been a supplier of wood for the eastern market. Astour (p. 22) points out that there existed a variety of poplar or willow called *Kaptaru* (= Cretan) in Akkadian.

⁴⁶ Illustrated, e.g., in S. Marinatos and M. Hirmer, *Crete and Mycenae* (New York 1960) pls. 100–105. These scenes can only have been meaningful if they represented some locally recognizable event. Thus, it is likely that they depict activities which characterize the high status of their owners, just as the scenes on Egyptian tomb paintings and Mycenaean tombstones do.

⁴⁷ Cf. S. Hood, *The Arts in Prehistoric Crete* (New York 1978) 143–44.

⁴⁸ E.g., the Dynasty IV mastaba of Ptah-hotep, J.-P. Lauer, *Saq-*

gara (New York 1976) pl. 59; the Dynasty XVIII tomb of Nefer-hotep (an estate foreman), N. Davies, *The Tomb of Nefer-Hotep at Thebes* (New York 1933) pl. 43; the XVIII Dynasty tomb of Sennefer (Sennefer receiving lustration), J. Yoyotte, *Treasures of the Pharaohs* (Geneva 1968) pl. 79.

⁴⁹ Ox, deer, pig, sheep and goat hides at Pylos; sheep and goat(?) hides at Knossos: Chadwick (supra n. 42) 281–83, 301–303 and 490–93.

⁵⁰ Cf. K. Michalowski, *Art of Ancient Egypt* (New York 1978) 143–44.

⁵¹ For the Third Dynasty at Ur, the *engar* and *Nu. banda 4.*, cf. H. Wright, *The Administration of Rural Production in an Early Mesopotamian Town* (Ann Arbor 1969) 106–16; cf. also the scale pattern on the ivory inlay of an Assyrian god: A. Moortgat, *The Art of Ancient Mesopotamia* (New York 1968) pl. 243.

⁵² Cf. D. Was, "Olives to Pay Minoan Labour," *Minos* 14 (1975) 7–16; and "Numerical Fractions in Minoan Linear Script A," *Kadmos* 11 (1972) 1–21.

⁵³ T. Wheeler, R. Maddin and J. Muhly, "Ingots and Bronze Age Copper Trade in the Mediterranean: A Progress Report," *Expedition* 17 (1975) 31–38. Cf. N.H. and Z.A. Gale, *Science* 216 (1982) 11–19.

sible. I would stress that the first suggestion is particularly likely, that is, that bronze tools in the villa and the settlement were locally fashioned from raw metal such as these ingots. Crucibles in a MM III/LM I context at the nearby coastal town of Kommos and a LM I ingot from Tylissos A indicate that raw metal was also being melted and cast at these sites.⁵⁴ Hawes identified Houses Ea and Cg at Gournia as the residences of bronzesmiths on the basis of bronze tools and stone moulds found there. The metal from these houses may have been obtained from the villa ("palace") at the site.

Two Linear A tablets (HT 97, HT 119) from Ayia Triada have been identified as lists of coppersmiths, or amounts of copper.⁵⁵ On the first tablet, the heading (HT 97a), as in tablet Jn 389 from Pylos, probably signifies an allotment of 33 units of copper distributed to 82 smiths, with a list of smiths by location. Peruzzi suggested that the first name on the list, *Kanu-ti*, which has the largest contingent (25) of smiths, may be the site of Ayia Triada. The second name on the list is *Pa-i-to*, Phaistos. Depending on the interpretation, this tablet records either an allocation of raw metal to Ayia Triada for distribution there, or a list of local coppersmiths. In either case, a decentralized network of metalworkers is implied. On the mainland in Mycenaean times, the Linear B tablets indicate that bronzesmiths were similarly widespread throughout the kingdom of Pylos.⁵⁶ At Pylos, bronze was distributed from the palace to local smiths, who are sometimes listed under the control of the local chief, the *basileus*.⁵⁷ If the Mycenaean practice has a Minoan antecedent, an official living at Ayia Triada would have supervised distribution and the process of metalworking. The melting of the raw metals may have taken place at the outskirts of the settlement where industrial kilns for other purposes were also located.⁵⁸

Pottery manufacture is another industry which can probably be connected with the villas. Two large kilns

for making pottery or lime were located on a hillslope about 60 m. east of Villa A.⁵⁹ It seems reasonable to assume that the large stores of domestic pottery found in the villa and settlement were made locally, although it must be admitted that one cannot distinguish between LM I pottery from Ayia Triada and Phaistos by eye. The potters at Ayia Triada, like their Mycenaean successors,⁶⁰ may have received wages or rations for their work. Interestingly enough, the finest LM I clay vessels found at Ayia Triada seem on stylistic grounds to be imports from Knossos.⁶¹

In summary, the tablets and artifacts indicate that people worked at or for the villas at Ayia Triada in the following capacities: scribe, smith, potter, carpenter, mason, weaver, cook and farmworker.

But what was the relationship of these workers with the villas? There are several possibilities. In Mesopotamia, for example, before the Old Babylonian period (ca. 1900 B.C.) a large proportion of the population consisted of a semi-free class (*gurus*) which was bound to the local palace, temple and landlords and worked for them in return for food rations. During the second millennium B.C. a new form of society evolved in which the most productive sector became a wage-earning middle class. A similar class of craftsmen and small landowners has been identified in the Ugaritic and Mycenaean tablets.⁶²

At Ayia Triada, a clue to the workers' status is offered by the 1200 *cretulae* from Villa A which were stamped with a total of 147 different seals. Of the 147 sealstones used on the *cretulae*, 17 functioned as counterstamps and therefore probably belonged to scribes or officials working in Villa A, which leaves 130 belonging to other individuals, not part of the immediate villa administration.⁶³ Since seals are found in Minoan tombs, it is probable that they are individual possessions which, as in the Near East, may have been used as a sign to mark private ownership or assent in a transaction. Consequently, it is likely that the majority of transactions carried out in the villas at Ayia

⁵⁴ For the Kommos finds, see H. Blitzer, "Implements and Industries," in J. Shaw ed., *Kommos 1* (Princeton, forthcoming). For the ingot at Tylissos, cf. J. Hazzidakis, "Τύλισσος Μινωική," *ArchEph* 1912, 221, fig. 3.

⁵⁵ E. Peruzzi, *Le iscrizioni minoiche* (Florence 1960) 66–68. Peruzzi interpreted the ideogram L8 as copper on the basis of the sign's resemblance to J 140 (bronze) in Linear B. Hallager tells me that he believes the tablets contain lists of coppersmiths, since HT 119, for example, also records 68 persons, who cannot be added to quantities of copper.

⁵⁶ Chadwick (supra n. 42) 133–35.

⁵⁷ Chadwick (supra n. 42) 352–53.

⁵⁸ Two kilns discovered immediately east of the settlement (D. Levi, *ASAtene* 54 [1976] 318–19) were originally thought to be for

metalworking, but their large size and construction indicate that they would probably be more suitable for firing pottery or making lime. See also Banti 350, figs. 5 and 6.

⁵⁹ See n. 58.

⁶⁰ Cf. Chadwick (supra n. 42) 133–34, and 182.

⁶¹ See, e.g., the bridge-spouted jar (Banti 79, fig. 49), and alabastron (Banti 261, fig. 172); probably the Marine Style alabastron (Banti 67, fig. 36) and another alabastron (Banti 94, fig. 60).

⁶² Cf. I. Gelb, "The Ancient Mesopotamian Ration System," *JNES* 24 (1965) 230–43; Ugaritic tablets: M. Drower, "Ugarit," in *CAH* 3.2.2 (Cambridge 1975) 132–36; Mycenaean tablets: Chadwick (supra n. 42) 133–36.

⁶³ Pope (supra n. 20) 203–205.

Triada was of a voluntary nature and involved a group of people who were to some extent free. Payment of rations or wages may have been made to these persons in stored commodities, although more complex transactions are also possible.⁶⁴

Villa B does not seem to have been as wealthy as its neighbor to the west. It was smaller and apparently lacked painted scenes on its walls. Originally, the villa had two entrances, porticoes 22 and 1. At some later point during LM I both porticoes were blocked off by a single wall, although there probably remained a small doorway through the wall into room 1. Banti identifies a series of small, partly destroyed rooms (69, 70, 72, 19) along the west side of the villa as storerooms.⁶⁵ But the paucity of storage vessels (one large pithos, two small pithoi and three amphorae), the bronze tools, and Linear A tablets (from room 72) found there make it more likely that these rooms were part of the service quarter (including a kitchen), and that the real storage area of the villa was located farther west in rooms 64/6, 66 and 18, where there were at least 19 pithoi.

Immediately north of Villas A and B was a lower court, probably open to the west. The upper and lower courts (ill. 1) were united by means of a staircase east of Villa B. At the east end of the lower court there was a portico, and a massive building ("Bastione") immediately to the north (ill. 1). The staircase, portico and "Bastione" form a complex which apparently was built after the construction of the villas.⁶⁶ The portico faces westward down the court in the direction of the nearby coast. The central section of the back wall of the portico is recessed as if to hold a chair, and one can imagine an official sitting there to receive maritime traders. The "Bastione" was destroyed in LM IB and was subsequently cleaned out and re-

stored in a slightly modified form. To the north of the remodeled structure a large stoa was built after the beginning of LM III A2 and was destroyed in LM III B1.⁶⁷ This stoa and the LM III successor to the "Bastione" look like a single complex which may have replaced the similar LM I portico and "Bastione."

The function of the "Bastione" remains enigmatic. In plan and construction the building certainly contrasts with the villas to the south. Built of unusually large blocks, the facade of the "Bastione" was undressed and had no indented traces. Access to the building was from the court. The ground floor consisted of two identical sets of three exitless rooms and a large single room with a staircase on its east side. Animal bones were recovered from the well in the large east room.⁶⁸ Fresco fragments found at the eastern end of the building probably fell from the upper floor.

The "Bastione" looks like a warehouse with a residential or official section. Today Ayia Triada is four km. inland from the coast, but the alluvial plain which separates the site from the shore may have been formed for the most part after the second millennium B.C.⁶⁹ We may get some idea of one of its possible uses from Greek ethnographic sources. In nineteenth and early twentieth century Greece, before the advent of paved roads and mechanized transport, and prior to the demise of sea trade by sail, coastal communities commonly possessed large *apothekai* or storage buildings at their harbors where produce (principally olives, oil and grain) could be stored pending the arrival of trading vessels.⁷⁰ Before World War II, the main buildings at the harbor of Matala (on the coast 4 km. south of Ayia Triada) were *apothekai* of this type. Similar warehouses can be seen today along the quays of many Aegean harbor towns.⁷¹ Perhaps the "Bastione" served at least in part for the storage of local pro-

⁶⁴ For a speculative account of these Linear A transactions, cf. Was 1972 (supra n. 52).

⁶⁵ Banti 166-74.

⁶⁶ The staircase and the south boundary wall (a retaining wall east of the stairs, a wall between corridor and court to the west of the stairs) are probably later than Villa B, since the walls are rubble and do not bond with the north facade wall of Villa B. The blocked-up window in room 73 suggests that the north facade of Villa B is a later, LM I addition, like the wall in front of rooms 22 and 1. Ian Begg has pointed out that the indented traces of the retaining wall east of the stairs are similar to those in the retaining walls along the north edge of the west court at Phaistos.

V. La Rosa informs me (personal communication) that he plans to dig a series of trial trenches in and around the "Bastione" to clarify its date. The date of the "Bastione" vis-à-vis the villas must remain open, he maintains, until their relationship to the Cyclopean building in the lower agora cleared in 1979 is certain.

⁶⁷ V. La Rosa (personal communication) has now modified the dating given in "La ripresa dei lavori ad Haghia Triada: Relazione

preliminare sui saggi del 1977," in Banti 318-42.

⁶⁸ Banti 218-19.

⁶⁹ This is a controversial point. The alluviation has not been the subject of scientific study, but the geomorphology of the nearby Ayiofarango Valley on the south coast may be applicable if the climatic and land use conditions were similar in both areas. Cf. A. Doe and D. Holmes, "The Physical Environment," in D. Blackman and K. Branigan, "An Archaeological Survey of the Lower Catchment of the Ayiofarango Valley," *BSA* 72 (1977) 23. Doe and Holmes determined that post-Pleistocene alluviation in the valley began slowly after ca. 3000 B.C. with most of the aggradation occurring after ca. 500 B.C. If conditions near Ayia Triada were not radically different during the Bronze Age, the settlement may have been much closer to the sea than it is now. But see *PPS* 45 (1979) 345.

⁷⁰ I am indebted to Harriet Blitzer for this information.

⁷¹ E.g., at Phira on Santorini and at Ayvalık on the coast of Turkey north of Izmir.

duce and products which would then be exchanged for goods brought in by sea trade.

The lower settlement at Ayia Triada was located outside the lower court, to the north. At least four houses, including the prosperous House of the Tripod Cauldron (Casa del Lebete), were found along both sides of a straight north-south road. Two of the houses are built up against the inner face of a heavy wall with indented traces which looks like the northern boundary of the settlement. While most of the buildings outside the wall date to LM III,⁷² there are traces of some LM I surfaces and structures.⁷³ The wall is built in courses (0.50–0.60 m. in height) and consists of large irregular blocks set on a leveling bed of small stones. While it is probably not thick enough (1.20 m.) to be considered a fortification,⁷³ it does appear to have been the circuit wall of the LM I settlement.

Finally, we may consider one of the most important questions about Ayia Triada: its relation to Phaistos. In 1903, Halbherr⁷⁴ suggested that Ayia Triada was the summer residence for the ruler at Phaistos, a statement which has often been uncritically repeated by scholars. Banti rightly objects to this idea and points out that it is based on the apparent wealth (e.g., rich finds, wall paintings) of Ayia Triada in comparison to Phaistos, a situation which is probably a result of circumstances of survival.⁷⁵ The palace at Phaistos was reused after its LM IB destruction, so the absence of finds there should not be surprising. In addition, several rooms at Phaistos (77–79, 81) did have wall paintings. Moreover, if, as has been suggested above, the main building at Ayia Triada is actually two independent villas, there would be even less reason to identify a royal residence there.

Actually, the settlement at Ayia Triada appears to be composed of three parts: 1) an upper town which consists of at least three wealthy villas (ill. 1, Villas A, B, and C) around an open court; 2) a lower court; and

3) the lower town with its streets and smaller houses huddled around the base of the hill.

Like the palatial courts, the upper court at Ayia Triada is oriented so that it faces a shrine on a hilltop.⁷⁶ In the upper levels of the western part of Villa A (and reused in later walls there) were found six LM I limestone bases for double axes.⁷⁷ Banti believed that they probably came from the upper storey of Villa A. These bases fitted with double axes (like the double axes at Nirou Chani) may have been intended for use in the court outside.⁷⁸ Thus, the LM III cult activity⁷⁹ in the upper court may have had a Neopalatial antecedent.

The plan of the upper town closely resembles that of Tylissos.⁸⁰ The second, lower court also has a parallel elsewhere on the island: one thinks of the “agora” immediately north of the palace at Mallia.⁸¹ And finally, the houses of the lower town, like examples at Gournia and Palaikastro,⁸² probably represent, in some sense, the dwellings of a lower class. The overall plan of Villa A contains many of the features of the palaces: a “domestic quarter,” extensive storerooms, and a main hall of ceremonial proportions. Moreover, if we assume, as is likely, that there are unexcavated structures along the south side of the upper court, it could be argued that the settlement had its own central court. Ayia Triada, therefore, would seem to have been a fairly typical Neopalatial town whose central plan was to a certain extent imitative of Phaistos.

The town of Ayia Triada probably served, in part, as a port for the palatial community at Phaistos. Phaistos, then, would have had harbor towns at Ayia Triada and at the important site of Kommos, as Knossos had ports at Poros and at Amnisos.⁸³

At Ayia Triada, the lower court and its large attendant buildings, the portico and the “Bastione,” give the impression of having a non-private, commercial role. The villa owners may have been officially con-

⁷² Banti 239 and 242. La Rosa reports (personal communication) finding these LM I traces in recent excavation.

⁷³ Cf. the wall (over 1.70 m. thick) south of the palace at Zakros: *Praktika* 1977, 442–44, pl. 232 and fig. 4.

⁷⁴ Halbherr (supra n. 2).

⁷⁵ Banti 233–34.

⁷⁶ Several hundred m. east of the upper court is a hilltop where vases, clay figurines of women and nude men were uncovered by excavation in 1904. Cf. Banti 52 and n. 1.

⁷⁷ Banti 16–18 and fig. 3.

⁷⁸ S. Xanthoudides, “Μινωϊκὸν μέγαρον Νίρου,” *ArchEph* 1922, 1–22.

⁷⁹ Banti 50–69. The shrine in the SE corner of the upper court must be dated to LM III, according to La Rosa who has excavated underneath it.

⁸⁰ H. Hazzidakis, *Les villas minoennes de Tylissos* (Études Crétoises 3, Paris 1934).

⁸¹ Cf. H. and M. van Effenterre, *Fouilles exécutées à Mallia: Le centre politique 1. L'agora* (Études Crétoises 17, Paris 1969).

⁸² Cf. McEnroe (supra n. 15) 10–13.

⁸³ Cf. Evans, *PM* 2.229–31 for Poros (Trypeti) as the Minoan harbor of Knossos. For Kommos, cf. J. Shaw, “Excavations at Kommos (Crete) during 1976,” *Hesperia* 46 (1977) 199–240, with subsequent annual reports.

Similarly, the contemporary palace community of Ugarit possessed several ports, at Minet-el-Beidha, Tell Sukas, Ras ibn Hani and Qal'at er Rūs. The port of Alalakh was at Al-Mina. For Ugarit see C. Schaeffer, *Ugaritica* 1 (Paris 1939) 30–37 and 52; M. Astour (supra n. 45) 17–27. Al-Mina: C.L. Woolley, “Excavations at Al Mina, Sueidia, I and II,” *JHS* 58 (1938) 9 and *A Forgotten Kingdom* (New York 1968) 151. See also R. Revere, “‘No Man's Coast': Ports of Trade in the Eastern Mediterranean,” in K. Polanyi, C. Arensberg and H. Pearson eds., *Trade and Market in the Early Empires* (New York 1957) 38–63.

nected with the activities of the lower court, although this is uncertain. If the owner of villa A was a wealthy official similar to some Egyptian nobles about whom we have information, he may even have engaged in overseas trade himself.⁸⁴

I would suggest that Villa A at Ayia Triada be included among a particular group of Minoan villas (Type 1) as recently defined by McEnroe.⁸⁵ These houses, e.g., Tylissos A, the Royal Villa, Mallia Za, exhibit several common features which imply that they belong to a high class of Minoan officials. Not only are these villas the largest and most elegant Minoan houses preserved, but most of them maintain storage and workrooms separate from the main residence,⁸⁶ an arrangement which suggests the presence of servants. Moreover, this group of houses is distinguished from the majority of Minoan residences in that it imitates the residential quarters of the palaces in the arrangement and type of rooms and in methods of construction.⁸⁷ Architectural similarities between these houses and the palaces are likely to reflect social and economic bonds as well.

Some clues about the social role of the villa owners are forthcoming from the structures themselves. Three houses (i.e., the Royal Villa, the House of the Chancel Screen, and the House of the High Priest) at Knossos are unique in that one end of their respective main halls ends in a balustrade and central dais, which gives the hall a decidedly public and ceremonial character. More revealing is the fact that most of the villas at Knossos are provided with no storage wings of their own,⁸⁸ implying that their owners dined within the adjacent palace. The owners of these villas may have been high officials within the palace bureaucracy.

But not all these Minoan villas were located in palatial communities. Some, like Villa A at Ayia Triada and Tylissos A, were situated in outlying towns, and others, like Pyrgos,⁸⁹ which probably also belong to this group, were in a rural setting. Despite their dis-

parate locations, these houses are probably the residences of a single social class, for they not only are architecturally similar but also contain objects unique to themselves and the palaces.

We can thus identify this network of town and country villas as the residences of estate owners who contributed a portion of the yield from their estates to the local palace. The owner seems also to have collected produce and other items from the smaller landholders in the area and to have managed certain local affairs. The estate was agriculturally self-sufficient and supervised other industries such as pottery manufacture, metalworking and perhaps textile-weaving. It was this network of estates which supported the palaces in Neopalatial Crete.⁹⁰ This same kind of system has been hypothesized from the Linear A tablets,⁹¹ and some confirmation for this theory comes from other archaeological evidence. It has been noted, for instance, that the rural Minoan villa characteristically occupied a dominant position either at the entrance or at the center of a valley, a fact which suggests that the villa owned or had administrative control over that specific area.⁹² The villa at Pyrgos, for example, sits on top of a high hill at the entrance to a rich river valley in a position which enables it to survey all movement between the valley and the seacoast. Similarly, the villa at Sklavokampos⁹³ is situated on a hillslope at the east entrance of a small valley from which it oversees the area and its access route. It is likely, however, that these villas did not own the entire area surrounding them, for there is usually at least one other separate village settlement also located within the valley.

The administrators of these villa estates were literate. Both the administrative responsibilities on the estate and the owner's accountability to the local palace probably required that they be so. Betts has suggested that because certain clay sealings (but not all of them) recur at the sites of Ayia Triada, Knossos, Sklavokampos, Gournia and Zakros, they were stamped by

⁸⁴ See B. Kemp, "Temple and Town in Ancient Egypt," in P. Ucko, R. Tringham and G. Dimbley eds., *Man, Settlement and Urbanism* (London 1972) 670.

⁸⁵ McEnroe (supra n. 15). My discussion here will be limited to McEnroe's Type 1 houses.

⁸⁶ McEnroe (supra n. 15) 5-6.

⁸⁷ McEnroe (supra n. 15) 6-7.

⁸⁸ McEnroe (supra n. 15) 6.

⁸⁹ Cf. G. Cadogan, *Palaces of Minoan Crete* (New York 1976) 149-52.

⁹⁰ This network of contributing estate owners in Minoan Crete may have formed the background of the later Mycenaean system of "collectors" known from the Linear B tablets: Chadwick (supra n. 42) 201-202 and 413.

⁹¹ Was (supra n. 36) 16-25, 91-101.

⁹² Pendlebury noticed this strategic location of Minoan villas and thus called them forts: J. Pendlebury, *The Archaeology of Crete* (London 1939) 6, 9-11, 94 and 184. Malcolm Wiener first drew my attention to this aspect of the villas' siting; cf. G. Cadogan, *BICS* 18 (1971) 145-48.

⁹³ S. Marinatos, "Τὸ Μινωικὸν μέγαρον Σκλαβοκάμπου," *ArchEph* 1939-1941, 70-76. The impression that the villa at Sklavokampos acted as a collecting point for local produce is strengthened by the fact that the entrance to the villa on the side which faces the valley is a portico which leads directly to two storerooms. Similarly, the villa at Vathypetro has a large, pillared receiving room (7) which faces onto the valley below: S. Marinatos, "Ἀνασκαφὴ μεγάρου Βαθυπέτρου (Κρήτης)," *Praktika* 1951, 258-72.

representatives stationed at these locations or by an agent of the palace at Knossos using seal replicas.⁹⁴ I would suggest that it was actually the villa owners themselves who stamped these sealings as part of their administrative duties within the centralized palace system. It should be emphasized, however, that at Ayia Triada these identical sealings represent a tiny fraction of the total 1200 from the site. The vast majority of the transactions in Villa A appears to have been strictly local.⁹⁵

Because the villas are part of this administrative system, most of the Linear A inscriptions have come from them, although they have also been found in less pretentious houses⁹⁶ of Minoan towns. In this respect, the owner of Villa A at Ayia Triada does not seem so

different from an upper class official of Dynasty XVIII in Egypt, such as the Theban royal scribe and superintendent of the treasury *Thur-nūfer*. He is shown in his tomb painting sitting in an upper storey of his house receiving men who bring in produce and other goods, while his scribes, flanked by chests of papyrus records, list the amounts.⁹⁷ Although not as well documented as Dynasty XVIII households, Villa A at Ayia Triada does provide us with the most detailed picture to date of how a Late Minoan I villa functioned as the center of an estate in Minoan Crete.

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⁹⁴ J. Betts, "New Light on Minoan Bureaucracy," *Kadmos* 6 (1967) 24–26.

⁹⁵ The literacy of the Minoan villa owners may also have had a religious purpose since most Linear A inscriptions found outside the palaces and villas appear on liturgical objects from sanctuaries (e.g., Arkalochori, the Dictaeon Cave, Mt. Kophinas, Mt. Juktas and Petsofas: Brice [supra n. 24] 25; Godart and Olivier [supra n. 19] 1–61, 106–107, 141–43, 157–59). Moreover, certain features of the villas, such as adjacent courts and altars, and cult paraphernalia, testify to religious ceremonies held there (e.g., courts at Nirou Chani, Ayia Triada and Tyllissos; an altar at Nirou Chani; double

axe bases, an alabaster boat and obsidian conch at Ayia Triada; snake tubes at Pyrgos; bull's head rhyton at the Little Palace; ceremonial stone hammers; cf. Shaw [supra n. 44] 229 for Ayia Triada, Tyllissos and Sklavokampos).

⁹⁶ E.g., the House of the Tripod Cauldron at Ayia Triada, Banti 258 n. 1; Room C 25 at Gournia, Hawes (supra n. 10) 55, fig. 31; and Houses I and IV at Chania.

⁹⁷ N. Davies, "The Town House in Ancient Egypt," *MMS* 1 (1929) 240 and fig. 1. I am indebted to Lanny Bell for discussing the problem of the Egyptian estate with me.