LATE MINOAN I BUILDING J/T, AND LATE MINOAN III BUILDINGS N AND P AT KOMMOS:
THEIR NATURE AND POSSIBLE USES AS RESIDENCES, PALACES, AND/OR EMPORIA

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This paper focuses on two monumental, ashlar buildings of Late Minoan date located in the southern area of the site of Kommos and at the foot of the hill where a contemporaneous town once sprawled, going back in time initially to the Middle Minoan I period. T and P, as these two buildings are now labelled, are obscured by extensive superposed later remains, ranging in date from the Protogeometric period to the first century A.D., and especially by a series of temples with auxiliary edifices. (Figure 4)

The earlier of the two buildings, J/T, had first been spotted in 1979 and has since been discussed extensively in preliminary excavation reports (J. W. Shaw 1980:234-243) and in public lectures by the director of the excavation. As exposed, it is some 62 meters long east-west, starting at the west some 40 meters from the sea at its present level, although it is clear that a substantial section of it on that side has been washed away and ravaged by the waves and the high, seaborne winds. In its prime (Figure 6), its floors rose up gently towards the east, following the natural slope, one also reflected in a wide, slab-paved road skirting it along its north, monumental facade, built of huge orthostate and ashlar blocks (Figure 5; Plate 2a). That part of its plan so far known (for the building could have extended further south where excavation is incomplete) consists of three distinct units: a series of adjacent spaces, probably storerooms, entered from an exceptionally wide and long southern corridor; a shallow stoa with five columns and two flanking end piers fronting a large court paved with pebbles; and a series of rooms on the west, what we have more specifically labelled Building J, which was provided with a second storey and which may have combined living quarters and administrative units. That T was endowed with architectural elegance is clear not only from the quality of the construction, but also from the remnants of the fine mural decoration of the stoa, which simulated veined and other variegated stonework.

Building J/T was constructed in LM IA, part of a major project which included also the laying out and paving of the northern road leading inland from the sea and branching off north and south where Building T ends on the east, as we just discovered last summer [1984]. While the
building went out of use by late LM I, probably in LM IB, the road continued in use into the end of Minoan occupation at the site, in LM IIIB.

Already in LM I there are indications of change in Building T. There was remodelling and reorganization of spaces of a kind that suggests decline, rather than healthy renovation. It is a phenomenon which may be more widespread at the rest of the site than has become apparent so far. In this second phase first the large corridor was subdivided, and some floors were raised; then, in phase 3, Building J went out of use along with the rooms east of the stoa. The stoa itself was partly turned into a room by having a wall built over where the columns used to be and right on top of the still existing stone column bases, which we were able to discover underneath it. Life continued in an impoverished fashion, during which a new type of Minoan hearth, two parallel slabs with their ends set against a wall, was introduced and proliferated. LM II pottery dates this phase, when use, or what might more appropriately be described as a "squatters' occupation," continues.

Perhaps then, or soon after, a new monumental building rose directly south of the east part of T (Figure 7; Plate 3a). Pottery under its floors indicates a date of LM IIIA1 during or soon after which it was built. Though different in its masonry, using extensive half-timber framing, P relied in plan upon that of neighbouring Building T, the walls of which were conveniently dismantled and quarried. The walls of P end exactly where the south wall of the corridor ended on the west before; and we can assume an analogous situation on the east end, as well, given the delimiting presence of the north-south road there. P's dimensions then should be 32 meters east-west, with a minimum of 21 meters north-south, as exposed -- a substantial building. The plan is simple: at least two long galleries, ranging from 5.50 to 5.60 meters in width, which open to the west onto a large court which extends further west.(1)

During this period, or soon after, Building J was reused. Its north door was blocked and its floor considerably raised. A new door was created at its south side to connect it with spaces now newly built, to which we have given the name "N". It is conceivable that though Buildings J/N and P are physically separated, they belong together functionally, thus, to some extent reflecting in a modified form the earlier use of J and T. A landmark in the history of P is that the end of its first phase is marked by a severe fire seen so far in the heavy burning and charcoal on its floors, which were subsequently raised. Both P and J/N came to an end in LM IIIB. The floors of P at this last stage were left empty, which suggests abandonment rather than sudden destruction, a condition paralleled in other areas of the site.

Although there are endless questions one can raise in regard to the history of these fascinating buildings, it is the uniqueness of their plans and what these mean in terms of function on which I would like to focus.

Of Building J/T it is its proximity to the sea and what appear to be storerooms on the east that suggest that it is a commercial establishment and one possibly connected with sea trade, as has already been suggested in the excavation reports in Hesperia. Unfortunately, we have to rely almost exclusively on architecture, for useful artifacts from the first use are almost non-existent.
The formal stoa, the limited number of other rooms, also speak for a public/civic building, and one intended to impress, to judge from its otherwise unnecessarily heavy construction.

It is, in fact, these three architectural elements which suggest to me that perhaps other comparable complexes in other sites might provide a clue to T’s more specific use. Though more than one such complex could be found in other Minoan sites, as further research could demonstrate, the one that presently comes to my mind is also of LM I date in construction and continues after remodellings into LM III in the neighbouring Minoan town of Hagia Triadha. It is the complex which consists of the heavy structure nicknamed “Bastione” by the Italian excavators and divided internally into several rooms, then a series of rooms to its east, which could be compared to J and, finally, a shallow stoa placed at right angles to it and fronting a large court, from which most of these spaces were entered (Figure 9) (Halbherr et al. 1977:203ff and Figure 131). It is interesting, moreover, that the complex is perhaps meaningfully located between the humble town to the north and the rich villas to the south. Perhaps, if the villas played a role in the direction of local industries and artifacts, as has been suggested recently (Watrous 1984:123-134), the complex may have acted as a depot and redistribution centre. At Kommos there are no villas comparable to those at Hagia Triadha, but such could exist to the south of Building T and, at any rate, T could have functioned as a storage and distribution centre for the Messara area and, especially, for objects to be transferred overseas.

As to later Building P, its recent excavation and still incompletely recovered plan make any suggestions to be offered here tentative and provisional. From what we have of it, however, I believe that the clue to its use lies in the plan, dimensions and proportions of its galleries. Elongated, consecutive rooms have been encountered in several Minoan and other Bronze Age edifices in Egypt, Asia Minor and the Greek mainland, and their function as magazines there is clear (Figure 11). Though on paper the plans of such look very similar to the galleries at Kommos their proportions are, generally, quite different. The extreme length of the galleries of P in relation to their width (circa 32 meters by 5.60 meters) and the fact that they are doorless, at least at their west ends, makes them clumsy and unsafe spaces for storage; or else, what was stored in them could not be taken away easily.

Not perhaps a coincidence is the fact that the dimensions correspond closely to those of a number of shipsheds. Pre-classical shipsheds, if any (J. Shaw in Bass 1972:90) are difficult to identify and date, partly because of changes in sea level since ancient times, and our parallels here are mostly those of the Classical period, of which the closest one is the example at Apollonia, the port of Cyrenaica (Du Plat Taylor 1965: 168 ff., Figure 69). Only one suggestion for such a Minoan structure has been made with any plausibility: the so-called shipsheds reported at Nirou Khani on the north coast of Crete (Marinatos 1925-26, and Marinatos 1933: 193 ff.). On the other hand, the average dimensions of the galleries at Kommos at least do not conflict with what we can estimate as those of large Aegean ships. Already a long time ago Marinatos calculated those to have had an average length of about 20 to 30 meters, and then on evidence much more meagre than what would be made available later through his own discovery of the now famous Fleet Fresco from the island of Thera, a most valuable source for information on nautical engineering (Marinatos
Moreover, in a preliminary report, George Bass notes that the fourteenth century B.C. ship he is presently excavating off the shore of Turkey may be about 20 meters long (Bass 1984).

The distance of P from the sea is still a real problem in my interpretation, but perhaps storage of ships in the wintertime, when they would not be used, was safest at a location considerably inland where they would be protected from the waves and the wind (2). Another possibility is that the area to the west of the galleries, one which seems to be a large, open space, may have been used for shipbuilding and that the galleries east of there would serve for longer term storage, before the ships were ready to be launched. Two parallel east-west walls lining up with the two walls of the northern gallery of P (Figure 4) may indicate further galleries on the west, but the date of these remains to be determined.(3)

Figure 8 gives a tentative idea of how the galleries of Building P may have looked from the west, and it was upon completion of this sketch that I was suddenly struck by the similarity that exists between this facade and that of one of the buildings depicted in the Theran fresco referred to above, but on a different section of the frieze (Plate 3b). Unlike other buildings shown elsewhere in the fresco, this is unusual in not having a second storey, in being without windows or doors, and in consisting of consecutive, rather narrow, rather exceptionally high-ceiled spaces opening right onto the sea. Three spaces and the beginning of a fourth one are visible. A group of armed warriors has just walked by it, possibly come from a mustering place or arsenal to its left, and there is a deployment of ships right to its front and by the coast. Perhaps we have here our first known pictorial evidence for Aegean shipsheads.

As at Pylos, where Linear B tablets inform us of a local shipbuilding industry (Ventris and Chadwick 1956:183 ff.), so at other coastal sites, like the one in the fresco at Thera, or our site at Kommos, there may have been such production. At Kommos there is a question of who might have commissioned these ships, and whether some local 'superpower,' such as might have had its residential and executive quarters in a place like Hagia Triadha in LM III, might have been the one. This might answer the legitimate concern of Joe Shaw, who incisively noted in the past the contrast in quality between the buildings of the humble settlement at Kommos on the hilltop and those of the southern area, suggesting a commission and use of the latter by an outside boss.

Long ago Evans made the suggestion that Kommos may have been the location of Menelaus' shipwreck in Crete on his way back from Troy and before he went on to Egypt (Evans Vol. II 1928:87-88). In fact, the Mycenaean king met with many other adventures and made many a, presumably, forced stop before returning home - one at Sounion, another at Kydonia, apparently at the northwestern tip of Crete. Perhaps, as in other picaresque stories involving other folk heroes, such as the Egyptian "Shipwrecked Sailor" and Wenamun of the Middle and New Kingdoms, respectively, (Lichtheim 1975:211-215 and Pritchard 1969:25), or Sinbad the Sailor in the Arab World, so in Menelaus' case there was also a fictionalization of what originally may have been an account of a pilot's standard route. If there is any validity to the above explanation of the role of
Kommos in the LM III period, then this would certainly have been a good spot for seafarers to stop at, not only to replenish food and water supplies, but to refurbish their long-travelling ships.

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NOTES

1. Recent study of a series of consecutive pavements in the road east of Buildings T and P suggests that P could have been entered on that side, although whether there doors or, as on the west side, the galleries were open, it is not known. In the 1985 excavation season one more gallery was found giving us a measurement of circa 28 meters by circa 32 meters as the minimum dimensions of the building. More galleries could exist to the south, beyond the excavation's property line. A staircase was added to the west of the northernmost gallery. The date of the staircase has not yet been determined, but it is definitely not of the primary phase.

2. References in the Iliad (I, 485-6) suggest that sometimes ships were hauled high up on land. Rough winter seas and even strong summer meltemia, common in this area, probably necessitated long waiting periods before propitious sailing weather appeared.

3. Excavation in 1985, after the main text here was written, has shown these two walls to be of seventh century B.C. date. There were, therefore, no galleries on the west. No other LM III or even LM I walls were found west of the galleries in the extensive areas exposed in this last season.
DISCUSSION

Maria Shaw:
I should say that I welcome Joe’s participation in the discussion, since this was to be a joint contribution.

Joseph Shaw:
I would point out perhaps that Joseph Shaw has written some time in the past that there were no Bronze Age shipsheds in the Aegean. But he would change his mind!

Michael Katsev:
In the LM III complex, your Building P, which seems to consist of two buildings, of at least two aisles; I am somewhat speculative about your reconstruction of the southern-most aisle, but that is neither here nor there regarding my question. Between the two buildings you referred to a "pebbled court". And I am wondering how you would fit that into your suggested function of shipsheds.

Maria Shaw:
Well, the main suggestion I made is shipbuilding within and the way I envision this is that you would a more permanent storage in the galleries on the These are extremely long, even for ships, and I was told that the proportions of ships are such that if a ship is about 5.50 to 6.00 meters wide, it should not be more than 20 meters long; is that not right Michael? [Information was provided by M. Katsev before the talk: Ed.] In that case we may assume storage of more than one ship in each of the long eastern galleries. I visualize the shipwrights working in the central area, with a more permanent storage on the east and with boats ready to be launched being placed closer to the water on the west. As to your objection to a pebbled court: I do not really know. I am not an expert in nautical engineering and this is why I brought all this up here: to test out experts' opinions.

Michael Katsev:
Well, I am not [such an expert], but it is just that the nature of a pebbled court, seems to me [odd] from at least my knowledge of shipyards from the Classical or Hellenistic periods as well as more contemporary shipyards in Greece today, which is perhaps not a very useful parallel. But a pebbled court is a rather elaborate way of dealing with a working area in a shipyard, or seems to me not to make any real contribution in terms of attempting to interpret the function of this building as a shipshed; it is rather more elaborate than what I know of and what I would in fact envisage even for the late Minoan period of a shipshed.

Maria Shaw:
I have a thought on that. First let me say that the floor within the galleries themselves is not of pebbles, but of hard-packed earth: very hard-packed earth and clay. And the pebbles are limited to the court. Now you may remember that earlier on I remarked that Building P may have connected functionally with what replaced the early Building J along with those other rooms we have labelled...
"N" [Figure 7]. The making of a pebbled court may have been dictated by what was considered more necessary for the appearance, for the function of this complex, rather than for the galleries. So it may be incidental that it is next to the galleries and was not a pavement specially made for shipbuilding. The pebble court was shown in 1985 to be of LM I date. The area west of the galleries seems to have been paved with hard-packed, clayey earth in LM III: Ed., I should also add that we have [found] the edge of that court, but we do not have the entire area between my two sets of galleries. That is still unexcavated. I assume the pebble floor would have continued here but I do not know exactly how far, whether it will go across to the other set of "galleries" because we [still] have to determine the date of the walls on the west. It is a suspicion at the moment; you can see that they line up pretty well, and you see that their distances are such that they match with those of the eastern galleries, but they may prove to be of a different date. It is something that has to be tested next summer. We plan to dig there. So that is how I would explain the pebble floor, as being intended more for the formal function of the other part of the building, maybe the commercial, the business part of the complex.

Gerry Sheppard: If it were a shipbuilding location would it be with imported materials, and would the storing of these timbers, or whatever, would that have something to do with the floor?

Maria Shaw: If it is a commercial building …?

Gerry Sheppard: If it is a commercial place, would they be importing materials to build the ships, or would they be coming from inland, do you think?

Maria Shaw: There was much more wood in Crete in those days than there is today; I think they would usually use the local wood. Incidentally, I should mention on the matter of commerce, that it looks as if the date of construction of this building is LM IIIA1, with its main use in LM IIIA2, which matches with Professor Watrous's period of heightened commerce at Kommos.

Jennifer Moody: I was wondering exactly what type of finds you found associated with those galleries. It is not clear; is it pottery or what?

Maria Shaw: The galleries are heavily overbuilt by seventh century Greek buildings and a large area of them is under several meters of sand, and it will involve removing that sand to get down to their floors. We have exposed very tiny areas of their floors. And since there were two floors, as I mentioned before, there are two phases of use. I think the raising of the floor occurred some time in LM IIIA2, and there are correspondences on the hilltop for raising of the floors there too, a similar architectural phase. So we are beginning to see some patterns of matching in the life history of the
site between the hilltop and bottom area. Since you have two floors, the first one was swept clean before the other was built. It was, though, very heavily burned. So the first phase of P ended by fire, and because we found this burning in several separated areas I don't think it was just a localized phenomenon, because a lamp turned upside down or something burned the wood in the chases or something. I believe that this fire is connected with the end of that phase, and the floors were later cleaned. Then in the LM IIIB period, which is the one in which the building was used in the second phase, we have again this unfortunate situation that there seems to be abandonment at the site and you don't always find enough pottery to tell you about function, especially if you are dealing with a tiny area. So we have to rely rather heavily on architecture, I am afraid, for this kind of speculation.

I am interested in reactions to the first building and connections with Hagia Triadha, if anybody has any ideas, perhaps more conservative parallels than what I have drawn - something with a more definite type of evidence.

**Guenter Kopcke:**
The parallel with Hagia Triadha I found convincing. What really emerges here, and you know that much better than most of us do in this audience, is a new type of planning, and quite a new consideration of which had hardly emerged before, and in that respect already Vance's paper was an eye-opener. And I think that Mrs. Blitzer's suggestion also helped really in the understanding and interpretation of a new building type. Now, as far as these shipsheds are concerned, it does seem to be the best, and, indeed, rather obvious once it is articulated, really a rather obvious idea, because it seems to fall into place with a number of sort of monumental features that seem to be characterizing precisely this LM IIIA1 period. And that's not just in this very area in terms of building, but just when one thinks of the enormous spread all of a sudden that this outbreak of reaching out that happens at this time which apparently involved, possibly, really official effort. And this would look like an official effort. Now the question really that lingers in my mind is the purely technical one, and that is the proportion. I do think that we do have boats from Egypt that exceed 40 meters, and I wonder, have you taken, or do you recall measurements? Is not the width rather narrow, in relation to the length? Because we would have to assume here that the length was really tailored to the actual size, [and that we are considering] a major special vessel, warship or something like this. But is this realistic proportion in terms of shipbuilding?

**Maria Shaw:**
If you place one ship there making use of the full length capacity, it would have to be a very narrow ship. It does not make sense. You would have to assume that there was a shorter ship than the gallery length available, or two quite small ships. The technical problems of proportions are something we shall have to work on, but, unfortunately, we have no parallels for this sort of building. We could bring back the slide of the magazines, the chart. Would people be interested in that to compare the plans? We have nothing like the galleries at Kommos. Nothing of that size. So if they are not storerooms, what are they?
Joseph Shaw:
I think that's a good question. Let's pause there for a bit. We have come up with Hagia Triadha, we are talking about trade and interrelationships. Let's take that five-minute break, no more, then come back, if you like, for "Chapter Three".

INTERMISSION

Joseph Shaw:
Professor Philip Betancourt, also a founding father, whose advice and energy continue to inform our various efforts, especially our understanding of Middle Minoan pottery and relative chronology, will now take on a large, complex issue, that of the relations between Kommos, Hagia Triadha, and Phaistos.