

EXCAVATIONS AT KOMMOS (CRETE) DURING 1977

(PLATES 33-44)

Summary

Our second excavation season, in 1977, at Kommos (Figs. 1, 2; Pl. 33:a) concentrated upon promising areas of this major Middle to Late Minoan settlement. Separate houses are gradually being exposed and their architectural

and ceramic phases are being systematically clarified. A major project to remove tons of drifted sand from the hillside resulted in the unexpected discovery of a complex of Greek buildings set upon the prehistoric levels. This unit, of Classical and Hellenistic date, may constitute a sanctuary of some type.

WORK in 1977¹ combined expansions within known as well as new contexts.² Specifically, the buildings on the hilltop and on the west-central slope were cleared further while exploration proceeded within the southern area. Near the Greek buildings excavation had been limited due to the deep accumulation of drifted sand.

¹ The excavation is being carried out 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 Antiquities Service. Financial support from the Canada Council (Grant No. S76-1232-X1), the SCM Corporation, and Leon Pomerance (with the cooperation of the American Institute of Nautical Archaeology) was essential for the work, and various corporations (Kodak Canada, Ltd., Keuffel and Esser of Canada, Polaroid Corporation of America) helped provide certain necessary items of equipment.

The staff for the second season consisted of the director, the University of Toronto and the Royal Ontario Museum; Professor Philip Betancourt, Temple University; Professor L. Vance Watrous, the State University of New York at Buffalo; Professor M. C. Shaw, Scarborough College, the University of Toronto; and the following former or present students at the University of Toronto: Giuliana Bianco, excavation architect; Betsy Comstock, cataloguer; and Bill Cox, John McEnroe, and Lucia Nixon who worked as trenchmasters. Harriet Blitzer of Indiana University excavated and also began the study of the stone and bone tools. Helen Besi and Patricia Conner drew pottery profiles. R. K. Vincent, Jr. took photographs of objects discovered during both seasons. Athanasios Kousoulas, a conservator and restorer from the Archaeological Museum at Nauplion, faithfully restored many pots. Scholars visiting for short periods and who made basic contributions were Professor Nicholas Iasoglou, Athens Faculty of Agriculture, Laboratory of Soils and Agricultural Chemistry, and John Gifford of the University of Minnesota, who both studied aspects of the local geology of the region and the Kommos area in particular. Dr. Steven Diamant introduced methods of dry and wet sieving which improved our recovery of small finds and carbonized organic material from promising contexts. Professor R. Hope Simpson, Queen's University, spent a few weeks with us toward the end of the season in order to begin a more formalized foot survey of the immediate Kommos area, a survey begun informally by the author some years ago. Dr. Richard Jones of the Fitch Laboratory at the British School of Archaeology at Athens also visited, procuring at the time a number of sample sherds from clear contexts for spectrum-emission analysis. As during the first season, George Beladakis was foreman in charge

Hesperia, 47, 2

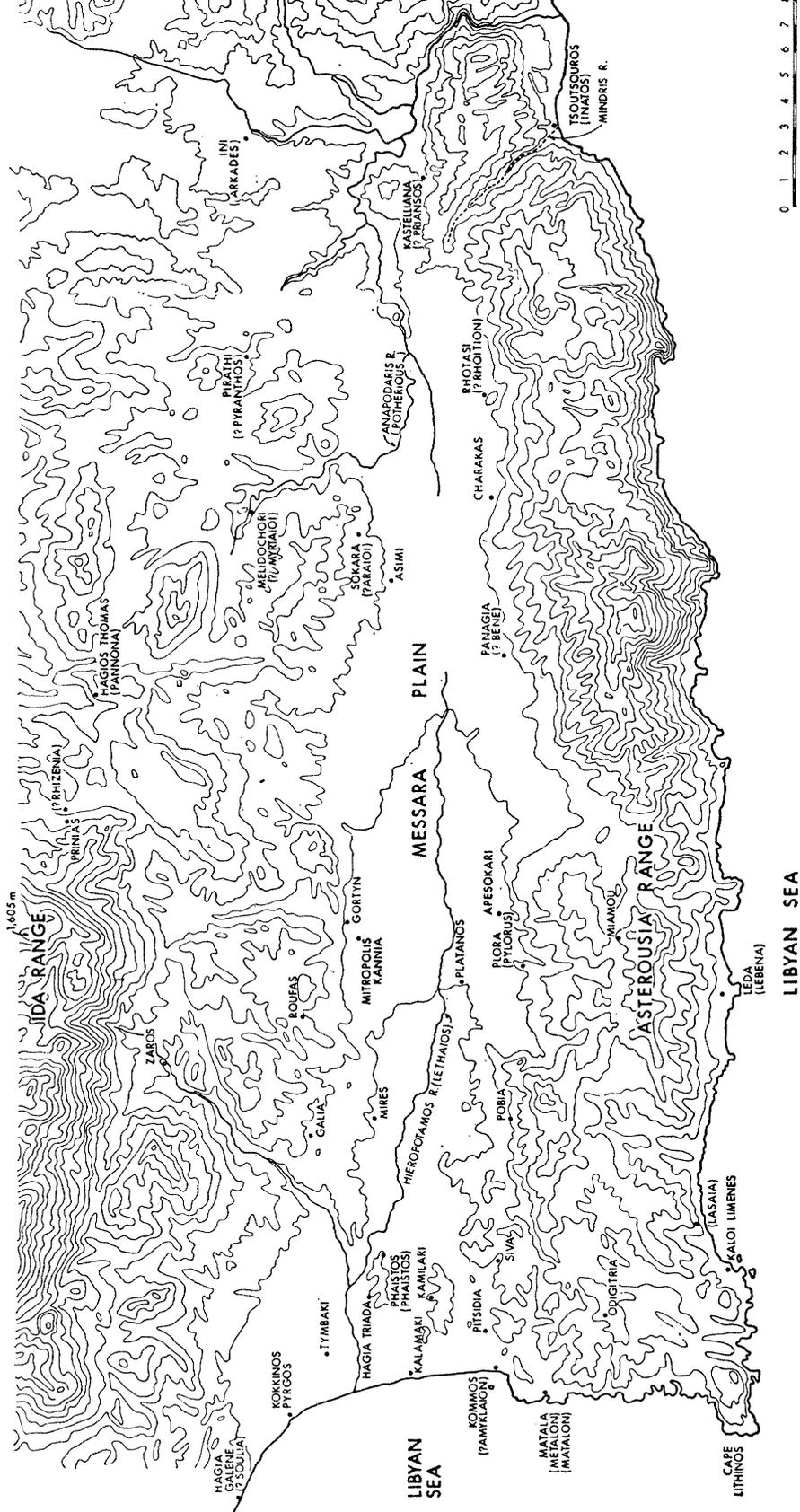


Fig 1. General plan of the Messara Plain. (See footnote 65.)

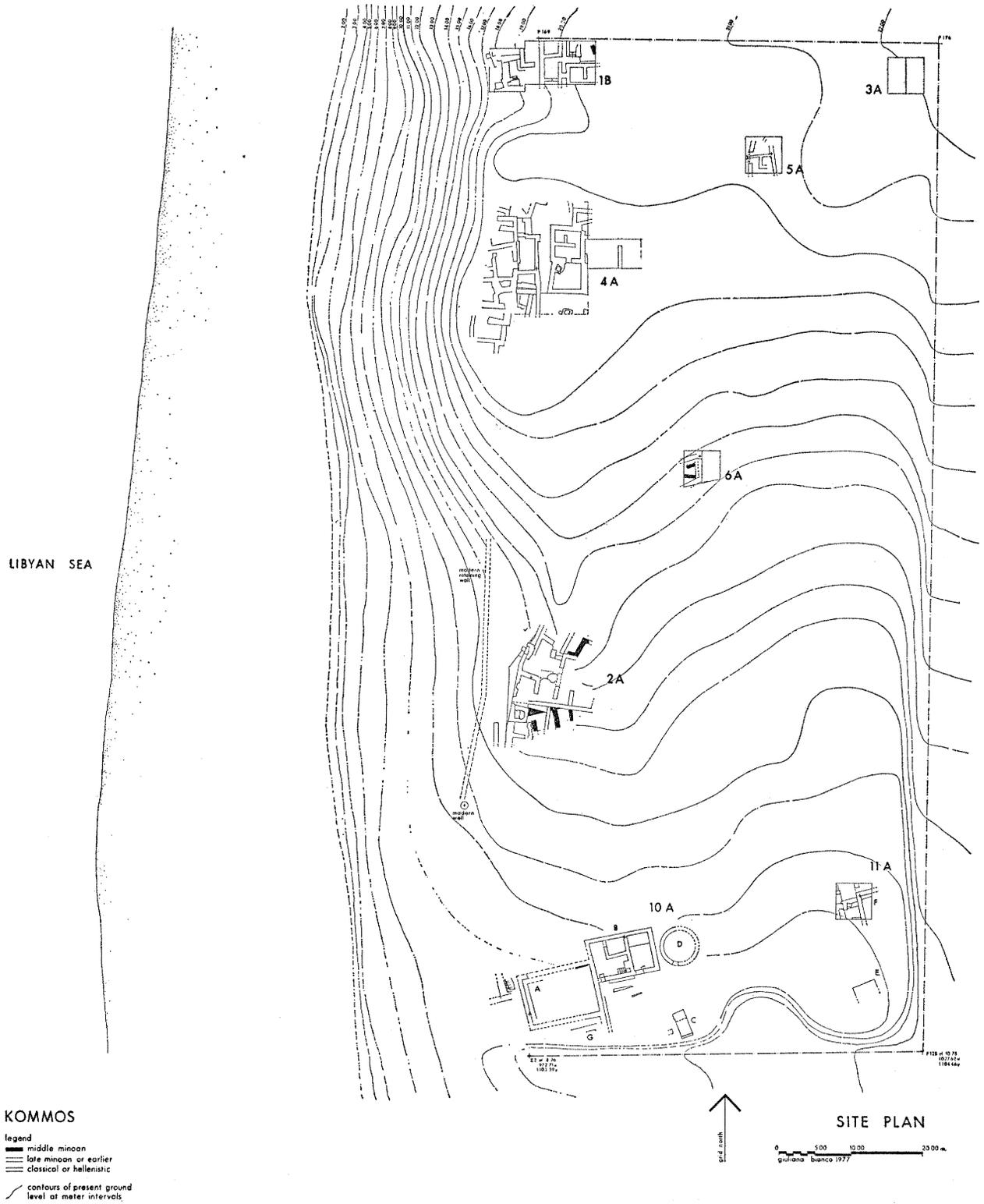


FIG. 2. General plan of excavation area at end of 1977 season.

THE HILLTOP (Fig. 2)

Work on the hilltop concentrated on the 4A area excavated in 1976.³ First, all of the sterile, deeper sand accumulation over the earth level was dumped over the edge of the western cliff. Then certain baulks were removed and a new series of trenches extended the area on the west. North of here, a single trench extended the exposed 1B area of 1976 along the steep seaside cliff.

The Northernmost Trench (Trenches 1B and 13A, Pl. 33:b)

In 1976 work here exposed portions of a substantial building, probably a house, built during the time that the LM I stylistic phase of pottery was in vogue. This structure was inhabited until just before or during the early part of LM IIIB and was then abandoned for still unknown reasons. It was also determined that this building had been set above an earlier one that was built during the MM period and was abandoned shortly before the upper structure replaced it.⁴

Before the excavation took place, a heavy wall projecting from the scarp on the steep downhill side suggested that major structures existed here. With this in mind, and since 1B was excavated on the level area to the east, a new trench (13A) was opened on the downhill side. Briefly,⁵ we found in the upper levels Classical/Hellenistic sherds mixed with Minoan, overlying a series of Minoan retaining walls associated with the two chief structural periods in this area.

Of the upper building we first found the western wall of Space 1. This wall, supported on the downhill side by a bench-like wall (Pl. 33:b, upper right) was associated with stones fallen upon a rough earthen level (at + 17.62 m. west of the wall) that probably represents the outside of the later structure set here. A heavy,

of some twenty local workmen from Pitsidia. Cathy McEnroe again helped with mending and other responsibilities in Pitsidia; Mary Betancourt helped with provisions. To all of these individuals, and to many more, I am indebted for their generosity and dependability.

The plans and sections in this report were prepared by G. Bianco with the exception of Figure 1 which was drawn by T. Boyd. Object photographs and Plate 40:d were made by R. Vincent, Jr.; other site photographs were made by the author.

² Our first preliminary report in *Hesperia* 46, 1977, pp. 199-240 (= *Kommos*, 1976) describes both the background for the excavation and our progress during the first year. (N.B. The first four plates in the first report should be labeled 49 bis-53 bis—Ed.) See also J. W. Shaw, "Excavations at Kommos (1976)," *Classical News and Views*, Classical Association of Canada, January 1977, pp. 1-4; "Excavations at Kommos, Crete, 1976: Summary" in *JFA* 4, 1977, pp. 124-127; "Buildings in the Sand," *Archaeological Newsletter of the Royal Ontario Museum*, N.S. 147, August 1977; "A Major Prehistoric Town in Crete," *Archaeology* 31, ii, 1978, pp. 50-52; John Sedgwick, "The Legacy of Minos," *Harvard Magazine*, March-April 1977, pp. 55ff. For aerial photographs taken in 1976, see now J. Whittlesey *et al.*, "The Whittlesey Foundation 1976 Field Season," *JFA* 4, 1977, pp. 186-188.

³ *Kommos*, 1976, pp. 214f. and fig. 3.

⁴ *Ibid.*, pp. 206f. and fig. 2.

⁵ Now that the general context of the area has been defined by a preliminary report, the description here can be more summary in nature.

but roughly built north-south wall (Pl. 33: b, just left of center), probably contemporary with the later structure, was built roughly parallel with it but at a lower level on the slope, in order to prevent erosion or soil-slippage that might endanger the building's foundations.

This retaining wall, set down into earlier levels and upon the sloping bedrock, terminates on the south at a thick east-west wall that may belong to the earlier, MM construction phase. On the north it disappears below a much later (LM III?) wall. Thus Spaces 14/15 were created, with sloping bedrock on the downhill, western side into which a rough curving wall of slabs had been set in (?) MM III. 14/15 therefore may have been a single space at this time, limited on the east by a rough north-south wall visible in Plate 33: b below the southwestern corner of Space 1.

When Space 14 was excavated it was found to contain an earthen floor set on bedrock (at *ca.* + 17.05 m.). Upon this lay scattered, in a confused tumble (to *ca.* + 17.40 m.), an impressive variety of "MM III" style pottery (Pl. 33: c) of the same general period as that described below in Appendix A, although without extensive polychrome decoration and thus probably somewhat later. An unusual jug with attached "eyes" (C 415, Pl. 33: d, f) lay fallen among the remains of numerous conical and straight-sided (e. g. C 411) cups, coarse-ware vessels, a trefoil oinochoe (C 412) and a bridge-spouted jar (C 413). Pieces of almost an entire pithos with trickle decoration (C 419) lay in fragments under the canted building blocks overlying the deposit. Pieces of the same pithos were recovered on the other side of the western wall as well.⁶

The Central Area (Trench 4A, Fig. 3; Pl. 33: e)

In the area just described, circumstance led the inhabitants to build one structure upon the other, perhaps partially to raise the general level so that it would correspond with the higher level to the south. This has given us the opportunity to recover a fairly good stratigraphic sequence. In much of the 4A/5B area considered in our first preliminary report,⁷ however, the inhabitants re-used earlier walls as time went on and maintained almost the same relative floor levels. Thus the general fill level is significantly shallower here, and bedrock is not far below most floors. Although earlier pottery has been found here, so far it remains without clear architectural context, and as a result most of the building here can be confined to the LM I-LM III periods. Despite this shorter time span, as compared with other areas excavated at Kommos the area remains a difficult one to interpret, for the walls and rooms have been re-used and often subdivided; passages have been blocked up; certain rooms were apparently occupied when others were essentially deserted.

The complexities of these upper structures led us in 1977 to attempt to clear a

⁶ These vessels, a hammer-stone partially covered with pigment, and fragments of red-painted plaster will be reported more fully in a later publication.

⁷ *Kommos, 1976*, pp. 214-222 and fig. 3.

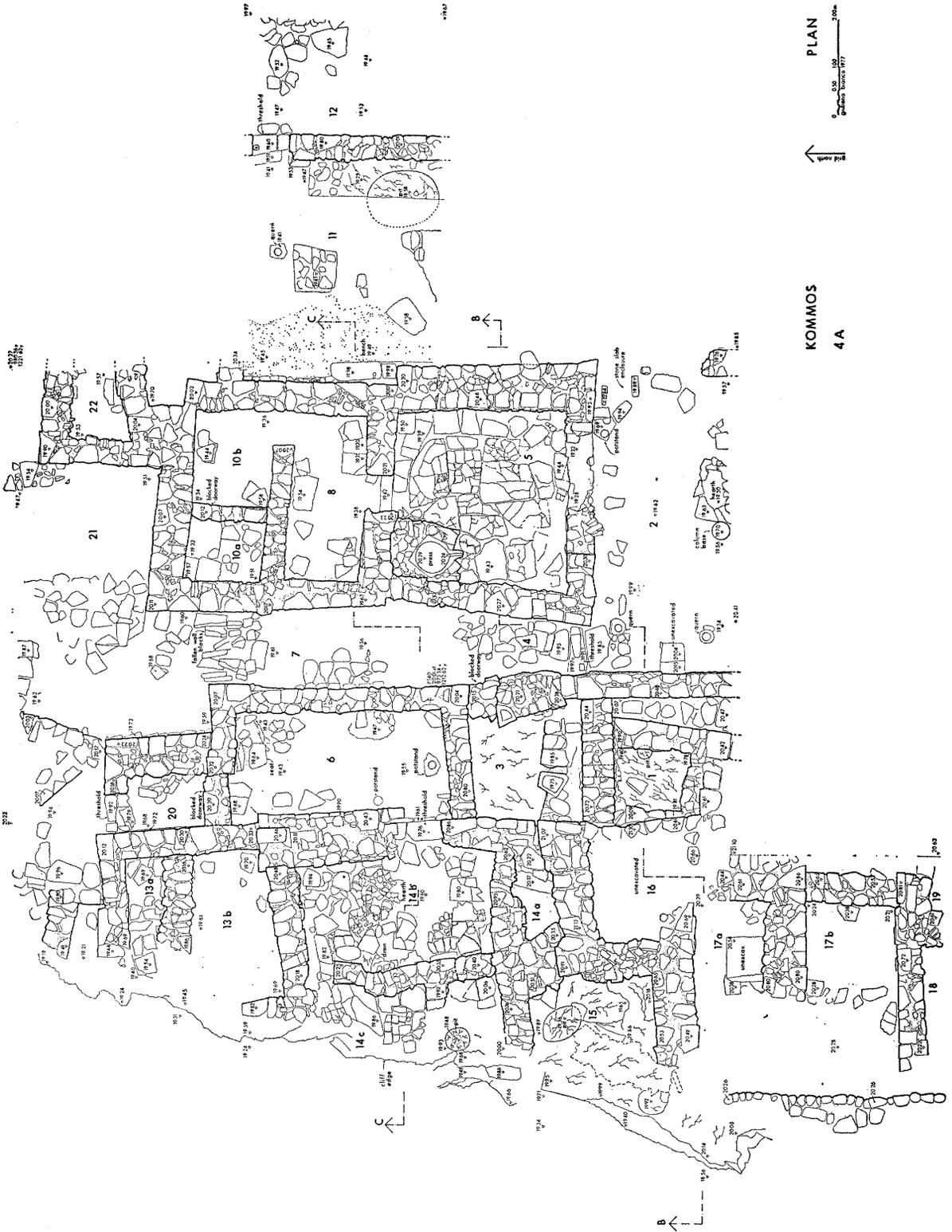


FIG. 3. Plan of central hilltop area.

large area horizontally,⁸ with the long-term objective of clearing the individual rooms and buildings in the area from approximately Space 19 (Fig. 3) north to link up with the 1B area just south of our property line. At that stage, the plan of the upper structures should be clearer and then separate investigations of deeper strata can be carried out more effectively. Perhaps we will be able to complete this preliminary stage during the next season.

This group of over 20 rooms can best be understood as set on either side of a north-south lane or corridor (4, 7) which opens up on the north onto what appears to be an exterior court or a *plateia* (21). The lane, perhaps unobstructed at one time, was closed off on the south by the addition of a door opening from Space 2 (Pl. 34: a).

West of the corridor are two north-south series of rooms. 6, partially excavated in 1976, was in its latest phase a domestic area, as is shown by the ashy floor deposit filled with bone, the burnt floor, the cooking pots and potstands found on the floor. Its western wall was reinforced by a low wall (a bench?). On the north, the room was originally entered by a doorway (later blocked) from 20, itself a later addition with its own doorway at a slightly higher level. 20 can be considered as an anteroom facing, on the north, what was an outside area at the time. At its southwestern corner, 6 communicated with 14 by means of a doorway with a broad threshold. Originally 14 was a single large room, paved handsomely with slabs (a court?) and *ca.* 5.30 m. north-south by *ca.* 4.20 m. (minimum) east-west. (The original western wall has been lost through erosion.) 14 was narrowed on the south, however, by the addition of a number of walls which created the new Space 14a. Within this space, filled with rubble when the wall bordering it on the north was built, the pottery was exclusively LM I in style, suggesting the date for the addition. The original construction of the room is also suggested by the homogeneous deposit of fairly complete LM I pottery, including an entire pitharaki (C 827) and a miniature lamp (C 382), found in a small depression in the bedrock within 14a.⁹ Later, 14 was further subdivided, perhaps when the western wall collapsed over the hillside (the collapse may be post-Minoan, of course). This narrowed the usable space on the east to about 2.15 × 4.20 m., although a 0.60 m. opening was retained at the north of the dividing wall. Upon the floor in 14b (Pl. 34: c) was found a burned area (a hearth?), a saddle quern, a number of stone pounders, as well as LM IIIB sherds. This area, also, seems to have gone out of use, for upon a 0.30 m. accumulation of earth covering the floor was found what can only be interpreted as a dump, including burnt and fragmentary LM IIIB cups, jars, an amphora, a basin, and a bowl. This refuse was probably thrown into the room through the doorway from 6, 6 being the room used until the final desertion of the site took place.

North of 14 is 13 (Pl. 34: b), originally an almost square, paved room, later

⁸ The trenches opened here in 1977 were 11B-B2, 12A-A5, 15A and 16A.

⁹ The LM I style pottery from 14a was studied by P. Betancourt.

subdivided by an east-west wall (thus a and b). Little save a large, fragmentary basin was found within it. South of 14 is an area still to be explored more fully but including 16 (a room much damaged by the mine explosion).¹⁰ 17 is another example of a once larger room subdivided into smaller sections; surprisingly, however, the rooms seem not to have been occupied after LM I. There is also Space 1, already described in the first report.¹¹

Room or Space 3 may originally have been a passageway between earlier stages of 4 and 14. It was partially blocked on the east by a heavy wall which, however, still left a passage *ca.* 0.60 m. wide leading in from 4. Already it was somewhat confined by a retaining wall on the south. Then a heavy wall, attractive but not particularly well bonded, closed it off on the west (Pl. 34: d).¹² Finally, the room was closed off entirely on the east and became little more than a dump for refuse from surrounding rooms.

That it was a dump for material from nearby Room 6 is partially confirmed by the fact that sherds from the same vessel (C 659, a kylix with attenuated octopus design, Pl. 34: f) were found in both Spaces 3 and 14, evidence also confirming that the dumps were contemporary even though that in 3 was by far the larger one. Indeed, the amount of LM IIIB style pottery within the deposit here (from *ca.* + 20.72 m. down to + 19.69 m.) was impressive. Over fifty-four items, from among the some 8,000 inspected, were of sufficient interest to merit cataloguing,¹³ and, along with the LM IIIB style pottery from 6 to the north,¹⁴ form a good sampling of the range of shape and decoration used at Kommos at the time. Plate 33: e, f illustrates some of these fragments from 3, among which are shapes (the ladle [C 159] and the tankard [C 661]) apparently introduced in Crete in LM IIIB.¹⁵ Rarer shapes such as the lid (C 521) or the krater (C 534) also occur. One decoration on an elegant kylix (C 528) finds no immediate parallel (? regional), though the spirit is still of the LM IIIB repertoire.¹⁶

East of corridor 4/7 no further work was done in 12 (an exterior court?) nor in 11, an interior court where an attractive bench faces onto a paved area. The

¹⁰ *Kommos, 1976*, p. 215, note 28.

¹¹ *Ibid.*, p. 217.

¹² The wall was found leaning dangerously into Room 3. First it was propped up and then, when excavation on either side was completed, was partially dismantled and rebuilt.

¹³ A separate preliminary study of the 8,000-odd sherds of IIIB material, upon which the following brief description is based, was made by P. Betancourt. Below the IIIB deposit were LM IIIA-B and then LM II-III A layers above bedrock. The area must have been cleared down to bedrock after LM I styles, such as those found in nearby 14a or 1, were going out of fashion.

¹⁴ Reported in *Kommos, 1976*, p. 219.

¹⁵ For the tankard see M. Popham, *The Last Days of the Palace at Knossos*, Lund 1964, pl. 7, p. 13, nos. 6, 7; for its appearance in western Crete, I. Tzedakis, "L'Atelier de céramique post-palatale à Kydonia," *BCH* 93, 1969, pp. 398, fig. 6, 406, fig. 24. For eastern Crete see M. Seiradaki, "Pottery from Karphi," *BCH* 55, 1960, pp. 19-20. For the ladle, see Popham, *op. cit.*, pl. 2: b.

¹⁶ For shape and ornament, see Popham, *op. cit.*, pl. 8: b, no. 28. Also, M. Popham, "Some Late Minoan Pottery from Crete," *BSA* 60, 1965, pl. 81: d, lower left.

major unit 10/8/5/2 was further exposed, however. 10a (a storage area?) and b were almost devoid of finds except for a few stone tools and the usual multitude of fallen slabs in the fill which have given this building, at least temporarily, the title of "The House of the Fallen Slabs." A similar situation prevailed when 8 was excavated in 1976,¹⁷ as if the room had been cleared out rather completely before abandonment and eventual ceiling and/or roof collapse. 5 was similarly bare, but by itself more than merits notice. It is almost square (*ca.* 4.00 m. north-south by 3.60-4.00 m. east-west—it widens at its southern end), and is paved with only a dozen or so very large limestone slabs, worn by the passing of feet.¹⁸ It seems to have been a place for work, for built into its northwestern corner is a high, somewhat rounded platform upon which is set a carved slab (Pl. 35: a, b). Its top (at + 20.33 m.), lay some 0.60 m. below the modern surface level and about 0.86 m. above the floor. The slab varies from 0.15 to 0.20 m. in thickness, and is carved with a shallow circular cavity 0.80 m. in diameter and 0.10 m. deep. A spout, about 0.25 m. long, projects out some 0.33 m. beyond the southern face of the platform, the bottom of the spout being *ca.* 0.70 m. above the floor. The slab was set at a gentle slant to the south to enable liquid to drain out through the spout.

While the purpose of the slab remains unproven, it is most likely to have served as a wine press. It is probably too thin to have been used successfully for the harder work of crushing olives but would have worked admirably for crushing grapes for making wine. The grapes would probably have been placed in a basket that would then be lifted up onto the slab. Then someone, barefoot as is the custom today and perhaps steadied by a rope hanging from a ceiling beam above, would trample the grapes. The juice, flowing out through the interstices of the basket, would then pour through the spout. Most likely, a pithos would have been set below this spout to catch the grape juice as it flowed out. Thus it is probably not by coincidence that on the floor to the east were found fragments of a pithos (C 775, Pl. 35: a), perhaps the remnants of the very pithos used for the task.

Although the wine press at Kommos finds no exact parallels in Minoan contexts, wine presses have nevertheless been found in Minoan Crete. Perhaps the best known one is at Vathypetro, where a terracotta vat was set so that its spout projected out over another placed so as to receive the liquid.¹⁹ A situation with different means but with the same relationship as that suggested for Kommos, however, was found by Platon when excavating in a house in Area D at Kato Zakro. There, *in situ*, he found a spouted terracotta vat set on a raised platform, with the spout set out over a pithos preserved intact and standing on the floor.²⁰

¹⁷ For a description of the work here in 1976 see *Kommos, 1976*, pp. 220f.

¹⁸ The western wall of the room is later than the slab pavement, for the slabs continue under it.

¹⁹ Spyridon Marinatos, *Crete and Mycenae*, New York 1960, pl. 62.

²⁰ *Πρακτικά*, 1963, pl. 142: a. For a similar vat, also from Zakro, see *Πρακτικά*, 1961, pl. 174: B, and 1964, fig. 1, opposite p. 165 (Ano Zakro). See also R. W. Hutchinson, *Prehistoric Crete*, Harmondsworth 1962, p. 242 and fig. 45. That this system in Crete was not a new one then is

South of 5, and with its floor at a somewhat higher level, is an only partially excavated space (2) with a column base 0.38 m. in diameter and, next to it, a built hearth only partially exposed (Fig. 3). West of here are two querns south of the entry into Corridor 4/7. To the east, not far from the southern wall of 5, is an enclosure of slabs set on edge, within which was found a fragmentary basin(?) (C 841), an arrangement analogous to those in the hillside area (Spaces 4 and 12, below). A broken LM III kylix (C 709) was found in fragments upon the floor, not far from a stone *stamnothetis* adjoining this enclosure.

THE CENTRAL HILLSIDE (Trench 2A, Figs. 2, 4-6; Pl. 35:c-e)

During our first season here we exposed a portion of a large building, probably a house, constructed originally no later than the LM I ceramic phase.²¹ Five rooms (or "spaces") were found there to belong to the house, some of the upper levels having been occupied last when the LM IIIB pottery style was popular. One of these, 6, is possibly an entranceway with a small industrial area along its eastern side. On its southwest a threshold leads into 4, a household shrine. Excavation further to the south made it clear that the building had been set upon an earlier one which went out of use during the period when MM pottery styles were gradually giving way to those of the Second Palatial Period. From what one could determine in 1976, and this view has now been confirmed, the upper house was the westernmost one at this point of the settlement, being separated from the precipitous western cliffside by a paved roadway leading up the hill from the south.

In 1977, although the general outline of the upper building became clearer, work was slowed by excavation of a dump to the south and, on the north, by the sheer amount of rubble at the upper level, just below the covering sand.

The LM I-II Dump (Space 7) and its environs (Figs. 4, 6; Pl. 35: d, f)

The LM I-II dump, already partially excavated in 1976,²² was completely cleared in 1977. Special attention was given to this project because of the rarity of LM II shapes and designs outside the Knossos area, and therefore we scheduled an earlier start here than elsewhere. Unfortunately, the pottery recovered was disappointing, for few new shapes and designs were found and joins with sherds from 1976 were limited. Moreover, the size of this dump had been overestimated. On the other hand, the accumulation of sherds from both seasons represents an unusual deposit and thus merits separate treatment here (see Appendix B, below, an analysis of this deposit, by L. Vance Watrous). Moreover, earlier and later deposits were found undisturbed near by and within clear architectural contexts. Indeed, in most cases the relative sequence of the walls and floor here could be determined without dependence upon

demonstrated by a somewhat similar set-up at EM II Myrtos (P. Warren, *Myrtos*, London 1972, p. 27 and figs. 15, 16).

²¹ *Kommos, 1976*, pp. 222ff.

²² *Kommos, 1976*, pp. 231f.

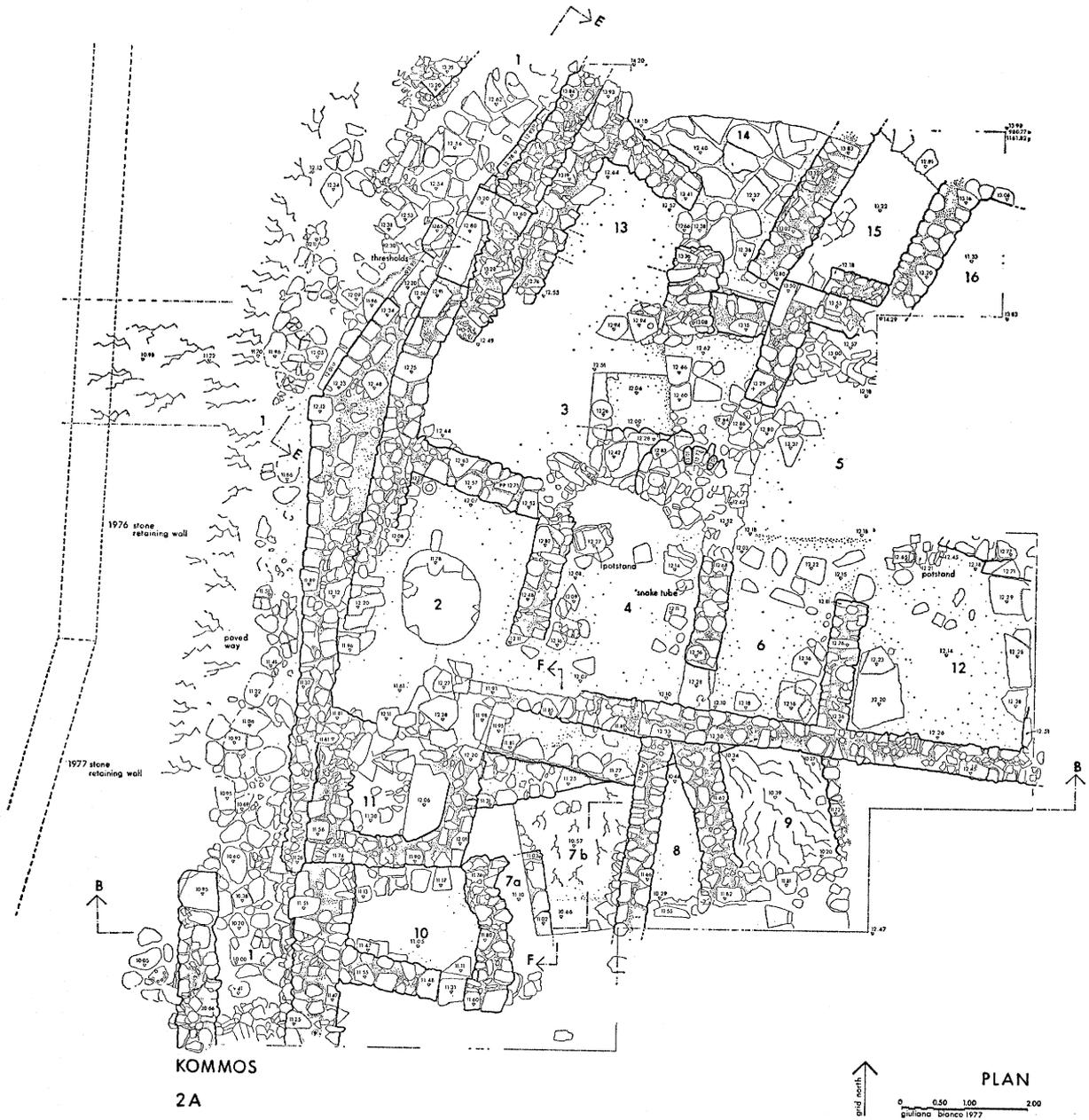
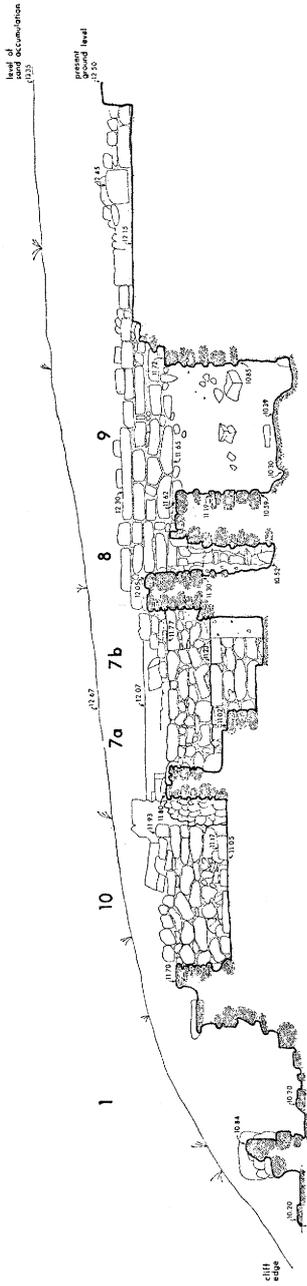
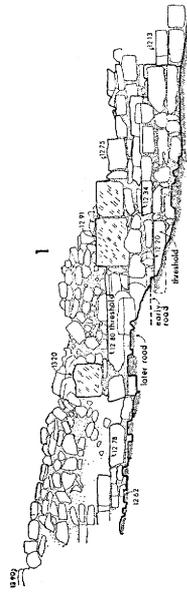


FIG. 4. Plan of central hillside area.



SECTION B-B



SECTION E-E

KOMMOS

2A

SECTIONS

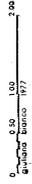
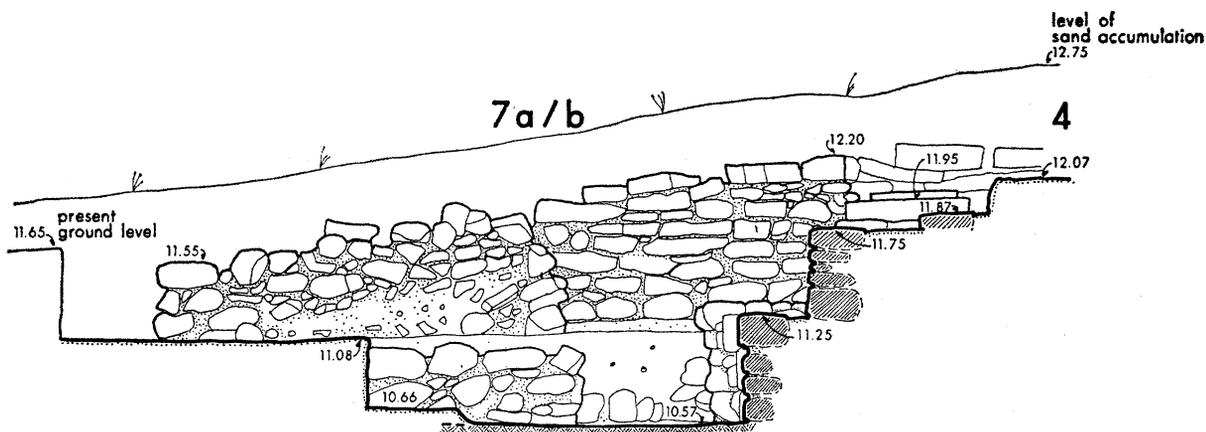
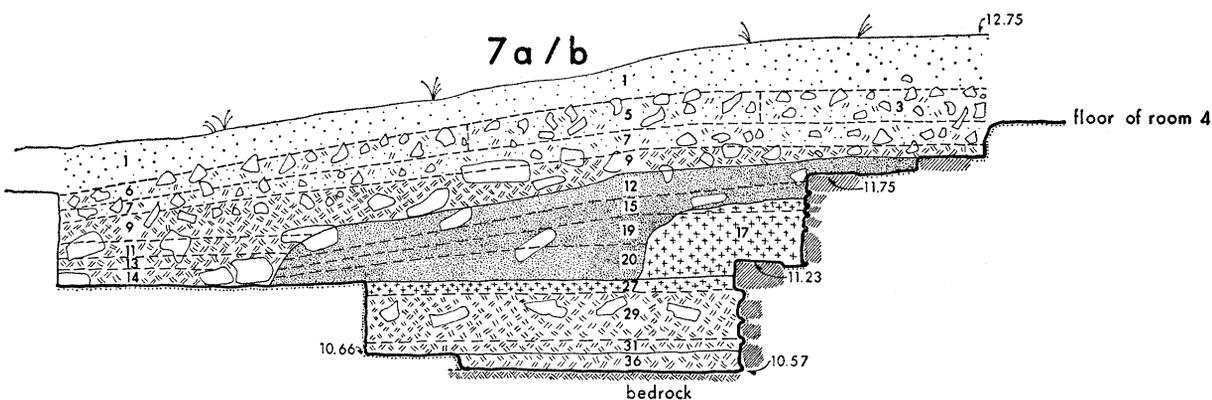


Fig. 5. Sections through central hillside area.



ARCHITECTURAL SECTION F-F



-  surface sand
-  sandy earth
-  brown earth

-  black earth (dump)
-  yellow-brown earth
- 1 numbers indicate pail numbers

KOMMOS

ARCHAEOLOGICAL SECTION F-F

2 A

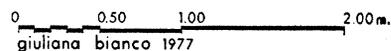


FIG. 6. Sections through Spaces 4 and 7b, central hillside area.

pottery. Thus the stylistic sequence suggested by concurrent pottery analysis could be cross-checked by purely architectural criteria.

It was already clear in 1976 that the upper building relating to the period of the dump rested upon an earlier building abandoned for some reason toward the end of the MM period.²³ At the same time, or perhaps somewhat later, a north-south wall (X in Pl. 35: d) was built out from it. In turn an east-west wall (Y in Pl. 35: d) was constructed to buttress the main wall on its south.²⁴ The supporting wall rested directly on unaligned remains of the major earlier building phase. The bottom of the former and the top of the latter met at the ground surface established for the outside of the later building. Upon this surface the dump accumulated, being partially bordered on the west by a roughly rectangular space (11, still incompletely excavated) with a bench-like slab set within it. In turn, another north-south wall (Z in Pl. 35: d) was constructed to form the fourth side of a small rectangular room (Room 10) to the southwest. While the western face of this wall is of canonic rubble construction, the eastern face has few stones. It must, therefore, be a retaining wall, for it lacks an outer face and, since the dark earth of the dump merges with its inner structure, is later than the dump itself. No doubt a portion of the dump was cut away on the west when the wall was built, the dump's bulk being used to retain the weakly constructed wall. Thus the use of Room 10 in its earliest phase as a room must be later than the dump itself.

Below the dump our sounding carried down to bedrock (at + 10.57 m.), upon which a wall on the west, belonging to the earlier MM building, had been founded. From the bedrock up to the floor (at + 10.66 m.), and then up to the top of the MM wall (preserved to + 11.03 m.), the fill was uniformly brown, with much of MM III style and a sherd or two that may be slightly later. Upon this layer was a yellowish brown one. The latest pottery from here is LM IA style, an indication of the latest date possible for the upper structure. Upon this, in turn, was a mass of yellowish brown earth piled up next to the wall on the north. The pottery within it was LM I with a few LM II style sherds. Over this, and extending to the south some 4.20 m., lay the dump proper, containing LM I material, much of it stylistically late, with an abundance of LM II; in the highest pail collected from here (12), a sherd of possible LM IIIA1 style appeared (an intrusion, or simply a logical continuation of the ceramic development heralded below).

The earth of the dump proper was uniformly dark, with much pottery, bone fragments, burned organic material, shells, occasional flakes of obsidian, even a perforated stone pendant (S 43), a lapis lazuli bead (S 50), bits of lead, and a group of bronze fishhooks (Pl. 36: a). The strata were thoroughly sieved, using both dry

²³ *Ibid.*, pp. 232f. The pottery was similar in style to that discussed in Appendix A below by Philip Betancourt.

²⁴ A similar supporting wall on a slope held up the westernmost wall of Space 14 in Trench 13A (see above and Pl. 33: b).

and wet methods. Clearly this was a rubbish accumulation built up outside the house. Probably the debris was thrown out of the house through a window or a gap in the wall. Later, after the dump had formed, the area seems to have changed to the extent that the building's southern wall was at least partially demolished and the floor of the household shrine (where the "snake tube" was found in 1976) was extended over the top of the wall.

Above the dump was brown earth mixed with stone, as well as a number of slabs, with some sand in its upper levels (just below the sand layer which covered the entire site). The latest sherds within the earth were LM IIIA2 in style, representing a late accumulation extending westward above Room 10. While previous architectural analysis (above) had shown that Room 10 postdated the dump, its relative date could still be fixed accurately only by the pottery found within it. Fortunately, our hope for a confirmatory ceramic deposit was rewarded by a "use" accumulation of sherds upon the floor as well as a series of whole or almost entire pots slightly above them (Pl. 36: b-d). Both groups, when datable, were, at the latest, of LM IIIA1 style.²⁵ Also found here was a fragment of faience (F 1), a probable sherd of "Palace Style" ware (C 260), and a small but unusual piece of Cypriot LC III ware (White Slip II ware, C 340, Pl. 36: e) similar to the larger fragments that we were to find later outside the house, to the north-west (see below, Trenches 9A1, 9A2).

Thus the dump area provides us with a sequence of MM III, MM III-LM IA, LM I-II, LM IIIA (early), an overlapping stylistic series confirmed by a combination of horizontal layering and architectural criteria. These sequences represent deposits isolated fortuitously through building and rebuilding as well as through changes in area use. Other ceramic periods are attested in the area, however, for there is later LM IIIB habitation in Spaces 3 to the north²⁶ and 12 to the east (see below). Moreover, in Space 15 to the northeast, there is what appears to be a MM II deposit stratified below MM III. It is probable, of course, that further definitions of contexts and styles will appear as study and excavation continue. In any case, we are dealing here with an area inhabited for a long time, without any long breaks and (as far as our present evidence goes) without evidence of massive, violent destruction by fire.

²⁵ Information on the pottery from Room 10 is based upon an extensive unpublished report prepared by L. Vance Watrous. He remarks therein that "the incidence of vase shapes, with their respective decorations, in this group is consistent with descriptions of the Late Minoan IIIA1 style (*SIMA* xii, 67f.; also *BSA* 62, 1967, p. 345)." Also, "the shapes common in LM IIIA2 deposits, such as the goblet and the vertically walled cup, are absent from this group." A sampling of the wares found was taken for trace-element analysis to the Fitch Laboratory of the British School of Archaeology at Athens.

²⁶ *Kommos, 1976*, p. 227. A sounding, shown in Fig. 4, was made through the LM IIIB floor of Space 3 during the summer of 1977. Within the limited sounding was a probable floor, 0.35 m. below the upper one, indicated by flat slabs and an almost entire LM IIIA kylix (C 535). Below this level was MM-LM I style pottery associated with an east-west wall that probably belongs to the original LM I structure.

Trench 17A, Space 12 (Pl. 37: d)

Toward the end of the 1977 season Room (Space) 12 was opened up, the arbitrary trench size coinciding fortuitously with the actual size of the room (the eastern wall, however, still remains to be cleared). On its western and eastern sides the room was found to be lined with unevenly set slabs, perhaps originally seats and/or potstands. These slabs were set in place during the final occupation of the room in LM IIIB, as shown by a sherd (C 815) of that stylistic period found below one of them. On the floor were other sherds of the same period, as well as three stone tools. Stylistically, the pottery suggested contemporaneity with Room 3 to the northwest; this was confirmed by a joining sherd (C 58). Along the northern wall of the room was found a poorly preserved pot (perhaps an amphora) set within a built enclosure of stones.

Trenches 9A1, 9A2, Spaces 13-16 (Fig. 4)

These two trenches, set along the northern periphery of the excavated area, were intended to clear the northern limits of the house already partly exposed. This attempt was not entirely successful, however, for while part of the northern limits of the original LM I house may have been found, the later inhabitants seem to have extended the house to the north after the major structure was built. As excavation continued, it also became clear that the earlier, lower, MM habitation level, already attested on the south, continues below the upper rooms. During the last phase of the building's use, the first habitation level above Spaces 15 and 16 (at + 13.81 m.) seems to have been an exterior one, with a flimsy wall of one course associated with LM IIIB sherds. Remains of two cooking pots were found near by; over two bucket-fuls of limpet shells attest to a meal possibly prepared in the pots. Below here, at + 13.00 m., was a scattering of stone chips remaining from the original working of the northern wall of 5. From this point down the fill predates the upper, LM I structure. Space 16, the northern wall of which curves to the northeast, is only part of a larger room that remains unexplored. This room may be unusually well preserved, for the walls now visible stand over 1.75 m. above floor level, at a point where the trench is over 2.75 m. deep.

Upon an upper "floor" in 16 (this surface remains to be defined further), at *ca.* + 12.05 m., were a number of mendable pots of MM III style. Below, at *ca.* + 11.40 m., we came upon an unusual deposit of MM IB/MM II style polychrome pottery, generally referred to as "Kamares" ware, constituting the first homogeneous deposit of this period found up to this point during the Kommos excavations. This unit is typified by red and white polychrome designs (bands, loops, wiggles), occasionally impressed designs, and by shapes such as the carinated cup, the "teapot," and spouted bowls. Extremely thin "eggshell" ware was not uncommon. The deposit promises, when the excavation area is enlarged here, to provide more examples of this most beautiful of Minoan pottery. It may also partially fill the stylistic gap

existing hitherto at Kommos between the polychrome barbotine tradition and the later MM wares and decoration (for the latter, see Appendix A below).

In the lower levels of 15, at + 11.40 m., was another unusually rich collection of pottery, this in the post-Kamares tradition of the pottery published below in Appendix A. Despite the restricted area being excavated, several complete vessels and many others with restorable profiles were found; some had signs of burning. Over 24 examples were catalogued, including a tortoise-shell ripple sherd (C 644) which suggests that the deposit falls late in MM III. Two bridge-spouted vases were discovered, one set on top of another (Pl. 37: c, e). Most surprising was the discovery of three rhyta (Pl. 37: a), one of alabastron shape somewhat similar to that found in Space 8 to the south in 1976,²⁷ and two of the rare ostrich-egg shape somewhat like that from 9 (Pl. 37: b).

Space 14 is distinguished by a handsome pavement of worn slabs, some of red schist. Perhaps this flooring was set during the LM I period, but in any case it was last used during LM III. The cross wall visible between 13 and 14 was built 0.30 m. above the slab floor; this wall belongs to a later phase of LM III when the general floor level here was raised considerably. Originally there was probably another east-west cross wall, just south of where 13 is labeled in Figure 4. At the time when the floor of 3, to the south, was lower during a pre-LM IIIB phase, there may have been a doorway between 3 and 13-14. Even if this partly hypothetical cross wall were without an opening, it was in any case largely dismantled during LM III when the people living in 3 expanded into the 13-14 area. Perhaps it was at this point that the ceiling above 3-13, weakened by the removal of the cross wall, was shored up and the general level was raised. (Or, if 14 was originally open to the sky, a new roof/ceiling was installed then.)

The intriguing architectural complexities of this area, only suggested above, are epitomized by its remarkable western wall (Fig. 5, Section B-B; Pl. 35: e). Only part of it was exposed in 1976, and at that time it appeared that there was a series of retaining walls fronting on a street.²⁸ Expansion of the excavation area has confirmed the street's presence, but the "western wall" is actually comprised of a series of walls of at least four periods of use and construction. Of these periods, there are two chief ones. The first period, at a lower level and dated tentatively to MM, featured a façade opening onto the street, with a broad threshold (T1 on Pl. 35: e) leading into the building's interior. The entranceway was just south of a jog in the exterior wall. In front of the entrance was set the road pavement, a *kalderim* made of rounded slabs, many of which are well worn by passing feet. The road parallels the building's façade. To the south the road is poorly preserved where the building extends westward, but still further, a bend in the building to the east has left the road almost as it was in Minoan times. At this point the road narrows somewhat, to *ca.* 1.10 m.,

²⁷ C 92. *Kommos, 1976*, p. 233 and pl. 53 bis: d.

²⁸ *Ibid.*, p. 223 and fig. 4.

being bordered on the west by a retaining wall. West of this retaining wall was a patch of pavement and, north of that, in a slight depression in the bedrock, was an upside-down bridge-spouted vase with a cup still set in its mouth (Pl. 37: e, C 312).

The second major period has a similar arrangement of threshold with an adjacent building corner (T2 on Pl. 35: e), but it is built at a higher level (*ca.* 0.60 m. higher) and further to the north. At about the same time that this new entrance was built, the northern part of the old road surface was covered up with a series of slabs in order to raise the general road level. This major change was probably made in LM I. Subsequently (in LM III?), the doorway was blocked with a heavy wall and, even later, another wall was built on top of that, probably not long before the the building was deserted in LM IIIB.

The wall bordering the road on the east, north of the doorway just described and opposite a western retaining wall just appearing on the plan (Fig. 4), was of shoddy LM III construction. Thus during the clearing down to the LM I street level we were not surprised to find canted slabs, upon which the wall was set, projecting out above the road. We decided to remove these, and in the process recovered Cypriot sherds from within the LM III rubble below the wall and within the rough LM III road surface.

The fragments (Pl. 36: e, C 665) are probably from a Cypriot "milk bowl" (Late Cypriot White Slip II Ware),²⁹ of the same type as the small fragment (C 340, Pl. 36: e, lower right) found in a LM IIIA1 context in Room 10 not far to the south (see above). These are fortunate discoveries, for the only published Bronze Age Cypriot pottery in Crete is from Knossos, Katsamba, Chania, Zakro, and Gournia, and only at the first three sites has White Slip Ware been reported.³⁰ Thus these sherds, found in what can only be described as a "domestic" context at Kommos, are among the rare witnesses to East-West exchange in the LM IIIA period. They also suggest that Kommos may have been closely connected with people venturing eastward at that time, perhaps to obtain copper.

Not far from the imported Cypriot pottery, in the same LM IIIA context, was found the handle of a stirrup vase (?) with a graffito (I 5). The sign (Pl. 36: f), inscribed roughly into the handle, is equivalent graphically to number 46 ("je") in the Linear B series of forms.³¹ The question of its actual significance, however, will not be easy to resolve,³² for "je" is not used to begin words in Linear B and it is

²⁹ I am indebted to Dr. Vassos Karageorghis and Professor Gerald Cadogan for their confirmation of the identification.

³⁰ G. Cadogan, "Cypriot Objects in the Bronze Age Aegean and Their Importance," *Praktikon of the First International Cyprological Congress*, Vol. A, Nicosia, Cyprus 1972, pp. 5-6. Of the first three sites mentioned, the context at Knossos is not helpful (Neolithic-LM IIIB); that at Katsamba is LM III; at Chania it is LM IIIA, as is that at Kommos.

³¹ M. Ventris and J. Chadwick, *Documents in Mycenaean Greek*, Cambridge 1956, pp. 23, 41.

³² For advice about this important sign of vague significance I am indebted to Drs. E. Bennett, J. Chadwick, and E. Hallager. I should note here that a similar sign has been found incised on Mycenaean pottery from Cyprus (John Franklin Daniel, "Prolegomena to the Cypro-Minoan

unusual for single Linear B signs to be incised, rather than painted, on pottery. Perhaps it is better to regard this example as indicating origin, and/or the maker of the vase (as a "potter's mark"), perhaps even the original owner, or the volume or contents of the pot. A pattern may emerge in the future, of course, if more examples are found.

THE LOWER HILLSIDE: THE GREEK BUILDING COMPLEX (Figs. 2, 7-9)

During the first season, in 1976, as part of the general examination of the area available for excavation, two soundings were made in the deeply drifted sand that had accumulated through time upon the southern slope of the hillside. The first, 1A, a limited probe excavated through about 1.80 m. of sand in the southwesternmost part of the property, exposed fragmentary terracotta rooftiles of the Graeco-Roman period.³³ These tiles, which lay upon earth, suggested post-Minoan habitation of the immediate area and as such were an anomaly among the almost exclusively Bronze Age remains we discovered on the hill to the north.

The tiles could, however, be tentatively associated with a building persistently rumored to be at that point, for according to elders from the nearby town of Pitsidia, here once were large walls of cut stone that had been removed within the past fifty or sixty years. The blocks, according to the most dependable sources, were taken from walls projecting up through the sand, and then re-used by monks building either the monastery at Preveli, far to the northwest of Kommos, or for a bridge not as far away at Ayia Galene. It was even said that the local populace, helping the monks, dug deep into the sand, and created depressions and mounds that did not even off quickly. The resulting formations of sand and fragments of broken rock remained visible for such a long time that the immediate area came to be called Pelékia ("cut stone").³⁴

The second trial trench, 6A, first penetrated over two meters of sand in the central part of the hillside.³⁵ After the sand had been cleared with some difficulty from above the earth level here, we excavated the earth strata to bedrock, exposing in the process over two meters of multiple habitation levels of the Bronze Age. The

Script," *AJA* 45, 1941, Class II, p. 281), and a large unpublished "je" sign is incised as a "mason's mark" on the setting surface of a block at Chania.

³³ *Kommos, 1976*, p. 235.

³⁴ During the spring of 1977 I conducted a series of interviews with six of the most knowledgeable old men in the Pitsidia area. They remembered events such as the above-mentioned stone robbing by the monks, Evans' visit to the site in 1924, or the accumulation of sand in the area. They were willing to comment on the practical advantages of the Kommos harbor versus that at Matala as well as upon the local names for the winds, and their seasons, that determine navigation along the coast. These interviews, informative from a historical point of view and intrinsically interesting since they reveal aspects of the observant and stubbornly individualistic character of the Cretans, were recorded on tape. This tape and its complete transcription, including the translation, merit detailed study in the future.

³⁵ *Kommos, 1976*, p. 235.

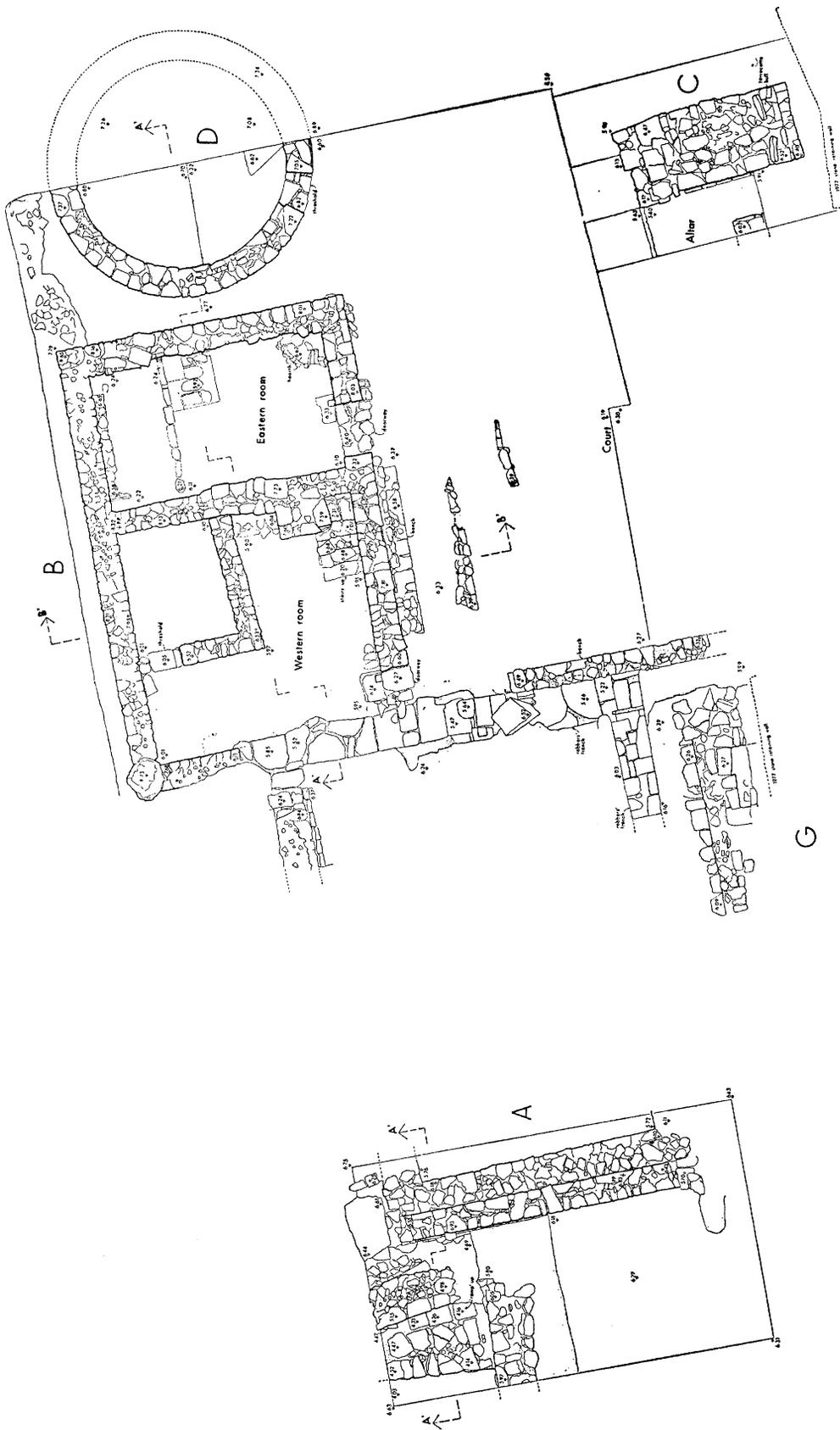


Fig. 7. General plan of lower hillside (Greek building complex).

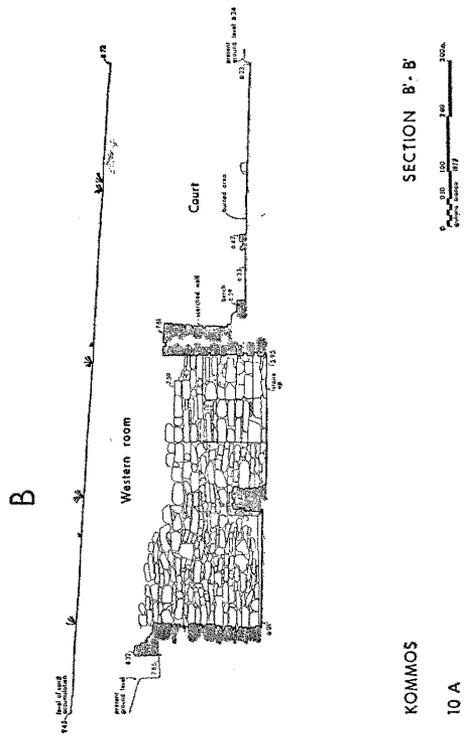
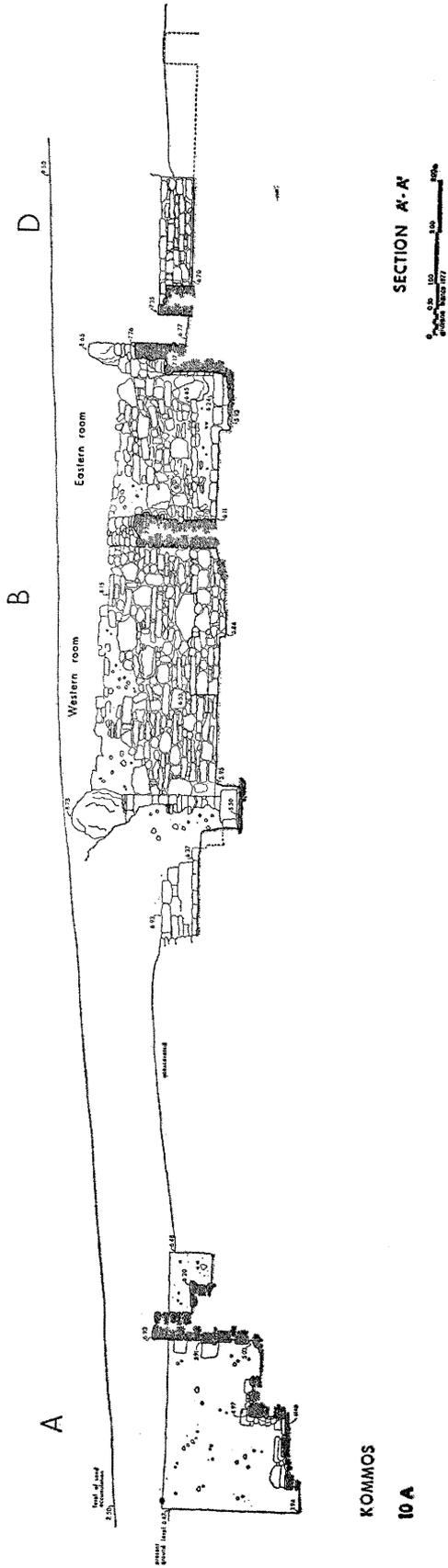


Fig. 8. Sections through lower hillside (Greek building complex).

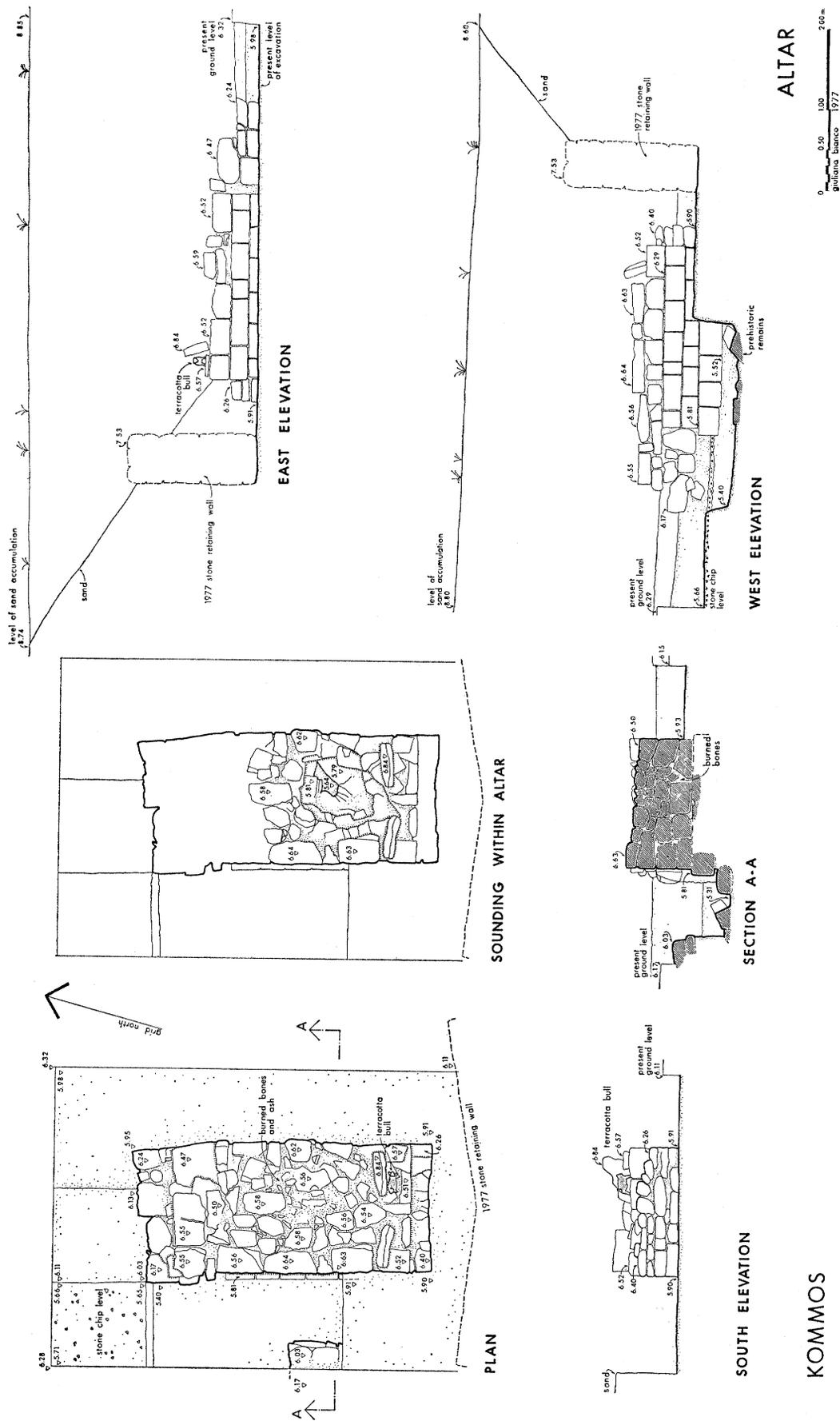


FIG. 9. Plans and elevation of the altar (C).

strata covered a range of MM III through LM III, including a rich deposit of the first period associated with well-constructed walls that seemed to form the sides of a corridor (see Appendix A, below).

Of the trenches just described, 1A was intriguing because it suggested that post-Minoan remains, perhaps bridging the gap between Bronze Age and Greek times, might be revealed. Implicit also was the unproven assumption that prehistoric strata lay deep below. This seemed the logical conclusion since trenches 2A to the northwest and 6A to the north had both exposed thickly occupied areas that could reasonably be expected to continue on the lower hillsides.

Thus during the late spring of 1977 a major operation of sand removal, summarized elsewhere,³⁶ was initiated. With the help of John McEnroe, presently a graduate student at the University of Toronto, and the expert care of the driver of the front-loader that we had hired, over 30,000 cubic meters of sand were removed from above the prehistoric earth level and were dumped some distance away upon the neighboring beach.

As sand removal continued on these lower slopes we began to discover cut slabs and blocks, some loose in the sand but others belonging to well-preserved walls of buildings standing as high as two meters within the sand. Clearly of the Graeco-Roman period, these structures were first only partially cleared of the sand around them so that careful excavation of their walls and block-filled interiors could be conducted in June, when the full staff and workmen had assembled.

While excavation of this lower area is still incomplete, it is nevertheless clear that we have discovered portions of an impressive series of buildings that range in date and use from the 5th century B.C. to perhaps the 1st century after Christ. These are located within the southern 25 meters of the expropriated area; some extend further south under deep layers of sand that we may be able to remove in the future. Presently seven structures are partially visible, and are referred to here as A through G, convenient labels given to them at the time of their discovery.³⁷

Building E (Fig. 2) is probably rectangular (its southern limit remains unexcavated). Its northern wall, only 3.25 m. long, is composed partially of re-used blocks, for the northwest corner was reinforced by a Minoan jamb base of typical L shape³⁸ and the northwestern corner has a re-used threshold block set on edge as an orthostate. The building's unusually narrow interior, still covered by a thick layer of clay, remains unexcavated. Building F to the northeast of E (Fig. 2; Pl. 42: a)

³⁶ *Archaeological Newsletter*, Royal Ontario Museum, N.S. 147, August 1977.

³⁷ For the southern Greek complex, rather than refer constantly here to trench numbers, it is easier to discuss the separate buildings in order. The trenches in the area were in the 10A- and 14A- series: 10A for Building B's interior; 10A1 for the altar (C) and surroundings; 10A2 in front of B (on the south); 10A3 above the eastern wall of A; 14A for Building D (The Round Building); 14 A1 for the sounding over the northwestern wall of A. 11A was set in over Building F. 8A was used to describe the general area while initial sand clearance was going on.

³⁸ For a summary of the forms and uses of such bases, see J. W. Shaw, *Minoan Architecture: Materials and Techniques*, Rome 1973 (*Annuario*, N.S. 33, 1971), pp. 150f., fig. 181.

is still only partially visible, buried below sand and a thick layer of clay. It consists of a carefully constructed lower wall of limestone blocks two courses high and 0.60 m. wide set upon a foundation penetrating into Minoan strata. The building seems to have been erected during the 5th/4th centuries B.C.; what may be a monument base (*ca.* 0.70 m. square and *ca.* 0.57 m. high) connected with it or with a somewhat earlier structure has been found aligned with its western wall.³⁹

E and F presently appear to be outlying structures to be associated with the extensive complex of buildings found to the west.⁴⁰ The buildings here, A, B, and G, are laid out around the northern and western sides of a large court, apparently open on the east, within which had been set an altar (C). It is not difficult to imagine that there is a line of buildings or rooms bordering the court on the south, but these still lie below unexcavated sand. The court's general dimensions, including the unexposed portion, might be as large as 20 meters (north-south) by 15 (east-west).

The Round Building (D) (Fig. 7; Pl. 38: a, b)

If we move counter-clockwise in our description of the separate structures, we begin with a round building (D), an unusual if not unique form to judge from known Cretan sites of the Greek period. It was found buried below just over two meters of sand and its walls were covered with a thick layer of clay mixed with sand, a natural accumulation common to much of the southwestern part of the property.⁴¹ The building has an exterior diameter of *ca.* 5.40 m., the single unplastered wall forming its perimeter being *ca.* 0.50 m. wide. The top four courses of the walls are composed of well-cut slabs set in mud mortar. The lower two courses are more roughly built, however, forming a krepidoma which was partly set into the prehistoric Minoan level below. The building had an entranceway, probably a doorway, *ca.* 0.86 m. at its widest. Although no pivot hole was found, it is still likely that there was some type of closure; possibly there was a wooden threshold and/or pivot block and an accompanying door and doorframe.

It was thought best not to clear all of the interior of this building during one season. Therefore the circle of the interior was divided into halves, the eastern half being left untouched (aside from clearing the outer edge of the wall). The other half was divided into two parts, each a quarter of a circle. Of these, one (that on the north) was excavated down almost to floor level (Pl. 38: b); the other was taken down to below the bottom of the wall foundations to make certain that we were not dealing with the top of a cylinder forming the side of a deep well or pit.

Within the building no major finds, architectural or other, have been made so far. Below the sand layer originally covering the building, we first found a hard, clayey

³⁹ See also the description below of Trench 11A.

⁴⁰ As seen in the general plan (Fig. 2), E appears to be roughly parallel with C, F with A, B, G. The possible significance of this arrangement will be investigated in the future.

⁴¹ The nature and extent of this accumulation, probably to be connected with erosion from the higher slopes, is under investigation.

sand overlapping the top of the wall and appearing to be a natural accumulation post-dating the building's latest use. The latest pottery within this layer is of the Hellenistic period (in this case, 2nd century B.C.).⁴² Below this (from *ca.* + 6.78 down to + 6.67 m.) there was a mixture of yellow, pinkish and white soils containing chiefly Hellenistic domestic-ware fragments (from amphoras, jugs, basins, and cooking pots). Below this (from *ca.* + 6.67 to 6.58 m.) there was a dark earth layer overlying a hardish white earth floor. From the last stratum, as well as from below the floor, the latest pottery is 5th/4th century B.C., which at present provides the most reliable date for the original use of the building. In contrast to the accumulation of Hellenistic ware above it, here there was very little cooking ware, which suggests that the original function may not have been a domestic one.

While our understanding of this building is still meager, one can nevertheless make a few general observations. The building was probably originally set upon a gentle hillside sloping down toward the seashore. To the north the surface was probably lower and flatter than at present, for the amounts of pottery west and north of Building D (of Hellenistic date, including an elegant hydria of Hadran type, C 821) imply that the area outside was used at least partially as a dump during the 2nd century B.C. In order to enter the building one stepped up from the court (at + 6.50 m.) to the threshold (+ 6.82 m.) and then, during the earliest period, down to the floor (at *ca.* + 6.70 m.). So far permanent floor features have not appeared in the interior.

⁴² Study of the later Greek as well as the Roman pottery from Crete has lagged behind that of the Minoan or earlier Greek wares. The same can be said about architectural studies. This is due partly to chance, but it is also related to the fact that scholars have concentrated on excavating Minoan and Geometric-Archaic sites and levels since these represent the two major periods of artistic excellence in Crete. Thus our own understanding of the evolution of Greek pottery from Kommos is limited by the lack of definitive publications, especially of plain wares, from this period. In the Messara there is also the question of the actual date of the post-183 B.C. destruction of Phaistos by Gortyn and, consequently, the date of the pottery thought to belong to the destruction level at Phaistos. Thus while the dates suggested here for the buildings are probably generally correct, they may well be revised somewhat when our regional type sequences are clearer. Coins, of which none have been found so far, may also be of some help.

Inscriptions might also appear, but up to this point only fragments of an inscribed roof-tile (ΑΜΜ) and of a plate (ΠΙΟΑ) have been found. A stamped amphora handle (I 6) of the late 3rd/early 2nd century B.C. was found in the fill of the court (Pl. 41 : d). For parallels, see V. Grace, "Revisions in Early Hellenistic Chronology," *AthMitt* 89, 1974, p. 200 and *Fouilles de Délos*, XXVII, *L'Ilot de la Maison aux Comédiens*, Paris 1970, V. Grace *et al.*, Ch. XIV ("Les timbres amphoriques grecs"), p. 302, under E3.

For the study of the Greek shapes, I am indebted to L. Vance Watrous, who has also worked carefully with the floor deposits from Building B, to be described here. We are also generally indebted to Peter Callaghan of the British School of Archaeology at Athens, who is studying unpublished pottery of this period from Knossos, Phaistos, and elsewhere. His suggestions concerning stylistic evolution were basic to our estimate of absolute dating. Vincenzo LaRosa, of the Italian School of Archaeology, who is to publish the Hellenistic pottery from Phaistos (chiefly that from Chálara) was also most helpful in providing information about unpublished, comparative material from that site.

As to a possible superstructure we have no direct evidence so far. Very little stone was found within the building, so an ashlar wall higher than the one now preserved seems unlikely. Rather, the even wall top suggests that we may be dealing with a socle upon which sun-dried mud brick was set. The greenish clay layer found somewhat above the original floor might well be earth dissolved from such a wall. The building would naturally have been covered, but the roof construction has not been determined. Perhaps it was of rushes, or even flat, for few roof-tiles, and those very fragmentary, were found within the building. These tiles do not seem to be of the type that could be set on a sloping, conical roof.

Building B (Fig. 7; Pls. 37: f, 38: a)

Building B, separated by only *ca.* 0.52 m. from D, is the best preserved structure discovered to date at Kommos. Its preservation makes up somewhat for the rough appearance of its unplastered, unmortared, slab-built walls. Only at crucial points of possible structural weakness (e. g. at the three corners preserved, the two doorways, the stairway) did the masons use carefully squared blocks, and even then their uneven treatment suggests that at least some were derived from other structures.

The entire building, partially sharing a common sidewall with Building A to the west, is *ca.* 6.08 m. (north-south) by 9.00 m. (east-west). It comprises two rooms without direct communication. The smaller room to the east (*ca.* 4.92 × 2.98 m.) probably accommodated cooking activities throughout most of its period of use. That on the west (*ca.* 4.92 × 4.80 m.), much larger than the first, was even subdivided to include an inner room (*ca.* 2.12 × 2.46 m.), with an entrance at the north end of its west wall. In one corner of the outside room a steep flight of steps, the first six in stone and the remainder probably wooden, led up to the second story, or, more likely, to a loft which ran the length and width of the building. Perhaps the loft had a partition positioned above the building's lower dividing wall. The lower western room, as well as the loft, was a place where people could have slept. Along the building's outside wall, between the two doorways, was set a slab bench *ca.* 0.08 m. wide and *ca.* 3.48 m. long.

When the thick overlying layer of sand was first cleared away, the two rooms' interiors were found to be clogged with sand containing a few patches of dirt, and with masses of blocks tumbled from the upper walls. In places the walls were still standing over two meters high, protected, especially on the north, by having been built partially into the hillside. Later, of course, they were buried by the sand. Starting with the western room, we removed the accumulation through the original doorway, the limestone threshold of which had been partially broken and robbed out along with the southwestern corner of the building. Originally we dubbed this the "Burned Building", for the outer wall east of the threshold had been almost calcified by the tremendous heat of a fire set, as far as we can tell, between lines of stones laid out in the court (Fig. 7) during the final phase of the building. Although there were traces of moderate burning on the interior, perhaps through use, this

evidence was chiefly at floor level and did not extend up onto the walls. Carbon in the upper levels might belong to the fire just mentioned or to the composition of the earthen floor of the upper story. That the interior of the building was not badly burned is fortunate for us, for had the calcification of the walls been uniform, the consolidation of the front (south) wall done by us with cement might have been impossible.

The single door of the western room (originally *ca.* 0.90 m. wide, and at + 6.27 m.) opened onto a step below (at + 6.13 m.), carved with a deep rectangular socket (*ca.* 0.15 m. square and 0.05 m. deep) within which a wooden block was probably set (Pls. 38: f, 40: b). The door pivot would have stood upon an iron nail projecting up through the wooden block. (Such a nail was actually found *in situ* in a similar socket in the eastern room, Pl. 40:a.) The top of this step is somewhat below the approximate level of the final or latest occupation of the room, for the bottom of an insubstantial wall of single uncoursed fieldstones, 1.38 m. long, abutting the outside corner of the wall enclosing the inner room, was at + 6.25 m. This wall was built above fallen roof-tiles from the earlier period of occupation. Associated with this same upper level (at + 6.30 m.) and found fallen near the steps leading to the upper floor were two almost identical terracotta lamps (C 241 and C 242, Pl. 42: d) which lay next to a small rectangular stone slab within a fill of dark earth and tiles. When in its original position next to the stairway and at a higher level, this slab may have served as a stand used by people entering and leaving the upper story. The lamps, probably representing the last use of the area, may be dated to the late Hellenistic period.⁴³

It is not clear how the roof was covered during this late period, for although tile fragments were found at a high level throughout the fill as well as in the court outside the building, the only substantial tile fall is to be associated with the lower, earlier floor level within the room. The roof-tiles, both pan and cover, were found fallen, usually at an angle, the tops of the best preserved ones within the range of + 6.30 to + 6.40 m., which suggests that the floor during the final period of occupation must have been a very rough one indeed.⁴⁴ Perhaps the tiles used during the later period were removed at or after the time that the area was abandoned; or

⁴³ They may, however, be associated with previous use (below) since they were found along with fallen roof-tiles. For comparison with the lamps, see R. Howland, *The Athenian Agora*, IV, *The Greek Lamps*, Princeton 1958, no. 504, type 37c, dated second half of 2nd century B.C. into 1st century after Christ. A similar but glazed lamp is no. 95 in J. Perlzweig's *Lamps from the Athenian Agora (Excavations in the Athenian Agora, Picture Book No. 9)*, Princeton 1963, dated 110 to 65 B.C. Cf. also P. Bruneau, *Fouilles de Délos*, XXVI, *Les Lampes*, Paris, 1965, pl. 4, nos. 242, 243 (second half of the 2nd—beginning of the early 1st centuries B.C.). Peter Callaghan has informed us that the type was popular *ca.* 150 B.C. at Phaistos.

⁴⁴ The cover tiles found so far (e. g. C 735) are all of the ridged type. Of the pan tiles there are two variations, that with one side perfectly flat but with rectangular ridges projecting along the long edges of the other (top) side (e. g. C 736), and that with the same shape but with a ridged triangular projection along the bottom at one end (e. g. C 737).

perhaps another material (e. g. reeds, earth) had been substituted for the original roof which had collapsed some time before.⁴⁵

The bottom of the tile fall associated with the earlier (first?) period of occupation was found about 0.20 m. further down (+ 6.10 m.). This was about 0.10 m. above the actual floor, the interval being composed of earth, perhaps from packing below the tiles or even the earthen floor of the second story. At least at one point there was an accumulation of some 0.03 m. of sand upon the floor, which suggests that sand had been blown into the room during a temporary abandonment.

Near the doorway only fallen stones were found, but west of the interior room there were a crushed black-glazed pedestal cup (C 405), fragments of ladles, of a krater, of a shallow bowl and an amphora. Within the interior room was found an unusual series of at least six such cups (C 357, C 358, C 401-C 404; Pl. 38: d). There was also a scattering of small bronze nails that might be left from some furnishing or accouterment (Pl. 38: e), as well as a terracotta lamp (C 359, Pl. 42: c), a small bronze ring (B 2) and a possible fragment of a bronze bracelet (B 6). The cups date to the 3rd or 2nd centuries B.C. Joins between sherds found inside and outside this room indicate the rooms' contemporaneity in use and simultaneous abandonment. The use of the western room at this time remains unsure, but it is reasonable to suggest that drinking, probably of wine, went on here. Cooking-ware sherds were noticeably rare here, another hint that the room was not similar in use to that on the east. Perhaps a responsible person of the household stayed, even slept, here in the interior room, but to venture further would be pure conjecture. In any case it is fairly certain that the room offered a privacy not to be found elsewhere in the building. The carefully constructed wall of the inner room, although preserved now only *ca.* 0.69 m. (max.) high, probably was once much higher, for a rectangular sinking on the southern end of the threshold leading into the room assures the presence of a door jamb here and this, in turn, makes logical a corresponding height in the partition wall next to it.

The eastern room of the same building (Fig. 7, Pl. 39) seems to have had a parallel history of use. A two-meter-long section of the inner face of the east wall was found fallen with its underside at approximately + 6.40 m., resting as it were on a layer of fallen tiles (Pl. 39: a). This was approximately equivalent to the top of a new threshold level created by adding fieldstones above an earlier threshold. The latest material related to this floor level is late Hellenistic or early Roman, with many pithos and amphora fragments. At a high level within the tumble, perhaps reflecting post-abandonment discards, were found two red-glazed sherds (C 283),

⁴⁵ We measured the total area of the pan tiles recovered, which is *ca.* 21 meters square. The minimum roof area to be covered, however, is about 55 meters square, not including either tile overlap and double gable slope or eaves projection, all of which would increase the square area by at least one third. It is reasonable to propose, therefore, that even though we have not recovered all of the tiles (there are still fragments to be recovered on all four sides of Building B), some tiles were removed from the building, and probably re-used, during at least one point in its history.

probably of the 1st century B.C. and, outside the building, a fragmentary lamp with a ridged handle (C 255). A rough hearth had been built over fallen rooftiles in the southeastern corner of the room (Pl. 39: b). At this time the eastern face of the western wall may have been patched, for the masonry courses there are somewhat uneven.

Built east-west within the room, and *ca.* 1.56 m. from the northern wall, was a rough wall of single stones (Pl. 39: d) which seems to have been intended to retain a somewhat higher floor level on the north, some 0.07 m. above the general floor level maintained throughout the room (at + 6.41 m. on the south). A wall parallel to it, against the northern wall, suggests in turn that these two rough walls may have supported some type of platform, perhaps of boards, along the northern side of the room, for storage, sitting or sleeping, or a combination of the three. A small circular rubbish pit was found in the northeastern corner of the platform. The contents of this pit were examined by means of dry- and wet-sieving but, as occurred in a number of instances in this building, little was found. A few carbonized olive pits, however, were discovered by the workmen when they were digging in the western room.

Excavation to the lower floor (at + 6.07 m.) revealed a number of objects. A lamp (C 442), a fragmentary basin (C 72) and a cup (C 443) came from the northern part of the room. A nail (Mi 3) was found within the door socket, with another (Mi 4) somewhat to the west (Pl. 40: a). In the center of the room and along its western wall appeared a dish, a jug, a ladle, and a cup (C 597-C 600, respectively; Pl. 39: e, f) as well as a round bowl. The ladle, a most graceful and practical one, was discovered upside down and full of sand (Pl. 39: c). Many of the other finds, including a great variety of fragments of cooking ware, were within a thin layer of sand (Pl. 39: c), more sand than that found on the floor of the room on the west. There was also a fragment of a Hadran hydria (C 840) and a small round bronze disk (B 4). It would seem in the case of the ladle that it, perhaps along with some of the vessels enumerated above, had fallen onto a layer of sand after the room had been at least temporarily deserted—perhaps it was on a wooden shelf or had been hung from a rafter above. Sand had in the meantime drifted in through the doorway (or even through the gaps in the roof and upper floor) and then, later, the earth from the floor or roof structure, as well as falling rooftiles, buried the vessels. Apparently this early floor level was covered at about the same time as that in the western room, for lamps and cups from both earlier floors are identical in style.⁴⁶

While the sequences suggested above remain fairly clear, the primary or original use of the rooms is not. Two shallow soundings made in both rooms revealed a hard-packed layer of red earth immediately above a prehistoric level. In the western room this reddish floor or floor packing seems to go below the partition wall already

⁴⁶ C 359 and C 442 are of a type said to be known from the destruction level at Phaistos. For a similar lamp, although on a stand, see *Annuario* 45-46, 1967-1968, p. 103, fig. 55. For a comparable example from the Athenian Agora, see J. Perlzweig, *op. cit.* (footnote 43 above), no. 87 (275-225 B.C.).

described. Above this earth and below the 3rd-2nd century floor the sherds were almost entirely of the 5th and 4th centuries B.C. There is a possibility, therefore, that the building is to be dated to that earlier period, but our investigations have not yet proceeded to the point that this can be argued with any conviction.

To summarize, the following major phases can be noted for Building B:

1. Original construction possibly some time prior to *ca.* 300 B.C., but in any case not earlier than Building A (see below).
2. Major occupation of the structure during the 3rd and 2nd centuries B.C., followed by an abandonment. During this phase and the next, cooking seems to have been the chief function carried out within the eastern room. In the western room (at least during phase 2) drinking took place and the residents ate food prepared next door. Perhaps there were arrangements here for sleeping as well. The exterior bench may belong to this period. At the end of the occupation, the roof collapsed, precipitating tiles onto the floor.
3. After a temporary abandonment, the floor levels in both western and eastern rooms were raised, the character of the occupation being of a rough, "squatter" nature. The level of the bench facing the court was also raised by the addition of a series of coarse fieldstones upon the original slab construction. Food was still prepared in the eastern room, the pattern of activity probably based upon that remembered by the inhabitants from Phase 2 (above). Range: 2nd-1st century B.C.
4. At some point after the building was abandoned, a large fire was set between two rough east-west lines of stones in the court to the south. The fire scorched the outside wall of the building, almost calcifying the exposed edges of the blocks. This fire may have been fueled with beams brought from the fallen ceiling structure in Building B or some other nearby building. Before or after this period, 1st century B.C. red-glazed sherds and a lamp, probably contemporary, were discarded in the area. From this point on, the walls of Building B began to deteriorate, collapsing piecemeal within and without the building. Not long afterward sand began to build up and eventually the building disappeared from view.

Building A (and "G") (Fig. 7; Pl. 38: a)

Adjoining Building B on the west, and possibly extending south as well, is a large structure of still unknown plan, which we labeled "A".

Unlike Building B, already described, A is poorly preserved and is still only partially excavated. Many of its walls have been robbed out. The earth above its unexcavated central section, no doubt its interior, served during the summer of 1977 as a platform where stone, sand, and earth fill were dumped until they could be removed by the top-loader.

On the basis of the visible remains, A is a large rectangle with the longer dimension set east-west. Since the enclosed space (*ca.* 8.80 × 6.40 m.) is so ample, some intermediate support (a cross wall, a series of pillars or columns) may have been set at its midpoint. On its north it is bounded by a heavy wall of which only the lower courses are preserved. From all indications the eastern wall, bordering the court, was massive. It has been largely robbed out, but both foundation trench and subfoundations can be studied. Its northern end was shared partially by Building B (Pl. 40: b), but the main foundation line turns westward rather than continuing to

the northwestern corner of B. Nor is there a heavy foundation below the threshold of B, for a single block serves as footing there, and this projects out above the line of the subfoundations of A's wall. Thus A's wall must precede B's entranceway (and, by inference, B itself) (Pl. 38: f).

The position of this north-south wall bordering the court was traced by emptying out the almost pure sand that filled the robbers' trench. The trench itself, *ca.* 0.90 m. wide, seems to represent the actual wall width below floor level for some distance.⁴⁷ This is confirmed, at least on the east, by the bench which begins (as preserved) *ca.* 2.25 m. south of the façade line of B. The bench, *ca.* 4.47 m. long, was certainly set up against the north-south wall of A, and went unnoticed or was simply ignored by the robbers when they dismantled the wall. It also seems that they worked within the confines of the original foundations, prying up the blocks one by one and then, in the case of the lower ones, raising them up to the level of the courtyard (or higher if the robbing was done after the sand had begun to accumulate). The actual process of removal could not have been too difficult, for the blocks were joined neither by clamps nor dowels, and the only mortar was clay of a good quality. The robbers' time or energy may still have been limited, however, for they left half-removed blocks within the trench (one *in situ*, 0.75 × 0.55 × 0.48 m., is visible in Plate 40: b).

Concerning the date at which the robbing took place, perhaps some of the blocks were removed in ancient times, and others many years later by the monks for their work at Preveli. That there may have been an earlier period of pillaging is suggested by a fragment of a fine limestone regula (C 59; Pl. 41: f), its guttae still retaining traces of red paint, found in the sand of the robbers' trench. A joining fragment of the same piece (Pl. 41: e) was discovered built into one of the two rough walls in the court where the great blaze was kindled. The epistyle block to which the regula originally belonged therefore was trimmed in ancient times. While the regula could belong to an early building of which parts were re-used in the complex being studied, it may also have belonged to the eastern wall of A, thus dictating a Doric columnar order for at least part of that façade.⁴⁸

The missing epistyle block could also have been used in the foundation of A, and subsequently trimmed down by the stone robbers who may also have been the ones who set the fire in the courtyard. The idea that such re-used blocks may have been used in the foundation is reinforced by a curious inconsistency to be noted in

⁴⁷ On the east the lowest blocks in the trench are wider than the trench itself, which suggests that we are within the "form" of the wall and that the original foundation trench was somewhat wider. (Or, conversely, building construction began on a lower level that was later raised outside and/or inside to a new floor level.) Not having excavated to the side we do not know how much deeper the existing foundations actually go. The top of the lowest block visible here, however, is at + 5.22 m., not far above the level of the bottom of the foundation of the western wall of the same building (at + 4.91 m.).

⁴⁸ Seven rather than six guttae were pendant from the regula, an unusual number. If the Doric frieze incorporating this epistyle were set above a columnar façade, the columns would have had a diameter of about twice the regula (or triglyph) width, or *ca.* 0.57 m.

the variety of the sizes of foundation blocks. One would expect that if they had belonged to a single building program making use of newly quarried stone they would have a uniformity of size and would have been set in even courses. Instead, they are rectangular (center), triangular (top, lower end) and have various heights. Moreover, because of their differing heights they are set at different levels. They seem, therefore, to be from other buildings. The large triangular blocks, for instance, could have formed part of a monumental building of the Bronze Age.

The latest pottery from the sand within the robbers' trench appears to be of the 1st centuries before and/or after Christ. This may well be contemporary with fragments of blown glass (Mi 1) and what may be early Roman "stoneware" found in connection with Building G to the south. G is known only by a double wall (retaining walls?) built up against fill, and may be connected with a lower floor level on the south.

If my interpretation of G is correct, then the room bordered by its walls may be enclosed within a much larger room formed by the possible continuation of the two north-south walls of A.⁴⁹ If the walls do not continue, then we may be dealing with some type of open court, although the presence of the bench to A's east makes this doubtful. In any case, G was not far south of an east-west wall that forms the present southern boundary of A. Although the robbers' trench here has not yet been cleared completely, its terminations on both ends have been found.

The western wall of A is its best preserved one. Rather impressive, it consists of some three courses of ashlar blocks forming a krepidoma (from + 5.03 to + 5.91 m.) surmounted by six more ashlar courses (to + 6.93 m.). Hellenistic sherds found alongside its foundations indicate the period when it was built. On the north the wall turned eastward at a point where a huge slab, poorly supported from below, was placed against a scarp cut from the eastern hillslope. (See also Trench 14A1, below).

The western wall of A is bordered on the interior by what may have been a low wall (0.65-0.70 m. wide) which ran about the inside of the room (Pl. 40:d). Although it is unplastered and very roughly made, its general form reminds one of a wide bench of the type used for sleeping, but we still do not know its height above interior floor level. Rooftiles were found fallen upon it, as well as part of a spouted terracotta sima (C 776); there is also a level of burning.

Building C, The Altar (Fig. 9; Pls. 38: a, 40: e)

South of D and southeast of A is C, a rectangular platform *ca.* 3.78 m. long (north-south) by 1.60 m. wide and 1.10 m. high. Almost as soon as we began clearing the structure its function⁵⁰ was recognized, for it was covered by a layer of burnt earth containing hundreds of fragments of burnt bone (Pl. 41: b) and its topmost

⁴⁹ Neither wall, however, has been traced sufficiently far to the south for us to be sure it continues.

⁵⁰ Originally we thought it was a tomb, but subsequent excavation of its interior disproved the theory (of course it still might be a cenotaph).

slabs, especially those in the center, were reddened and friable because of the intense heat to which they had been subjected. On the altar's southeast corner, still *in situ* after at least two thousand years of vigil, was standing a weathered terracotta bull about 0.27 m. long and 0.17 m. high (C 268, Pls. 40: f, 41: a). This constitutes a rare, if not a unique, instance in which a votive animal figure has been found on a Greek altar. The bull's curved tail was lifted onto its back. He may once have had horns but neither were they found nor are the points of attachment visible on the very rough surface. One of the animal's ears, however, was reattached when fragments recovered through dry sieving were being studied in Pitsidia.

The bull had been shielded on the north by a vertical slab set next to it (another, similar slab was found to the west as well). At one time it may not have been the only animal at this spot, for leaning up against its side on the south was what is currently identified as an animal's lower leg (C 345), a crude hollow cylinder of baked clay rounded at one end (the bottom?) and with a knee-like protrusion further up. Two similar objects had been recovered earlier from near the spot when we were removing the upper sand (Pl. 41: c).⁵¹

The vertical slab next to the bull had been almost calcified by the intense heat, for burning had turned it red and gray; the slab began to disintegrate as soon as it was uncovered. The bull, however, does not appear to be singed, which is somewhat incongruous considering the amount of burning near by. Perhaps the correct explanation is that the slab was set there intentionally to protect the bull, a votive image placed upon the altar. Then, when animal remains were placed upon the altar as part of an offering, their consumption by the flaming pyre of wood on the altar affected the exposed slab but, fortunately, not the bull. The pile of ash and bone on the altar, no doubt from many separate rituals, may have been at one time quite large, for bone and ash were found scattered on ground level next to the altar.

In order to retain sufficient stratigraphic levels for checking preliminary conclusions about this structure, we excavated only part of the fill around it. The western elevation, however, exposed completely at one place, is probably sufficient to trace at least the major periods of development, for it shows clearly that we are dealing with at least two and probably three successive stages of construction.⁵² The first period, of fine ashlar work similar to that of the western wall of Building A (or to the krepidoma of F), is preserved three courses high, the bottom course forming a krepidoma projecting out 0.06 m. beyond the wall.⁵³ The altar's original dimensions then (in plan, not including the krepidoma) would have been *ca.* 2.20 × 1.60 m.

⁵¹ Another "leg", done on a somewhat smaller scale, was found just outside the eastern periphery of the Round Building (D).

⁵² Of course the altar may have had an even earlier, humbler phase. This is suggested by the presence of burnt animal bone within the altar's core. These bones may have been thrown by the pious into the altar when they were constructing a newer phase.

⁵³ The blocks measure 0.14-0.41 m. in width and the courses 0.22-0.24 m. in height. Those of the krepidoma are somewhat larger, being as high as 0.33 m.

On the basis of the limited sounding, it appears that the altar may have been founded almost directly on the prehistoric level, although an imported Protocorinthian sherd (C 477) was found within the fill. A little below the top of the krepidoma is a stratum of limestone chips, no doubt from the original cutting of the blocks for the altar. Above and below these chips (from + 5.54 to + 5.66 m.) the latest pottery was exclusively of the 5th and 4th centuries B.C., giving the date assumed at present for the original building and early use of the altar. Further investigation may well narrow the range. It might also clarify whether the altar's upper wall was ever capped by a cornice of projecting blocks. In any case it would seem that the level of the courtyard at the time was considerably lower than it was later, the earliest level (at *ca.* + 5.60 m.) being suggested by the presence of the krepidoma at this point, the layer of chips, and the fact that while burnt bone was found at the working-chip level, little was found below it.

The next architectural phase was an addition (beginning at a level of about + 5.85 m.) of two courses extending the northern end of the altar by *ca.* 1.04 m. This addition was roughly made with a variety of blocks, some re-used, set on a ground level that had risen since the original construction. The latest sherd found in association with this level was a 3rd century B.C. basin base, suggesting the time when the addition may have been made.⁵⁴

A third rough addition was made still later⁵⁵ by laying two courses of slabs upon almost the entire structure except for about a block's length on the northern end. At the same time the above-mentioned vertical slabs were set on the altar's southern end. South of here, extending the total altar length by *ca.* 0.26 m., still another addition was made of coursed blocks. The third addition probably took place during the Late Hellenistic period (the bull would, therefore, unless re-used from an earlier level, belong to this period as well), for Hellenistic sherds were found on the altar and within the upper part of its interior. The time of the extension to the south is unsure since it could date to any point after the original construction.

South of the altar and covering it at least partially was a deep layer of sand containing roof-tiles, amphora and basin fragments, part of a blown-glass container, as well as lamp fragments and entire lamps (C 265, 266, 318). The lamps (Pl. 42: e-g), of local Cretan types, are to be dated to the 1st century after Christ, the blown glass probably first appearing in Crete at about the same time.⁵⁶

⁵⁴ A wall just west of the altar, of which the eastern end was cleared, may belong to this phase. The function and date of this wall, 0.63 m. wide, remain to be investigated.

⁵⁵ It is possible but not probable that this phase and Phase 2 should be combined, with the northern addition providing a base for the two courses added above the original altar. This seems unlikely, however, for the upper two courses terminate on the north a block's length from the actual edge. Moreover, given the meager character of the later addition it is doubtful that a special base would even have been added.

⁵⁶ I would like to thank Dr. John Hayes for his opinion about both the lamps and glass. For the lamps, see K. Wardle, "Two Notes from Knossos," *B.S.A.* 67, 1972, pp. 271-284, no. 6, fig. 3 on p. 276, and pl. 52: d; pp. 274, 278, no. 102 (fig. 5), where they are dated to the mid- or late

Some of these lamps, as well as the other pottery, were found at a level above that of the altar and within the sand, below a sloping layer of burning that could be traced in the sand scarp. This may be an unusual instance in which stratigraphy is actually present in the otherwise usually sterile sand overburden at Kommos, and could possibly help us date the beginning of the major sand buildup in the area. It is possible, for instance, that during the final occupation period of this part of the Kommos site, sand had begun to accumulate in the court, forming what one might call a dune near the altar. People living near by might have helped raise its level by throwing sand and trash on the pile during clearing operations.

It is even possible that the altar may have been entirely covered at this time and that the lamps did not belong to people living or working in the present excavation area but, rather, to the south of it. This might help to explain why "wasters", or poorly fired pieces of pottery that have been discarded, presumably from a pottery kiln near by, are found along the southern scarp of the excavation while there are none further north.⁵⁷ If the layer of burning can be connected with the fire set between the lines of stones in the court in front of Building B, then one can imagine how the altar, completely covered with sand, escaped pillaging during the final period when the fire was set in the court and when blocks may have been removed from the eastern wall of Building A. This might explain why the terracotta bull was not removed or at least smashed then, unless its preservation can be attributed to acts of piety.

In review, the development of the altar now appears as follows:

1. After the prehistoric period, in an area where there had been an Archaic Greek presence of a still undetermined nature, the altar was founded. Top of krepidoma at + 5.81 m., court level then at top of working chips (+ 5.66 m.). Dimensions of original altar *ca.* 2.20 north-south by 1.60 m. Late 5th-4th centuries B.C.
2. The first addition to the altar was built on the north, increasing its overall length by *ca.* 1.04 m. This was set on a raised courtyard level, at *ca.* + 5.85 m. 3rd century B.C.
3. The second addition was made, consisting of two rough courses of blocks added on to the existing base, raising the altar level by *ca.* 0.40 m. Two slabs were set on edge toward the southern end in order to protect votive offerings from the heat of the ritual fires to the north. At this time or perhaps earlier (or even later) a short extension was made to the south as well. Late Hellenistic, i. e. perhaps during the 1st century B.C.
4. With the altar out of use, perhaps buried below drifted sand, a fire near by spreads ash on the sand, covering debris that accumulated not long after the general area has essentially gone out of use. This period at Kommos may be characterized as one of abandonment and looting. Time range: 1st century B.C.—1st century after Christ.

1st century after Christ; also J. Hayes, "Four Early Roman Groups from Knossos," *BSA* 66, 1971, pl. 40: d, pp. 62-63.

⁵⁷ It is possible that a kiln was established in the area in order to take advantage of clay such as that which had presumably covered Building D by that time; the potential of the clay for pottery making as well as the existence of a kiln will be investigated in the future.

Prehistoric Levels on The Lower Hillside

While soundings have confirmed the presence of a deep prehistoric stratum on the lower hillside, excavation has not been extensive enough to determine the exact nature of the levels and structures discovered. It is clear, for instance, that the Greek complex just described overlies earlier material. Within the Round Building (D), below the floor level, was found MM III, Archaic, and 5th century B.C. pottery. Within limited soundings in both rooms of Building B we found the tops of earlier (prehistoric?) walls; west of the altar (C), below the chip level, was LM III, Proto-corinthian, and Classical material overlying wall blocks.

Such hints of earlier history in the area were confirmed by Trench 14A1, laid out towards the end of the 1977 season so as to straddle the western wall of Building A (at 2 in Pl. 40: c). This enabled us to clear the wall and part of A's interior, and, on the west, to make a sounding down through Greek to prehistoric levels. The Greek remains have already been partially discussed in connection with A (above).

Within this deep sounding, aside from the appearance of a later north-south wall (Hellenistic?) within the trench (at 1 in Pl. 40: c), the fill for more than a meter contained a mixture of Minoan and Classical, as well as some Hellenistic sherds. Although there were occasional accumulations of rough stones, these were more in the nature of piles without architectural connection, nor did they seem to form clear surfaces. Nor on the west was there any trace of the deep foundation trench that would have been necessary in order to set the foundations of Building A into an earth accumulation. We may, therefore, be dealing with earth built up after the foundations had already been largely set in place. Perhaps the level had been brought up from *ca.* 4.90 to *ca.* 6.00 m. by bringing in fills from near by during the late Classical or Hellenistic period, which naturally implies that here the slope down to the seashore was then a more abrupt one than it is now. That the beach was not far off is suggested by the amount of sand found in the trench's western side (beginning at + 5.20 m.). It is thus possible that Building A's wall was constructed up to a certain point above the lower foundation (from *ca.* + 5.03 to + 6.50 m.) before the filling was added on the west, for a layer of stone working chips was found (at + 6.38 to 6.47 m.) and these can be connected only with the building of the upper western wall of A. Moreover, there was a narrow sand-filled trench paralleling Building A on the west. At first this was thought to be a robbing trench, but a more likely explanation is that the masons who were building A used it for working next to the wall.

The bottom of A's western wall rests, in any case, on Minoan levels. Just west of it, for instance, were found MM-LM I style sherds without the usual admixture of later sherds, as well as some fragments of blue-painted plaster. Still further west we found a somewhat scrappy wall without a clear western face (at 3 in Pl. 40: c) that could be as late as LM IIIB but is more likely LM I. East of the wall is rocky fill—the wall has no eastern face, which suggests that it is a retaining wall.

On the last day of excavation in 1977 we cleared west of this wall (to + 3.94 m. at the lowest). Within this somewhat confined space, only 1.0×1.5 m., the pottery was uniformly Minoan, MM through LM III in style, and gave the impression that it was an accumulation over a long period of time rather than an intentional filling. More significant, however, was the presence of an unusually wide (*ca.* 1.00 m.) north-south wall of slab construction (at 4 in Pl. 40: c). Adjoining it on the east are four worn limestone slabs which extend under the later Minoan wall just described. These slabs, set at regular intervals along the wall, although they do not overlap could not belong to a floor, for they are not even (being at + 4.16, + 4.26, + 4.33, and + 4.47 m. respectively, south to north). Rather, they should be interpreted as being steps, belonging to a much longer series than presently visible.

The slabs must form not an interior stairway but rather an exterior, stepped ramp which is being retained on the west by a wide wall. While the width of this stepped ramp remains unknown, judging from the unusual size of its retaining wall it may be of monumental proportions; the unusually gentle rise of only 0.21 in 1.80 m. is another indication of generosity in design. One possibility is that what we have found here is the chief western road leading up from the harbor during the Middle Minoan period, but that hypothesis remains to be tested. The later Minoan wall above it and on the east could well have supported a similar approach. It is humbler but without an eastern face, and retains a layer of small, closely packed stones very much like a road surface.

Trench 11A

At the beginning of the 1977 season, Trench 11A, five meters square (Pl. 42: a), was set out so that we could expose a portion of the interior of Building F, already described briefly above, and in order to excavate an ample sounding west of the building down to prehistoric levels.

While we succeeded in establishing that the area was inhabited from MM I through LM III, and then again during the Classical Greek period (there was also some Archaic pottery, but without architectural context), clear stratification such as that characterizing other parts of the site could not be recovered (hence our summary treatment here). The problems inherent in the occasionally mixed contexts were further complicated by the difficulty of isolating floor levels, for at least in the first meter (we excavated from + 6.80 m. down to bedrock at + 4.30 m.) the fill was damp, clayey earth. It is also highly probable that during the LM I-II period (see below) the inhabitants removed an earlier floor in order to re-use the walls of lower structures, thus obscuring the true architectural/ceramic sequence. This situation was further complicated on the east by later intrusions caused when the builders of F set in their foundations. Moreover, a square monument(?) base was set down deep into prehistoric levels on the line of the western façade of F.⁵⁸

⁵⁸ The base, *ca.* 0.70 square in plan, was set on a re-used threshold block for greater stability.

The earliest habitation here, like that in Trench 1B far to the northwest,⁵⁹ was during the early Middle Minoan period when handmade vessels were still being produced and barbotine ware, often polychrome, was popular (Pl. 42:b).⁶⁰ Sherds of these wares, some worn by erosion, were found within a layer of sand 0.40 m. deep, but without any evidence of associated buildings. The sand rested on bedrock at + 4.30 m. Upon this sandy layer was built a substantial structure (a house?) of which portions of two rooms were excavated. Of that to the south, the southern wall (with an opening on the west assumed to be a doorway) was discovered almost even with the trench scarp. The western wall of this room, constructed like the others of good slab masonry, extends north to form the western wall of Room 2 to the north. The two rooms are separated by a wall with a probable doorway, but later construction (not removed by us) obscures it. The date of the final use of the rooms (with a floor at + 4.95 m.) is based on an entire LM I/II style bowl (C 354) found in the southwestern corner of the northern room; but the walls themselves may be as early as Middle Minoan since so much pottery of that period was found associated with them and there is no architectural level below.

Upon the cross wall, as well as upon the western wall mentioned above, was found later construction of a scrappy nature associated with LM IIIB style sherds. Only by means of more extensive excavation in the area, however, could one hope to untangle and date conclusively the obviously complex sequence only partially exposed in this trench.

The Development of the Southern Area

The southern area described above has, in some ways, only been tested. A few internal sequences are relatively clear (e. g. in the interior of Building B), but certain attested ceramic periods remain so far without architectural association (e. g. MM I, Archaic Greek) or have failed to appear (e. g. LM IIIC through Geometric). In some cases the relative sequence suggested individually above for separate structures is based upon partial excavation (e. g. the Minoan "ramp", the altar [C], or the Round Building [D]). Perhaps even more crucial to our present inquiry is the fact that the relationships between the Classical/Hellenistic buildings A-G require further verification. Except for the altar (C) and perhaps Building B, moreover, their functions remain undefined.

It would be a mistake, however, not to outline even at this early stage of inves-

Of finely cut hard limestone with a curious round cutting (not a dowel hole) in its upper surface, it may have been carried up by another, similar block. The "base" is also reminiscent of a Minoan pillar block, but would be incongruous in the non-ashlar setting found around it.

⁵⁹ *Kommos, 1976*, p. 206.

⁶⁰ A separate study of this material was made by Philip Betancourt as a first stage in our consideration of earlier levels at Kommos. Betancourt suggests that the Kommos pottery is best paralleled by Evans' MM I, with some MM II style, and that it is similar to Doro Levi's Phase IA at Phaistos (Gisela Walberg's Early Kamares period) as in D. Levi, *Festòs I, 1977*, pl. 35.

tigation some of the chief features and relationships in this important area, even though revisions and additions will inevitably be made in the future. With some hesitation, therefore, but not without evidence, I would suggest the following general sequence for the area:

A. *The Bronze Age* (further subdivisions to be introduced at a later date)

1. MM I-II. Occupation of the area on the southeast, with some early sand accumulation apparent (Trench 11A). As before modern sand clearance, during the Greek period and during the Bronze Age, the ground level sloped here from the east down toward the beach on the west.⁶¹
2. MM II-LM IIIB (all intervening ceramic periods not necessarily accounted for). Use of the area on the southeast and southwest, with multiple building periods on the east (Trench 11A) and at least two on the west (Trench 14A1). The monumental "ramp" found in 14A1 may have been a chief thoroughfare of the Minoan town. Then sand accumulated above the Minoan level and was in turn covered over later by fill during the Hellenistic period.

B. *Post-Minoan Levels* (ca. 1000 B.C. to A.D. 100)

1. Some occupation, with indirect (?) connections outside Crete substantiated by early Corinthian sherds with compass-drawn scale-pattern,⁶² ca. 600 B.C. or earlier.
2. Significant occupation ca. 400 B.C. and earlier, with probable construction of the Altar (C) the Round Building (D) and F as well.
3. By this time Building F had been deserted, its upper wall (if of ashlar) probably having been removed. Building A was built, to be followed by the construction of Building B. B's earlier floor levels (at ca. + 6.10 m.) were in use, the eastern of the two rooms serving for preparation of food to be eaten in the western room and elsewhere (e. g. outside, on the benches). There was probably residence in the western room. An addition (perhaps even two) was made to the altar (C). At the end of this phase, as suggested by shallow layers of sand accumulated on the floors of Building B, there was a short period of neglect and desertion which was followed by the collapse (destruction?) of the upper story into the rooms below. The function of this building complex can hardly be described as purely secular, although everyday activities were carried on within B. The strongest religious association is, of course, with the altar (C) around which the buildings seem to have been set; but then there is also the Round Building's distant but real analogy with circular structures in Mainland Greek sanctuaries⁶³ and the probable presence here

⁶¹ In IIA bedrock is at 4.30 m., while in 14A1 bedrock has not been found even though excavation has reached + 3.96 m. Ground level outside Building F was at + 6.48 m. while that of the top of the krepidoma of A on the west is + 5.92 m. Before sand removal began the surface level above Building F was at ca. + 10.48 m. while at only + 7.60 m. above Building A.

⁶² Within the expropriated area, Protocorinthian sherds appeared in connection with the pre-altar level (C 477) and that of pre-Building F (C 497, C 498). Other Archaic material in similar context near F: C 502 (Archaic oinochoe base), C 501 (jug fragment of East Greek/Aeolic gray ware) and C 503 (Archaic Corinthian kalathos fragment). Houses of the same general period (Site 3, Kommos Survey, 350 meters to the southeast) have been identified on a much eroded part of the hill. A fine Daedalic terracotta head (C 500), dated by M. C. Shaw to about 640 B.C., was found in connection with a structure partially violated by amateur tomb robbers further to the southeast (Site 10, Kommos Survey Grid 920 meters north-south, 1290 meters east-west).

⁶³ Usually, however, circular buildings in mainland (e. g. Olympia, Delphi, Epidauros) or island (Samothrace, Thasos) sanctuaries were larger and many of them were embellished with a peristyle about a central cylindrical drum. That at Kommos might well belong to an independent Cretan tradition.

of a large building of the Doric order which made use of the regula S 59 (Pl. 41 : f). The orientation of the altar is another consideration, for its positioning accords with that of some altars associated with temples.⁶⁴

It is not to be discounted, of course, that (as in many Greek sanctuaries) this altar is associated with an unexcavated temple to its west. If there, it may well be an extension of A to the south, or could even be enclosed within that extension if it is earlier than A. It may not be a coincidence, moreover, that the doorway of the Round Building (D) faces southwest, west of the altar to a possible focal point. We are probably not being unreasonable, therefore, to suggest that A-D represent a rural sanctuary where sacrifices, perhaps carried out yearly, took place. The nature of the cult, perhaps only a local one, is not known, for sufficient quantities of dedicatory material have not been found. 3rd-2nd centuries B.C.

4. The original function of the building group had begun to wane, although the altar remained in use (*viz.* the terracotta bull). Cooking continued in B, although of a less substantial nature than before, and with the floor laid roughly above the fallen roof-tiles and debris from the earlier collapse. Since the floor plan in B's eastern room is the same in both phases, and would have been hidden after the first collapse, the later plan was no doubt laid out by someone who remembered the earlier arrangement. Thus it is likely that the use, roof collapse, and re-use cannot be separated by more than a generation or so. 2nd through 1st centuries B.C.

5. The entire area had gone out of use, with F and D being covered during the generations by alluvial accumulation washed down from the surrounding hillsides. Sand had begun to accumulate within the court, perhaps obscuring the altar from view. The rural sanctuary lost its devotees. Not only was a massive fire set in the court, perhaps consuming wooden beams brought from collapsed roofs and ceilings of nearby buildings, but quarrying of the walls of A may have been carried out as well. Later, sand covered the area. 1st century B.C. through 1st century after Christ.

6. Further sand build-up with (after wind removes some sand?) eventual quarrying of wall blocks of A by monks from Preveli, some 50-60 years ago. 1st century after Christ to the present.

THE HISTORICAL CONTEXT

Concerning the period of the 5th through 1st centuries B.C. in Crete, only a moderate amount of information is available. No contemporary history written about Crete, much less for the Messara, has survived. Our sources, instead, are chiefly occasional references to Crete by later geographers and historians; although there are numerous contemporary inscriptions of a legal or commemorative type, they are often fragmentary and difficult to interpret.

Just as Mainland Greece was characterized by rival city-states, so too was Crete. In the Western Messara the chief towns were Gortyn and Phaistos, each with its

⁶⁴ Preliminary measurements of orientation indicate that the altar (C) is not aligned exactly with the complex of rooms to the northwest and west. The east-west axis of the altar (that which is usually relevant in considerations of orientation of temples and altars) is about 16° 30' north of due grid east (the exact relationship of grid east to true east remains to be determined in the future). The east-west orientation of Buildings A and B, however, is about 13° north of due grid east. This small difference may be fortuitous, but considering the apparent care with which A and B were laid out, the difference may be due to the fact that C (or its predecessor on the site, if such existed) is earlier than either A or B. More complete definition, in any case, can be made when excavation in the southern area has progressed further.

own territory and respective villages under its control (Fig. 1).⁶⁵ South of the Messara, on the coast beyond the Asterousia Mountains, were Lasaiia⁶⁶ and Lebena (modern Leda).⁶⁷ The latter, with its shrine of Asklepios, served as a seaport on the southern coast for Gortyn.

For some time Matala (ancient Matalon or Metallon),⁶⁸ on the other side of the Nesos peninsula some three kilometers south of Kommos, served as the harbor of Phaistos;⁶⁹ but in *ca.* 219 B.C. it and Lebena were taken over by young warriors of Gortyn who were supported by the Knossians. It is not known, however, whether Matala, a much more convenient port than Lebena, remained for long in the hands of the Gortynians after this event; but the rivalry between Phaistos and Gortyn was in any case terminated when Phaistos was destroyed by Gortyn not long after *ca.* 183 B.C.⁷⁰ From then on, it seems safe to assume, Phaistos' former lands came under the control of its captor.

The next major political event in local history came when Gortyn sided with Rome in its struggle with the opposing alliance of independent Cretan states.⁷¹ Although the army led by the first general sent by Rome, Marc Antony (the father of his better-known son), was completely defeated, five years later (in *ca.* 69 B.C.) forces under Quintus Caecilius Metellus invaded Crete near Kydonia (modern

⁶⁵ The most complete source for investigation of the topography and history of the Messara is Margarita Guarducci, *Inscriptiones Creticae*, especially Volume I, *Tituli Cretae Mediae Praeter Gortynios*, Rome 1935 and Volume IV, *Tituli Gortynii*, Rome 1950. First-hand investigation of sites and careful evaluation of literary evidence for ancient toponyms have been made by Paul Faure in a series of articles, among which are "Nouvelles recherches de spéléologie et de topographie Crétoises," *BCH* 84, 1960, pp. 189-220, especially pp. 196-201, and "La Crète aux cent villes," *Bulletin de l'Association Guillaume Budé*, 1960, pp. 228-249 as well as (*op. cit.*) "Remarques sur la population de la Crète antique," 1961, pp. 320-326. For further information on internal political structure and the observation of religious rites in Crete, see R. F. Willetts, *Cretan Cults and Festivals*, London 1962, *passim*.

Figure 1 here, of the Messara area and southern coastline, is partially based on plans published by Faure (*BCH* 84, fig. 2, opp. p. 196) and Guarducci (*op. cit.*, vol. I), with topographical detail drawn by T. Boyd from a German survey (Griechenland 1:100,000, Sonderausgabe IX, Athens 1941, Grid O-P, Sections 12 and 13). When possible ancient names of sites are given in brackets.

⁶⁶ For recent research at Lasaiia, see D. J. Blackman and K. Branigan, "An Archaeological Survey of the South Coast of Crete, between the Ayiofarango and Chrisostomos," *BSA* 70, 1975, especially pp. 28-32.

⁶⁷ Archaeological investigations at Lebena, plus further reference, are summarized in L. Banti and L. Pernier, *Guida degli scavi italiani in Creta*, Rome 1947, pp. 68-75, 82.

⁶⁸ The most up-to-date résumé of the history and remains at Matala is D. Blackman's article in *The Princeton Encyclopedia of Classical Sites* (R. Stillwell *et al.*, ed.), Princeton, 1976, p. 558.

⁶⁹ According to Polybios (IV.55) Matala was the harbor of Phaistos seized by Gortynian exiles.

⁷⁰ We know from Strabo (X.479) that the people of Gortyn destroyed Phaistos. It seems unlikely that this could have happened before 183 B.C. when Phaistos and thirty other Cretan cities signed a treaty with King Eumenes II of Pergamon (for the treaty see Guarducci, *IC* I, 269; IV 179, p. 250). Many scholars think that Phaistos fell about 150 B.C.

⁷¹ Guarducci, *IC* IV, pp. 26-27.

Chania) and, after initial victories there, set about eliminating resistance on the entire island. In the process Knossos and other centers were destroyed. Gortyn, however, was honored as early as *ca.* 27 B.C. for its past loyalty to the Romans when it was established as the chief city of Crete and at the same time as the center of a Roman provincial administration which included Cyrenaica in North Africa as well. This arrangement brought increasing wealth and prestige to Gortyn which henceforth became the largest city in Crete, prospering until *ca.* A.D. 824 when it was captured and partially destroyed by Saracen pirates.

One of our concerns at Kommos, now that this unexpected Greek center has been discovered, is to attempt to determine if it was affected by any of the local events described above. From the archaeological point of view, it is clear that the area excavated flourished from *ca.* 450-150 B.C., and thereafter began to decline. It is also reasonable to suppose that up to at least *ca.* 219 B.C. (the time of the raid upon Matala) the Kommos region was under the control of Phaistos, for there was no other large city of the period in that area and we know that Matala was controlled by Phaistos. Thus it can probably be assumed that the entire region, from Matala north at least as far as the mouth of the Hieropotamos River (the ancient Lethaios) was under Phaistian control. It is possible, for instance, that the original abandonment and destruction of Building B in its first clearly attested habitation phase (3rd-2nd century B.C.) might be connected with the Gortynian occupation of Matala. Certainly many of the hostile groups concerned would have passed to and fro within a kilometer or so of Kommos. Possibly the area became deserted then, even if only temporarily, with the inhabitants moving to a safer place near Phaistos. It is also possible that the later desertion of the site and its eventual abandonment in the 2nd-1st centuries B.C., which seems to have occurred within fifty years or so of the destruction of Phaistos, may be attributed to armed raids (or simply the menace of possible attack) by the Gortynians. The desertion might also be connected with the later Roman presence (there is material apparently of the 1st century after Christ on the site) but this seems unlikely considering the amicable relationships existing during this period between Rome and Gortyn.

The question of the ancient Greek name for Kommos and the Kommos region is also worth investigating. From what one can tell now, the size of the Greek settlement there was modest even though remains probably lie under the sand to the south and east of the area presently being excavated. The site might still be mentioned in literature or an inscription, however, especially if there were a rural sanctuary near by.

Of those ancient towns surely located along the Matala-Ayia Galene coastal strip there is no question about the identification of Matala and little about Ayia Galene (probably ancient Soulia). While some ancient Messara toponyms remain unattributed to ancient sites, or their attribution remains questionable, only one, that of Amyklaion, is known to have been a town (or city) on the coast and a place where

ships could take refuge.⁷² The names of the Amyklaians and of Amyklaion are known from a number of inscriptions from the Gortyn region and are thought to represent a pre-Dorian name connected with Amyklai near Sparta.⁷³ Indeed, it was even thought that the Amyklaians from near Sparta had been among those who originally settled at Gortyn, so it is not surprising to learn that there was in the Gortynian calendar a month called Amyklaios and that there was a temple of Amyklaian Apollo in Gortyn itself from as early as the 5th century B.C.

While we know that the polis of Amyklaion was along the shore, we cannot be certain that it was along the western rather than the southern shore. It is instructive, however, to consider that the territory of the Amyklaians is pronounced subject to Gortynian control in a fragmentary inscription dated by Guarducci to the 3rd or 2nd century B.C.,⁷⁴ the approximate time during which Gortyn defeated Phaistos and inherited its rival's lands. There is a good chance, therefore, that the territory of the Amyklaians, being next to the sea, was also within the territory of Phaistos, between the Hieropotamos and Matala.

Paul Faure has concluded that Amyklaion is probably between Matala and Kokkinos Pyrgos, suggesting that it may be at Kokkinos Pyrgos.⁷⁵ In my opinion, however, Kokkinos Pyrgos is a poor choice for the location of any ancient site since so few surface remains are visible. Rather, our foot survey to the south has identified one site, that near Kalamaki three kilometers south of the Hieropotamos and two kilometers north of Kommos, as having been extensively inhabited during the Graeco-Roman period.⁷⁶ It is quite possible that the Kalamaki site is the larger one of the two, for it stretches far back into the valley, up to Langos. A Roman temple was

⁷² Steph. Byz., s. v. Ἀμύκλαι . . . ἔστι καὶ πόλις Ἀμύκλαιον ἐν Κρήτῃ καὶ ὄρμος, cf. Eust., *ad. Il.* 2. 584. The former was basing his account, apparently, on an earlier catalogue by Xenion, a Hellenistic author (P. Faure, *Bulletin de l'Association Guillaume Budé*, 1960, p. 239).

⁷³ For Amyklai in Lakedemonia and Amyklaion and Amyklaians in the Messara in Crete, see Guarducci, *IC* IV, 172 and Willetts, *op. cit.* (note 65 above), pp. 260-261.

⁷⁴ *IC* IV, 172. The inscription was actually found at Apesokari, not Gortyn.

⁷⁵ Although he places Amyklaion on his map (his fig. 2) at the site of Kokkinos Pyrgos, he notes at the same time that the identification is hypothetical, and also states in the text that Amyklaion is probably "a small anchorage under the control of Gortyn, probably between Matala and Kokkinos Pyrgos," *BCH* 84, 1960, from note 2 (my translation) on p. 197.

⁷⁶ Kommos Survey, Site no. 5. The Roman temple, originally set on a heavy podium of ashlar blocks, deserves closer attention than it has received in the past. Recent excavation by bulldozers for a nearby road has piled up dozens of ashlar blocks once joined by swallow-tail clamps, as well as a molded base course of limestone 0.30 m. high. There are also to be seen fragments of imported white marble, one of which is carved with an emblem of some type. The site is now some 500 meters inland from the shore. Early Roman sherds can be seen on the surface near by. Some 200 meters north of there, and across the drifted sand, is a much-eroded Minoan site (Kommos Survey Site 20). Up the Langos valley to the southeast of the church is an Early Minoan site (Site 25A) while further on there are extensive walls and buildings of the Hellenistic period. Clearly the general area of Kalamaki has a long occupation sequence worth investigation. The ten or more cement-block houses presently on the shore, occupied seasonally by residents of Kamilari to the east, are only a reminder of the days of more extensive settlement in the region.

associated with it, too; the temple foundations presently serve as a podium upon which the church of Evangelistria is set at the entrance into the valley.

It is quite possible, on the other hand, that the land of the Amyklaians comprised the Kommos-Kalamaki area in general. It is difficult to imagine, if there were a choice, that Kalamaki would be preferred as an anchorage to Kommos, for while neither is an excellent harbor (nor, for that matter, is Matala), Kommos is sheltered from the strong south wind whereas Kalamaki is completely exposed to all but the winds from the east.

Of course only direct inscriptional evidence found at either Kommos or Kalamaki could confirm whether one or the other, or both, were in the land of the Amyklaians. It is nevertheless tempting to recall that the Kommos area remains the most logical site for the wreck of Menelaos' six ships when they had been blown off course on their way back from Troy.⁷⁷ If this were the location, or even if it were *thought* by the people of the post-Minoan period to be the site where the wreck had occurred, then a small sanctuary erected by people with their roots in Lakedaïmon (the Amyklaians) at the site near which a famous Spartan king's ships were wrecked would be singularly appropriate.

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⁷⁷ *Kommos*, 1976, p. 200.

APPENDIX A

A MIDDLE MINOAN POTTERY DEPOSIT

(PLATE 43)

In the Messara¹ the pottery from the latter part of the Middle Bronze Age is best known from the excavation of the Old Palace at Phaistos by Pernier² and Levi.³ Smaller groups of ceramics have been published from Chálara,⁴ from the tholos at Kamilari,⁵ and elsewhere, but despite these excavations, the relative sequence of the south Cretan pottery from this period has been the subject of considerable controversy.⁶ Because Kommos is in a position to shed light on some of the questions which remain unanswered, it seems advisable to present a fairly complete picture of the late Middle Minoan pottery from a deep sounding made in 1976.

The deposit comes from Trench 6A, a relatively small area, and consequently the picture it presents needs confirmation from other finds at Kommos itself. Since

¹ I would like to thank Joseph W. Shaw, director of the excavations at Kommos, for suggesting the publication of this important deposit and for his many helpful comments. The analysis of the Cycladic sherd (C 181) was made by Richard Jones, of the Fitch Laboratory, British School of Archaeology at Athens, who kindly allowed me to study his results in advance of publication. Drawings of the vases were made by H. Besi and by P. Conner. Photographs are by R. K. Vincent, Jr. (objects) and by J. W. Shaw (site). Peter Warren, of the University of Bristol, is responsible for the meticulous excavation of the deposit, which revealed many of its internal relations. At Kommos the study of the pottery is shared by L. Vance Watrous, of the State University of New York at Buffalo, and myself; I am indebted to my colleague for numerous suggestions.

Abbreviations:

Chálara = D. Levi, *L'Abitato di Festòs in località Chálara*, Rome 1969.

Festòs = D. Levi, *Festòs e la civiltà minoica*, Rome 1976.

Kamares = G. Walberg, *Kamares*, Uppsala 1976.

Kamilari = D. Levi, "La tomba di Kamilari presso a Festòs, *Annuario*, N.S. 23-24, 1961-1962, pp. 7-148.

Palazzo I = L. Pernier, *Il Palazzo minoico di Festòs I*, Rome 1935.

Palazzo II = L. Pernier and L. Banti, *Palazzo minoico di Festòs II*, Rome 1951.

PM = A. Evans, *The Palace of Minos at Knossos I-IV*, London 1921-1935.

² *Palazzo I*; *Palazzo II*.

³ *Festòs*.

⁴ *Chálara*.

⁵ *Kamilari*.

⁶ For arguments against the stratigraphy of Phaistos as interpreted by Levi see N. Platon, "Τὰ προβλήματα χρονολογήσεως τῶν μινωικῶν ἀνακτόρων," *Ἀρχ'Εφ* 1968, pp. 1-58; A. Zois, "Φαιστιακά," *Ἀρχ'Εφ* 1965, pp. 27-109. More recently see the comments of Walberg, *Kamares*, pp. 96f.

it was overlain by a stratum typified by early LM I style, it represents the final stage of the Middle Bronze Age found so far at this site. Additional excavations of Middle Minoan deposits in 1977 (for which see the report by J. W. Shaw, above) have not contradicted the conclusions presented here, but it is still premature to speak of relative frequencies of shapes or motifs or to assume more than a tentative picture of the pottery from this phase at Kommos.

The pottery was found in the lowest levels of the sounding. It was in a small section of corridor bounded by two walls (walls 4 and 5, Pl. 43:a).⁷ A surface, perhaps a floor, lay just above bedrock, and above this were two Middle Bronze Age strata, a homogeneous gray earth about 15 to 20 cm. thick on the floor and a mixed deposit of earth, stones, and slabs above the gray fill. Both levels contained much broken pottery, and the gray earth included many complete vases (Pl. 43:a). Since many pottery joins were found between these two strata, they were obviously contemporary. One pithos, in fact, had been scattered vertically so that sherds were in each of the 10-20 cm. thick units excavated between + 14.75 and + 13.25 m. (C 270, with the base higher than the rim). Evidently the gray earth with the many whole vases was deposited on the floor, and the higher fill represents debris which either fell from upper stories (or high shelves or compartments) or was thrown deliberately into the corridor. The latest vases are contemporary in style, but a few pieces seem to be survivals from earlier times (e. g. C 289 and C 708). Since only a small part of an obviously larger unit was excavated, one cannot be certain of the circumstances of deposition or of the architectural context of the pottery.

As is usual at Kommos, the majority of the vases were made in four fabrics.⁸ *Coarse red* fabric was used for cooking vessels; storage vessels and a few other shapes were made from *medium-coarse* or *pithos* fabric; *fine buff* was the main fabric of the finer pottery.⁹ One piece was imported from the Cyclades, and two tiny burnished sherds may also be imported. The following shapes may be distinguished (the table indicates whether the shape occurs in the fill of earth and stones, in the floor deposit, or in both).

⁷ For a plan and a section see J. W. Shaw, "Excavations at Kommos (Crete) during 1976," *Hesperia* 46, 1977, figs. 8, 9.

⁸ Coarse red fabric is medium hard with uneven color (from the heat of cooking as well as from the firing), in the red to black range. Tempering material is mixed fine to coarse, with angular, subangular, and subrounded dark and light grits. Medium-coarse fabric varies considerably in its characteristics. It is very pale brown (10YR 8/4) to light brown (7.5YR 6/4) in color, with mixed fine to coarse tempering material like that found in the coarse red fabric, though it may be somewhat finer. Pithos fabric is like medium-coarse fabric but has coarser tempering material. Fine buff fabric is soft to medium, very pale brown (10YR 8/3) to pink (7.5YR 8/4), with very dark and light grits. It is usually slightly gritty in the period being discussed here.

⁹ Fine-ware samples from this deposit are being analyzed by Richard Jones, Fitch Laboratory, and more information will be available on their characteristics when his work is completed.

<i>Fabric</i>	<i>Shape</i>	<i>Fill/Floor</i>	<i>Sherd(s) Only</i>
Coarse red	1. Tripod cooking pot, legs with thick oval sections C 711, C 712	both	X
	2. Shallow baking plate C 713	both	X
Pithos	1. Pithos C 270	both	—
	2. Disk (pithos cover?) C 198	floor	one
	3. Basin C 678, C 719	fill	one
Medium-coarse	1. Jar with two handles C 196	floor	—
	2. Amphora with elliptical mouth C 718	floor	X
	3. Jars of uncertain form C 679, C 680, C 715	both	X
	4. Bridge-spouted jar C 738	both	X
	5. Jug C 708	fill	one
	6. Stand C 714	fill	one
Fine buff	1. Conical cup, flaring rim C 195	both	—
	2. Conical cup, convex profile C 188, C 200	both	—
	3. Straight-sided cup, straight or concave profile C 189, C 194, C 197, C 203	both	—
	4. Semiglobular cup C 183	both	—
	5. Deep cup C 192	both	—
	6. Bowl with flaring rim C 264	both	X
	7. Small bowl C 710	fill	one
	8. Bridge-spouted jar C 716	both	X
	9. Jar with open spout C 289	floor	one
	10. Pitharaki C 193, C 717	both	—
Light-colored Cyladic	1. "Nippled ewer" C 181	fill	one
Fine buff burnished	1. Cup C 681, C 682	fill	X

The percentages of the wares provide a good indication of the area's use. As only a small part of the pottery is *coarse red* (8% by weight and 13% by count in the floor deposit; 14% by weight and 12% by count in the fill; all sherds small), the space was evidently not used for cooking. Storage of commodities is indicated by the high percentage of *medium-coarse* and *pithos* fabrics (56% by weight and 48% by count in the floor deposit; 59% by weight and 34% by count in the fill). The fine pottery was probably used as table ware (35% by weight and 40% by count in the floor deposit; 27% by weight and 55% by count in the fill). The high count of fine ware in the fill (55%) is caused by the presence of many tiny worn sherds in this stratum, apparently casual fragments from the building's walls or its clay roof.

The pottery (particularly the whole vases) forms a uniform group. In general the designs are less flamboyant than those from the height of the polychrome style at Phaistos and Knossos. Linear decorations are usual, and red occurs principally as bands or accents. White spirals on a dark ground are common. Tortoise-shell ripple decoration (C 681 and C 682), common at the end of the Middle Bronze Age at Knossos and elsewhere, has already appeared, but there are no spirals or floral motifs in the dark-on-light technique. On the present evidence it seems best to compare the style with the Third Phase of Levi at Phaistos and with MM IIB/III at Knossos. In this trench at Kommos the stratum was directly followed by one of typical early LM I style.

CATALOGUE

C 181. Nipped-ewer fragment (Fig. 3 and Pl. 43: d, 1). Fragment from neck and shoulder. L. 0.07 m. Fine, unslipped fabric with dark and light grits, white (10YR 8/3) on exterior and gray (10YR 6/1) on interior of vessel. Beak-spouted jug with nipples. Painted nipples surrounded by dots; necklace of dots. From the fill, + 14.10 to + 14.40 m.

An analysis to determine provenance has shown that the percentage concentration of certain selected elements matches those of Thera and Melos (R. F. Jones, "Composition and Provenance of Cycladic Pottery with particular Reference to Thera," forthcoming). Compare S. Marinatos, *Excavations at Thera II*, Athens 1969, pl. 36, no. 3; IV, pls. 69: b, 71, and color pl. H; VII, pl. 44: b; C. C. Edgar, "The Pottery," in *Excavations at Phylakopi in Melos*, London 1944, pls. 14, no. 1 and 16, no. 8.

C 183. Semiglobular cup (Fig. 3 and Pl. 43: f, 1). Restored from fragments, some sherds missing. H. 0.064, D. of rim 0.107-0.110, of base 0.045 m. Fine buff, slightly gritty fabric. Flaring rim; convex profile with horizontal groove. Dark painted, inside and out. Added red: bands on rim and body. Added white: frieze of circles bounded by wavy lines, with semicircles; bands on lower body. From the floor deposit, + 13.25 to + 13.70 m. plus the lower half from + 13.90 to + 14.10 m. and sherds from + 14.10 to + 14.40 m.

The semiglobular cup is common in MM II-

III and LM I. A variation of the main motif is *Kamares*, Design 16ii, no. 10.

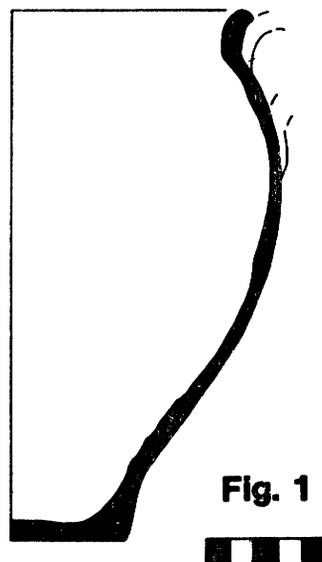
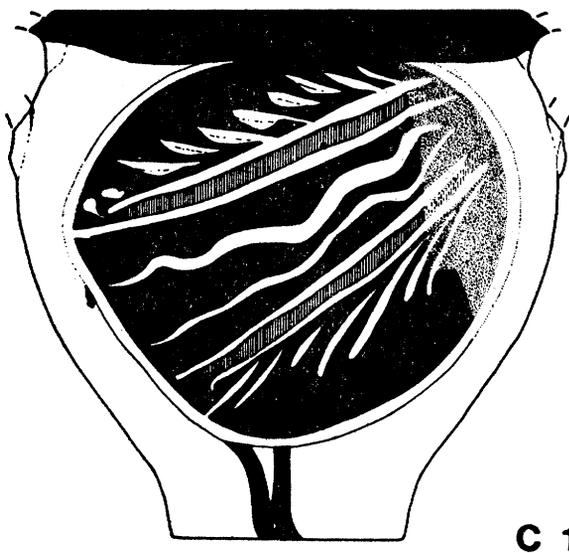
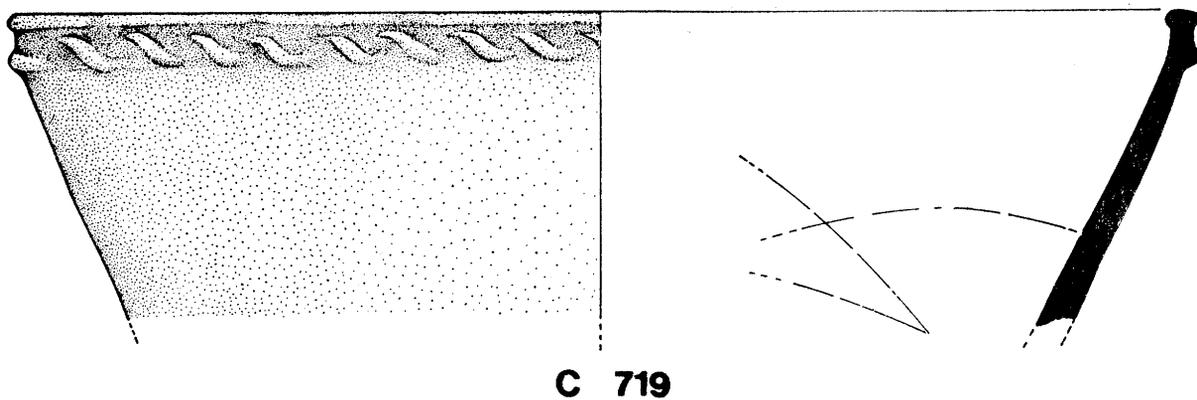
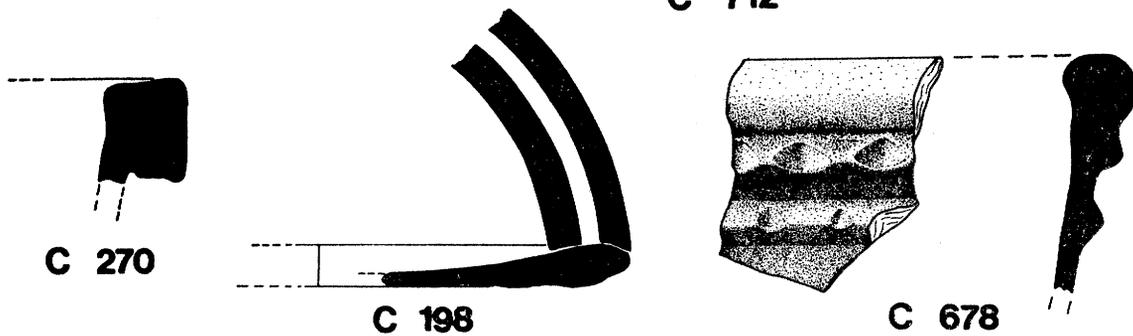
C 188. Conical cup (Fig. 2 and Pl. 43: h, 2). Intact. H. 0.061-0.066, D. of rim 0.096-0.102, of base 0.040-0.044 m. Fine buff, slightly gritty fabric. Convex profile; concentric string marks; turning marks. Undecorated. From the floor deposit at + 13.50 to + 13.70 m.

The shape is typical of MM III. See E. Fiandra, "Skutelia MM a Festòs," *Pepragmena, Third Cretological Congress I*, Athens 1976, pp. 84-91. For Knossos see also *PM I*, p. 589 (with turning marks characteristic of MM IIIB).

C 189. Straight-sided cup (Fig. 3 and Pl. 43: e, 3). Restored from fragments, some sherds missing. H. 0.076-0.08, D. of rim 0.096-0.102, of base 0.06 m. Fine buff, slightly gritty fabric. Slightly concave profile; concentric string marks; one strap handle. Dark painted, with white speckles inside and out. From the floor deposit at + 13.50 to + 13.70 m.

For the shape see *Kamares*, Shape 207. Compare *Festòs I*, pls. 127: c, 179: h, and 210: g; *Palazzo I*, fig. 128, left; Popham, *BSA* 69, 1974, p. 187, fig. 6, no. 21. For lower cups with straighter profiles see C 197, below.

C 192. Cup with one or two handles, fragment (Fig. 3 and Pl. 43: f, 3). Base and one side. H. 0.096, D. of rim 0.12, of base 0.049-0.053 m. Fine buff, slightly gritty fabric. Slightly flaring rim; convex profile; concentric



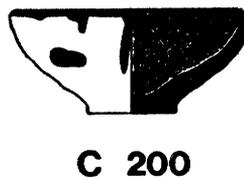
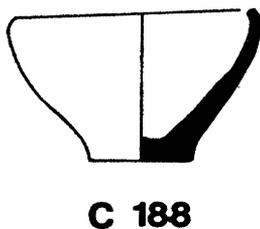
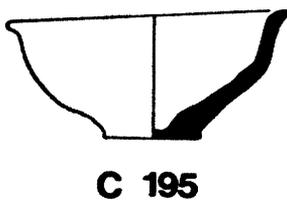
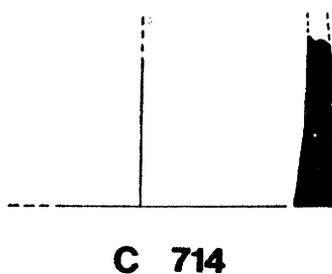
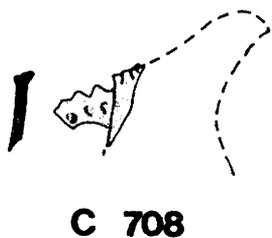
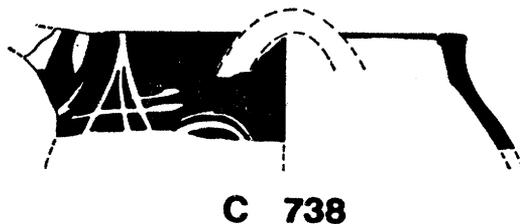
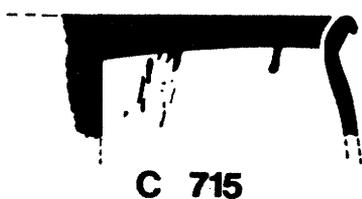
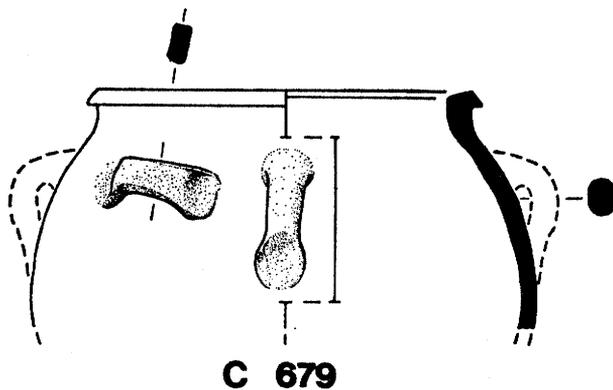
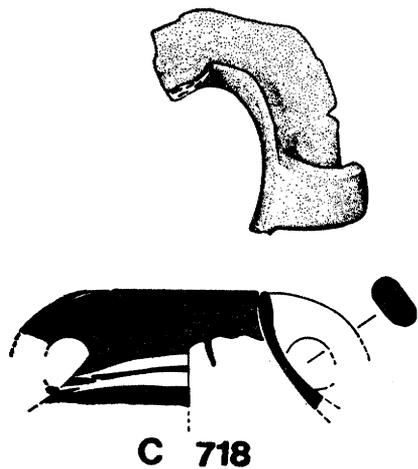


Fig. 2

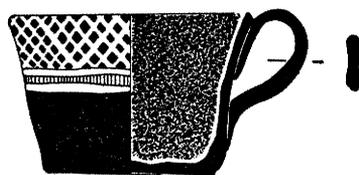




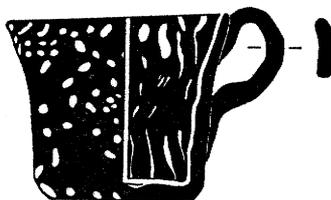
C 197



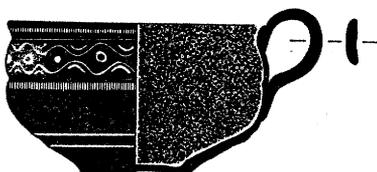
C 203



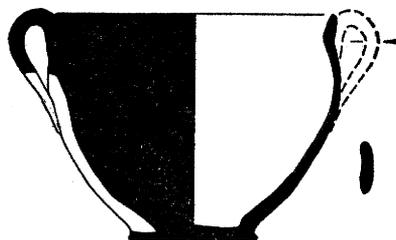
C 194



C 189



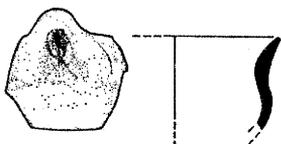
C 183



C 192



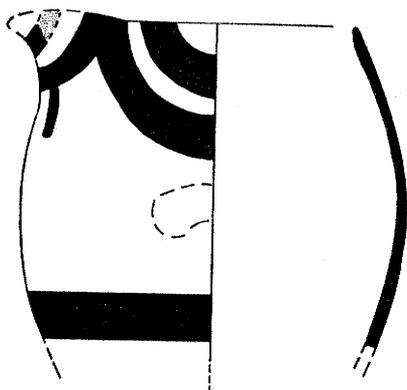
C 264



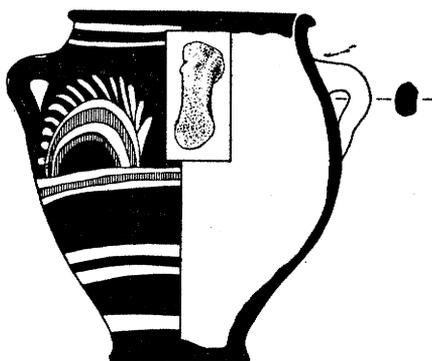
C 710



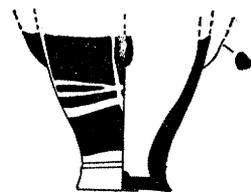
C 716



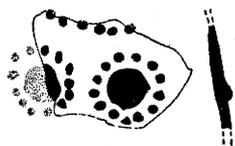
C 289



C 193



C 717



C 181



C 681



C 682

Fig. 3



string marks; one or two strap handles. Drips and splashes of paint on interior; band at rim from dipping; two painted areas on exterior from side-dipping. From the floor deposit at +13.50 to +13.70 m. plus sherds from +13.80 to +13.90 m.

For the shape with one handle see *Kamares*, Shape 196; for two handles see Shape 221.

C 193. Pitharaki (Fig. 3 and Pl. 43: f, 2). Restored from fragments, some sherds missing. H. 0.147, D. of rim 0.098-0.102, of base 0.057 m. Fine buff, slightly gritty fabric. Flaring rim; convex profile; small base; concentric string marks; four vertical coil handles. Dark painted, with band inside mouth. Added red: bands on neck and body. Added white: frieze of rising semicircles with rows of diagonal lines above, on handle zone; bands bounding red bands; bands on lower body. From the floor deposit at +13.50 to +13.70 m.

For decoration see *Palazzo I*, figs. 97, 145, 150, left, and 177; *Festòs I*, pls. 108: a and d, 126: b, 128: m, 129: t, u, and 179: 1. For the shape, characteristic of Phase III at Phaistos, see *Festòs I*, pls. 204-206 and figs. 907, 1102, and 1156-1158; *Chálara*, fig. 104; *Kamilari*, p. 117, fig. 116: b, lower left.

C 194. Straight-sided cup (Fig. 3 and Pl. 43: e, 1). Restored from fragments, some sherds missing. H. 0.067, D. of rim 0.090-0.101, of base 0.068 m. Fabric and shape similar to C 189. Added red: band on body. Added white: frieze of crosshatched lines; bands bounding red band; perhaps one or more bands on lower body. From the floor deposit at +13.25 to +13.70 m. plus sherds from +13.70 to +13.80 m.

Typical of Phase III at Phaistos. Compare *Chálara*, fig. 14, left; *Festòs I*, pl. 208: n, p and q.

C 195. Conical cup (Fig. 2 and Pl. 43: h, 3). Intact. H. 0.05 to 0.054, D. of rim 0.112-0.115, of base 0.035-0.04 m. Fine buff, slightly gritty fabric. Flaring rim; S-shaped profile; concentric string marks; turning marks. Undecorated. From the floor deposit at +13.50 to +13.70 m.

See C 188 for references.

C 196. Jar (Fig. 1 and Pl. 43: b). Restored from fragments, one side preserved. H. 0.222, D. of rim 0.20, of body 0.225, of base 0.095 m. Medium-coarse fabric. Flaring rim; convex profile; concentric string marks; two vertical handles. Band at rim; large dark-painted circular field edged with white on each side with diagonal parallel white wavy lines bounded by white, red, white, and rows of diagonal white lines. From the floor deposit at +13.50 to +13.70 m.

For a generally similar design (though not on a circular field) see *Festòs I*, pl. 205: f and fig. 1156, lower row, no. 3.

C 197. Straight-sided cup (Fig. 3 and Pl. 43: e, 2). Restored from fragments. H. 0.064, D. of rim 0.098-0.102, of base 0.058 m. Fine buff, slightly gritty fabric. Straight rim and profile; concentric string marks; one strap handle. Dark painted, inside and out, with white speckles. From the floor deposit at +13.50 to +13.70 m.

For the shape see *Kamares*, Shape 204. For both shape and decoration compare *Festòs I*, pl. 210: e, f, h, k, l, and m, and figs. 586, upper row, no. 2, 961, left and right, and 1159 upper row, no. 4.

C 198. Disk (pithos cover?) fragment (Fig. 1 and Pl. 43: d, 10). Part of rim. D. ca. 0.26 m. Pithos fabric. Flat disk, rough on underside and smooth on upper side. Two bands at outer edge. From at or just below the floor level, +13.25 to +13.50 m.

C 200. Conical-cup fragment (Fig. 2 and Pl. 43: h, 1). One side preserved. H. 0.045, D. of rim 0.11, of base 0.036 m. Fine buff, slightly gritty fabric. Convex profile; concentric string marks; turning marks. Interior painted red; drip pattern on exterior. From the floor deposit at +13.50 to +13.70 m.

See C 188 for references.

C 203. Straight-sided cup fragment (Fig. 3 and Pl. 43: d, 6). One side. H. 0.06, D. of rim ca. 0.09, of base 0.06 m. Fabric and shape similar to C 197. Added red: band on body.

Added white: frieze of running spirals; bands bounding red band; possibly one or more bands on lower body. From at or just below the floor level, + 13.25 to + 13.50 m.

Compare *Festòs* I, pl. 207: a, d, e, and i, and fig. 1159, upper row, no. 2.

C 264. Bowl fragment (Fig. 3 and Pl. 43: g, 7). Base and one side. H. 0.063, D. of rim 0.14, of base 0.063 m. Fine buff, slightly gritty fabric. Flaring rim; convex profile; concentric string marks. Swashes of paint on interior; drips on exterior. From + 13.70 to + 13.90 m., just above the floor deposit.

Compare *Festòs* I, pls. 144: m and 215: i, k, and m.; *Chálara*, fig. 103: g, h.

C 270. Pithos fragments (Fig. 1 and Pl. 43: c). D. of rim ca. 0.50 m. Pithos fabric. Pithos with thickened rim. Dark painted; white spirals and other motifs, now eroded. Scattered in all levels between + 13.25 and + 14.75 m.

C 289. Spouted-jar fragment (Fig. 3 and Pl. 43: g, 6). Fragment of side. D. of rim ca. 0.11 m. Fine buff fabric. Jar with open spout and two horizontal handles. Pendant semicircles on spout and sides. From the floor deposit at + 13.50 to + 13.70 m.

Perhaps a survival (based on both fabric and shape). Compare *Festòs* I, pls. 66-67; *Chálara*, fig. 114; *Kamares*, Design 9i, no. 3 (none exactly like this one).

C 678. Basin (?) fragment (Fig. 1 and Pl. 43: d, 12). Rim sherd. D. of rim ca. 0.35-0.40 m. Pithos fabric. Vessel with rope patterns, either a small jar or a basin; thickened rim; straight profile. From the floor deposit at + 13.50 to + 13.70 m.

C 679. Jar fragment (Fig. 2 and Pl. 43: g, 9). Rim sherd. D. of rim ca. 0.16 m. Medium-coarse fabric. Thickened rim; convex profile; both horizontal and vertical strap handles. Undecorated. From the floor deposit at + 13.50 to + 13.70 m.

C 680. Jar fragment (Fig. 2 and Pl. 43: g, 4). Rim sherd. D. of rim ca. 0.16-0.18 m.

Medium-coarse fabric. Thickened rim; convex profile. Undecorated. From the floor deposit at + 13.50 to + 13.70 m.

C 681. Cup fragment (Fig. 3 and Pl. 43: d, 2). Body sherd. L. 0.035 m. Fine buff fabric, burnished, with white slip on exterior. Slightly flaring rim; convex profile. Band on rim, inside and out; tortoise-shell ripple. From the fill, + 14.40 to + 14.75 m.

The decoration is common in MM III and LM I. At Knossos it begins slightly earlier (*PM* I, p. 592). At Phaistos it is less common but occurs in Phase III of the Old Palace (*Festòs* I, pl. 212: r).

C 682. Cup (?) fragment (Fig. 3 and Pl. 43: d, 3). Body sherd. L. 0.032 m. Fabric like C 681 but without slip. Open vessel, probably a cup. Tortoise-shell ripple. Same context as C 681.

C 708. Jug fragment (Fig. 2 and Pl. 43: d, 4). Rim sherd with part of handle. L. 0.049 m. Medium-coarse fabric, a little finer than usual. Jug with raised spout. Barbotine decoration, rows of knobs on rim and handle. Red painted. From the fill, + 13.90 to + 14.10 m.

Probably a survival.

C 710. Bowl fragment (Fig. 3 and Pl. 43: d, 5). Rim sherd. D. of rim ca. 0.08-0.09 m. Fine buff, slightly gritty fabric. Flaring rim; convex profile; raised horizontal handles, joined to rim. Covered with white paint, inside and out. From the fill, + 14.40 to + 14.75 m.

C 711. Cooking-pot fragment (Fig. 1 and Pl. 43: d, 8). Rim sherd with edge of open spout. D. of rim ca. 0.28-0.32 m. Coarse red fabric with pink (7.5YR 7/4) slip on interior and top of rim. Convex profile; open spout. From at or just below the floor deposit, + 13.50 to + 13.70 m.

A common shape, usually with tripod legs like C 712, below. For the Messara compare (among others) *Festòs* I, pls. 64, 187: a, c, d, and g, and fig. 809.

C 712. Cooking-pot fragment (Fig. 1 and Pl. 43: d, 7). Body sherd with part of tripod

leg. L. 0.076 m. Coarse red fabric. Convex profile; tripod leg with thick oval section. Undecorated. Found with C 711.

C 713. Shallow baking plate, fragment (Fig. 1 and Pl. 43: d, 9). Fragment of side. D. of rim *ca.* 0.50-0.60 m. Coarse red fabric. Large shallow dish with low edge, smoothed and wiped on one side and in interior but left rough on underside. Undecorated. Found with C 711.

A traditional Minoan cooking-vessel shape, with antecedents as early as EM II (P. Warren, *Myrtos*, London 1972, pp. 111-112).

C 714. Stand fragment (Fig. 2 and Pl. 43: g, 8). Base sherd. D. of base *ca.* 0.16 m. Medium-coarse fabric. Stand with hollow cylindrical lower part; nearly straight profile. Undecorated. From the fill, + 13.90 to + 14.10 m.

Compare H. B. Hawes, *Gournia*, Philadelphia [1908], pl. 2, nos. 74 and 78.

C 715. Jar fragment (Fig. 2 and Pl. 43: g, 5). Rim sherd. D. of rim *ca.* 0.20-0.22 m. Medium-coarse fabric. Flaring, rolled rim; convex profile. Red painted, with band inside rim. From the fill, + 14.40 to + 14.75 m.

C 716. Bridge-spouted jar fragment (Fig. 3 and Pl. 43: g, 3). Rim sherd with spout. D. of rim *ca.* 0.12-0.13 m. Fine buff, slightly gritty fabric. Inturned rim; convex profile. Dark

band at rim, inside and out, from dipping. From the floor deposit at + 13.50 to + 13.70 m.

C 717. Pitharaki fragment (Fig. 3 and Pl. 43: g, 10). Lower body. H. as preserved 0.057, D. of base 0.039 m. Similar to C 193 but smaller, with base set off by incised lines. Dark painted with white bands on body and base. From the fill, + 14.40 to + 14.75 m.

C 718. Amphora fragment (Fig. 2 and Pl. 43: g, 1). Rim sherd with handle. D. of rim *ca.* 0.065 × 0.11 m. Medium-coarse fabric. Elliptical mouth; handles joined to rim and shoulder. Dark painted, with band on inside of mouth; white lines across neck. From the floor deposit at + 13.50 to + 13.70 m.

C 719. Basin fragment (Fig. 1 and Pl. 43: d, 11). Rim sherd. D. of rim *ca.* 0.50 m. Pithos fabric. Thickened rim; nearly straight profile. Incised lines on interior. Rope pattern just below rim. From the fill, + 14.40 to + 14.75 m.

C 738. Bridge-spouted jar fragment (Fig. 2 and Pl. 43: g, 2). Fragment of rim and spout. D. of rim *ca.* 0.15 m. Medium-coarse fabric. Thickened and flattened rim; convex profile. Dark painted, with white spirals on body and lines around and on spout. From the floor deposit at + 13.50 to + 13.70 m.

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APPENDIX B

A LATE MINOAN I-II DEPOSIT

(PLATE 44)

In the early part of the Late Bronze Age, the palace center at Phaistos and other settlements such as Ayia Triada in the Messara Plain are destroyed by fire. Whether these destructions in the Messara are contemporary with the destruction of the palace at Knossos remains controversial.¹ The principal reason for scholarly disagreement on this issue is the lack of precisely documented Late Minoan I and II deposits from Knossos and the Messara. In the light of this situation, it seems helpful to publish this preliminary report on a deposit of LM I-II style pottery excavated at Kommos in 1976-77.²

From adjoining trenches 2A and 9A, the deposit, a layer of soft, dark gray earth *ca.* 0.70 m. thick, was bounded on the north, west and east by the walls of a building constructed in the Late Minoan I period (cf. Pl. 35: d). On its north side, this layer ran over the top of a bench or retaining wall built against the southern wall of the Late Minoan building. The deposit rested on a LM IA stratum of yellowish earth, and was overlain by a rubble layer of the LM IIIA period. Composed of large amounts of burnt organic debris and pottery, the deposit appears to be refuse from the Late Minoan building to the north.

Although there has been only a preliminary study of the pottery, it is clear that it is quite fragmentary and includes few whole vases.³ Some of the fine-ware sherds show traces of burning, as C 82 (Fig. 2, pl. 44: q), but whether or not this is significant historically remains to be seen.⁴ Pottery joins exist among all the excavated units

¹ The Italian excavators in the Messara believe these destructions to be contemporary, cf. L. Banti, "I culti minoici e greci de Haghia Triada (Creta)," *Annuario*, N.S. 3-4, 1941-43, p. 12, and D. Levi, "La villa rurale minoica di Gortina," *Bolld'Arte* 1959, pp. 250ff. The British excavators at Knossos now hold that the palace at Knossos escaped destruction until a later period (LM IIIA), cf. M. Popham, *The Destruction of the Palace at Knossos (Studies in Mediterranean Archaeology XII)*, Lund 1970, pp. 85ff.

I would like to thank J. W. Shaw, director of the Kommos excavations, who kindly asked me to publish this deposit. I have profited by discussions on the deposit with P. Betancourt, H. Blitzer, J. Rutter, J. McEnroe and V. LaRosa. The vases were drawn by H. Besi and P. Conner, and photographed by R. Vincent, Jr.

² This account supersedes the general description of the deposit which appeared in the preliminary report on the Kommos excavations in *Hesperia* 46, 1977, pp. 231-232. For the deposit's stratigraphic situation, see now the description by J. W. Shaw, pp. 120-125, above.

³ The deposit consists of 36,957 sherds whose weight is 114.6 kilograms.

⁴ The burning shows in *Hesperia* 46, 1977, pl. 55: c. For recent conjecture on this subject, cf. M. Popham, "LM II Crete: A Note," *AJA* 77, 1973, pp. 372-374.

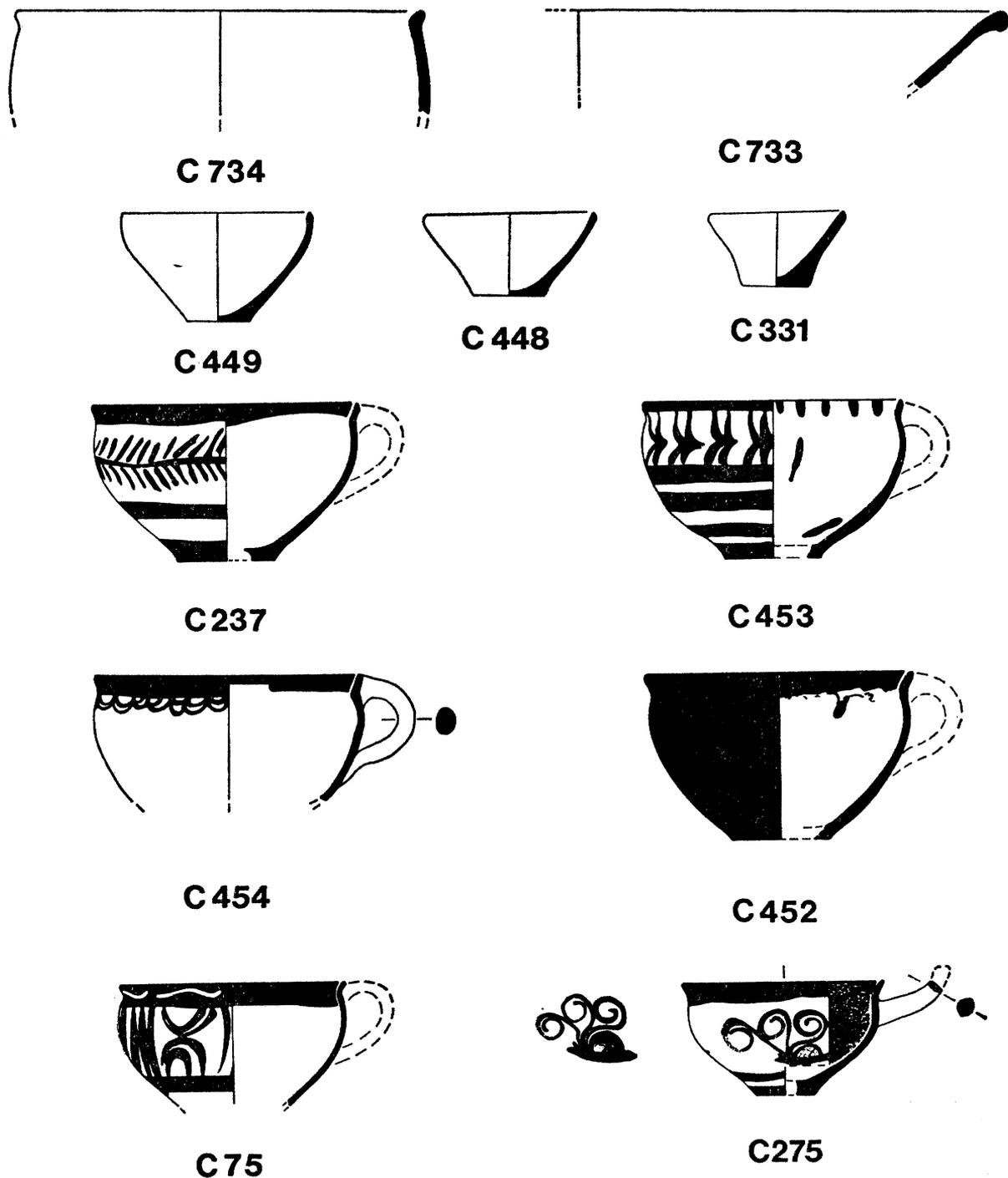


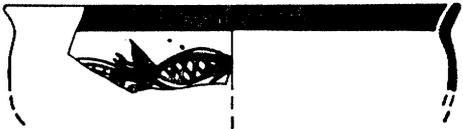
FIG. 1.



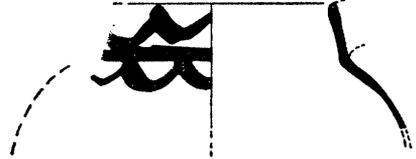
C78



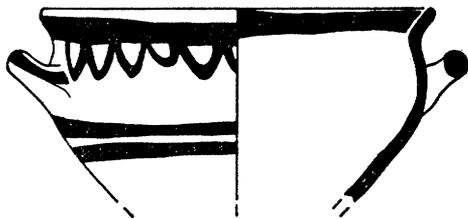
C83



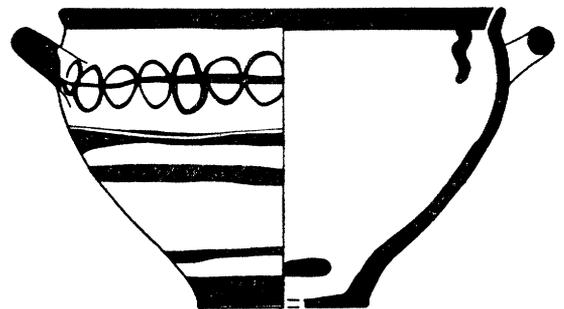
C79



C450



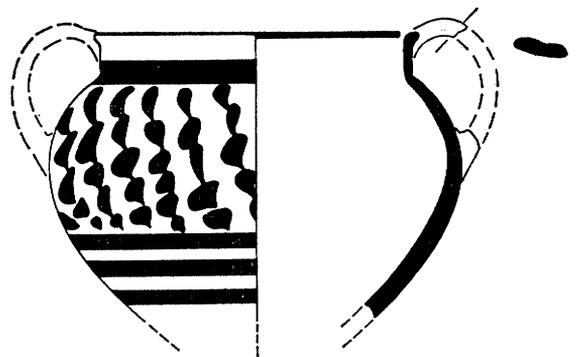
C456



C71



C82



C81

FIG. 2.

of the deposit, except between the uppermost and lowest units. Despite the presence of a few earlier sherds, the pottery is largely homogeneous, that is, the majority of the deposit consists of a few specific shapes and a small group of related decorations. Only those specific shapes which can be distinguished with certainty at the present time are described in this report.

At this point, three pottery fabrics are recognized in the deposit. They are red coarse, medium coarse, and fine buff.⁵ The red coarse fabric is hard, and ranges in color from red through black.⁶ Inclusions vary in size and color from white to black. This fabric is used mainly for vessels associated with heating and cooking. The medium-coarse fabric is generally hard, and ranges in color from light to dark brown.⁷ Fine buff is a well-levigated fabric, and is usually soft. In color it is normally buff, but can be light red or green.⁸ The fine buff fabric is used principally for drinking vessels.

Red Coarse

Two vase shapes predominate in this fabric. The *tripod cooking pot* is represented here by the rim fragment C 734 (Fig. 1, Pl. 44: a).⁹ The shape survives today in the Cretan *μανγκάλη*, a tripod brazier used as a portable hearth for cooking, and, during the winter months, for warmth. The *cooking dish* is a large and shallow shape, made to rest on the coals of a fire. Rim fragment C 733 (Fig. 1, Pl. 44: a) comes from such a cooking dish. The sherds of this fabric are unpainted, frequently burnt, and friable.

Medium Coarse

Sherds of this fabric, normally used for large- and medium-sized storage vessels, are noticeably few within the deposit, and, as of this season, no whole vases have been restored. Consequently, it is difficult to be certain which shapes are contemporary, and which might be survival material. Under these circumstances, it seems best to await further study before publishing any vases of this fabric.

⁵ By weight, the fabrics occur within the deposit in the following proportions: red coarse, 19%, medium coarse, 48%, and fine buff, 33%. By count, the proportions are: red coarse, 5%, medium coarse, 8%, and fine buff, 87%.

⁶ Previous studies of Minoan pottery have not used color descriptions from *The Munsell Soil Color Charts* (Munsell Color Co., Baltimore, Md. 1954), preferring descriptions in vernacular English (which remain somewhat subjective) to the more precise numerical designations of the Munsell chart (the English terminology of which is frequently misleading). Under these circumstances, the most reasonable approach seems to be to use the English in the text, adding the Munsell equivalents in a footnote. Thus, in the Munsell chart, red is 2.5YR 5/6, while a darker shade is 10R 3/2 (dusky red).

⁷ The description in this report of the medium-coarse fabric has been left imprecise for reasons given in the text below.

⁸ The Munsell designation for buff is 10YR 8/3 (very pale brown); for light red, 7.5YR 8/4 (pink).

⁹ For a whole example, cf. S. Alexiou, *Υστερομινωικοί τάφοι λιμενός Κνωσού (Κατσαμπά)*, Athens 1967, pl. 16: β.

Fine Buff

The *conical cup*, represented by large numbers of small sherds, is the most common shape in the deposit. It is usually unpainted and occurs in two varieties, a large shape frequently with an incurving rim, as C 449 (Fig. 1, Pl. 44: b), and a squat shape, as C 448 (Fig. 1, Pl. 44: c) and C 331 (Fig. 1, Pl. 44: d).

The one-handed *cup* is the most popular decorated shape. Burnished, it invariably has a short everted rim and a rounded profile. The diameter of the rim varies from 0.10 to 0.13 m. Decoration consists of a simple motif below the rim, often repeated around the body of the cup. Motifs such as the foliate band on C 237 (Fig. 1, Pl. 44: e), the vertical reed pattern on C 453 (Fig. 1, Pl. 44: f), and festoons on C 454 (Fig. 1, Pl. 44: g) are common. There is also a monochrome version of this cup, as C 452 (Fig. 1, Pl. 44: h).

There are other less common varieties of the cup. A smaller type is represented by C 75 (Fig. 1, Pl. 44: i). This example is decorated with a pattern of alternating leaves and arcs, and a line of added white on the rim band. The wishbone-handled cup is represented here by C 275 (Fig. 1, Pl. 44: j), painted with a band of argonauts which swim over an undulating groundline and wave their spiral tendrils.

The painted *kylix* can be recognized from rim and base fragments. One example, C 78 (Fig. 2, Pl. 44: k) has enough of its profile preserved to indicate that it belongs to the deep "Ephyraean" type of kylix.¹⁰ The kylix may carry a single large design on a side, as C 83 (Fig. 2, Pl. 44: l), or a continuous band of decoration, as C 78, or as C 79 (Fig. 2, Pl. 44: m) which is decorated with a band of swimming fish. The rim of the kylix is frequently painted with quirks or stripes, and is large (0.15-0.19 m.) in diameter. Base fragments are painted with a solid band on the upper surface.¹¹

The *bowl* has a conical body with two horizontal handles. Its wall is slightly thicker than that of a kylix, and is unburnished. The rim diameter averages *ca.* 0.16 m. Decoration occurs on the upper part of the body between the handles, as on C 456 (Fig. 2, Pl. 44: n) painted with festoons. Another example, C 71 (Fig. 2, Pl. 44: o) is decorated with intersecting wavy lines divided by a horizontal line, with added white on the upper body band.

The *jug* occurs less frequently than the kylix or bowl. A fragment of a rim, C 450 (Fig. 2, Pl. 44: p), painted with a band of festoons, is represented here.

When compared with pottery from other Cretan centers, the Kommos deposit exhibits diverse stylistic characteristics. The typical cup, C 237, for instance, is similar to a LM I example from Palaikastro.¹² Similarly, the cup C 75, by reason of its small size and the elements of its decoration, also appears to be LM I in style.

¹⁰ Cf. fig. 2 in *BSA* 64, 1969, p. 300.

¹¹ E. g. *Hesperia* 46, 1977, pl. 55: c.

¹² Cf. M. Popham, "Late Minoan Pottery, a Summary," *BSA* 62, 1967, pl. 76: H.

On the other hand, the kylikes are most closely paralleled by a LM II example from Knossos.¹³ In this connection, two unique vases from the Kommos deposit should be considered: a cup, C 82 (Fig. 2, Pl. 44: q) and an amphoroid krater, C 81 (Fig. 2, Pl. 44: r). Because of its size and decoration, a band of quirks and a foliate scroll, the cup C 82 could be considered LM II, or even early LM IIIA.¹⁴ The amphoroid krater C 81 is of a shape which has been said to appear first in LM IIIA.¹⁵ Thus, stylistically, this pottery deposit contains elements which can be termed LM I and II, and possibly IIIA. It is worth noting that, similarly, the excavators at Phaistos, Kannia and Chalara in the Messara have also observed a stylistic mixture in the pottery from the destruction at those sites.¹⁶

The incidence of particular vase shapes within this deposit closely resembles that in two similar deposits, one from Mallia (dated by the excavator to LM IB) and the previously mentioned one from Knossos (dated by its excavator to LM II).¹⁷ Decorations in the Kommos deposit such as the foliate scroll, reed pattern and argonaut are also paralleled in those deposits, although there do exist local Kommos favorites such as the simple festoon (C 454) and foliate band (C 237).

In sum, the similarity of these three pottery groups, and the absence in the Kommos deposit of the decorated shape typical of LM IIIA (i. e. the ledge-rim cup)¹⁸ suggests that this pottery from Kommos may be roughly contemporary with the Knossos and Mallia deposits. A more precise definition of what constitutes Late Minoan I and/or II at Kommos, however, must await further excavation and study of comparable stratified deposits at this site.

L. VANCE WATROUS

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¹³ Cf. A. Evans, *The Palace of Minos* IV, London 1935, pp. 359ff.

¹⁴ Cf. M. Popham, *op. cit.* (footnote 1 above), fig. 14, no. 84 and pl. 23: a (LM II), and *BSA* 62, 1967, p. 346, fig. 14, no. 2 (LM IIIA).

¹⁵ *BSA* 62, 1967, p. 345, but more recently as a LM II shape, cf. *BullInstClSt* 23, 1976, p. 120.

¹⁶ Phaistos: *Annuario*, N.S. 3-4, 1941-42, p. 12; Kannia: *Bolld'Arte* 1959, pp. 253-264; Chalara: *Annuario*, N.S. 29-30, 1967-68, pp. 119-152.

¹⁷ In House Eta at Mallia, O. Pelon, *Fouilles exécutées à Mallia III (Études Crétoises XVI)* 1970, pp. 95ff., and in the Unexplored Mansion at Knossos, *Archaeological Reports, for 1972-3*, pp. 55-59.

¹⁸ Cf. M. Popham, *op. cit.* (footnote 1 above), pp. 68-69.



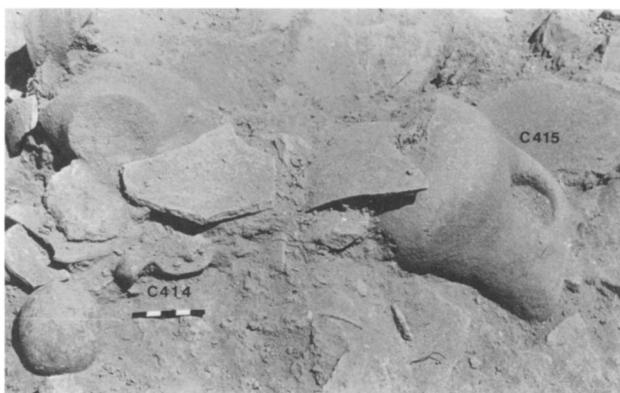
a. General view of excavation area, after sand-clearing operations, from southeast



b. Trench 13A completed, from south



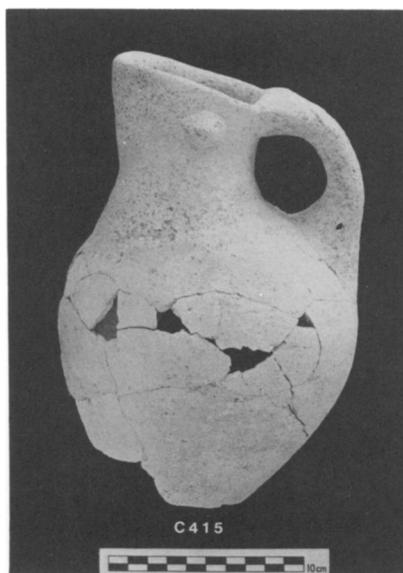
c. Trench 13A, Space 14 with pottery deposit, from south



d. Trench 13A, Space 14, stone tool (left) and zoomorphic pitcher (C 415, right) *in situ*, looking east



e. Central hilltop area from northeast



f. Zoomorphic pitcher after mending



a. View from south



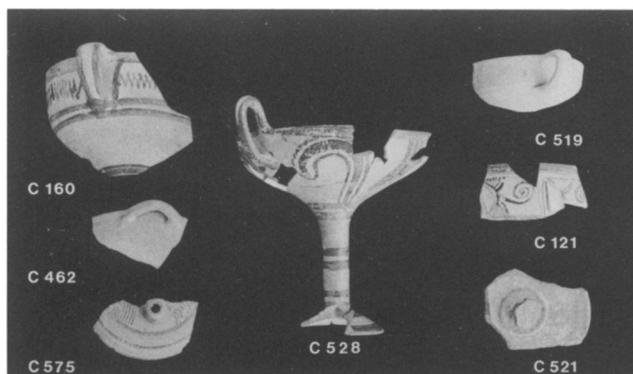
b. Cliffside rooms from north



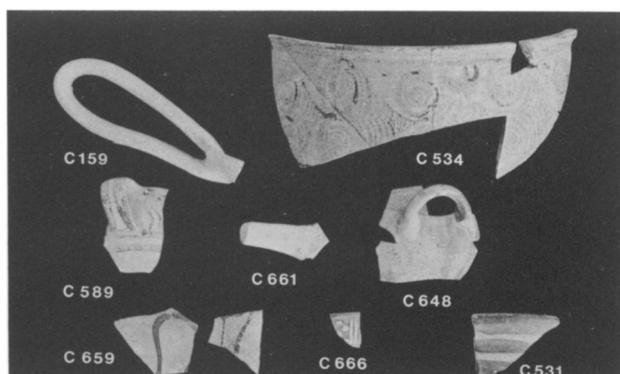
c. Space 14 from south



d. Space 3 from east



e. Selected pottery from Space 3. Scale *ca.* 3:20



f. Selected pottery from Space 3. Scale *ca.* 3:20

Central hilltop area

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EXCAVATIONS AT KOMMOS (CRETE) IN 1977



a. Space 5 with pithos fragments (C 775) on floor, stone press in background, from east



b. Space 5, detail of spouted stone press, from south



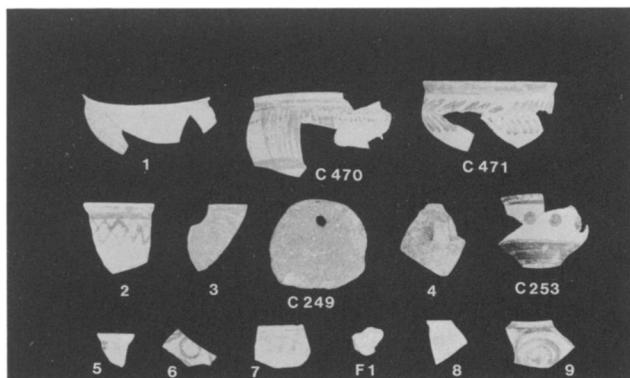
c. View from north



d. View of southern part from south

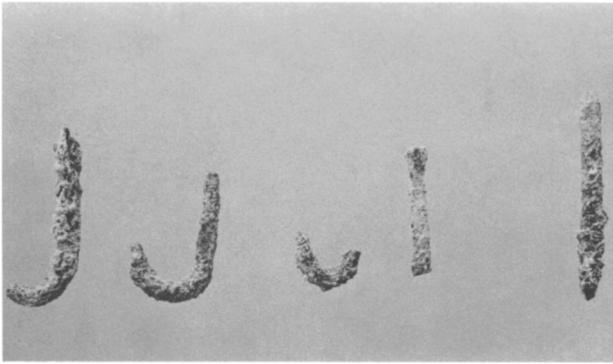


e. Western façade and road, from north

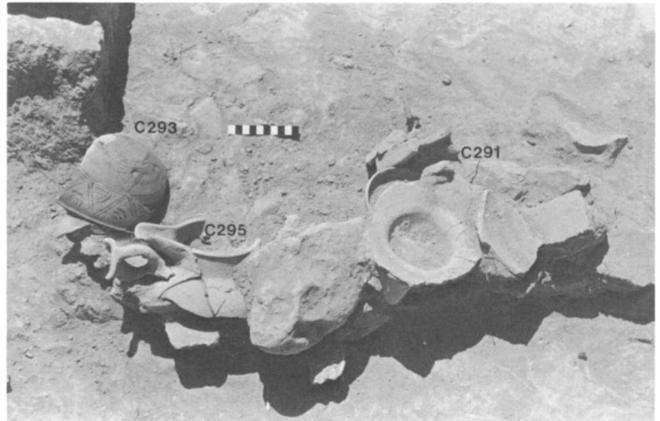


f. Representative sherds from yellowish earth within LM I-II dump (Space 7). Scale *ca.* 1:6

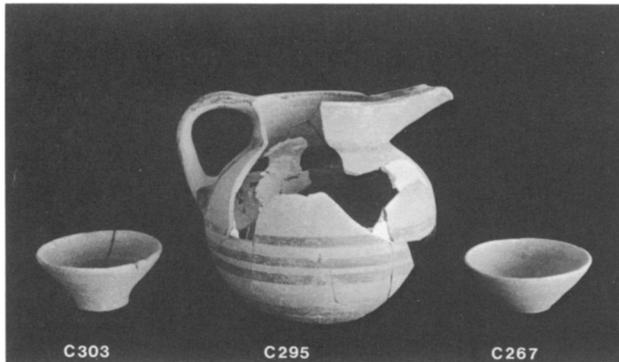
Hillside area



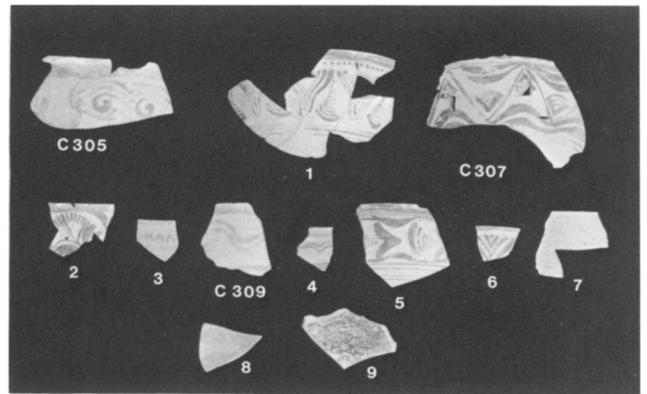
a. Fragments of bronze fishhooks from LM I-II Dump (Space 7). Scale 1:1



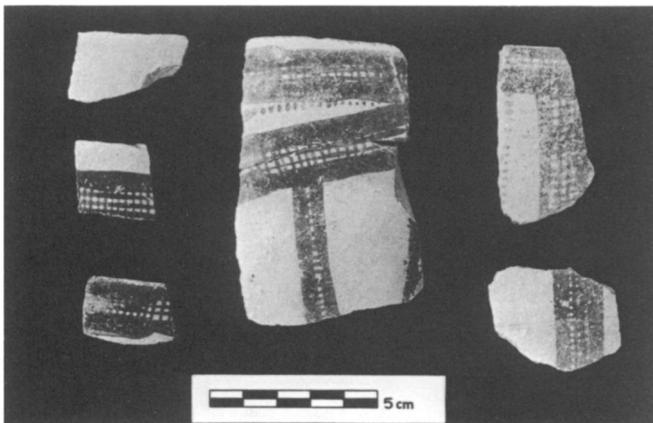
b. Pottery *in situ* on floor of Space 10, from east



c. Two conical cups and jug from floor deposit in Space 10. Scale *ca.* 1:6



d. Characteristic sherds from floor of Space 10. Scale *ca.* 1:6

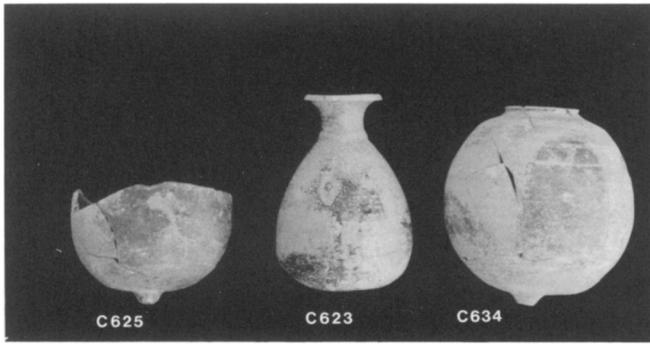


e. Late Cypriot sherds from upper road level and Space 10 (C 340, lower right)

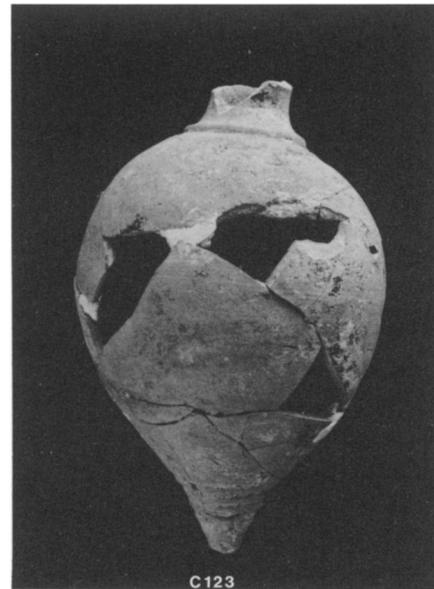


f. Inscribed sign (I 5) on pot handle found above road surface, Space 1

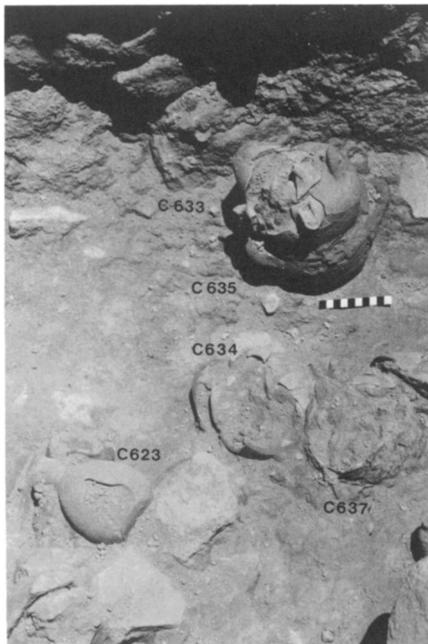
Hillside area



a. Two terracotta ostrich-egg rhyta and an alabastron rhyton from Space 15, hillside area. Scale *ca.* 1:6



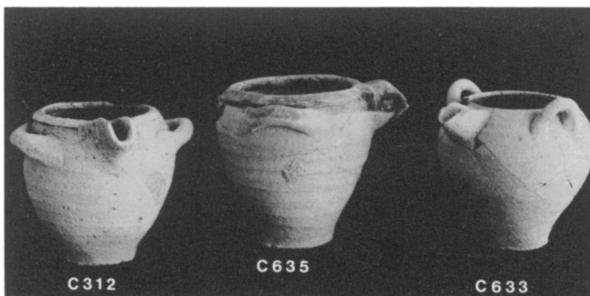
b. Rhyton from Space 9, hillside area. Scale 1:3



c. Pottery *in situ* in Space 15, from west



d. Fragmentary amphora(?) within enclosure of slabs, Space 12, hillside area, from south



e. Bridge-spouted vases from hillside area. Scale *ca.* 1:6



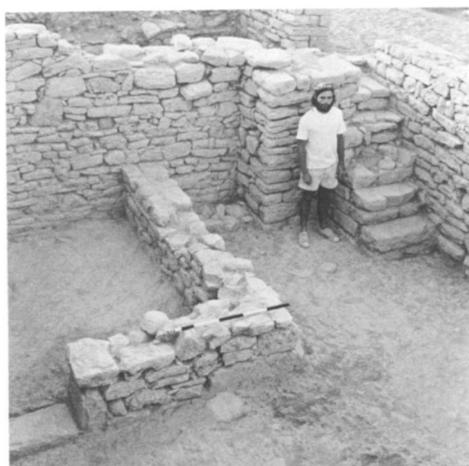
f. Building B after partial clearing of sand and fallen blocks, from south



a. General view from southeast



b. Round Building (D)
after partial excavation,
from south



c. Western room of Building B, with
interior room (left) and stairway to
upper floor or attic (right)



d. Selection of cups and lamps from floor of western
room, Building B, after mending. Scale *ca.* 1:6



e. Bronze nails (B 5) from floor of interior room,
western room of Building B



f. Partially preserved threshold and
cutting for pivot block in step
leading into western room of
Building B, from west

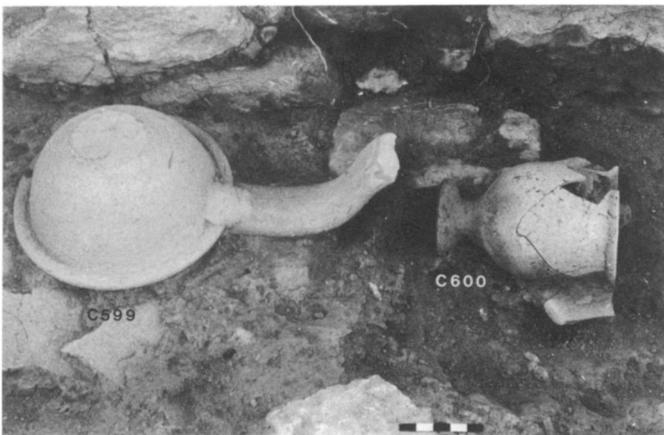
Greek building complex



a. Fallen portion of eastern wall, from south



b. Late fireplace (left), step block with pivot socket for door, doorway partially cleared of later rough "threshold." From north



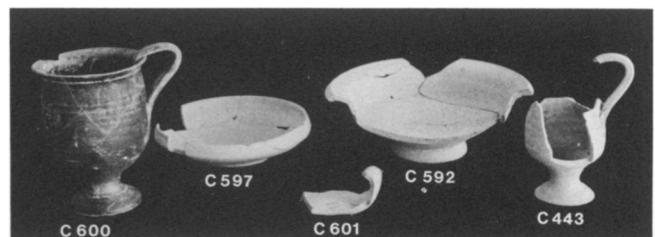
c. Ladle (C 599) and stemmed cup (C 600) *in situ* on floor



d. View from south after clearing



e. Dish, ladle and lamp from floor deposit.
Scale *ca.* 1:5



f. Cups, bowls and lamp fragment found on floor.
Scale *ca.* 1:5

Building B, eastern room

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a. Iron nails from door construction, eastern room of Building B



b. Partially destroyed entrance to western room, Building B (left) and robbers' trench with shifted wall block from Building A (top center). From north



c. Northwestern exterior corner and foundation of Building A (top, center) and Minoan walls within sounding 14A1, from southwest



d. Building A, northwestern corner with "bench." Sounding 14A1 to prehistoric levels at right. From northeast



e. Altar (C) from southwest with early krepidoma partially exposed



f. Terracotta bull (C 268) and "leg" (C 345, leaning on bull) *in situ* on altar, from east

Greek building complex



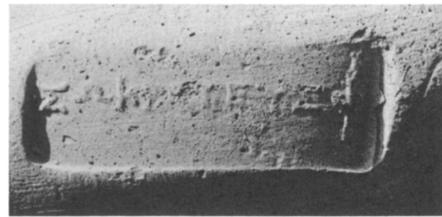
a. Terracotta bull (C 268) from altar after partial restoration



b. Portion of burned bones of sacrificial victims from upon altar



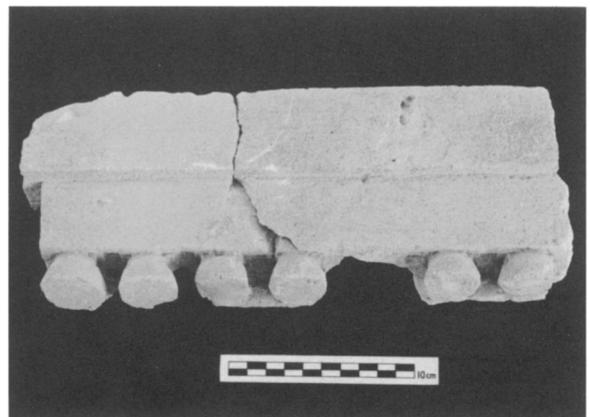
c. Terracotta "legs" (C 345) from altar



d. "Sokrates" stamp on amphora handle (I 6)



e. Portion of regula (S 59) *in situ* in late court wall

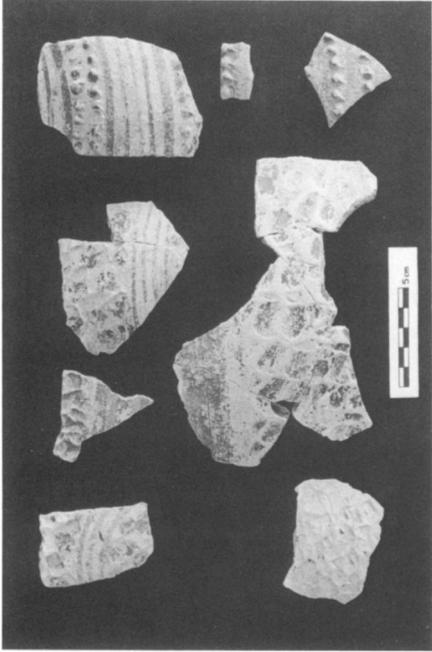


f. Two joined regula fragments (S 59)

Greek building complex



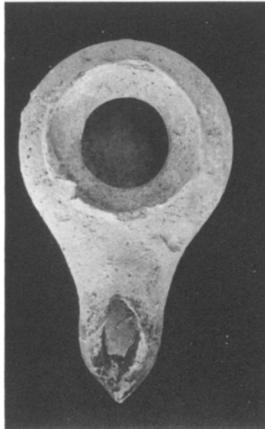
a. Trench 11A, Building F, from southwest



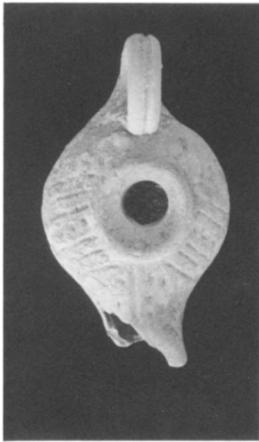
b. Barbotine sherds from lowest level in Trench 11A



c. Lamp (C 359) from interior western room, Building B



d. Lamp (C 242) from western room, Building B



e. Lamp (C 265) from near altar



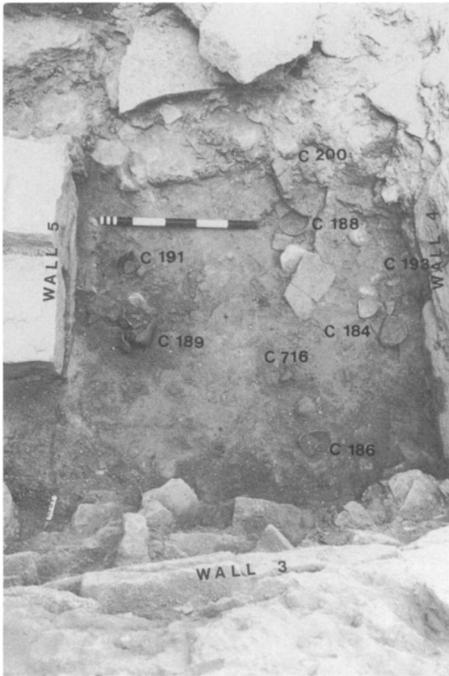
f. Lamp (C 266) from near altar



g. Lamp (C 318) from near altar

Greek building complex

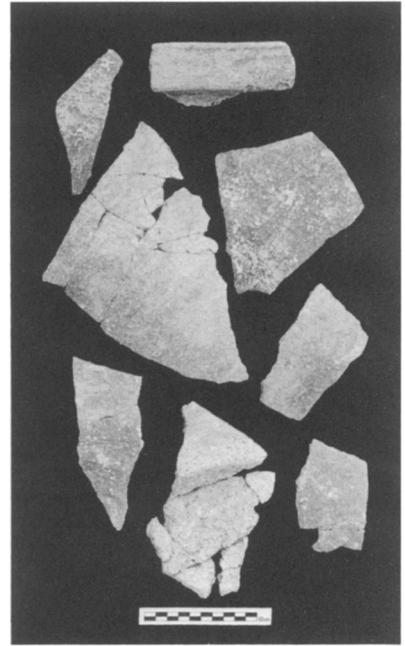
JOSEPH W. SHAW, PHILIP P. BETANCOURT, L. VANCE WATROUS:
EXCAVATIONS AT KOMMOS (CRETE) IN 1977



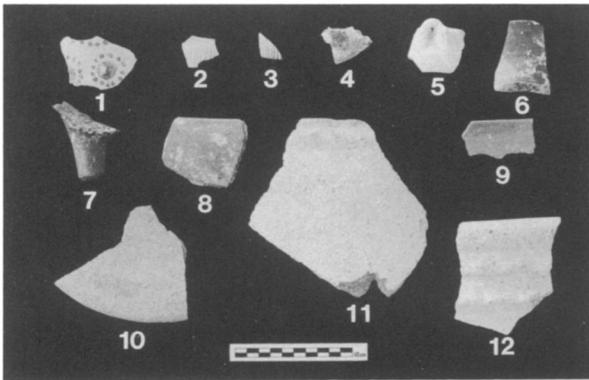
a. Trench 6A, the level at +13.50 to 13.70 m.



b. Jar, C 196



c. Pithos fragments, C 270



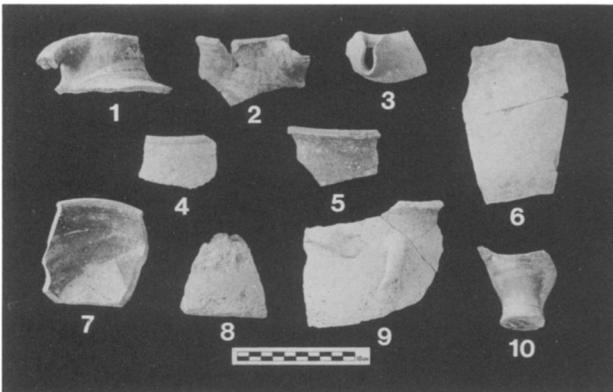
d. Sherds: (1) C 181 (2) C 681 (3) C 682 (4) C 708 (5) C 710 (6) C 203 (7) C 712 (8) C 711 (9) C 713 (10) C 198 (11) C 719 (12) C 678



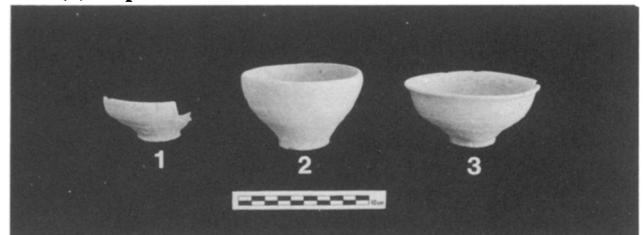
e. Straight-sided cups: (1) C 194 (2) C 197 (3) C 189



f. (1) semi-globular cup, C 183 (2) pitharaki, C 193 (3) cup, C 192



g. Sherds and fragments: (1) C 718 (2) C 738 (3) C 716 (4) C 680 (5) C 715 (6) C 289 (7) C 264 (8) C 714 (9) C 679 (10) C 717

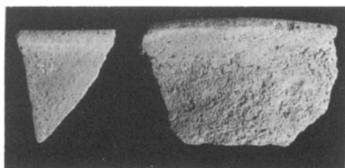


h. Conical cups: (1) C 200 (2) C 188 (3) C 195

Appendix A: A Middle Minoan Pottery Deposit

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EXCAVATIONS AT KOMMOS (CRETE) IN 1977

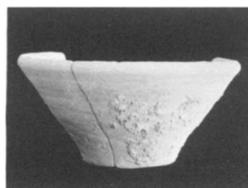
PLATE 44



a. C 734, C 733. Scale *ca.* 3:5



b. C 449. Scale 2:5



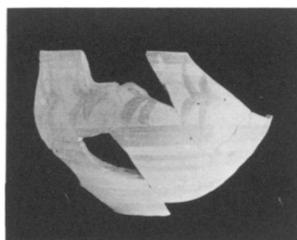
c. C 448. Scale 2:5



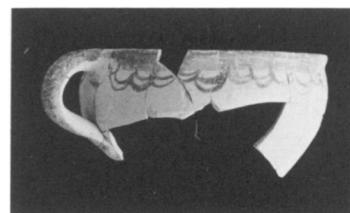
d. C 331. Scale 2:5



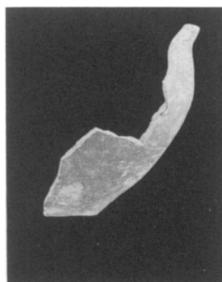
e. C 237. Scale 3:10



f. C 453. Scale 4:15



g. C 454. Scale 3:10



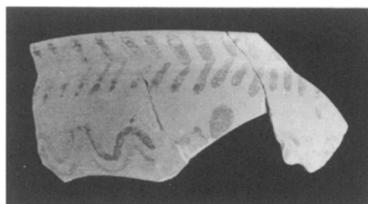
h. C 452. Scale 3:10



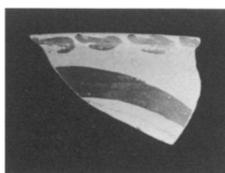
i. C 75



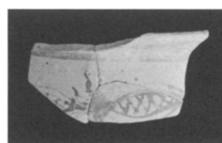
j. C 275



k. C 78. Scale 1:3



l. C 83. Scale 1:3



m. C 79. Scale 1:3



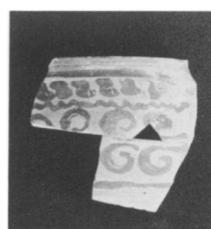
n. C 456. Scale 4:15



o. C 71. Scale 1:5



p. C 450



q. C 82. Scale 1:3



r. C 81

Appendix B: A Late Minoan I-II Dump Deposit

JOSEPH W. SHAW, PHILIP P. BETANCOURT, L. VANCE WATROUS:
EXCAVATIONS AT KOMMOS (CRETE) IN 1977