**EXCAVATIONS AT KOMMOS (CRETE)**
**DURING 1986–1992**
*(Plates 17–43)*

*Summary*

Recent excavation in the Southern Area at Kommos (Figs. 1, 2; Pl. 17:a, b) has exposed most of a Late Minoan (LM) building, House X, with extensive small finds. The very large ashlar Building T, set near the sea and perhaps functioning partially as an emporium, can be described as palatial or even as a "palace", now that its plan is more completely known with the discovery of its south and east borders. Building P, set upon much of the east wing of T, can now be understood as a series of at least six broad and completely undivided galleries, open on the west to the seashore. The suggestion made in the past that the galleries housed ships during the winter, nonsailing months finds further support from the excavations of these past seasons.

FROM 1986 TO 1990, the Kommos staff concentrated on studying the architecture, stratigraphy, and materials from Minoan and Greek contexts excavated during 1976–1985, in preparation for the publication of a series of volumes on the findings.1 When work on the first four volumes had progressed sufficiently,

1The excavation is conducted by the University of Toronto and the Royal Ontario Museum under the auspices of the American School of Classical Studies at Athens, with the cooperation of the Greek Archaeological Service. Financial support during the 1986–1992 period was provided by the Social Sciences and Humanities Research Council of Canada (Grants 410–85-0379-X1-X5); by the Committee for Field Archaeology of the Royal Ontario Museum; through the Office of the Vice President for Research of the University of Toronto, James Keffer; as well as by Mr. Lorne Wickerson of Toronto. Major funding for land purchase, excavation, and publication was made possible through the Institute for Aegean Prehistory founded by Malcolm Wiener. Kodak, Canada, provided film during the study seasons.

Staff during the recent study seasons are listed in table 2.1 of Kommos I, i. During the 1991 (#) and 1992 (+) excavation seasons, full-time staff consisted of the Director, Joseph W. Shaw, the University of Toronto and the Royal Ontario Museum, and the Assistant Director, Maria C. Shaw, University of Toronto, Scarborough College; Professor Alan Johnston (#,+), University College London; and Professor Jeremy Rutter (#,+), Dartmouth College. Also on staff were the following: Giuliana Bianco (#,+) a student from the University of Toronto, has served as excavation architect since the project's inception. M. C. Shaw and the following students all worked as trenchmasters: Susan Downie (#), Gordon Nixon (+), Deborah Ruscillo (#,+), Gordon Nixon (+), Deborah Ruscillo (#,+), John Critchley (+; Brock University), Sonia Hewitt (+; McMaster University), Christopher Monroe (#; University of Michigan), Josee Sabourin (#,+; Concordia University), and Lara Tabac (+; Columbia University). Sifis Fasoulakis of Pitsidia was excavation foreman (replacing the late George Beladakis, who worked loyally with us from the beginning of the excavation in 1976 to the fall of 1991 and is sorely missed). Workmen were chiefly from Pitsidia but also from Margarikari.

We are indebted to Niki Holmes (#,+; Bryn Mawr College), who was in charge of the cataloguing and management of the work- and storerooms; she was helped by Ruscillo and at times by Helène Whittaker (#,* and Dawn Cain (#) (both of the University of Toronto). Their work was abetted during earlier study seasons by Rebecca Duclos, who was also a student assistant at the University of Toronto (# and earlier), as were Sheila Carey (+) and Dr. Jacqueline Phillips (#) (both of the

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the decision was made to continue to work in one of the Minoan houses in the Southern Area and to purchase and excavate land encompassing the extensions of ashlar buildings T and P. As soon as a fence had been set around the newly purchased property, the process of removing the four to six meters of alluvial sand overburden began. This sterile sand, which had masked and protected the underlying antiquities, was removed carefully with a front-loader down to a layer of clayish sand, also without evidence of human occupation but which we knew overlay the Greco-Roman and Minoan remains. In June of 1991 the first trenches revealed exactly where the clay ended and the cultural stratification began. In early June of 1992 a similar technique was used when we expanded our search to locate

University of Toronto). Professor Johnston dealt chiefly with the pottery of the Greek period, while Professor Rutter, aided by Aleydis Van de Moortel (+; Bryn Mawr College), was responsible for the Minoan pottery. Julia Pfaff (+) drew the profiles and Joseph Clarke (#) many of the other finds. Taylor Dabney (#,+) was our object photographer, and Barbara Hamann (+; The Oriental Institute of Chicago) was our conservator. David S. Reese (#) examined faunal remains. In Toronto, Barbara Ibronyi provided us with help and advice in preparing the first volume in the Kommos series for publication.

Our observers for the Greek Archaeological Service were Despoina Vallianou (#) and Aphrodite Giorgoulaki (+). We are also indebted to Ephor Charalambos Kritsas, Director of the Archaeological Museum of Herakleon, for his cordial help, enthusiasm, and cooperation.

A number of experts visited and advised us: Professors Philip Betancourt and L. Vance Watrous, as well as Vincenzo LaRosa (pottery); John E. Rehder (ironworking in the Greek Sanctuary); and Ruth Palmer (Minoan vats/slabs). We are deeply grateful to all these people, and many others in Canada, Greece, and elsewhere.


The publication of the site is being carried out through Princeton University Press and edited by J. W. Shaw and M. C. Shaw. The first four volumes are listed in the bibliography; for reviews of Volume II see EchCl 10 (1991), pp. 246–247; CR 42 (1992), pp. 135–137; AJA 96 (1992), pp. 174–175; and JHS 112 (1992), pp. 211–212. Volume V, The Minoan Ashlar Buildings, is to be written when the present phase of excavations is completed; a monograph on House X will also be prepared.

See J. W. Shaw 1986, passim. This interim report details progress made during excavation seasons in which we investigated most of House X, determined the overall plan of ashlar buildings T and P, and made preliminary soundings into the Middle Minoan levels below.

Thanks to the generosity of our backers, especially the Institute of Aegean Prehistory, we purchased 5,000 square meters east and immediately south of the already partially excavated area (the extension can be seen by comparing Figure 1 with J. W. Shaw 1986, fig. 1). The area was acquired through the American School of Classical Studies at Athens on behalf of the Greek government in two equal sections in the winter and spring of 1990. During the summer of 1990 J. W. Shaw arranged for the enclosure of the new area by a fence and for the relocation of a section of public road that had just been put in. Throughout the process we were aided by William Coulson, the Director of the American School, and Maria Pilali, its Administrative Assistant. Special thanks are due to Mr. Harry Bikakis, who pointed the way to correct solutions throughout the arduous negotiations with Pitsidian administrative officials and land owners. Ephor Charalambos Kritsas was also helpful in the process. J. W. Shaw remembers with great appreciation the advice and reflections of George Beladakis, our deceased foreman, who represented the Director of the excavations on a number of occasions.
Buildings P and T on the southwest (Trench 84A series, pp. 178–183 below). While in the past the excavated sand and earth had been dumped on the adjacent beach (where much of it was dissipated by the high winter waves), in 1992 the sand was removed inland by truck, because of environmental considerations.

**LATE MINOAN HOUSE X**

by Maria C. Shaw

In several respects, House X stands out as an exceptional building in the Minoan settlement (Figs. 1, 2). It is relatively large, with a construction that incorporates several architectural refinements: cut stone bases for doorjams, a lightwell with a nearby double window, large stone thresholds, and well-constructed walls that were often decorated with colorful frescoes. The finds speak of elegant and exotic taste, for there were many foreign imports. Above all, the strategic and privileged position of House X, next to large civic buildings in the south area at Kommos (Fig. 2), marks it for distinction and suggests that it played a role in the international contacts initiated in that area.\(^4\) Separated from these buildings by a major east–west Minoan road (Space 17; Figs. 3, 4), House X also had the advantage of direct access to this main avenue of approach from the coast.

An understanding of the history of the building is aided by the evidence for successive architectural remodelings accompanied by the generally clear stratigraphy that helps date them. The richest floor deposits are from the Late Minoan (LM) IIIA2 period, when the house was abandoned. Earlier use is represented by stratified pottery and what may often be dumps in rooms just before they were blocked off and went out of use. There are many such abandoned rooms, dating to LM IB, LM II, and LM IIIA1. Given that the house seems to have been built in LM IA and probably quite early in the period, it had a long life span, lasting nearly 200 years. Needless to say, the ceramic sequences are of the utmost importance both for refining our knowledge of Minoan pottery on the site and for shedding light on the possible uses of the building.

In the latest phase, walls were founded over the ruins of the original ground-floor rooms of the house and were probably used into the LM IIIB period. Both walls and floors on this upper level are badly eroded, for they remained exposed until the arrival of the Greeks in the Early Iron Age. Typically, such levels display a mixture of Minoan and Archaic sherds.

The excavation of House X (nearly complete at the writing of this preliminary report) was an intermittent process. The first trench (11A) goes back to 1977, the second excavation season at Kommos, when work concentrated on tracing

\(^4\)The idea that the Southern Area at Kommos functioned as an administrative and civic center deeply involved in maritime trade has been discussed in a preliminary excavation report (J. W. Shaw 1986, pp. 263–269, with references to earlier articles). For further discussions, see Shaw and Shaw 1985, *passim* and Kommos III, pp. 149–183.
FIG. 1. General plan of Kommos site, including borders of property (G. Bianco)
the Hilltop and Hillside areas of the Minoan town (Fig. 1). Parts of Rooms X10 and X11 (Pls. 18:a, 19:a) were discovered that year in a sounding outside the Late Archaic Building F that was intended to reveal evidence for its construction date and earlier remains. Further exploration in 1984 and 1985 made clear the importance of completing the excavation of House X. Selective pottery deposits from these

5See Shaw, Betancourt, and Watrous 1978, pp. 147–149; 1986, pp. 236–240. The house, as exposed thus far, has been excavated by a number of trenchmasters intermittently over five seasons: Lucia Nixon (1977), Trench 11A—parts of X10–X11; Robert C. Henrickson (1984), Trenches 59A and 59A1—X5–X6, X8–X9; Steven B. Shubert (1985), Trench 66A—X2, X5–X6; M. C. Shaw (1991), Trenches 73A and 73B—X1, X4, X6–X7, X12–X13; Josée Sabourin (1991), Trenches 74A and
rooms have been included in the recent publication of the Late Bronze Age pottery from Kommos.\(^6\)

As exposed, House X covers an area of about 205 square meters and consists of some twelve to thirteen rooms in addition to smaller subsidiary spaces such as staircases and corridors (Figs. 3, 4; Pls. 18:a, b, 19:a, b). It seems to have been a freestanding building for most of its history. On the south, its façade fronted the Minoan seaward road, while another road probably ran along the east. The presence of this north-south road cannot be confirmed, since Greek Building F spreads over this area, but it is suspected from the discovery further south of a road with such an orientation (Fig. 10:c). The north and west façades of the house were also freestanding, bounded by open spaces, at least for a short distance.

House X is situated at the foot of the Kommos hill, with the rest of the Minoan town spreading over the slope and up to the hilltop. There may have been other houses further west along the seaward road. A small, narrow staircase located west of the Greek Building A1 (Fig. 2) leads from this road north to the slope, probably to a house. This area was not investigated further in excavation as it was much destroyed by erosion.

There is an abrupt change in level from the east-west road to the floors of House X, which may also be the case with any houses to the west. Part of the slope of the hill must have been cut away in a leveling operation connected with the construction of Building T and the seaward road. The vertical face thus created was supported by a retaining wall preserved for several courses. The preserved courses do not rise above the immediately adjacent floors of House X, however, and it is thus unclear whether there was a regular wall façade on this side or just a kind of balustrade that made the rooms on that side (X8, X9, and X14) verandas. If so, a railing or other screening device may have been necessary to provide privacy for the house.

If the edge of the house on the road was only a parapet, the true façade of the house would have been set back from the road, with access to the rooms at the north controlled by means of doors, which could be closed (at night, for example) to discourage and prevent trespass. The doors along the south sides of Rooms X5 and X6 and those at the northeast end of Room X9 would have served such a purpose. The entrance proper into the house would likely have been along its east side, off the proposed north-south road, probably next to the staircase X15.

The area covered by the house was leveled and terraced before construction: the floors slope somewhat within the rooms themselves and step up toward the north from room to room. The rather irregular termination of the north façade of the house, which deviates from the otherwise rectangular shape of the building, may be the result of using earlier, underlying walls as foundations, not an uncommon practice in other houses at Kommos. Soundings in the open area directly north of the

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74B–X2–X3 and north of House X; M. C. Shaw (1992), Trench 80A–X1–X2, X8, X13–X14; and Sabourin (1992), Trenches 81A and 81C–X9, X12, X15–X16.

6Kommos III, pp. 17, 26, 29, 34, 40.
house revealed extensive Middle Minoan (MM) remains, including part of a room with a rich MM III deposit (Pl. 20:a). Of interest is the discovery of a steatite seal with engraved geometric decoration (Pl. 20:b, c). MM III deposits at Kommos, often covered by wall debris, were possibly sealed by an earthquake. Closer study of the MM deposit and pottery underlying the original floors of House X may allow determination of the time lapse between such a hypothetical destruction and rebuilding.

That this building has been labeled a “house” is in part justified by its plan, which appears to be domestic, and by its location, north of the east–west road,
which seems to have served the demarcation between the town and the civic center, at least in the LM period (Figs. 1, 2). Further definition of its function as a house, however, requires closer scrutiny. With this question in mind, we can turn to the individual rooms, their stratigraphy, and their finds.

The description here will proceed from east to west, since much of the east sector of the house seems to have gone out of use first, and will deal with groups of interconnected rooms, with individual examinations of each room. Emphasis will be placed on new spaces excavated after the publication of the latest preliminary excavation reports, but further exploration in parts of the old areas requires that some of these be also briefly discussed. Ceramic analysis by Jeremy Rutter in the last two seasons provides the foundation for this report.

The Rooms along the East Façade (X10-X12, X16, X15)

Of the first cluster of rooms to be described, X10 and X11 have not been excavated further since 1978. The remaining areas were excavated in 1991-1992 and are discussed for the first time here. Briefly, the stratigraphy in Room X10 (Figs. 3, 4; Pl. 18:a) consists of the following strata: MM IB, predating the construction of the room; MM III-LM I, representing original use; and LM II and LM IIIA1, being continued use. LM IIIA1/2 pottery appears in higher levels and must be connected with the upper rooms built over Room X10 and adjacent areas; in X10 these late walls appear above the west and south sides of the original room. Of interest in X10 is a large, square block with a round depression on its top surface; it rests upon a slab, possibly a threshold, next to a block with a pivot hole. It seems to belong to a phase of Minoan reuse of this room, and its architectural and chronological definition requires further excavation north and east of X10. The pivot certainly suggests a doorway leading to a new space on the east, possibly the northeast corner of the house.

Directly south of X10, Spaces X11 and X12 (Pl. 19:a) describe the two sections of an L-shaped corridor leading east to west and south. In a later remodeling, an east–west wall was built at the south end of X12, blocking access to the south. At some point, apparently before the construction of the superposed LM III walls, a lateral doorway at the southwest corner of X10 that gave access to Corridor X11 was also blocked. Strata of mixed LM II–IIIA1 date had built up against the blocking wall, the mixing perhaps owing to disturbance caused by the installation of the later Minoan walls. Similarly, there were no pure LM III strata higher up because of contamination from the construction of Greek Building F. The lowest levels were uncontaminated, with MM IB sherds in sandy fill right over bedrock, predating by far the construction of the walls.

Noteworthy is the discovery of a small terracotta boukranion (C 256) in mixed Greek and Minoan levels over X10 and X11. Ceramically it seems to belong to LM III. This object may have some bearing on the interpretation of the building, in

which the practice of religion seems to have played a definite role, judging from the
discovery of an LM household shrine (see pp. 149-153 below).

In Corridor X12 (Pl. 19:a), the stratigraphy was undisturbed in the LM I–II
levels but had been disturbed higher up by the construction of Greek Building F.
Two Minoan surfaces were encountered. The lower one (at +4.85 m.) was just above
the bases of the walls, and sherds on it were probably LM IA in date, although the
unit was not diagnostic.\textsuperscript{9} The higher, rather rough surface (at +5.05 m.) had a small
LM IB pottery deposit,\textsuperscript{10} most of which must have been a dump, to judge from the
fill of rubble and soft earth. Noteworthy are fragments of a decorated pitharaki
(C 9315), a trickle-decorated closed shape (C 9316), and another fine decorated
closed shape (C 9317), an eastern Cretan import.

Corridor X12 seems to have gone out of use in LM IB, unlike X11, the west end
of which is literally the north extension of X12. As noted above, Minoan pottery was
quite mixed in X11. The only almost complete pot found there, a decorated cup
from the same absolute level that produced LM IB pottery in X12, is also LM IB.\textsuperscript{11} A
few sherds of LM IB date from the same context in X11 belong to vessels imported
from Chania and Knossos.\textsuperscript{12}

X12 originally led to X16, a slab-paved corridor that led east to a space now
lying unexcavated under Greek Building F and west to X9. The pavement in X16
\textit{(ca. +4.60 m.)}, when compared to the original floor in X12 \textit{(ca. +4.83 m.)}, provides
an example of the terracing of the house; a threshold or a step may have existed
between the two rooms. On the slabs in X16 was found an LM II stratum that
matches strata of similar date above the original floors in Rooms X8 and X9.\textsuperscript{13}
Above this stratum in X16 was a possible surface (at +4.70 m.) and then a much
thicker stratum (0.45 m. high) of LM IIIA\textsubscript{1} date.\textsuperscript{14}

There were vertical ceramic joins. The deposit may well be a dump marking
the end of the use of this passage, at least in its association with Staircase X15. In
this stratum were two almost complete conical cups (C 9715 and C 9716) and a
complete kylix (C 9714). A possible higher surface (at \textit{ca. +5.13 m.}) covered the
blocking wall between X12 and X16.\textsuperscript{15} If it is a surface, it does not match with any
in adjacent X9 with which X16 communicated. The fill above this possible surface
(at +5.13 m.) was of LM IIIA\textsubscript{2}–IIIA\textsubscript{2} date.\textsuperscript{16} Mixed Minoan–Archaic levels started
above this fill, which was some 0.40 m. thick.

The history of X16 is closely linked with that of a rather monumental but poorly
preserved staircase, X15, directly to its south (Pl. 19:a, foreground). Three to four
steps of an east flight ascending toward the south were found \textit{in situ} but somewhat

\begin{itemize}
\item \textsuperscript{9}73B/109 (that is, Trench 73B, pail 109; this convention will be used throughout the report).
\item \textsuperscript{10}73B/104, 107.
\item \textsuperscript{11}11A/27: C 346.
\item \textsuperscript{12}Parts of cups, C 347 and C 348.
\item \textsuperscript{13}81C/80, 81.
\item \textsuperscript{14}81C/74, 77–79.
\item \textsuperscript{15}81C/38.
\item \textsuperscript{16}81C/32–35, 37.
\end{itemize}
subsided. The average measurements of treads and risers provide the basis for a tentative restoration of the stairs. The bottom step (to be restored north of the ones preserved and now hidden under the corner of Greek Building F) should have rested at the slab pavement in X16. Only further excavation, however, can confirm this reconstruction and help determine whether the staircase was contemporary with or later than the floor with the LM II stratum in X16.

The stratigraphy in the area of the collapsed steps of the eastern flight and the *sottoscala* under the western flight seem too disturbed to date the construction and use of the staircase. The lowest level in the *sottoscala* contained pottery of LM IIIA1 date, including the only well-preserved vessel from this area, a painted teacup (C 9643). This level may be contemporary with an LM IIIA1 dump in X16 immediately north of the staircase. The *sottoscala* may have even served as a cupboard. The south end of the western wall of the staircase, marked by a square block, may have acted as the northern jamb for an entrance. The next stratum was thick rubble of LM IIIA2/B date, which may date the collapse of the staircase. The discovery of a Greek sherd just above the primary floor of the immediately adjacent room, X9, however, reminds us once again that the south edges of the house were badly contaminated by progressive erosion.

**THE CENTRAL ROOMS (X9, X8, X6, X3, X2, X5)**

This group of spaces is located roughly along a north-south axis in the center of the house. The size of Rooms X8 and X9, the wide doorways between them, and the fact that they both fronted the Minoan road suggest similar functions (Pl. 18:a). Their role in the circulation within the house was equally important: besides providing direct access to rooms to their north (X9 to X6 and X3, X8 to X5 and X2), they gave access to the east and west wings of the house respectively. X9, in particular, was probably the first room reached from the main entrance of the house, which we place on the east side.

**X9** is perhaps the largest room in the house (3.30 m. east-west by ca. 5.00 m. north-south), and it might have originally extended another three meters to the east façade of the house, if Staircase X15 proves to be a later, LM III addition. Such a huge room would naturally have been difficult to roof, but roofing would have been relatively simple if the staircase was set along the east side of the room from the beginning.

As exposed, X9 seems to have been used first in LM I. Uncontaminated stratigraphy is preserved in the west section of the room: the lowest exposed surface (at +4.50 m.) dates to LM I with accumulation through use above of LM II date (starting at ca. +4.68 m.). Within the lower stratum, disintegrated plaster fragments with traces of color were noted. Better-preserved fragments of plaster were found in X8 at comparable levels. Pottery was also very fragmented in the LM II level,

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with minor exceptions.\textsuperscript{21} Worthy of note in this level are a clay loomweight (C 9536) and a piece of a clay drain (C 7704), which may have been connected with pieces of drain found in higher levels in the same room (C 7506 and C 7491). Overlying the LM II layer in X9 was a thick stratum containing much rubble of very mixed date, MM III–LM I and LM IIIA; the former probably emanated from collapsed masonry, the latter probably represented the latest use of X9.

Little is known of the use of the room, but a single fixed feature, a ground-stone implement embedded in the northwest corner of its original floor,\textsuperscript{22} suggests some domestic activity. This large room is reminiscent of rooms encountered in at least two houses in the Hilltop part of the settlement at Kommos. Known also from other Minoan sites, such rooms tend to be located close to or immediately next to the entrance of a house, and they typically serve as the center of household activity.\textsuperscript{23} No evidence concerning such activity, however, has been found in X9, either because House X differed from ordinary houses or because domestic functions were more diffused among other rooms, such as X6 to the north.

Unlike X9, X8 was mostly free of contamination, except the area along the south, next to the road, which was badly eroded (Pl. 18:a). A long rectangular room (\textit{ca.} 5.00 m. north–south by 3.20 m. east–west), X8 has a floor that slopes down gently both from north to south and from west to east and is partially paved with flagstones. A fire had been built, perhaps in a simple hearth, over the slabs at the center of the room. Other areas of the floor were paved with pebbles embedded in hard-packed earth. A patch with pebbles is preserved next to the stone bench that was set at the north end of the room. As noted above (p. 139), X8 played a central role in traffic through the house, with doors leading in a radiating fashion to X5, X14, and X9. The first two doorways were eventually blocked, but that leading to X9 was not. Probably X8 and X9 went out of use at the same time, and the doorway between them did not have to be blocked.

The stratigraphy in X8 matches that of the uncontaminated area of X9: an original floor used in LM I, possibly LM IB, and another stratum above denoting continued use into LM II. Finally, a thick stratum with joins throughout (rising from \textit{ca.} +4.90 to \textit{ca.} +5.50 m.) may be a dump deposited in LM IIIA\textsuperscript{1}.\textsuperscript{24} In this stratum were masses of wall debris; both the dump and the rubble could well be the result of leveling operations.

Complementary information for the history of phases comes from blocked doorways (as shown in Figures 3 and 4). The blocking between X8 and X5 was made in two stages, the first probably when the slabs of the secondary floor in X5 were laid or soon after. The date of the blocking is thus bracketed between the LM I use of

\textsuperscript{21} A conical cup (C 9664) and a pitharaki (C 7634).
\textsuperscript{22}J. W. Shaw 1986, pl. 56:d, lower right.
\textsuperscript{23}At Kommos compare Spaces 2 in the House with the Press and N17 in the North House. See M. C. Shaw 1990, fig. 1 (p. 232), p. 235, for a discussion of such rooms.
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The initial floor and the first stratum of use over the slab floor, which is LM IIIA1.\textsuperscript{25} The second stage of blocking (starting at \textit{ca.} +5.20 m.) is associated in X5 with LM IIIA2 pottery. It may have been a repair of the first blocking and was better built on the north, the side visible from X5, which (unlike X8) continued to be used. The rough south face of the blocking was built against what was described earlier as a possible LM IIIA1 dump in X8. The blocking of the doorway into X14 has not been removed, but the stratigraphy associated with it suggests an even earlier date, perhaps LM II. This issue will be further discussed in connection with X14.

The third doorway, that between X8 and X9, was very large (\textit{ca.} 2.30 m. wide) and was formed between two short north–south walls. Next to each wall end was a small, flat, rectangular slab that would have carried the wooden frame of the doorway. A central, roughly square, flat slab must have supported a central wooden post dividing the opening into two doorways. The base of the southern jamb is L-shaped, a feature which implies that a door closed against it. The central and northern bases do not have such cuttings; the projecting bit that could have formed the L of the northern one may have been destroyed. Although thick enough to support a light roof, the walls, like the southern walls of Rooms X8 and X9, were too flimsy to have carried a second story; an upper story would have started to the north, where walls were much sturdier.

Of interest in Room X8 is painted plaster associated with the earliest use of the room during LM I. Smaller, worn plaster fragments were also found sporadically in higher levels. The better-preserved specimens were found directly on the floor, mostly on the paving slab set alongside the western wall. Their findspots suggest that they had fallen from the wall and were not dumped here. Many await cleaning, but in one case, curving lines painted in dark red were noticed under a thin coating of plaster with traces of faded blue. The first impression one has is that the lines were “cartoons”, preliminary sketches attested in other Minoan frescoes. Removal of the bluish top surface, however, revealed a complex but iconographically meaningless pattern. Rather than a mere doodle, the beautifully fluent lines may represent a unique example from Minoan Crete of an exercise by a fresco apprentice practising brush strokes. Curving lines are typical in floral compositions, where they render the stems bending gracefully, as if gently moved by a breeze.\textsuperscript{26}

Well-preserved pottery in X8 is scanty for LM I but more extensive for LM II and LM IIIA1.\textsuperscript{27} Fragments of cooking pots (C 7709, C 7710, C 7729, C 7724) in LM II levels imply some cooking, a theory supported by the evidence of a fire on the central slabs. Other noteworthy finds are a stone vase lid (S 2182) of LM I date, fragments of clay lamps (C 7561, C 7692, C 7619), and two stone discs (S 1712,

\textsuperscript{25}LM I: 66A/38, 42. LM IIIA1: 66A/33.

\textsuperscript{26}One can compare such an exercise with that used to train students of Chinese calligraphy or painting. The rendering of bamboo shoots and leaves can be practised \textit{ad infinitum} until the desired quality of line is achieved.

\textsuperscript{27}LM I: conical cup (C 9614). LM II: conical cups and a bowl (C 7604–7606). LM III: conical cups (C 7536, C 7548, C 7556), teacups (C 7497, C 7500, C 7503, C 7515, C 7551), a conical bowl (C 9747), parts of a Canaanite jar (C 7061).
S 1713), a type of implement identified by Harriet Blitzer from other examples at Kommos as possible lids. These finds, along with some stone hand tools, suggest that household activities, including food preparation, may have taken place here, possibly in conjunction with related activities in X9.

Consideration of X6 (Pl. 19:b) takes us back to the survey of rooms north of X9. X6 is a spacious, almost square room (3.30-3.40 m. wide). Its east wall, which continues beyond the room to the north, is so thick that it gives the impression of an exterior façade wall; perhaps the spaces to the east were unroofed. Three doorways, one roughly central on the south and the other two in the northwest corner of the room, suggest frequent use. Clearly this was a utilitarian room rather than one where privacy was essential. The blocking of all three doorways marks the end of its use, apparently some time during or at the end of LM IIIA1. An interesting installation in the room is the large slab in the southwest corner set slightly slanted, next to a drain in the wall that leads to a lightwell in the southeast corner of X5. Activities using water or other liquids were clearly involved and may have been quite varied, such as industrial processes or the washing of objects, people, or both.

After Room X6 went out of use, a new room was constructed partly on top of the partially destroyed walls of X6: the lower courses of the new walls were built against the original walls. Both the flimsy construction and the long exposure of the new walls (they were still visible in Greek times) explain their ruinous condition today. The west wall and part of the north wall were eventually removed in excavation, in order to clarify the architecture of House X. The fill under the west wall points to LM IIIA1 as a post quem date for the construction. The late walls seem to be associated with a rough surface (ca. +5.72 m.) with little pottery. Of interest is a small, squarish hearth partially defined by two lines of short upright slabs sunk in the ground. The latest use on this surface seems to be of LM IIIB date.

The life span of the original room is marked by two surfaces. The lower one (+4.90 m.) was used into LM II and possibly into early LM IIIA1, and the upper one (+5.14–5.05 m.) was used into LM IIIA1. Findings were quite plentiful: on

28 Kommos I, i, chapter 8, Type 15.
29 Taken down with 81C/71, 111, and 112 to the original floor. Related levels are 73A/102, 106, 108; 66A/31, 34, 36. The fill under the north wall was not as informative as to relative date.
30 59A/21, 22.
31 59A/22: a cup or bowl (C 7036). The surface was destroyed toward the southern area of the space, and the presence here of Greek sherds at a somewhat lower level might even suggest that the south wall had been quarried in Greek times.

The upper levels of the LM IIIA1 stratum were marked by several joins; some were with pottery from X8, described above as a possible dump (joins between 66A/31 and 59A/62; also 66A/27 and 59A/67). It is quite possible that several rooms were filled and subsequently closed off. Excavation just below the lowest surface (73B/116) reached the bottom of the east wall, where a small sounding was made, revealing what looked like another surface used into LM IB. Perhaps this marks a still earlier stratum of use, but the sounding covered is too small an area to be certain.
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the lower surface were some fine conical cups (C 9324, C 9326, C 9327), a fine decorated goblet (C 9325; Pl. 21:a), and a patterned conical bowl (C 8156). On the higher surface were many incomplete LM IIIA1 vessels, perhaps part of a dump. A beautiful jug from this context is illustrated on Plate 21:b. Bones and shells in this fill and on the lower floor suggest food preparation (the big sloping slab in the southwest corner of the room may have been used in this connection) and possibly consumption.

Room X3 is one of the least understood in the house, since later walls constructed within it prevented in-depth excavation. Also, this construction and later Archaic activity disturbed the Minoan strata down to a surprisingly low level (ca. +5.26 m.). Our understanding of the room could benefit from the removal of the upper wall and further investigation. The original floor was reached only in a narrow strip, about one meter wide, along the southern edge of the room. Originally the floor may have been covered with a plaster coating; a patch of plaster was preserved in the southwest corner of the room (ca. +5.10 m.). A limited sounding under the floor revealed an LM IA deposit (74B/76B) that dates the construction of this part of the room. The pottery consisted of large sherds and several mendable shapes, including an almost complete bridge-spouted jar with added white linear decoration (C 9070), and one complete (C 9042) and three fragmentary conical cups (C 9043, C 9044, C 9071). Over the original floor of the room was accumulation of LM IB date. A number of clay loomweights (C 9066–9069) were also found on this and in the immediately higher and contaminated level. The LM IB layer was burnt, as were many of the sherds. Sherds of Marine Style from this level are illustrated on Plate 21:c. The only walls of the room exposed in the excavation of this level were the south wall and part of the west wall at the southwest corner. The end of the LM I phase is marked by the blocking of the one known entrance at the west end of the south wall.

The next phase is marked by the construction of the east wall, with a doorway at its south end, above the burnt LM IB level. Over these remains, two (now

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33 Among the fragments were those of a piriform jar of Palace Style (C 8088). Other finds included a piece of worked bone (Bo 54), a fragment of plaster with a much destroyed, painted pattern that looked floral, and the horn of a miniature bull figurine (C 9220), which must be MM, to judge from its black paint.
34 The pottery here included fragments of four conical cups (C 9324, C 9326, C 9327, C 8009), three kylikes (C 8125, C 8126, C 9320), four teacups (C 9379, C 7503, C 8007, C 8011), a ringbased shallow cup (C 8092), and a jug (C 8090). Among the sherd material were imports of Cypriot (C 8006, C 9382) and Cycladic (C 8019, C 8020, C 8127) ware. There were also six loomweights (C 8021, C 8789, C 8098, C 8099, C 9217, C 9219), a whetstone (S 1936), and a lovely stone mortar and pestle (S 2169, S 2170).
35 The level also contained one 8th-century B.C. sherd.
36 Its date cannot be more specific since the stratum associated with its base is contaminated (LM IIIA and Archaic; 74B/68A–73A). The bottom stratum of this fill (74B/72A, 73A) must represent use of the newly designed room, while a thick upper layer with much rubble and vertical
fragmentary) walls meeting at a right angle were built within the northwest corner of the room (Figs. 3, 4). The date of their construction is unknown because of contamination, as is the date of the north wall of the room, of which only the higher courses have yet been exposed.

Rooms X2 and X5 complete the description of the central part of the house. X2 (Figs. 5, 6; Pl. 22:a, b) is a small square room with evidence of extensive use through many remodelings. Its stratigraphy is one of the most complex in the house, and so the account here is only provisional. The room goes back to the LM IA period, which is represented by an earth surface (ca. +4.24 m.) and one wall (Wall 1, Figs. 5, 6) on the north side that extended beyond the later west and east limits of the room. The wall was built on bedrock (average level at +4.16 m.), which also had LM IA sherds on it. On this floor was found an accumulation of pottery, mostly conical cups and other small shapes, and an in-and-out patterned bowl (C 9725). An interesting nonceramic find is the lid of a small stone vase, decorated with incised, hatched patterns (S 2202). During the LM IA period, the room was remodeled, and a west wall was built, its line followed by later walls on this side. A parallel row of stones along the east edge of the room looks more like a rough bench than a wall. The rest of the outline of the room remains unknown for this period.

In the next remodeling stage, still in LM IA, the north wall was cut down and covered by a pebble floor. A new west wall, as well as east and south walls, was built; their ends are often obscured by later construction. By this time the room had assumed its final form, except for the north side, which lay beyond a still later north wall that postdates the pebble floor. Unknown at present is the chronological relationship between the west wall of this room and the east wall of the adjacent room on the west, X1; the walls were built back-to-back. Finally, it is unclear where the entrance to X2 might have been at this stage. It is unlikely that the doorway was on the south side, where it was located later: three large pithoi were embedded in a row in the pebble floor alongside what must have been a solid south wall (Pl. 22:a). The central one was covered by a stone lid. During their use there was no direct access from X2 to X5.

At least one of these pithoi seems to be of MM date, suggesting that it was an heirloom reused with the LM IA pebble floor. From the way the pebbles of the joins among sherds could be the result of a leveling operation using rubble from the upper courses of the walls and a dump. All this would mark the end of the use of the lower room. Either at this time or somewhat before this event, the southeast entrance to the room was blocked as well.  

Here I would like to thank Miss Aphrodite Georgoulaki, our Greek observer, and Robin Shaw for helping with the removal of the pithoi fragment by fragment, as the vessels were badly cracked. Julia Pfaff had earlier made preliminary drawings of the pithoi. Only the height of the eastern pithos (C 9405) could be determined because of its good preservation. It is piriform in shape, with four vertical handles on the shoulder, and it is about 0.55 m. tall. The western pithos (C 9406) seems to have a sagging body, with vertical handles at the shoulders and another set just above the base, which is decorated with a zone of hatched, incised lines. Its height is about 0.63 m., to judge from the levels taken at the rim and at the top of a slab on which the pithos was set. The middle pithos (C 9404) seems to be the tallest, likely 0.66 m., and it has a rounded body and no lower handles or decoration. The shape and hatched patterns of C 9406 have parallels in MM times.
Fig. 5. Detail of state plan of Rooms X2 and X5 (G. Bianco)
FIG. 6. North-south archaeological section through X2 (G. Bianco, M. C. Shaw)
floor encircled the northern sides of the pithoi, it appears that the pithoi were set in place and then the pebble pavement built around them. They were not standing on an earlier floor; rather, their bases were at somewhat different levels in the fill. The pebble surface sloped down from north to south (from +4.90 m. to +4.79 m.). There was a stone platform set in the southwest corner of the room. On the platform (Pl. 22:a, at a), directly under two small slabs placed there later, was found a small bronze object in two pieces, probably a scraping tool (Pl. 22:c). On the pebble floor were two different steatite seals (Pl. 22:d, e): the former is a bead seal with incised concentric circles surrounded by a dotted circle, the latter a pillow seal with abstract, incised patterns on both sides. Finally, pieces of plaster were found fallen over the shoulders of the pithoi, which projected above floor level during their use. The plasters are very fragmentary but show traces of color.

In the next remodeling stage, in LM IB, the floor was leveled and a new surface created (+5.01 m.) by adding earth on the southern area. The process covered the three pithoi. A new north wall (Wall 2, Figs. 5, 6) was built, and a new entrance was opened by roughly removing stone blocks from the south wall (Pl. 22:a). Fragments of fine cups and of a relief-decorated pithos are all the pottery that remains from this floor. Parts of a pithos base were found on the little platform in the southwest corner of the room, suggesting that the platform once associated with the three pithoi continued to be used and that the new pithos may have replaced the earlier ones. An assortment of stone tools and implements lay in the middle of the room. Perhaps the room was used for storage of tools like the cobbles and the scraping bronze tool used for manufacturing activity elsewhere in the house.

The third and latest LM IB surface (ca. +5.07 m.) is also of hard-packed earth. Another bronze tool, a blade (B 333) used for cutting and possibly as a wedge, was found in the northwest corner of the room. No other LM IB surfaces were found in X2, although there is stratification of LM IB levels almost two meters above the last surface. Since there is no such accumulation in X5, where LM III use was found practically on the original floor, the doorway between the two rooms must have been blocked at some point in LM IB, after which X2 went out of use.

The fill above this phase, still LM IB in date, was soft earth with stones and with vertical ceramic joins, suggesting that it was a dump that continued until a new north wall was built during or after LM II. A surface at +6.05 m. is associated with

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40 80A/41, 44; 74A/77, 78.
41 66A/28; 74A/76.
42 In his ceramic analysis report (1992), Jeremy Rutter observed that complete, mendable (LM IB) pots above the last surface (74A/74, 75) might be material collapsed from an upper story.
43 One more mystery remains in the enigmatic Room X2. While the stratigraphy cited above represents the true history of its life span, the area next to the entrance at the south side of the room (mostly excavated separately) was contaminated. There one finds the occasional LM IIIA sherd, even in the fill under the LM IB pebble floor. An odd scenario of blocking and unblocking of the south entrance has to be hypothesized to explain the situation. This matter will be taken up again when we deal with the source of contamination, Room X5 to the south (p. 148 below).
44 74A/45, 69, 71–73.
45 74A/40, 42, 43.
this new wall (Fig. 6). Up to that period, it seems that while X2 was used as a dump, the material was not dumped from the south, since the doorway there seems to have been blocked. Perhaps X2 remained roofless, and the source of the dumping was the higher terrace to the north. If so, X2 might have had a history analogous to that of X1, which also seems to have gone out of use in LM IB.

A still higher surface (+6.70 m.) is connected with the final north wall of X2 (Wall 3, Figs. 5, 6). It seems to relate to a surface north of the room, found at a somewhat higher level and with mixed Minoan and Early Iron Age pottery. On it was found a stone slab with a shallow, round depression (Pl. 23:a), an implement known from Minoan times. Next to the slab was a large collection of bivalve shells, a situation comparable to Room X7, where there were shells on a stone table (Pl. 23:b). There is a good chance then that this level was Minoan in origin and was reused in Greek times.46

Other noteworthy finds from X2 include a small alabastron of veined marble (S 1603),47 a number of loomweights, and some miniature vessels: a cup (C 9369), a tripod pot (C 9367), and a brazier (C 9607). These, along with the clay figurine of a seated female figure (C 9529), seem to belong together and may derive from some ritual context.

Room X5 (Fig. 5, Pl. 18:b), south of X2, was central both in location and in circulation within the house, for it had doorways on every side. Three of the four doorways were eventually blocked, while the one leading to X4 remained open until the end of its use. The stratigraphy, architectural features, and rich finds in X5 have been discussed in previous excavation reports; they include a lightwell in the southeast corner of the room that lit the small court and the interior of X4 by means of a window on the west side of Room X5.48 Subsequent excavation in X4 suggests that these two rooms were practically the last to go out of use. The date of LM IIIA2 is amply attested by large pottery deposits in both rooms. The deposit in X5 was concentrated in the area of the lightwell, where the pile suggests a dump, as do the vertical joins of sherds within it.49 The dump was on top of an LM IIIA1 stratum, a shallow accumulation over a stone slab floor; underneath this floor was a pebble floor that had been used in LM I.

It is quite possible that X5 served as a utility space in LM IIIA2. Its earth surface was burnt, and there were organic remains (bones and shells), as if from the preparation of food. A strange structure, made of a number of stone blocks and an upright slab, was set on this surface within and just beyond the north limit of the doorway leading to room X2, which (as discussed above, p. 147) had already gone out of use in LM IB. The structure looks like an enclosure or a bin, and it was set practically over the easternmost pithos in X2 (Pl. 22:a, at left). (Excavation of the enclosure actually led to the discovery of the lid of that pithos.)

46 At about the same level (74A/14), but further west, was found a little jug (C 9021), which perhaps coincidentally is similar in shape to little "milk jugs" found in X7.

47 J. W. Shaw 1986, fig. 5, pl. 58:d.


49 66A/17, 20, 24, 29 (down to level +5.00 m.).
Given the different stratigraphy in the rooms, with LM IB sherds in X2 at a much higher level than the LM IIIA2 surface in X5, we can only surmise that there had been an earlier blocking of the doorway, which was removed in LM III. The resulting space between the jambs of the door could have acted as a niche. That such locations within doorways were considered suitable for certain household activities is evident from another house at Kommos, where an earlier doorway and its threshold were reused as the setting for a little stone enclosure. The installation in X5 probably caused the contamination of LM I levels next to the doorway in X2 (p. 147 above).

THE ROOMS ON THE WEST (X7, X13, X4, X1, X14)

With Room X7 we turn to one of the most important discoveries in the house: a household shrine. The relatively good preservation of the shrine, the evidence for some three phases of use, and the discovery of objects mostly in situ for the last phase contribute important information for the history of Minoan religion.

Minoan household shrines appear from very early periods, but the one in House X relates more to a postpalatial type. It is a tiny room, squarish in shape and adjacent to the two rooms (X4, X5) that were the last to go out of use in the house (Pl. 18:b). The shrine took shape architecturally when an earlier north-south passage through the spaces later shaped as X7 and X14 was blocked, thus creating the interior space of X7. This remodeling involved the blocking of two earlier doorways. The northern one is identifiable by the presence of an L-shaped doorjamb base just beyond the west end of the north wall of X7. The shape of the jamb base implies that the earlier doorway could be closed off. The new entrance shifted west and necessitated the removal of a section of the south wall of Room X4. The remaining western part of this wall thus became the north wall of the staircase. Perhaps the north entrance into X7 was shifted west to provide access to the staircase while bypassing Room X7 itself. The other blocking was that of the south doorway, which had earlier led to the southernmost rooms of the house in this area.

The exact relationship of the shrine to the nearby Staircase X13 is not yet as clear for the first two phases of use (Figs. 3, 4). The ambiguity lies in whether the staircase was built at the time the shrine was created or just before the floor was raised. The answer depends in part on whether the lower landing, which consisted of a number of blocks lying flat (top level ca. +5.26 m.), incorporates a step of the initial staircase (a matter that requires further archaeological investigation). If the answer is positive, the staircase would have stepped down to a lower level, probably to the first floor of the shrine.

There was little on what may be the first floor of the shrine (+4.90 m.) to indicate religious activity, except for fragments of a closed-shape vessel perforated

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50 This is in Space N17b in the North House. See M. C. Shaw 1990, figs. 1, 4:b.
51 Gesell 1985, pp. 41–56.
52 I am inclined to think this is the case, although this hypothesis still leaves unexplained why the lowest steps project beyond the north wall of the staircase.
with many holes at the bottom (C 9657). That it may have acted as a sprinkler with
more than a simply utilitarian function receives some support by analogy with a
rython, pierced with many holes (C 9145), found in higher strata. An elaborately
decorated jug (C 9251), some cups, and sherds show this floor to be of LM II date.

A religious character for the room becomes more certain with the presence of
distinctly religious paraphernalia on the next floor (+5.10 m.). This consists of two
miniature jugs (C 9313, C 9314), known also as “milk jugs”, and a brazier (C 9310),
all found in the northeast corner of the room. Associated with this level was a
small, squarish area against the north part of the west wall that was covered with a
thin, burnt layer of a red, claylike substance. This level is roughly that of the lower
landing of the staircase.

The next and final phase of the shrine is the best known. The floor (ca. +5.22 m.)
had once again been raised and now slightly covered the landing. Emphasis shifted
to the southwest corner of the room, where a small table was installed (Pl. 23:b).
It was made of a horizontal slab supported by an upright slab and small stones
projecting from the walls. On the table an interesting deposit was found: two milk
jugs (C 9001 and C 9003) and a conical cup (C 9002) containing a differentially
worn pebble and a few shells. More bivalve shells (Sh 10) were found scattered on
the table; perhaps they had originally been in the cup.

Just to the north at about the level of the top of the table, that is, ca. 0.20-0.30 m.
above the floor, were found a brazier (C 9137) and an incense burner (C 9139)
(Pl. 24:b). They had probably fallen from a wooden shelf or another table, perhaps
made of wood. Alternately, they may have fallen from a room above X7, although
there was no evidence in X7 of collapsed upper floor materials.53

Pottery continued all the way down to the floor on which the table was set in
X7. The excellent preservation of the vessels and their discovery, often in stacks,
constitute clear evidence that they were near their original point of placement
(see Pl. 24:a). Some were exactly in situ, like two well-preserved kalathoi (C 9311,
C 9312), which were found tucked neatly under the table (Pl. 23:c). One was full to
the top with ash; perhaps incense and other materials had been burnt in a brazier
in the room, and the ashes emptied into the kalathos. The hypothetical brazier may
have been placed on the small flat slab that was set on the floor in front of the table
and on which was found some ash and evidence of burning. Next to this slab was a
scatter of small beach pebbles and a triton shell (Sh 11).

The finds from this phase (Pl. 24:a, b) included five braziers, three incense
burners, and two kalathoi, all made of similar coarse cooking fabric. There were

53 Among the sherds from this upper stratum was one that belonged to a snake tube (C 9659;
Pl. 24:b). Naturally, one fragment cannot be used as evidence that such a pot had actually existed
in either X7 or the room above, but the find is suggestive, since snake tubes are frequently found
in other household shrines. A snake tube was found a few years ago in another LM III house at
Kommos, again in what also seems to have been a household shrine. A brazier was found in the
same room, in a small stone enclosure set on the floor (J. W. Shaw 1977, pls. 54:a, b, c, 55:a). We
must also remember that in X7 much of the upper layer in which the sherd of the snake tube was
found had been lost through erosion.
also two milk jugs, six conical cups, two bowls, and a badly fragmented Canaanite jar. Whether there had also been a snake tube and even a goddess figurine with upraised arms, we shall never know. Included in this deposit was the rhyton with the pierced base (C 9145), already discussed in connection with the possible first phase of the shrine. Its original location is unknown, since it was found in scattered sherds.

Unfortunately, most of the vessels found are of types that cannot be closely dated, so it is impossible even to tell whether the latest pottery is LM IIIA1 or IIIA2 in date. The discovery of vessels that were restorable or complete and also in situ supports the idea that the shrine remained in use into LM IIIA2 along with Rooms X4 and X5. This can be matched to some extent with finds in the two other rooms, and no such deposits were found in rooms that had gone out of use earlier. If this scenario holds, Staircase X13 would also have been in use. Indeed, the staircase would have been the only way out from the three rooms, which, as Rutter was first to realize during the last season of excavation, had become basement rooms by this stage. It is unresolved whether both flights of the staircase were in use or only the northern one. If the first is the case, a second story must have still existed, at least over parts of the house. If the second is true, the lower flight would have led to some intermediate outdoor level, perhaps one connected with rooms built either at the end of LM IIIA1 or in LM IIIA2 above the original rooms of House X.

The activities that went on in X7 are also uncertain. The use of fire is obvious, both from the presence of ash and burning and from the many vessels of coarse cooking fabric: braziers, chalices, and kalathoi. Perhaps incense was burnt, some ritual cooking done on a small scale, or simply a fire kept glowing in front of the little table. The milk jugs imply the use of liquids, as does the rhyton sprinkler. Milk jugs also were found in a shrine of postpalatial date in a partially published house at Knossos, as well as in the Villa at Kannia in the Mesara area.

Milk jugs were also used in earlier times; Jeffery Soles kindly showed me some jugs found in a household shrine of LM IB date in the excavations on the coast at Mochlos. With them were found snake tubes of an early form. Such an association of snake tubes and milk jugs is also attested in the example from Knossos, from which Sir Arthur Evans concluded a snake cult was involved.


55 See Gesell 1985, nos. 65 and 21, pp. 101 and 77–79 respectively.

56 PM IV, pp. 138–168. Professor Geraldine Gesell agrees with this interpretation, and perhaps her own recent excavations at Vronda near Kavousi provide corroborative information. There was, among the religious equipment of the LM IIIC shrine, a kalathos with snakes rendered in its interior in relief (Gesell, Coulson, and Day 1991, pp. 145–177, pl. 63:d). A kalathos was built into the top of another snake tube found there (pl. 63:e). Since we cannot be certain that a snake tube was among the possessions of the shrine at Kommos, however, we lack the variable necessary to treat the jugs as a comparable case. The other vessels found in X7, cups and bowls, are more likely “tableware”.
Significant for the implications of cult is the shell collection: the bivalve shells on the table and the triton shell on the floor. These clearly point to a marine orientation in the worship. Triton shells, pierced at the apex or unpierced, have often had religious associations, both in their architectural contexts and in artistic representations throughout Minoan times.\textsuperscript{57} Perhaps it is not a coincidence that a complete two-strand necklace made of shells (Pl. 25:a) was found not far away in Room X14 to the south and that a collection of shells was found scattered on the final floor in X14 just north of the shrine.

Finally, one of the most important discoveries in the shrine was a steatite lentoid seal (S 2143) with a beautiful carving of a flying bird on it (Pl. 25:b, c). The seal could have been a gift or offering to the divinity. It was perforated and, therefore, stranded so that it could be worn perhaps like a wristwatch; the seal could have been worn by the person officiating in the shrine, to whom it may have belonged. The engraved pattern on the seal may therefore be relevant to both the divinity and the cult itself. The first and clearest impression of the image is that of a flying bird, with wings spread; the bird's action and setting certainly imply the presence of the sky (Pl. 25:b). Thus, in the shrine, the sea is represented by the shells, the earth is perhaps implied by a chthonic cult connected with jugs, and the sky by the bird on the seal. All the elements together would represent the basic aspects of a universal deity or deities of nature.

In the process of rotating the seal to study the bird from various viewpoints, however, it became clear that the depiction holds a more complex message. With the bird set vertically with its tail down (Pl. 25:c), the tail and part of the body strongly reflect the appearance of a typical Minoan skirt with flounced hem and thick, curving girdle set below the waist. Half of the bird, then, has been converted into a woman or goddess, or perhaps the situation is reversed: a woman is turning into a bird. Whichever the case, the depiction belongs to a known series of motifs in Minoan glyptics depicting what are often referred to as monsters or demonic figures. A large deposit of clay sealings of LM IB date depicting a variety of such hybrid creatures was found at Zakros.\textsuperscript{58} Our motif is usually referred to as a “bird woman”, and it typically appears on lentoid seals. Iconographically, however, the Kommos example best resembles the LM III version of the motif.\textsuperscript{59}

\textsuperscript{57}The significance of objects with marine connections in Minoan shrines has been discussed in Vandenabeele 1991, \textit{passim}. On the triton, see the recent article by Åström and Reese (1990, \textit{passim}).

\textsuperscript{58}Weingarten 1983, \textit{passim}.

\textsuperscript{59}A preliminary description of the seal was published in M. C. Shaw 1991. It was also discussed in a lecture she gave at the Archaeological Institute of America meetings in New Orleans in December 1992, in which the motif was identified as a bird woman, the closest parallel being Weingarten 1983, pl. 26:b (HM 614, from Axos). It was therefore a pleasure to receive recently a written communication from Judith Weingarten that the seal must have been made by the same artist who carved the Axos bird woman. Weingarten has called this artist the Royal Road Master, whose activity she attributes to LM IB. Given the fact that, in addition to the LM IIIA context of the Kommos seal, four other
EXCAVATIONS AT KOMMOS (CRETE) DURING 1986–1992

The history of the shrine is integrally connected with two other spaces: the staircase, X13, and the large room to the north, X4. X13 is a two-flight staircase (Fig. 4, Pl. 18:b), the lower flight made of stone steps rising toward the west. No steps remain of the upper return of the staircase on the south, which would have risen toward the east and probably led straight to a room above the shrine. Perhaps these steps were made of wood or were removed in later times. The upper flight has a narrow opening at the west end of its south wall, suggesting that the space under it had been used as a sottoscala. Strangely, however, the space was completely devoid of any finds, and it was found full of sterile earth with a few small stones. Sherds in that fill were of LM III date, but if the space could be entered from the south, this fill may well postdate the construction of the staircase. Perhaps more information can be gleaned from further investigation of the north flight.

To the north of the shrine, Room X4 (Pls. 18:b, 28:a) was found packed with rubble from the collapsed upper courses of its walls. The east wall of 7th-century B.C. Building V was later built over this space, crossing diagonally over the north wall and set almost directly on the Minoan rubble. The debris lay over an extensive floor deposit of LM IIIA2 date, which represents the last use of that room. The pottery consisted of both small and large vessels, the latter quite fragmented and still in the process of being mended. Noteworthy is a four-handled jar with strange decoration (deliberate handprints in dark paint, as well as stains and dribbles, C 9004), a Canaanite jar (C 9167), a fine pithos (C 9013), part of a cooking pot (C 9005; Pl. 26:b), and a large jug (C 9009; Pl. 26:b). Small shapes (Pl. 26:b) include complete or fairly complete conical cups (C 9006–C 9008), a champagne cup (C 9010), and a squat pyxis with a champagne cup used as its lid (C 9012, C 9011; Pls. 26:a, 27:a). The pyxis was decorated with a beautiful scale pattern and flowers. The cup-lid once held beads, one of which was found within the pyxis when the cup cracked, while the others (e.g., that in Pl. 27:b) were found nearby, scattered in the fill. The pyxis may have been suspended from the lintel of the lightwell in X5 (Pl. 18:b), for its rim was perforated with symmetrically distributed holes. (The sill of this window was wide and low enough to have served as a bench.) Part of another pyxis (C 8001) found not too far away in X5 was decorated with the pattern of a figure-eight shield.

Excavation under the raised earth floor exposed the original floor of the room, also of hard-packed earth. Remnants of plaster revetment, painted with solid colors, were noted adhering to the bases of the north, east, and west walls. There was little pottery at this level.63 Sherds of LM IIIA2 date were gradually replaced by a stratum of LM IIIA1 date; the presence of Canaanite and Cypriot sherds speaks of examples she mentions have been found in later contexts (Weingarten 1983, pp. 111–112), I am inclined to believe the artists should be later than LM IB. Cf. CMS VII, nos. 141, 143; XII, nos. 3, 118, 276, 277; XIII, no. 3.

60 73A/60.

61 J. W. Shaw 1986, pl. 58:f.

62 The lower parts of the walls were painted red (north and east walls) and light blue (west wall); no plaster was preserved along the base of the south wall.

63 73A/62, 63, 63A, 68.
widespread connections in that phase. To this period also belongs a rare find: a vessel of glass with polychrome scallop patterns, probably made in "dragged trail decoration" (Pl. 27:c). Such vessels are rare in Crete and may well have been imported from Egypt.\(^{64}\) Plate 27:c shows the two fragments preserved along with a lump of compacted earth (the larger piece) on which part of the pattern had been imprinted through contact with one of the pieces. In X4 neither LM IB nor LM II phases are represented, perhaps because such evidence has been eradicated through cleaning and use. Soundings under the level reached, however, may reveal earlier floors.

Contemporary with X4 in its later phases was Room X5, which also lasted into LM IIIA2. The original floor in X5 was now raised. It consisted of hard-packed earth and a partial slab pavement. Judging from the parts still visible, the original floor was paved with small pebbles embedded in hard-packed earth. The contemporaneity of use in X4 and X5 also explains why the door between them was never blocked. Clearly the walls collapsed after the inhabitants had left, leaving behind several of their belongings. Since habitation continued in the rest of the settlement at Kommos, the cause of abandonment cannot be attributed to a general catastrophe and might only reflect the circumstances of those using this building. House X may have been affected by the construction of a new mammoth building on the south, LM III Building P.

Room X4 once communicated with an auxiliary room to its north, X1 (Fig. 4, Pl. 28:a), which is likely to have been used originally for storage. The long, narrow shape of X1, as well as its proximity to a large room, much resembles the situation in Room XV in the Villa at Kannia (Metropolis) in the Mesara; like House X, this villa had apparently been built first in LM I and then reused in LM III.\(^{65}\) Eventually X1 was blocked off by means of two separate blockings, built in succession at nearly the same time (Pl. 28:a, left).

In X1, Minoan levels were found immediately under a surface associated with the base of the east wall of the 7th-century B.C. Building V.\(^{66}\) The first Minoan surface to be encountered was earth of LM IIIA2–B date (+6.43 m.). On it were found remnants of a much-ruined hearth made up of two slabs, one flat, the other upright, set against the south wall of X1. Pieces of clay from the coating of the hearth were found nearby, and an accumulation of ash was preserved between the upright slab and the wall. Small slabs found loose nearby may well belong to the north and west sides of the hearth, which was probably of a pi-shaped type common in LM IIIA–B at Kommos.\(^{67}\) There was no restorable pottery from this surface.\(^{68}\) The hearth may signify that X1 was converted into a small kitchen, probably used by people living

\(^{64}\) The distribution and typology of such vessels are discussed in Phillips 1991, pp. 114–120, 425–426.

\(^{65}\) Gesell 1985, pp. 77–79, fig. 11.

\(^{66}\) 73A/13. This wall was already in a much-ruined condition and was removed.

\(^{67}\) M. C. Shaw 1990, passim and fig. 4.

\(^{68}\) 66A/3, 4; 73A/21, 22; 81A/9.
on the upper terrace immediately north of X1. A noteworthy find is a stone lid (S 2128).

Pottery of LM IIIA1 date (with some IIIB sherds) under this level led to the next surface, which was paved with some flat slabs (ca. +6.10 m.) and was destroyed on the east. The slabs may represent the first use of X1 after it was blocked off in LM IB. Finds over the floor with the slabs, which was very rough, include some whole and partially restorable pots, two conical cups (C 9144, C 7862), a teacup (C 7835), and a cooking pot (C 7541).

Below this level began a soft fill with organic debris and with joins throughout, suggesting a dump of LM II date. The more complete pots in this stratum are a conical cup (C 9235), a teacup (C 9234), and a conical bowl (C 9233). Among the sherd material, a fragment of a Cypriot juglet (C 9236) is noteworthy. Other finds include a loomweight (C 9210), part of a stone lamp (S 2158), and a fishhook (B 331).

At the bottom of the LM II stratum (ca. +5.50 m.) was a change in the fill, which now included some tiny stone chips and bits of yellow plaster. This marked the top of the next stratum of LM IB date, in which vertical joins among sherds suggest that it was also a dump. Pieces of plaster appeared in layers (one layer is shown in Plate 28:b), roughly in the center of the room next to the north wall. The plaster fragments were very thin, as if from a coating that had been detached from its coarse backing; as a result, they were badly fragmented. The composition is of graceful white lilies (Pl. 28:c); polychrome rocks are seen elsewhere against a deep ochre ground. Other, related fragments of plaster were found on the floor and directly under the blockings of the original entrance. They were discarded in LM IB and may well belong to the original decoration of the house. The upper dumps in this room, on the other hand, may derive from the higher terrace to the north.

A sounding in a small area under this primary floor revealed the base of the north wall of X1, which was found resting directly on top of a deposit of complete pots. The pottery (which includes a bridge-spouted jar [C 9087] and an ostrich-shaped rhyton with dark-on-light patterns of ripples and wavy bands [C 9046])

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69 66A/14, 16, 19, 22; 73A/29, 31, 32; 81A/10, 11.
70 Among the sherds were represented numerous cooking-ware fragments and a bronze blade (possibly a sickle [B 301]).
71 73A/69, 72, 74, 75, 77, 79; 81A/13, 14.
72 73A/82, 114, 115; 81A/15-21.
73 73A/82.
74 The patterned pieces with the painted side up were copied by Giuliana Bianco and myself. Findspots of individual fragments were recorded, and photographs and slides were taken before the pieces were taken out. During the summer of 1992, the plaster fragments were cleaned and consolidated by Barbara Hamann, and copies were then made in watercolors by Giuliana Bianco.
75 More complete pottery from the LM IB stratum consists of conical and other cups (C 9050, C 9081, C 9082, C 9085, C 9086, C 9330, C 9541), two jugs (C 9319, C 9329), and two cooking pots (C 9083, C 9328). There was also a loomweight (C 9523) on the floor of the room (which sloped up from +5.19 m. on the west to +5.35 m. on the east).
76 73A/118, 120, 122.
suggests a *post quem* date in early LM IA for the construction of X1, and perhaps most of the house, since this wall is also an exterior wall.\(^{77}\) Interesting in this level are three loomweights (C 9221, C 9223, C 9224) and what looks like a lead weight (L 25).

The last room to be considered, **X14** (Fig. 7, Pl. 29:a), is located south of Staircase X13 and the shrine (X7). Like other areas of the house, it was overlaid by Greek strata, and a 7th-century B.C. hearth had been placed within the still partially standing walls at its northwest corner (+5.60 m.; Pl. 29:c). Greek use is attested in lower levels as well (down to ca. +4.96 m.).\(^{78}\)

With the next level Greek sherds ceased. A difference was noted in stratigraphy between the western and eastern halves of the room, which proved to be separate rooms when the lower part of the next stratum was reached. In the eastern area (X14a) there were a few LM IIIA1 sherds, but LM II pottery predominated.\(^{79}\) Below was a Minoan pebble floor, sloping down to the south, which separated the LM II level from one of LM IB date underneath. The pebble floor had been used in conjunction with a floor within X7 (also at level +4.90 m.), at which time there had been a doorway between X7 and X14.

A few objects might throw light on the use of the space; the two most interesting finds were from what looked like dumps. One is a fragment of a fresco that depicts a colorful spiral frieze (P 182); the other is a two-strand necklace made of shells (Sh 12). The shells must have still been threaded when the necklace was discarded. The notation of the sequences of individual shells and their retrieval in that sequence made it possible to reconstruct the original arrangement with a degree of certainty (Pl. 25:a).

The pebble floor did not continue in the western half of the room (X14b; Figs. 4, 7), where no equivalent floor was found. A rough surface (sloping south to north from +4.96 to +5.19 m.) marked the level where the south flight of Staircase X13 was built. Pottery both above and below this level was LM IIIA1, although, once again, we must be aware of contamination through erosion.\(^{80}\) Before the construction of the staircase, X14b had been separated from X14a on the east by a slim wall that projected slightly above the pebble surface of the latter room. The wall must have been cut down, possibly when the south flight of X13 was constructed, creating one large room, X14 (5.00 m. east–west by 2.30–2.80 m. north–south).

\(^{77}\) Vincenzo La Rosa, the Italian excavator at Agia Triada, described these two vessels (C 9087 and C 9046), which he saw during a visit, as similar to pottery of the “first phase of the New Palace at Phaistos.” The deposit is under study by Aleydis Van der Moortel and Jeremy Rutter, who hope to arrive at a sharper chronological definition of this ceramic phase. They both feel that the complete pots may represent a foundation deposit for which there are Minoan parallels, to be discussed in their study.

\(^{78}\) At the base of 80A/27, which was predominantly LM IIIA1 in date. It apparently concentrated on the southern edge of the trench, where there must have been a level area just south of the Minoan rubble. The Greek use, combined with earlier erosion of the Minoan debris stratum, explains the mixed pottery found here. Thus the Minoan rubble was predominantly LM IIIA1, but it still contained a few Archaic sherds. Exciting here was the discovery of a bronze figurine of a bull (Pl. 29:b) of Geometric or Early Orientalizing date, probably a discard from Temple B, some distance to the west.

\(^{79}\) The most substantial vessel preserved was an LM II Ephyrean goblet (C 9566).

\(^{80}\) 80A/27 above and 80A/35, 37 below the surface.
FIG. 7. Detail of state plan of Room X14 (G. Bianco)
X14a, the east room, may have gone out of use earlier than X14b. The end of its use is marked by the blocking of all doorways leading to it: through an earlier passage from the north through the space of the later shrine in X7, on the northeast leading to X8, and northwest leading to X14b. Evidence related to the creation of the shrine and the end of use in X8 suggests this date to be somewhere between LM II and LM IIIA1. X14b must have gone out of use when the south wall of Staircase X13 was built, although the date of this construction remains problematic.

Little can be said about activities in X14, either in its upper, undivided shape or earlier, when it consisted of two rooms. Architecturally, however, it seems that X14 functioned as a secondary, utilitarian area. Indications of this are the roughness of the floors in the west space and the poor masonry of the west and east walls. It is likely that X14, as has been suggested for Rooms X8 and X9, lacked a strong south wall on the side of the Minoan road, where there may have been instead some kind of a parapet. If this were the case, the room, although likely roofed, would have been largely open along its south façade and thus not a proper interior space.

A sounding under the pebble floor (Pl. 29a at a) supplied glimpses of an earlier room. Characteristic were some floor features: small, thin, upright slabs edging a pavement of flat, small stones, probably forming simple, very low platforms. One of these structures with a roughly east–west orientation was located next to the north wall of the room; the other ran parallel to and just east of the north–south dividing wall that separated X14. This level was associated with two cooking pots (C 9402, C 9407), which were quite well preserved; the area may have been a small kitchen. The date of such use is suggested by associated sherds and perhaps by a deep jug with decorated bands (C 9403), which seem to be LM IB.

A still earlier phase is represented by a beautiful slab-paved floor (Pl. 29a; ca. +4.40 m.), neatly finished on the west with a border of white floor plaster. The west edge of the plaster, found almost intact, curved up as if it had abutted against a wall or other vertical feature now missing. The edge of the plaster was some 0.10 m. away from the wall that divided X14a from X14b, which must have been constructed later, probably at the time of or just prior to the installation of the little platforms.

**Summary**

Conclusions expressed here should be viewed as tentative and incomplete. Not only will more information be forthcoming through future excavation, but the current finds need to be processed for more detailed data. This summary will raise questions and offer some tentative answers about the life span, use, and status of the house over time.

House X appears to have been built in LM IA. Evidence for this date was derived from deep soundings in X1, X2, and X3, rooms located alongside the north façade of the building. Use during LM IA is attested in X2 in two strata: one over bedrock, under a floor associated with a north wall; the other over this floor and under a

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81 80A/38, 89–91.

82 At the base of 80/93.
Evidence for LM IB is impressive in X2, where the period is represented by several superposed strata and surfaces. Both X2 and X1 seem to have gone out of use in LM IB, and the situation may be the same in Corridors X11 and X12, although Greek building activity there may have removed evidence of later Minoan strata. A floor with two phases of LM IB use was located in X14a. LM IB levels were also encountered in X3, X6, X8, and X9, although the date is more suspected than proven where evidence is limited. Of these rooms, X1 was converted into a dumping place after it was blocked off in LM IB and continued to be used thus up to LM III, when its level had risen enough for it to be usable as a living space (probably by those inhabiting the rooms on the terrace directly north of the house). That the room was blocked off in LM IB is clear from fill of that date found rising above the initial floor and against two successive blockings that shut the doorway to Room X4. The LM IB use of X2 may also be marked by a dump of this date, after which a new north wall was built in LM II.

LM II use was encountered in the form of shallow accumulations on floors in X8 and parts of X9 and more distinctly in X6 and X7, the last case possibly representing the first phase of the shrine. LM II is also associated with the construction of a new north wall in X2 and with strata at comparable levels north of the house.

LM IIIA1 marked the end of use of the house, except for Rooms X4, X5, and likely X7. These continued into LM IIIA2. Many of the rooms which went out of use before the three rooms mentioned are marked by blocked doorways. There is some ambiguity about the character of many of the LM IIIA1 deposits, namely vertical sherd joins, which suggest that they are dumps. It is quite possible that there are LM IIIA1 dumps right on top of levels of use of the same period; for this reason it is difficult to determine exactly when a room went out of use. One example is Room X14a, directly south of X7; its north doorway, and possibly the doorway east into X8, seems to have gone out of use in LM II. This could well be the date of the abandonment of Room X8 and, by association, of the intercommunicating room to its east, X9.

At an undetermined time, changes were made in the rooms that were used into LM IIIA2. Pure LM IB–IIIA1 levels are lacking in these rooms, for the inhabitants continued to use the earlier floor levels. In the large room X4, the floor was raised somewhat, thus covering a number of architectural features of the previous phases. The threshold at the doorway leading to X5 was removed at this time. X4 contained many large vessels, indicating that it had been used for storage during this last stage.

In X5, the earlier floor of hard-packed earth and pebbles was covered by a new one made of stone slabs. Since the stone base of a column that had earlier helped support a partial roof over this room was not found covered, there is a chance that the column was still standing. Otherwise, we can imagine this entire space as roofless in the last phase. The replacement of the earth floor with a rough stone pavement may support this alternative. In the southeast corner, where earlier there was a lightwell, a low wall was built, creating a bin. A number of vessels were piled
up or dumped in the bin. Quite possibly, X5 was used for cooking during the later stage. There is evidence of burning on the floor against its north wall, and the presence of some organic remains along with fragments of cooking ware may indicate that food was cooked or consumed here or both. It appears that during this later use a blocked doorway leading into X2 was partially dismantled, in order to reuse the space within the doorway. The exposed jambs of the door and a short wall set just north within X2 suggest a pi-shaped stone enclosure of a type typical at Kommos in the LM III period. Such enclosures had served alternatively as hearths or cupboards. Finally, as has been surmised above, the shrine may still have been in use during LM IIIA2. Then or soon after a new place of worship may have been created on the upper terrace, north of Room X2. The slab with a round depression (Pl. 23:a) and the bivalve shells found there may indicate such a function.

If this reconstruction of the last days of the house is correct, the three rooms must have served three basic necessities of life: storage in X4, food in X5, and the conduct of faith in X7. As Rutter proposed, the three rooms by now had become, in effect, basements. Staircase X13 led to ground level, which in the meantime had risen. Quite possibly the rooms that were built over the ruins of the original ground-floor rooms (as in X2, X3, X6, X10, X11) were used as living quarters, either by those who were still using Rooms X4, X5, and X7 or independently by others using the upper terrace. Rutter sees evidence for a possible upper floor deposit in a fill with some restorable vases of LM IIIA2 date above the lower floor deposit (C 9151, C 9141: two teacups).

One final and important question that still needs to be raised is the issue of how the history and life span of the house compare with those of the adjacent civic buildings. Probably built at about the same time as Building T (see p. 168 below), in LM IA, House X must have known its most prosperous days during the life span of this important building. Indeed, proximity between House X and Building T may even suggest a special relationship between the two. The residents of the house may represent an elite group at Kommos who were in the service of or interacted with the ruling class, especially if T had functioned as a palace. The presence of several seals in the house may imply that the owners had some official status.

The last use of the best-known area of Building T, the north wing, remains problematic because of the paucity of objects found there. As noted in earlier excavation reports, however, it is clear that the stoa (Space 16), now converted into a room, and adjacent spaces south and east (15, 42, 22) continued to be used into LM II. This area was subsequently completely covered over in connection with the construction of Building P during LM IIIA2.

The first intimations that not all was well with House X may be the abandonment of certain rooms in LM IB. This period may also be a time of change in the Southern Area, for an LM IB level was encountered in two locations in Building T, in the stoa and the room directly east of it, in association with some burning.

83 M. C. Shaw 1990, passim.
Other rooms in House X continued in use during LM II and in LM IIIA1, when several of the rooms went out of use. Heaps of pottery, often apparently dumps, sealed earlier phases of use. The closure of the rooms is also visually recognized by the many blocked doorways. By LM IIIA1, perhaps early, the use of the house was reduced. New walls constructed above the abandoned rooms did not seem to have substituted for what there was before. The new walls, where preserved, are flimsy. Their construction may correspond to the interim in the civic center, when Building T was no longer used and new construction (of Building P) was in process. Perhaps the few rooms of House X used in LM IIIA2 also coincided with the construction of P. Subsequently House X was abandoned, partly, perhaps, because the masters who controlled the Southern Area no longer wanted houses as their immediate neighbors. It is interesting, nevertheless, that whatever trade was initiated in the LM III period, its products were enjoyed by House X. Egyptian glass in Room X4 and many examples of Canaanite vases and Cypriot wares provide the evidence. Whether the residents in the upper rooms continued to live alongside Building P and to participate in a new and dynamic era of trade, we shall never know. Judging from the lack of building initiative in LM III on the Hillside and Hilltop settlements at Kommos, however, the better days for the ordinary, and once prosperous, inhabitants of Kommos were over.

THE MONUMENTAL ASHLAR BUILDINGS

by Joseph W. Shaw

During the 1979–1985 seasons the excavation exposed portions of two very large Minoan buildings with ashlar façades that extended unknown distances to the south and east of the Greek temples.85 LM I Building J/T, referred to here simply as Building T,86 is composed of a group of rooms much eroded by the sea on the northwest, a broad stoa to the north, and, to the east and southeast, an extensive series of rooms presumably used for storage (Fig. 8). These rooms surrounded three sides of a large court; the southern limit of the court remained unexcavated. Building P was constructed in LM III east of the court (Fig. 9), reusing ashlar blocks and rubble from the older building, long after most of Building T had gone out of use. As we understood P in 1985, it consisted of at least four huge roofed galleries open on the west toward the sea. Northwest of P was Building N, also an LM III construction, which made partial use of the plan and materials of Building J; N had a small enclosed court.

85 A general summary of the situation as of 1985 is in J. W. Shaw 1986, passim, with a series of plans indicating the phases in figs. 6:a–e.

86 The orthostate wall of T rests upon the socle of what has been called Building J. Although J is thus earlier, both J and T are part of the same complex and can be considered contemporary.
Excavation on the East (Trenches 76A/B, 77C, 78A, 83B)

In 1985 we had reached a point along the north wall of P and near its east end, where rubble and ashlar construction strengthened by wooden reinforcing (beyond a in Pl. 30:a) was replaced by coursed ashlar masonry. Clearly this part of the north wall was no longer built up against earth, as on the west, but was intended to be seen. In 1991 a series of trenches was set on the line of this ashlar wall in order to discover where it turns the corner. The corner (luckily within the expropriated land, although close to its limits) was well preserved, rising some 2.85 m. above its base. The entire façade was fully exposed (Pl. 30:a).

At a higher, Greek level was a wall of one course (Pl. 30:b at a, its base set at +6.97 m.) that curved south to meet the corner of P (at b), which was still visible in Greek times. This wall is likely connected with Hellenistic Building E to the north (Fig. 10:e), and it was probably built to prevent erosion toward the east. This would have allowed the inhabitants of E to maintain the existing ground level which

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87 In Minoan architecture, coursed ashlar is usually reserved for courts, lightwells, and exterior façades (J. W. Shaw 1973, pp. 83–106).
88 For Building E, see J. W. Shaw 1986, pp. 233–235, pl. 60.
afforded them passage over the wall of P and then down a flight of steps to a well (see Pl. 32:b and p. 167 below).

The ashlar construction of the façade of P is made up of roughly set, reused blocks, with earth and occasional small slabs between courses (Pl. 30:a). This masonry rested on what was left of a well-built north-south wall of orthostates that belonged to Building T (Pl. 30:a at a). Alongside Building T ran a slab-paved road (at b), 2.25–2.40 m. wide. The LM I wall continued north to join with the long east–west façade of T, also bordered by a road. By LM III the north–south slab road had been covered over at least up to the level of the socle of P (c in Pl. 30:a).

Once the location of the northeast corner of P was known, we began to trace to the south along its east façade, which was also built of ashlar blocks. South of the corner (Pl. 30:c at a), some of these blocks that were still exposed during Greek times had their tops carved out in the form of basins (Pls. 31:a at b, 31:b). It is likely that the basins were filled with water from the nearby well, perhaps so that animals brought to the sanctuary as beasts of burden or for sacrifice could drink. Within one basin were sherds from a banded jug (C 9189), probably of the 7th century B.C.

89 The crossroads to the north are indicated in Figure 10:c, and shown in J. W. Shaw 1986, pl. 57:c.

90 What appears to be a basin on the left in Plate 30:c is probably only the much eroded side of a building block.
Fig. 10:a–e. Phase plan of northeastern area indicating, a, all periods (cf. Fig. 2); b, MM; c, LM I; d, LM III; e, Archaic/Hellenistic (J. W. Shaw, G. Bianco)
(Pl. 31:b). It is likely that this area, some distance away from the temples, may have been used for camping and stationing animals during festivals.

Further south, two trenches (77B and 83B) were excavated next to the façade, east of Galleries P3 and P4 (Pl. 31:a). Surprisingly, we found that the wall of P had been set upon the earlier east orthostate façade wall of Building T. The early façade here is well preserved, with a finely cut socle projecting ca. 0.14 m. from the wall itself. Some of the orthostate blocks, as elsewhere in the wall, were quite high (1.36 m.). Long blocks were also set horizontally on edge, and thinner blocks were used to make up the remaining height of the wall. When P was built, the early wall was used as a socle, but the width of the new wall was reduced to about one meter, that is, some twenty centimeters less than the width of the LM I wall. The older wall thus projected as a ledge at the bottom (Pl. 31:a). It is likely that the east face of P, of which some blocks were found fallen outside and inside the wall, continued up with reused ashlar blocks. These, as well as the orthostates, were visible when P was built, although as time went on debris and erosion layers covered the façade. It is possible that the rubble interior of the wall of T was reused as far up as is now preserved.

The east façade of Building T was found some meters east of where we had expected (perhaps below the floor of P, since previously we had found first the northeast corner of T and then its continuation to the south; the continuation is shown in Figures 8, 10:c, and Plate 30:a at a). It shortly became clear, however, that the orthostate façade actually made a corner and continued eastward just south of the north wall of P, as shown by an orthostate, still standing on its socle within the later well, that was not removed when P was built (Pl. 32:c). The possible intentions of the builders in creating this jog in the façade are discussed below (p. 168).

91 For the development of the orthostate style in the MM period and its later use elsewhere, see J. W. Shaw 1983.

92 Using another technique, the builders of LM III Building N, northwest of here, narrowed the orthostate wall of Building T to 0.68 m. by removing the rubble backing rather than the ashlar façade blocks (J. W. Shaw 1983, p. 215, ill. 2). Perhaps they wanted to preserve the original appearance of the façade.

93 Above the top of the socle (+3.68 m.), the latest pottery was of LM IIIA2 date, with LM IB and earlier levels below. LM III pottery continued up to above the top of the orthostates. At +5.00 m. Greek sherds began to appear, and at +5.60 m. there was a circular burned surface, probably from an Archaic hearth, an indication of the level the accumulation had reached by that time (about 0.60 m. below the present top of the wall of P). To the same time period belongs a retaining wall of ashlar blocks, shown in Figure 2, on the extreme right. Since the face of this wall is to the south, its Greek builders presumably intended to keep that area clear.

94 It is clear that at its base within Gallery P3, where the edge of the LM I plaster floor comes up against the wall, the wall is of that date. Here and elsewhere, moreover, the wall construction, as seen from the west (as in Plate 37:a), appears to be uniform and is therefore probably of the same date. It is possible that the east wall of Building T, if there was only one story, was lower than that intended for Building P, which has been estimated to be about four meters from the fallen wall material found in Gallery P3 (Pl. 35:b).

95 At the time of writing, the northeast corner of the façade of T below the wall of P has not been cleared. Most likely, however, when the builders of P extended their completely new wall north to the corner, they built a kind of stepped wall prolonging the ledge, for a ledge is also visible at the appropriate height in the northeast corner of P (Pl. 30:a, at d).
Although with the recent land purchases we have excavated further east than originally anticipated, we remain somewhat uninformed about the area east of House X and Buildings P/T. This is partly owing to the depth of sand overburden, at least 7 m. in places, and to the closeness of the property line, with the modern road now just to the east. We have some indirect evidence to show, however, that LM I House X was entered from a north-south road, an extension of the road found next to Building T at the south, but we do not know what was to the east, across the road from House X. Further south, we expect that the great east-west road bordering T on the north extended further east beyond the crossroads, leading eventually to Phaistos and points beyond (Figs. 2, 10:c, d); we have not yet been able to sample the very deep sand and occupation debris that lie above that probable extension.

Continuing south, in the area of the northeast corner of Building P, we excavated directly east on the line of the wall of P, but the only architecture discovered was an Archaic wall (+5.33 m.; Fig. 2), with the LM I/III level (beginning at +3.61 m.) somewhat higher than the paved road next to Building T. Below this point was a dense layer of MM IB dump (down to at least +2.72 m., ground-water level), with bedrock kouskouras reached at +2.50 m. This MM level seems to match the MM IB dump found in Trench 80B to the west, south of the well (for which see pp. 167–168 below), and suggests that there was a natural declivity in the bedrock in early MM, probably carved by erosion, and that the builders filled it in with rubbish that had accumulated elsewhere on the site in order to make the area more usable, perhaps as a courtlike open space.

We may have found a continuation of the MM leveling fill below and east of the east façade of Buildings T and P, but of MM II rather than MM IB date. This is next to what may be either a foundation wall for the façade of T or an earlier MM wall on which T itself was placed on (at c in Pl. 31:a). Above this, at the level of the bottom of the socle of T, were some LM IIIA2 sherds on a clay surface (+3.29 m., Pl. 31:a at d), as well as a thin surface with beach pebbles, probably indicating the exterior at the time (as well as during LM I), but with no indication of a road that might be still further east. A deep probe in the southeast corner of the newly acquired property (Trench 78A; Pl. 31:c) revealed only a rough construction of Archaic date (its line is shown in Fig. 1), with the wall base at +2.60 m. and MM pottery beginning at +1.00 m. Both are clear indications that the ancient ground level sloped down toward the south, as in the southwestern part of the site (Trench 84A; see pp. 178, 182 below). Plate 31:c dramatically shows the actual depth of the alluvium covering the site in the general Southern Area. The trench was later filled in; there is little chance that we will excavate there in the future.

Excavation within Building P (The Eastern Wing of Building T)

Once the east façade of Building P had been located, we were free to excavate strategically within the galleries of P, with the aim of learning more about the building, its predecessors, and its post-Minoan use. The discussion below examines the galleries in order, beginning on the north.
EXCAVATIONS AT KOMMOS (CRETE) DURING 1986–1992

**Gallery P1 (Trenches 76C, 80B; Figs. 8–10, Pl. 32)**

The eastern end of Gallery P1 was excavated in two trenches, the first to the LM III floor level, the second continuing down to expose underlying remains. In the process, we revealed parts of one of the most complex areas on the Kommos site, where various periods of Minoan and Greek use are mingled and thus difficult to separate out with certainty.

We first cleared the length of the east–west stairs (Pl. 32:b), which were only partially exposed in an earlier season. Our original assumption was that there would be seven steps, continuing down to an LM III floor level (ca. +3.50 m.), and that the stairs were designed to give the users of P access to the roof. Instead, thirteen steps continued down (to at least +2.00 m.) even below ground-water level (at +2.20 m. in 1991). It was clear, therefore, that we had found a step-down well, a find confirmed by the many large and small fragments of Hellenistic amphoras that were found near the top of the stairs, on the steps themselves, and below water level. This was probably the well used by the residents of Building E and, later, possibly by those who had hollowed out some of the upper blocks of P to fill them with water for their animals.

At the base of the stairs (shown in Plate 32:b before the removal of some tumbled blocks) was a rectangular well basin; its north and east walls were formed by the interior walls of the corner of LM III Building P. The well's south wall of rough rubble (Pl. 32:c), probably later than the better-built south wall of the staircase, incorporates a large block (left) set on the projecting socle belonging to the eastward jog of the LM I orthostate wall of Building T (p. 165 above). For some reason, perhaps in order not to weaken the original corner of T there on the east, the orthostate block was not removed when P was built; it remained standing at the east end of the gallery.

South of the well (Pl. 32:a, foreground and right), excavation proceeded below the tops of the walls of P, through Hellenistic levels, which sloped down to the west with occasional burned spots that probably indicate the sites of cooking fires. Below was a thin Geometric lens of deposit overlying the LM IIIA2/B accumulation (also sloping) on the floor of Gallery P1. The original floor of P (ca. +3.50 m.) was burned, and above it were found lenses of burning along with fragments of LM IIIA2/B cups and domestic ware as well as numerous fragments of medium-coarse short-necked amphoras similar to those in Figure 11 and Plate 33:a. On the north, in the area of the south wall of the well, were occasional Greek sherds that apparently had become mixed in when the rough retaining wall was constructed.

When we removed the floor of Building P, it became clear that a shallow foundation trench had been excavated (Pl. 33:b) when the south wall of the gallery was built; within the trench were LM IIIA2 sherds. A number of features were

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97 An Early Protogeometric skyphos fragment (C 9299) was catalogued.
98 Catalogued were a hasp or hinge strap of lead (L 24) and fragments of a flask (C 9045), a stirrup jar (C 9273), cups (C 9274, C 9388–9390), a conical bowl (C 9391), an oval-mouthed amphora (C 9276), an amphoroid krater (C 9277), and a Canaanite jar (C 9398).
isolated north of this trench. At +3.35 m. (Fig. 10:c), for instance, were the remains of what are either slabs from the LM I pavement of the Minoan road that paralleled T on its east or, possibly, a slab floor within Building T, perhaps the only part of the floor of T not eradicated by later construction.99 Only a few rough slabs remain from the original wall of T that once led to the orthostate preserved to the east. A surprising discovery, however, was massive MM walls that underlay the LM levels. The thickest wall, as wide as 2.30 m.,100 runs north–south on line with the LM I façade to the north (Fig. 10:b). Against it on the east, and perhaps contemporary with it, was set a narrower east–west wall also oriented on the line of the later orthostate façade. Excavation along these two walls on the southeast revealed that they step out slightly further down (as in Pl. 34:b), accompanied by a deterioration in the masonry. Within the fill were found thousands of broken sherds of pure MM IB date that seem to have been used as a leveling dump after the walls were laid in. No surface of use that might be interpreted as a floor or exterior level was discovered except below the wall bases (+1.46 m.), where there were a few layers of burning in the sand.101 We assume, therefore, that the walls served as foundations for structures that were removed when Building T was built during LM I.102 On the other hand, future excavation west of the southern extension of this north–south wall into the area of Gallery P3 (Pl. 36:b) will test this hypothesis.

The following manmade changes in this area are sketched out in Figure 10:b–e.

1. In early MM, a north–south wall, at least 11.26 m. long and 2.30 m. wide, is built with an unusually deep foundation; a narrower east–west wall is built up against it on the east. The area on the east is raised with dumped fill.

2. In LM I, the MM building is razed and Building T is set over it. As suggested by Maria C. Shaw (Fig. 10:c), there may have been an entrance here (thus the jog in the façade of T); the slabs at +3.35 m. may represent the pavement of a vestibule area that was removed when P was constructed. T goes out of use in this area in LM I (there is, however, an LM II reuse in the stoa to the west).

3. In LM IIIA2 Building P is constructed. The eradication of Building T is selective, for parts of it are reused.

4. P goes out of use in LM IIIB. The gallery is used occasionally, while the level on the interior rises during Geometric and Archaic times. During the Archaic period or earlier, at least the upper part of the staircase is built. A pre-Hellenistic date is suggested by the fact that the staircase is freestanding, with a face on the

99 The slab pavement of Building T north of P is at + 3.44 m. P was built over the pavement. Slabs of the same pavement appear at the same level below the eighth step of the staircase, counting down from the top block preserved.

100 This is an estimate of the actual thickness, based on the width of the wall found on the same line in Gallery P3 to the south (Fig. 10:b, Pl. 36:b).

101 A few bits of colored plaster were found on the upper parts of these MM walls. Since no floor or use level was found associated with the wall here, perhaps the slabs with the plaster were in reuse.

102 The use of such massive foundations is unusual in Minoan architecture (see J. W. Shaw 1973, pp. 75–77) but may have been necessary here, since the walls were built on sand. On the other hand, the socle of the LM I orthostate block in the well was simply set upon sandy earth without providing for a special foundation (Pl. 32:c).
south. If the staircase had been built into the Hellenistic debris within the gallery, the south wall would have been only a retaining wall with a single face to the north. Instead, the south wall has finished faces to both north and south. During the Hellenistic period the well is cleaned out (only a few pieces of earlier pottery were found in it), after which it is deserted, along with the remainder of the site.

**Gallery P2 (Trench 77A/B; Figs. 8–10, Pls. 33:c, 34:a, b)**

Only part of the eastern end of Gallery P2 was exposed. The pattern of use was similar to that of P1 to the north, but simpler. The phases in this area are illustrated in Figure 10:b–d and are described below, from the earliest to the latest.

1. **MM (+2.11 m., minimum, to +3.25 m.)** To this period belongs the substantial MM north-south wall of rough slabs (top at +3.25 m.; Fig. 10:b, Pl. 33:c at a). The east face (Pl. 34:b) is in line with continuations in P1 and P3. As in P1, no floor level was found associated with it. There was also the same projecting lower part of the wall as in P1.

2. **LM I (+3.25–3.45 m.)** The LM I level (b in Pl. 33:c) directly overlay the MM wall, which may have been cut down to accommodate the floor. The LM IA level, presumably the floor of Building T, was of clay with occasional lenses of sand; within it was found an unfinished steatite sealstone (Pl. 39:a).

3. **LM IIIA2/B (+3.45–3.70 m.)** Blending into the top of the LM I level were multiple layers of burnt clay and earth. At +3.51 m. was a circular patch of burning that may not be Minoan but, rather, the remains of an Archaic hearth. Above this point on the west was an Archaic hearth (+4.39 m.), which extended south above the south wall of P in this gallery, an indication that the wall had been robbed out or had collapsed before the 7th century B.C. On the east, the LM III levels, including the blocks collapsed from the east façade wall of P, were gradually removed by us (Plate 33:c shows this collapse before removal). The LM IIIA2/B floor accumulation, sloping up to the east (from ca. 3.50 to +4.25 m.; Pl. 33:c at c, d), was quite burnt. Resting on the accumulation is what appears to be a rough slab floor (not visible in Plate 33:c). The accumulation itself has not yet been removed.

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103 A possible anomaly should be mentioned here. The south wall of the staircase begins at +3.56 m. The bottom of the eighth step of the staircase is at +3.35 m; this step actually rests on an earlier LM I pavement, over which the corner of P was constructed. Below that pavement is another slab, and these slabs seem to have served as the ninth step, a very rough one with a gap between slabs. Below this point on the east extend the remaining steps (steps ten to thirteen). These steps, originally set into MM levels, may be of that date. More likely, the main part of the staircase was built down to the LM III floor, and then the steps were extended down to water level. It does seem curious, however, that the section of LM I pavement was not removed and then replaced with a proper step when the stairs were being built.

104 We did not, however, reach the bottom of the MM wall, although we traced it down to ground-water level (+2.11 m.). Nor could we estimate its width until its continuation was cleared in Gallery P3 to the south. The pottery next to it was uniformly MM II, definitely later than the MM IB fill east of the wall within Gallery P1. This difference in date may be further evidence for considering these deposits to be dumped fills rather than use levels.
Of some interest from the architectural point of view is the observation that the galleries of P may have been constructed sequentially, beginning on the north and extending to the south. Evidence for this can best be seen in Gallery P2, although it can also be observed at other points in eastern P. The left-hand part of the east–west wall was first constructed neatly in a step-like arrangement (Pl. 34:a at a). Afterwards, the wall was extended to the west by adding rough blocks and rubble to continue the line. The south face of this wall, as it emerges on the façade, is not bonded to the courses of P that continue to the south (Pl. 31:a at e). This suggests that the east façade was first extended to e and at the same time the interior of the east–west wall was built up. Although it is possible that the façade of Gallery P3 and its south wall were added at the same time, the lack of bonding is unusual, and a theory of "additive" building (extending over a period of years, perhaps as resources were available) remains possible.

\textit{Gallery P3 (from east to west, Trenches 83A, C; 81B; 82A, B; 65A–A2; 36B; Figs. 9, 10:c–d, 12, 13, Pls. 35–38)}

The largest single project of the 1992 season was clearing Gallery P3 of Building P down to its floor, to ascertain any cross walls, entrances, or floor features that might help explain the form and use of P. The results showed that there were no entrances on the east and no doorways between galleries. The only LM III floor features were two large clay ovens and a built hearth, all set next to the south wall. There were no crosswalls except for one built during the Geometric period, creating a room (Z) within the western part of the gallery. At one point on the east we investigated MM–LM I remains underlying the LM III floor, but the major job of examining the length of the gallery is scheduled for another season. As with P1 and P2, interpretation will be hampered by the fact that the MM, LM I, and LM III levels are not separated from one another by substantial fills. The 1992 excavation of P3 (see the general view in Pl. 35:a) exposed five phases.

1. \textit{MM I–II}. On line with the massive MM wall located in P1 and P2 is another wall (Pl. 36:b at a, top at \textit{ca.} +3.40 m.), found in a shallow sounding below the floor of P3. There was room here to determine its full width, some 2.30 m., which makes it by far the widest wall found at Kommos (including the 1.40-m.-thick orthostate wall of Building T). Both faces of the MM wall are lined with uneven slabs, some roughly triangular, with an interior of densely packed rubble and earth. When Building T was built, the wall was probably dismantled to just below the new floor level.

2. \textit{LM I}.\textsuperscript{105} Remains of LM I construction have been found in three places. On the east (Pl. 37:a), below the earthen floor of P, was found the northeast corner of an earlier room, presumably part of Building T. It was identified by a plastered floor (+3.51 m.), the plaster still adhering to stubs of rubble walls. The walls had a

\textsuperscript{105}Since the LM III disturbance is so close to the earlier remains and excavation here was intentionally limited to shallow probes, no pure LM I stratum was identified in 1992 within Gallery P3. Identification is based, therefore, on our estimation of the general contexts, one of the chief criteria being that of relative level.
somewhat different alignment than that of P (Pl. 37:a at a). The east–west wall on the north (Pl. 37:a, left) is aligned with one further west (Pl. 36:b at d). A fine plastered floor at +3.23 m. (Pl. 37:a at b), painted blue and lower than the floor level to the east, was laid against the continuation of the east–west wall. This floor stops in an irregular line west of the MM wall (Pl. 36:b at c). If the floor ever ran over the wall, it was removed for some unknown reason, probably before P was built. Bits of plaster and earth were found above the MM wall.

Another stretch of LM I plaster floor (+3.05–3.11 m.) was found further west, below the entrance to P3, in previous excavations. It was divided in compartments with successive coatings of plaster, the use of which remains unknown. It is also unclear if this floor relates to the LM I floor discovered this season.

3. LM IIIA2/B. Many rooms of T that were not disturbed by later building, such as those north of Building P, were found filled with masonry that had collapsed during LM I or shortly afterwards. Perhaps the situation in the area of Gallery P3 before P was built was similar. After the hiatus of LM II–IIIA1, the builders of P seem to have leveled the interior walls of T and reused the masonry from the earlier walls (unless, as in the case of the east façade, they used the LM I wall as a base for their own construction).

The primary floor of Gallery P3 was of earth and some clay (ca. +3.44 m. as traced on the east). It had multiple layers of burning that rose up on the east some 0.40 m., to just below the sloping layers of wall collapse like those found in P1 and P2. In addition to occasional thin lenses of burning at the east end of the floor, patches of dark red material were found up to +4.40 m.; this material is undergoing analysis for its possible composition and use. Some of this material was also found adhering to the interior of a bowl (Pl. 38:d, center) and on the interior surfaces of sherds of short-necked amphoras (Pl. 38:d, right). This vessel shape (Fig. 11, Pl. 33:a) is characteristic of the entire length of the gallery and is certainly to be connected with its use. The burning does not seem to be from occasional fires, nor does it seem to have been caused by a single major fire, as was probably the case in Room 24a north of P. The walls of P are not calcined as if by heat, and the chances for wood in the walls do not contain carbon, as they would if there had been a major conflagration.

The origin of the burning must relate at least partially to three LM III floor features in P. One is a hearth (about 1.36 m. east–west and 0.80 m. north–south; Pl. 37:b), bordered on the north by three vertical slabs, which contained ash and carbon, shells, and sea urchin spines. In it was also extensive pottery (almost eleven kilograms), including many short-necked amphora fragments (with an exceptional

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106 There are at least three layers of plaster; the top is an unpainted pink plaster, the middle is pink plaster painted blue, and the earliest is white plaster painted blue.
108 The amphora fragments on the floor of P below the Geometric use level on the west were in 81B/72, 73; 82A,B/39, 57, 58.
number of rims and handles), cooking pots, jugs, and cups. The other two features must be identified as domed, rounded ovens, probably used for baking (Fig. 12, Pl. 38:a, b). They were set with their backs against the south wall of P3. Their

There were joins with pails to the north, as well as with some rather far to the east. Two cups (C 9654, C 9661) and a short-necked amphora (C 9662) were catalogued.
The detection was due to the unusual pinkish yellow color of the floors at those points; their original forms were determined by excavating within and next to the clay.

The ovens had been built by first digging a circular cavity (about 0.30 m. deep and 0.80 m. in diameter) into the floor, and then coating it with fine clay in a layer about 0.10 m. thick. The curving sides and the fallen sections of baked clay found within them made it clear that the ovens had domes, perhaps projecting 0.30 m. above floor level. Within the east oven were a few LM IIIA2/B sherds; there was also a slab on which perhaps was set a cooking pot (Fig. 12, Pl. 36:a at a, Pl. 38:a). In the west oven (Pl. 36:a at b, Pl. 38:b) were large, very burnt fragments of a short-necked amphora (some are visible in Plate 38:b), which may have been set on its side, with the narrow mouth removed, so that a clean container for baking would be available.

No clear edges of the upper oven openings were detected, however, leaving the total size of the openings undetermined. The positions of the openings are probably indicated on the north, however, by stones that lined a rough passage leading down into the ovens. Within both of the smoothed clay interiors were layers of ash and carbon, along with fragments of the dome. Dry and water sieving did
not provide evidence of significant quantities of bone or other materials that would help determine what was being baked.

Hearth and ovens have been found elsewhere at the Kommos site, where they are typical of the LM III period. Hearths are more common than ovens, but one probable oven, with enough of its dome preserved to identify it, was found in Room N16 of the North House on the Hilltop.\textsuperscript{111} It also had a lining of clay on its interior and stood over the floor rather than being dug into it like those in P3. Its walls were of upright slabs forming a pi-shaped enclosure.\textsuperscript{112} The ovens of P are also unusually large and had much greater capacity than those elsewhere at Kommos.\textsuperscript{113} The ovens in P3, and those in the newly opened southwestern area (see Fig. 14, lower left; Pl. 43:a; and p. 182 below), probably reflect a desire to provide sustenance to more than a few people in a single household. This is also suggested by the fact that elsewhere ovens are found singly in houses, unlike in P3, which has two similar ones near each other.

4. Geometric Reuse. In the eastern ends of the three galleries sampled, there was sufficient pottery to attest occasional use during the Geometric period. In Gallery P3, where we were free to excavate to the west,\textsuperscript{114} we found not only that an extended use of the area was there at the time but that a separate building, partly reusing the walls of P, had been built within it (see pp. 175–177 below).

The Eastern Part of Gallery P3

The most dramatic evidence for wall collapse was found in Gallery P3, where entire sections of at least the north wall were found fallen, with the blocks edge-down (Pl. 35), above the accumulation on the floor of P (bases at \textit{ca.} +3.80–4.00 m.) Clearly the masonry all collapsed at one time; from the position of the blocks, it must have been from the north wall. Within the remains of the fallen wall could be seen the chases for the vertical beams that once bound the masonry in place, and they could be followed, diminishing in clarity, toward the south. Also, the blocks are canted toward the north as if they fell from that direction.\textsuperscript{115} The number of courses could be counted, giving us for the first time an estimate for the minimum height of the wall of P of at least four meters. We also realized that, at least at this spot, the upper walls of P were built of smaller blocks that could be set more easily in place.\textsuperscript{116}

\textsuperscript{111}M. C. Shaw 1990, p. 238, figs. 4:a, 8.
\textsuperscript{112}Another possible oven, of LM II date, was found in the vicinity of the stoa of Building T (M. C. Shaw 1990, p. 244, fig. 14). Its construction is like the one in the North House. For ovens elsewhere in Crete, which seem to be restricted to the LM III period, see references to LM IIIA/B Kannia and LM III Palaikastro; for a similar modern oven in use see M. C. Shaw 1990, fig. 17.
\textsuperscript{113}The oven in the North House is about 0.30 m. wide; those in P are about 0.80 m. in diameter.
\textsuperscript{114}Archaic Building Q and other structures partly block the western parts of Galleries P2 and P3.
\textsuperscript{115}There is only one layer of blocks, so we are probably dealing with only the south face of the wall. Perhaps the north face fell into Gallery P2 (still unexcavated at that point). Conversely, since there is no clear trace of the collapse of the south wall of Gallery P3, it perhaps fell as one unit into Gallery P4 to the south, rather than splitting in half vertically.
\textsuperscript{116}The mass of fallen masonry was removed by us, but a few of the large ashlar blocks tumbled next to the north wall were left in \textit{situ} (Pl. 36:a at c).
The walls of Building P and at least part of its roof must have stood for centuries after their abandonment of ca. 1250 B.C. The wooden beams of the roof and those within the wall fabric decayed with time, and the walls probably collapsed in stages. The collapse occurred by the 8th century, for 9th/8th-century pottery was found below the fallen masonry (83C/68), and 8th-century pottery lay uniformly above the fallen wall mass. After this time, the eastern part of Gallery P3 gradually filled up with debris and alluvium until, by the end of the Archaic period, the walls of P were no longer visible.

The Western Part of Gallery P3

In its western end, Gallery P3 had a somewhat different early history; it was used for centuries, although perhaps only at intervals in historic times, especially by those visiting the Kommos site during the use of Temples A and B. According to our recent redating, Temple A was most likely founded at least as early as the Sub-Minoan (SM) period (ca. 1020–970 B.C.), somewhat earlier than the 10th-century, Early Protogeometric (perhaps late in the period) date previously suggested.117 Not long after, during the Protogeometric/Early Geometric period, Gallery P3 began to be used on the west (Fig. 13), just west of the wall collapse (Pl. 35:b). A rough hearth made of slabs, as well as a possible bench (Pl. 38:c), was set upon the LM IIIB accumulation.118 It is quite possible that the walls of P here were all standing at the time, for the north wall shown in Plate 35:b had not yet fallen. The second phase of Greek use of the gallery is in the Middle–Late Geometric period (Fig. 13), probably after the time of a general wall collapse. It appears that about the time Temple B was constructed, the debris from the collapsed walls was collected and reused to build a rough wall (Pl. 36:c at c, d) alongside the north wall of P3 but higher than the floor of P (Fig. 13). Then a north–south wall, its only smooth face to the west, was built on the east (Pl. 36:c at e), with its base at +3.95 m., about 0.50 m. above the original LM IIIB floor.119 Beach pebbles were brought in to form

117The absolute dates are based on the chronological chart in Brock 1957. The still tentative SM dating is based on a reevaluation of the pottery on the first floor of Temple A, some of which is shown in J. W. Shaw 1981, pp. 236–238, pl. 61:b. This will be published in detail by Peter Callaghan and Alan Johnston as Greek Pottery Deposit 1 in Kommos IV. By general agreement, the pottery illustrated there seems to be somewhat later than that discovered near Building N southwest of the Temple, as now published in Kommos III, pp. 100–102 (Deposit 98), 146–148. We are indebted to Nicolas Coldstream, Mervyn Popham, L. Vance Watrous, and others for helping us clarify the relationships. A general result is the reduction of the “hiatus period” on the site to ca. 1250–1050 B.C., although the LM IIIIC pottery clearly indicates that some activity continued (cf. Kommos III, p. 146, where Watrous estimates that the general abandonment of the Kommos site occurred at the beginning of LM IIIB2).

118The original floor of P is at +3.41 m. here; the Middle Geometric level begins at about +3.75 m.; the base of the hearth and possible bench are at +3.85 m. The bench is paralleled on the west by another, similar structure of the same date found in Trench 65A2 and shown in Figure 13 (Phase I).

119The east–west wall can be seen in Plate 36:c at c and d. At d is its eastern end, partly collapsed. Against this was set the north–south wall (at e); a possible sill for a door or window is at the same point.
Fig. 13. Simplified plan of the Geometric phases within the western part of Gallery P3 (G. Bianco, J. W. Shaw)
a hard-packed floor. The resulting Building Z was probably roofed, to judge from the new east–west wall that was added to shorten the width to be spanned.\(^{120}\)

Measuring from the northeast interior corner of Building Z, the east–west wall extended at least 12.70 m. to where it has been destroyed, probably by erosion and later quarrying activities.\(^{121}\) In Figure 13 the wall has been restored as continuing to the western end of Gallery P3. The west wall may have appeared like the one found in 1992 closing off the end of Gallery P6 and built like a retaining wall with a single face to the east (Pl. 42:b, right). An entrance into Z from the north has been restored where a large reused block may have been set in to serve as a threshold.

Material accumulated on the floor suggests domestic use, for it includes many fragments of cooking and drinking vessels,\(^ {122}\) bones, and several kilograms of limpet shells. A series of ten differentially weathered pebbles were undoubtedly used as weights, perhaps for fishing (Pl. 39:c). There were multiple lenses of burning, especially in the center of the room, probably from cooking fires. Not far above a floor level (+4.35 m.), four iron spearheads were found in about the center of the building (Pl. 39:b).\(^ {123}\) Perhaps they had been brought by a soldier who had intended to dedicate them in the temple and were abandoned here for unknown reasons. Pottery included kraters, amphoras, cups, and skyphoi, as well as cooking pots. Just east of Z, above the earlier Geometric level that extended below the later cross wall, was an outdoor area with numerous burnt surfaces, similar pottery, and a “fishing” weight like those found in Z; the area had less bone and shell, however, which may be an indication that it was used less for eating than for food preparation.\(^ {124}\)

Building Z may have collapsed during the late 8th century. It was razed down to its present level in the early 7th century, when the area was used for food preparation by people visiting the sanctuary area, as shown by the numerous burned Archaic surfaces often accompanied by bone, limpets, and fragments of cooking vessels. During the late 7th century, Building Q was built to the north. Like Z, Q was a long rectangular building, oriented east–west, but Q was subdivided by north–south cross walls and probably had a commercial rather than domestic use, to judge from the many imported vessels found associated with it.\(^ {125}\)

\(^{120}\) The free span was thus reduced from 5.90 to 4.70 m.

\(^{121}\) The western end of the wall as preserved can be seen in J. W. Shaw 1986, pl. 55:e.

\(^{122}\) In Trench 36B (J. W. Shaw 1981, pp. 242–243, pl. 57:d), part of the Middle/Late Geometric occupation level within Z was excavated in a sounding. At the time the pottery and burning were thought to belong to a Geometric dump. The pottery will be published as Deposit 22 in Kommos IV.

\(^{123}\) These spearheads probably date to the early 8th century, the time of Temples B1 or B2, and now join the small group found at the Kommos site, including bronze spearheads B 218 and B 15 from Temples A1 and B1, respectively. There are also iron spearheads Mi 12, from Hearth 3 in Temple B and Mi 137 and Mi 176, from the dumps south of Temple B. Spearheads do not appear at Kommos during the time of Temple C.

\(^{124}\) There were also joins between pottery found here and within Z, for example, C 9609 and C 9723. Perhaps there was a window or doorway, its sill no longer preserved, in the north–south wall separating the spaces.

\(^{125}\) For Building Q, see J. W. Shaw 1986, pp. 227–231. An article by Alan Johnston dealing with the imported storage vessels from within and around Building Q is forthcoming in Hesperia.
Early in the 1992 season, we initiated a major probe in the southwestern area of the site by clearing away the deep sand and upper alluvium overlying the ancient levels. The chief aim was to determine the south border of the court of Building T, which had already been followed some thirty-eight meters to the south from the stoa bordering it on the north. Our criterion for setting in the first trench was based on the somewhat predictable plan of Building P in the LM III period. Since P had a gallery width ranging from 5.48 to 5.96 m., we thought we should excavate at a point where the south wall of a putative sixth gallery of P (P6) would meet the east border of the LM I court, assuming that the line of destruction caused by the sea waves, which had eradicated much of Building J and clipped part of Building Q on the west, had not reached that far inland. Since we knew that the façades of Buildings T and P on the east were one, and that the southern end of the east wall of Gallery P4 may have been set on an earlier LM I wall,\(^{126}\) we concluded that P6 might also coincide with an LM I construction.

The result of excavation here was that the south wall of P6 was located in the first trench, although further north than predicted. It had been placed upon an earlier LM I wall of T (Pl. 40:b) that, to our surprise, turned out to be the apparent south border of the court and perhaps the south wall of T itself. The sequence is summarized below in four chronological phases.

**Possible LM I Predecessors of Building T**

Even though excavation on the far south reached part of a probable LM I wall or slab paving (+2.18 m.; Fig. 15 at a, far left),\(^{127}\) pure MM ceramic levels were not reached, although they are probably not far below. If the line of the paving mentioned is extended to the north, below the LM III construction, it falls about 0.55 m. lower than that of a more completely revealed pavement south of the ashlar wall of Building T (in Fig. 15, at b). If the two pavements are contemporary (they may both be of the LM I period), then there may be an east–west wall (on the line of c in Fig. 15; Pl. 42:a) retaining the significant difference in level. The pavement at b runs north to end neatly at the slabs supporting the heavy ashlar wall (Fig. 15), which may mean that T itself was set on an earlier wall, as probably was done to the northeast (Pl. 31:a at c).

**LM IA Building T on the Southwest**

Fortunately, a well-preserved section of the wall of T was revealed. First only a few blocks were found with the wall of P set upon them, but then the wall was traced further to the east and west (Fig. 14, Pl. 41). Although stripped of its upper courses, the wall (1.40 m. wide) is an excellent example of LM I masonry. East of a block with a rectangular cutting (Pl. 40:b) is visible a portion of the southern face of the wall where the south edges (but not the entire width) of the blocks meet, as in many ashlar façades of the period.\(^{128}\) West of the same block are two more blocks that

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\(^{127}\) The earth above the paving had LM I pottery in it, followed immediately by LM III units.

are somewhat different: they extend further into the wall structure and have more extensive contact surfaces between them. These are less reminiscent of the wall on the east than of the blocks that make up the projecting socle of the north and east façades of Building T. Orthostates, therefore, may have been used here as well.

The block separating the two stretches of wall described is of particular interest, for it has a rectangular cutting (0.26 by 0.36 by 0.09 m.) that was most likely intended to house a wooden pivot block for a door leading into T from the south. The cutting overlaps onto the block to the west, which has also been cut into slightly, probably to accommodate the western jamb of the doorway (see Fig. 8). Of the north face of the same wall, only four blocks are visible (others are undoubtedly covered by the wall of P), but these show that this face was also of ashlar construction. One block of the second course is preserved.

As reconstructed, the doorway would have been about one meter wide, an unusually narrow opening, implying that it was not a major entrance into T from the south. This is curious, for it probably falls at the southeast corner of the huge court of the building (as in Fig. 8). There was perhaps a broader entrance to the west that may have been destroyed either by stone robbers or by the waves. That the wall borders the court along its south periphery is almost certain. First, a court surface paved with pebbles was found not far from the wall (its level at +2.80–2.83 m.; Fig. 15 at d). This level conforms to the known court slope to the southwest. Second, the north face of the wall under discussion is of ashlar construction, which could imply that it faced an open space. Finally, the joints of the wall here were plastered (as in Pl. 42:c), indicating an exterior face.

The surface associated with the ashlar wall, on the south, is probably that at d in Plate 42:a (the level reached in Plate 40:b before excavation had progressed further). As far as we know, there was an open space: perhaps Building T ended here, for no north-south walls or other interior supports have been found, and the LM I level seems to step down rather quickly to the south.

By comparison, the entrance into the large court from just south of Building J (from Space 9 to Space 7) was about 1.40 m. wide. That into J from the east–west road (from Space 17 into 5) was about the same (J. W. Shaw 1980, pp. 240–241). It is possible that the rectangular cutting may have had some other, still-unknown purpose, for there are no arclike scorings on the slab to indicate where it has been worn by wear. The surface of the slab, however, has been partly lost through natural weathering. It is also possible that a separate threshold block was set here.

There was an area of disturbance directly north of the wall in the small area excavated; the pebble pavement begins north of there. Upon it was LM IA pottery, in particular a number of conical cups (C 9645–9648), indicating the first period of use and perhaps the laying in of the pavement.

The level at its northeast corner is +3.08 m. and at the midpoint about +2.98 m.

Concerning the form of Building T, the possible change from regular ashlar to orthostate construction may be significant: the former may relate to a south projection of T in unexcavated ground to the east. Also curious is the fact that the wall of P is not set neatly on those of T but, rather, along its north edge, suggesting that the east–west ashlar wall of T may jog north of where we see it now and that the builders of P chose the greatest length of straight wall to build upon.
Fig. 14. State plan of southwestern area of Trenches 82C and 84A–E (G. Bianco)
Fig. 15. Section through area in Fig. 14 (G. Bianco)
In LM III (probably in LM IIIA2), Gallery P6 was set in after the ashlar wall of T was dismantled down to the top of its first course (to ca. +3.39 m.). The southern wall of P6 was built of reused blocks set over a leveling course of small stones (Pl. 41:a). Its western end was removed during later quarrying operations. On the south, a surface was created (+3.45 m.), even with the top of the leveling course. We have not excavated within P6, but there is a LM III accumulation to the west that probably approximates its floor level. Within this accumulation were many fragments of short-necked amphoras and cooking pots (in 84C/42, 43) that typify at least the final use of Building P, a pattern noticed in Galleries P1 and P3 to the north and east (pp. 167, 171-173 above).

We have not excavated extensively enough to the south and east of this area to know for sure whether the galleries of Building P continue. At this point, however, there is much indirect evidence to show that they did not. First, the wall of P here is better built on the south than the north, as if the builders were strengthening the face that would be most exposed. Also, the rubble accumulation found west of P6, from the post-Minoan despoliation of Building P, does not continue south. The most convincing evidence, however, is that the LM III use levels, including the telltale short-necked amphora fragments, begin to the south at least 0.20 m. below the top of the LM I ashlar wall base. These levels slope down gently southward for some meters (to +2.18 m.), where they rest on what may be an LM I pavement (Fig. 15 at a). It is very unlikely that this is an erosion slope, for above these same sloping levels we found a row of slabs, set on edge in LM III, that run at an angle to the buildings to their north (Pl. 42:d). To the south were found two small hearth/ovens like those within Gallery P3 of Building P but much smaller and poorly preserved (Fig. 15, Pl. 43:a). Each was made of clay, baked through heating; the oven on the west had in it part of an amphora, quite burnt, analogous in use with the one in the west oven in P3. It is possible that the row of slabs formed a windbreak for the oven south of Building P, to shelter the oven from the prevailing winds and allow baking to be carried out more effectively.

The Greek Period

Scattered Geometric pottery attests to the continued use of the area, and this may have been the time when P6 was blocked at its west end by a rough retaining wall. Its exterior face is on the east (Pl. 42:b). We have not excavated below the wall collapse within P6, but the reuse is analogous to Geometric Building Z built at the western end of Gallery P3 (see pp. 175-177 above), and the Geometric pottery found above the collapse suggests that the reuse is either very late Minoan or Geometric.¹³⁵

There was quarrying in the area probably after the collapse of the upper walls of Gallery P6 during the 8th century, at which time the west end of the south wall

¹³⁵ Above the collapsed rubble of P6 here were Protogeometric and Geometric wares. A Protogeometric bell skyphos (C 9769) was catalogued.
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of P6 was removed. Then followed the inevitable Archaic reuse. Burned surfaces attest to hearths, one set on a surface of large pebbles on the slope south of P (Pl. 41:a, at a level about halfway up the ashlar wall of P). As time passed, the level rose in the area, and eventually Building Y was set in (ca. +4.48 m.; Pl. 43:b). Unfortunately, all that was left by the later stone robbers was the foundation. Y was a neatly built, almost square structure (2.25 m. north–south by 2.35 m. east–west). No ashlar blocks were found associated with it. There were no bones to suggest it may have supported an altar. If we assume that it had been completed, it may have been a base for a monument connected with the sanctuary to the north. It probably rests upon 5th-century fill, over 7th-century levels, and so was likely built during the 4th century, when building activity once again picked up in the Greek sanctuary. At a later point most of it was robbed out, including the northeast corner.

**The Greek Levels**

Wherever we excavated in upper levels in the Southern Area, we found Greek remains, Archaic and 4th century/Hellenistic being the most plentiful and widespread, since they represent the two main periods of sanctuary use and expansion. Burned surfaces accompanied by pottery, rather than built structures, form the chief evidence. The Archaic levels are characterized by the presence of many limpets and, in a few cases, by groups of medium-sized pebbles of unknown use. These levels continue to the east where they disappear below the modern road (Pl. 17:b, foreground), as well as to the south beyond P6, although to the north they stop not far north of Greek Buildings B and D. It was not surprising, therefore, when we found Greek Building Y (probably a monument base of the Greek period) south of P6. Geometric Building Z (Fig. 13), already described in connection with Gallery P3, first appeared as an anomaly in the known pattern, but with hindsight we realize that Geometric occupation (and not simply dumping) extended farther south than we had originally thought. It is possible that the west end of P6 (still unexcavated) housed an establishment similar to that in Z.

Excavation in the area of Minoan House X to the northeast has exposed more Archaic levels. Below the tops of the Minoan walls in X14, for instance, there was an Archaic hearth enclosure of stones (+5.60 m.; Pl. 29:c); in part of the same level but farther east, above X9, was another hearth formed from the sherds of a pithos, with a small three-sided enclosure of unknown use nearby (Pl. 43:d).

136The pottery along with the rubble west of Gallery P6 is of LM IIIA2/B date, but it seems doubtful that quarrying would have occurred during a period of decline and desertion. Most likely, the quarrying operation removed the east end of the south wall of P6 and part of the north–south blocking wall at the same time, and therefore postdates the reuse of P6 here. This robbing may be Archaic in date; it could also be later, perhaps coincident with the post-4th-century B.C. pillaging of the northeast corner of Building Y described below.

137As in J. W. Shaw 1986, pl. 46:d. In 1992 another group was found in Archaic levels west of P6 (84A/13).

138These have been found in the temple area as well (J. W. Shaw 1982, p. 189, note 173). The discovery of one of these curious structures so far from the temple suggests that they are probably not to be connected with ritual.
west border of House X, we completed excavation of Archaic Building V during 1990 and 1991. The building was apparently no more than an enclosure (about 5.0 by 6.30 m.). It was the site of extensive ironworking during the 7th century and lies north of a 7th-century shaft furnace used for smelting iron.

In the process of excavating the east border of House X, we also exposed more of Greek Building F (Pl. 43:c). Upon its slab floor on the south (at a in Pl. 43:c, +6.63 m.) was an array of cups (four black-glazed, one everted, and two Kommos cups) that constitutes an unusual late 6th-century deposit from the sanctuary, a period when, aside from Altar H, there seems to have been a general hiatus of use. We now know that Building F measures 7.80 m. north–south, but we do not know the east–west dimension, since the building runs under the scarp that represents the property line. F may have been used since the mid- or late 7th century B.C., and it was abandoned ca. 500 B.C. Unknown also is the function of F, but the cups indicate drinking and perhaps banqueting. Around Building F were found a number of vessels with graffiti, usually cups, one of them (I 82) with the possible beginning of an abecedarium.

The Historical Context

While the Geometric presence in the Greek levels on the site is greater than previously expected, the real changes in our understanding have been in the MM and LM contexts. Concerning the MM, we had assumed that the LM civic buildings, T and P, replaced an extension of the MM town. Instead, the discovery of the immense MM I/II wall (2.30 m. thick; Fig. 10:b) now suggests that a civic building was there as well. We had previously discovered significant MM walls below the floor of the western part of the stoa and, on the east, bedrock just below the floor of Room 24 of Building T (Fig. 10:c). It seemed at the time, therefore, that all major MM construction in that area had been razed down to bedrock when T was built. Instead, the bedrock level east of Room 24 dips down toward a natural north–south

139 For the earlier work, see J. W. Shaw 1984, pp. 283–284.
140 The furnace, originally referred to as a "forging pit," is discussed in a preliminary manner in J. W. Shaw 1984 (pp. 283–284, and see pl. 55:d, e). It has an impression preserved indicating the use of a tuyère. Over a period of a year it might have produced over a ton of blooms for forging, perhaps in Building V. The study of the archaeological context of the ironworking is being undertaken by Maria C. Shaw, while the technical aspects are being dealt with by John E. Rehder of Toronto, who visited the Kommos site during June of 1992.
141 F was first identified in 1977 (Shaw, Betancourt, and Watrous 1978, pp. 134, 147–148, pl. 42:a, b in Trench 11A). In 1990 we found cups in Trench 72C. In 1992 we cleared along the edge of the foundation of F in Trench 81C.
142 The cups (C 8884–8889, C 8892) will be published along with other pottery from Building F as Deposit 28 in Kommos IV. There also was a lead fishing weight (L 22).
143 For the stoa area, see J. W. Shaw 1981, pp. 220–221, fig. 6, pl. 55:a. Bedrock was not reached in the sounding, which stopped at +2.00 m., ground-water level there. In Room 24, bedrock was noted in the scarp of an Archaic well at +2.38 m., with ground-water level at +2.08 m. For the well, see J. W. Shaw 1986, pp. 231, 235.
hollow or "gulley" into which an MM construction was built. Now it also seems that the same bedrock slopes down significantly to the south.

Excavated MM architecture in the Southern Area is confined to the aforementioned remains near the stoa, the lower portion of a thick wall to the southwest, perhaps the slab pavement on bedrock below the LM I court, and the wide MM wall on the east that continues to invite interpretation. Most likely, the last is the lower part of the façade of a large civic building. Since no floor level was found associated with it on the east where we excavated, the wall is probably part of the east façade. As compared with the later LM walls, it is almost twice their widths and might otherwise be thought of as a wall for defense. On the other hand, it conforms to the thickness of the façade walls of the MM I Palace at Phaistos and most likely represents an early stage of Mesara building technique when extremely thick walls were more common. As time went on, the walls in the various building stages of the Phaistos palace became slimmer, perhaps due to increasing sophistication and experience in building.

Our plans for the future include excavation below the LM III floor of Gallery P3, west of the thick MM wall. It is hoped that we will find an interior MM space not eradicated by later construction. It is possible that we will find the corresponding west façade of the MM building. If the walkway is of MM date (see above), the hypothetical west façade wall may be to the east; such walkways characterize exterior spaces at the palaces, especially courts west of the main buildings.

**Late Minoan I Building T**

Recent excavation has contributed to the understanding of the original plan of Building T (Fig. 8). Known are its north wing, its east façade, part of its interior, and part of its south limit. On the north, there was a straight façade alongside the paved road from the harbor front. After the façade jogged south and then east (perhaps to allow for an entrance), it continued south with another straight façade. On the south, we have located the border of the court of this very carefully laid-out

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144 In the sounding made alongside the thick MM wall near the well (Pl. 32:a), water level was up to +2.72 m. Bedrock was not reached even though we penetrated down to +1.48 m. Just east of here (Trench 76A/B), bedrock was at +2.56 m., over a meter higher than immediately to the west. Water level was, again, at +2.72 m.

145 On the west, bedrock in the center of the court, in the area of the MM/LM walkway (J. W. Shaw 1986, pl. 56:a) is at +2.80 m. South of the newly discovered wall of T (Pl. 41:b), LM construction continues down to at least +2.18 m. Near the southeast corner of the property, in Trench 78A, bedrock is at +0.60 m. and the ground-water level is at +0.65 m.

146 Approximate wall widths at Phaistos: 2.50 m. (the south wall of the MM I palace, south of LXI–LXV); 2.00 m. (west of LVIIIa, includes socle); 2.15 m. (west of LIII). The measurements were scaled from Levi 1964, fig. 2.

147 At Knossos, Malia, and Phaistos. At Kato Zakros, oriented to the east rather than to the enclosed valley to the west, a stepped walkway (lxix) leads into an enclosed west court (lxiii, lxiv), as in Platon 1971, p. 102. Of interest is that the Kommos walkway was not set in a paved court, as at other sites. Also, while the Kommos walkway (which is set on bedrock) predates the LM IA court of T, it may not be as early as the MM wall to the east. For the style of the walkway at Kommos, see J. W. Shaw 1986, p. 252, note 70.
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building;\textsuperscript{148} the court must still be cleared further. If its south wall is also the end of 
T on the south, we may find that this building was restricted here by topographical 
considerations associated with the natural slope of the land.

The court is 28.75 m. wide (east-west) and 44.30 m. long, wider than the 
courts of the Minoan palaces but proportionally not as long.\textsuperscript{149} On the north it was 
bordered by a portico. At the northwest were large rooms, unfortunately mostly 
destroyed by the sea, featuring slab floors, pier and door partitions, and doors 
that opened onto the road, the stoa, and the court. Further east along the north 
flank were numerous rooms connected with storage, part of a very large wing about 
38.51 m. wide east-west.\textsuperscript{150}

With restored dimensions of perhaps 80 m. (minimum 66.60 m.) east–west 
and 52.40 m. north–south (some 4,500 sq.m.; minimum 3,400 sq.m.), T is clearly “palatial” in style, if not an actual palace; it is somewhat larger than the Kato Zakros 
palace (ca. 3,000 sq.m.) but smaller than the palace at Phaistos (ca. 6,600 sq.m.).\textsuperscript{151}
Perhaps, however, it would be more appropriate to define Building T in terms of 
one of its major components, the court, and to think of it as a court-centered civic 
building. This definition can apply to some of the other buildings with courts, 
whether one is referring to those on a smaller scale (e.g., Gournia or Markryyialos, 
and now Petras near Siteia)\textsuperscript{152} or those on a larger scale, which characterize the 
larger and better-known urban centers. Clearly they are all expressions of an LM I 
architectural style that originally may have developed around a court.

Building T contrasts with other court-centered buildings by being more regular 
in its exterior outlines: its north and probably the east and south sides appear to

\textsuperscript{148} As an example of the accuracy achieved by the Minoan builders, we can trace the socle course 
that surrounded the building. Just east of the Greek temples it is at +3.32 m., and further along the 
road to the east, just south of Minoan House X, at +3.62 m. East of Gallery P3 it is at +3.68 m., and 
at the south end of the large court at +3.38 m. The slope down to the west is no doubt for drainage, 
following the natural slope of the land. Supporting this possibility is the fact that near the center of 
the two ends of the court the levels of the socles are about the same (+3.32 m., +3.38 m.). All the 
measurements on the east, on the other hand, are higher.

\textsuperscript{149} For the general dimensions of the courts, see J. W. Shaw 1986, p. 263, note 90.

\textsuperscript{150}Building P, of LM III date, was superposed on much of the east wing, and most of the LM I 
floor plan in that area may be lost. Parts of it may be recovered, however, when we excavate below 
the third gallery of P.

\textsuperscript{151} The following are only approximate dimensions, which include exterior areas within a rough rectangle drawn using east–west and north–south dimensions: Kato Zakros (60 × 50 m. = 3,000 sq.m.); Knossos (100 × 130 m. = 13,000 sq.m.); Malia (85 × 110 m. = 9,350 sq.m.); Phaistos, New Palace 
(60 × 100 m. = 6,000 sq.m.).

\textsuperscript{152}For plans of most of the Minoan buildings with courts, see Myers, Myers, and Cadogan 1992, \textit{passim}. Petras has only recently been excavated by Metaxia Tsipopoulou, who was kind enough to 
send me a report and plan from the 1992 season. In plan the main LM I building is a “palace”, in 
miniature version, with a court only 6 by 13 m. in the first phase and 4.90 by 12 m. in the second 
phase. Petras is a good example to illustrate the spread of the Minoan palatial style discussed most 
recently by Driessen (1989–1990, \textit{passim}). For a recent review of “palaces” and criteria for their 
identification, see Soles 1991, pp. 70–75. His broad coverage there can be used to develop a new 
typological ordering of the court-centered structures.
have been straight (the east wall had a jog on the north). Security appears to have been a major concern, for confirmed entrances from the outside have been found only into one place on the north (into Building J) and on the south (the small entrance at the southeast corner of the main court). The unusually regular outline of T may reflect a single architectural concept carried out at one time rather than construction of an additive nature. The result had the advantage of increasing the amount of interior space. The security implied in the plan of T may reflect its vulnerability to outside agents, since it was set so near the shore. This would be appropriate if T served as a center for harbor activities rather than for ritual and rule, roles more appropriately assigned to Phaistos and perhaps Agia Triada (unless Kommos is to be interpreted as a semi-independent urban center).

The Late Minoan III Period, Building P

As in the case with Building T, we have likely determined the limits of P with the discovery of the southern wall of Gallery P6 (Pl. 41:a; see p. 182 above). Building P consisted of six unusually wide galleries, perhaps with occasional windows at the east end, and open on the west (as in Fig. 10:d). Each gallery was about 38.50 m. long and ranged from 4.50 to 5.96 m. wide, the narrowest being Gallery P6 on the south. Of particular relevance is that the clearing of Gallery P3 (Pl. 35:a) did not reveal any LM III cross walls; this implies that the interiors of the other galleries were also as open. Building P is the largest LM III structure known from Crete, being some 38.52 m. east-west and 39.60 m. north-south (1,500 sq.m.).

Another advance in our understanding is a more reliable date for the construction of the building in LM IIIA2. The best evidence for this is the LM IIIA2 pottery in the setting trench for the south wall of Gallery P1 (Pl. 33:b), supported by other indications from inside and outside the building. Evidence from previous excavation had indicated LM IIIA1. There seems to have been a hiatus of use in the T/P area during LM IIIA1, although the Kommos houses continued to be occupied.

153 James W. Graham (1960, p. 340) originally suggested that the laying out of a Minoan palace began by intersecting two lines, which set the north-south and east-west axes. In the case of Phaistos, these two lines met in the northwest corner of the central court. From these two lines, he argued, the orientations of all the major palace walls were determined. This system applies to Building T at Kommos, which, however, differs from the palaces by having, as far as we know, straight façades on at least two sides; the only jog known is at the east end of the north façade. The rectangular outline of T clearly affected the outline of LM III Building P at Kommos. It is interesting that rectangular plans with straight façades became typical later at Agia Triada in the LM III stoa, in the “megaron” ABCD, as well as in the small shrine.

154 I am indebted to Bernard Knapp for sending me relevant parts of an unpublished study on production and exchange in the Bronze Age Mediterranean, in which he argues that Kommos enjoyed a chiefly independent existence, at least from LM I onwards.

155 There may have been a window in the gap at the east end of Gallery P3 (at f in Plate 31:a), but this is not confirmed by dowel holes for setting the window frame nor is there consistently a gap at the same places in Galleries P1 and P2.

156 80B/76.

We have now excavated the eastern ends of P1 and P2 (the latter only partially) and all of P3 down to the top of its primary floor level. Common to all three are lenses of intense burning, although it is not clear whether this is from destruction or is the character of the use, at least at the last stage. Also common to the three galleries is a mixture of fragments of cooking pots and, especially, short-necked amphoras (Fig. 11, Pl. 33:a), which first appear at Kommos in LM IIIA2. Only in P3 have we found quantities of the reddish material shown in Plate 38:d, which may have had some commercial application. Also, we do not know if the particularly large ovens found in P3 (Fig. 12, Pl. 38:a, b) occur in other galleries, although these and the smaller ones found southwest of P6 (Pl. 43:a; there may be more along the same line) suggest more than the usual amount of baking, as if a group was being provided for. One of the difficulties in dealing with the floors of P is that the usual LMIIIA2/B dating of the material on them does not allow us to differentiate between primary and possibly secondary use.

On the short-necked amphoras from the Minoan houses, L. Vance Watrous comments, "The clay, which is unique to this shape at Kommos, varies in color from buff to greyish green to light red . . . this fabric is probably central north Cretan (Knossian?)."\(^{158}\) The non-Kommian fabric and its possible Knossian derivation may be significant in the context of the settlement but especially in that of Building P, where the amphora fragments have come to typify for our ceramic specialists deposits from the floors of P and therefore are probable indicators of its function. It is possible, for instance, that Knossian interests were basic to the building and use of P\(^{159}\) and may even have founded it in LM IIIA2, possibly for winter storage for ships. Of particular historical interest is that with its redating, P (and probably N) becomes roughly contemporary with the group of LM IIIA2 buildings at Agia Triada, including ABCD and the stoa.\(^{160}\) Together, the new structures at the two sites represent major architectural revival in the postpalatial Mesara, a large-scale initiative unparalleled elsewhere in Crete.

As is evident from our preliminary publications, but in particular now from Watrous's summary chapter,\(^{161}\) the non-Cretan pottery found in the Kommos houses is a partial indication of the active sea traffic that passed along the southern shores of the island. Some of this pottery is from the time of Building P, when Mycenaean Knossos apparently had organized systems for building, maintaining, and manning sizable fleets\(^{162}\) and was most likely in nominal control of south-central Crete.\(^{163}\)

\(^{158}\) Kommos III, p. 135.
\(^{159}\) Driessen (1989–1990, p. 23) envisions Knossian building forces being sent to "dependent secondary centers" such as Agia Triada, Kommos, and Tylissos.
\(^{160}\) La Rosa 1985, passim.
\(^{161}\) Kommos III, pp. 149–183.
\(^{162}\) Palaima 1991, p. 308.
\(^{163}\) Watrous suggests that some of the amphoras at Enkomi on Cyprus may be similar to those published from the Kommos houses, and also that because of their fabric, the Kommos amphoras may have originated at Knossos (Kommos III, p. 135). Since the amphoras are similar to those in Building P, and thus also may be from Knossos, it is possible that Knossian interests were
involved in trading at Kommos, and the vessels in question were intended to carry Minoan products abroad, just as the foreign vessels found at Kommos may have contained foreign products. Recently Lambrou-Phillipson (1991), however, has suggested that Egyptian pottery at Kommos could not have come directly from Egypt. Her argument is that while travel from Kommos to Egypt was possible, the prevailing winds would have presented an obstacle for travel in the reverse direction. In her view, the occasional Egyptian vase at Kommos would have come from other Cretan towns to which it had arrived via a more northerly route. Her argument, however, must also answer the question of why in other important Cretan sites such as Amnisos and Agia Triadha, no Egyptian material like that from Kommos has been found, and also why such pottery has been found in the average domestic contexts at Kommos. For the lack of foreign pottery at opulent Agia Triadha, see La Rosa 1985, p. 53.
Shaw, M. C. 1987. "A Bronze Figure of a Man from the Sanctuary at Kommos, Crete," in Elλαπινη: τόμος τμηματικός γιά τόν καθηγητή Νικόλαο Πλάτωνα, Herakleion, pp. 371-382
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a. General view of Kommos, from south (1992)

b. Southern Area of Kommos site from east; new modern road bordering archaeological zone in foreground
a. House X from southeast

b. Rooms X4, X5, and X7, from west

a. Greek Building F as built over eastern part of House X, from south

b. Rooms X5, X6, and X12 from northeast
b. Two views of steatite seal from MM room north of House X, Room 2

a. MM room with pottery north of Room X2, from northeast
a. LM II A decorated goblet from Room X6

b. LM III A jug from Room X6

c. LM IB Marine Style sherds from Room X3
a. Pithoi in situ in Room X2, with platform at \( a \); pebble floor in foreground, from northeast. From left to right: C 9405, C 9404, C 9406.

b. Interior of Room X2, from south

c. Bronze tool from Room X2

d. Bead seal from pebble floor of Room X2

e. Pillow seal from pebble floor of Room X2
a. Slab with round depression and bivalve shells, from north of House X

b. Stone table with offerings *in situ* in Room X7, from north

c. Kalathoi as found below stone table top in Room X7
a. Photographic simulation of relative locations of finds from latest use of Room X7, as if from north

b. Assortment of shrine equipment from latest use in Room X7
a. Shell necklace, as reconstructed, from Room X14

b. Drawing (M. C. Shaw) of steatite seal, from Room X7

c. Photograph of b (above, right)

Joseph W. Shaw and Maria C. Shaw: Excavations at Kommos (Crete) during 1986–1992
a. Pyxis (left) with cup (C 9011) within it, next to pithos (C 9013) in Room X4, from north

b. Selection of pottery from Room X4

a. Pyxis (C 9012) at left, with "unrolled" drawing of its decoration at right (by J. Pfaff), from Room X2.
b. Steatite pendant from Room X4.
c. Glass vessel (Mi 190) from Room X4.
a. Rooms X1 and X4, with blocked doorway on left, from south

b. Fragment of lily fresco in situ in Room X1, from west

c. Watercolor by Giuliana Bianco of a fragment of the lily fresco, after cleaning, from Room X1

a. Space X14 at level of slab pavement, from south  
b. Geometric bronze bull from below area in Plate 29:  
c. Archaic hearth at upper level in reused Minoan Room X14, from south
a. Northeast corner of ashlar Building P, from east

b. As Plate 30:a, with the corner at b and a later, Greek retaining wall at a, from east

c. Upper, Greek level south of northeast corner of P (at a), from south
a. Portion of the east façade of Buildings T and P, from east

b. Trough carved in a wall block of Building P, from north

c. Probe in the deep sand, Trench 78A, in the southeastern area, from northwest

Joseph W. Shaw and Maria C. Shaw: Excavations at Kommos (Crete) during 1986–1992
a. Northeast corner of Gallery P1 of P, from southwest

b. Steps leading down to the well, from east

c. South wall of the well, incorporating the LM I orthostate and socle (left), from north

a. Fragments of short-necked amphoras from Galleries P1 (left) and P3 (right)

b. Foundation trench of the south wall of P1, from east

c. Accumulated rubble in P2, looking east
Plate 34

a. End of south wall of P2, from north

b. Face of MM wall in P2, from east

Joseph W. Shaw and Maria C. Shaw: Excavations at Kommos (Crete) during 1986–1992
a. View west with façade and Gallery P3

b. Fallen masonry in P3, from east

a. Gallery P3, with hearths (a, b) and fallen masonry (c), from east

b. Sounding below floor of Gallery P3, from southeast

c. Gallery P3 on the west, with Geometric level and walls (b–e), from southeast

a. Detail of northeast corner of Gallery P3 with earlier wall (a) and plaster floor (b), from southwest

b. Gallery P3, hearth in southeast corner

Joseph W. Shaw and Maria C. Shaw: Excavations at Kommos (Crete) during 1986–1992
a. East oven in Gallery P3, from west

b. West oven in Gallery P3, from southeast

c. Geometric hearth (a) and "bench" (b) in western end of Gallery P3, from north

d. Gallery P3, LM IIIA2/B level, pieces of red material (left), red material in bowl (center), and amphora sherd (right)
b. Four Geometric iron spearheads from Building Z

c. Stone "fishing" weights from Building Z
a. General view of southwestern area, from southeast

b. LM III wall of P6 (upper right) set on LM I wall of Building T, from south
a. As Plate 40:b, from south-west

b. As Plate 40:b, from west

a. Strata immediately south of ashlar wall of Building T, from north

b. Western end of unexcavated Gallery P6 with later blocking wall (right), from southwest

c. Detail of plaster in joints of northern face of ashlar wall of T, from north

d. LM III slabs on edge in southwestern area, from south

a. Slabs on edge next to LM III hearth (right center), from south

b. Greek Building Y, from south

c. Foundations and lower wall of Greek Building F, with its interior slab pavement (at a), from southwest

d. Lower part of an Archaic hearth formed by a pithos (foreground) and a small slab enclosure (background) in Trench 81C, from east