

EXCAVATIONS AT KAVOUSI, CRETE, 1989 AND 1990

(PLATES 17–34)

DURING THE SUMMERS OF 1989 AND 1990 the Kavousi Project held its third and fourth seasons of excavations on the Vronda ridge and the Kastro peak in the Siteia Mountains above the modern village of Kavousi in eastern Crete. In 1989 the excavations at Vronda took place between June 12 and July 28, while those on the Kastro ran from June 28 to August 4. Restoration and study continued until August 18. In 1990 the excavations on both sites ran from June 18 to August 7 with restoration and study continuing until August 17.¹

¹ The excavations at Kavousi were carried out from 1987 to 1990 by the Universities of Tennessee and Minnesota and by Wabash College, under the auspices of the American School of Classical Studies at Athens. We are especially grateful for the support and assistance of the Greek Archaeological Service, in particular the interest of Ioannis Tzedakis, the Director of the Service, Costis Davaras, the Director of the Ephoreia of East Crete, Metaxia Tsipopoulou, former Acting Director of the Ephoreia of East Crete, and Nikos Papadakis, the former Director of the Ephoreia of East Crete. Marelina Kanetaki, Katarina Stamoudi, and Elpida Sklerou represented the Greek Archaeological Service in 1989, and Chrysoula Sophianou, in 1990.

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During the 1989 and 1990 seasons Professor Geraldine C. Gesell (University of Tennessee) served as executive director, oversaw all aspects of the excavation, and made the study of the shrine material included in this report (with the aid of a Professional Development Award from the University of Tennessee). Professor Leslie P. Day (Wabash College) served as Field Director of the Vronda site and is responsible for the report on the excavations at Vronda. Professor William D. E. Coulson directed the excavations on the Kastro and is responsible for the report on work there. The staff consisted of the following:

Trench Supervisors: Professor Jane Carter (Tulane University) 1990, Deanne Dicer (University of Tennessee) 1990, Stuart Evans (Randolph Macon College, Ashland, Va.) 1989 and 1990, Kevin Glowacki (Bryn Mawr College) 1989 and 1990, Donald Haggis (University of Minnesota) 1989 and 1990, Louise Hitchcock (University of California at Los Angeles) 1989, Nancy Klein (Bryn Mawr College) 1989 and 1990, Elizabeth Langridge (Princeton University) 1990, Mark Lawall (University of Michigan) 1989, Jeremy McNerny (University of California at Berkeley) 1989 and 1990, Margaret Mook (University of Minnesota) 1989 and 1990, David Skoog (Bryn Mawr College) 1990, Jennifer Tobin (University of Pennsylvania) 1990, David Toye (University of California at Santa Barbara) 1990, Lee Ann Turner (University of Pennsylvania) 1989 and 1990, Catherine Woolfit (University of Toronto) 1989.

Trench Assistants: Kristina Anderson (Gustavus Adolphus College) 1990, Kenneth Bohac (Xavier University) 1990, Donna Bryant 1990, Sarah Bryant (University of Tennessee) 1990, Melinda Carter (University of Tennessee) 1989, Deanne Dicer (University of Georgia) 1989, Michael Goss (Wabash College) 1989, Amy Hackney (Duke University) 1990, Lyle T. Hubbard, Jr. (University of Tennessee) 1989, John Kline (Randolph Macon College, Ashland, Va.) 1989, Professor John McCarron (Loyola University of New Orleans) 1989 and 1990, K. Wendy McLaughlin (Bryn Mawr College) 1989, Dr. George Martin 1989 and 1990, Julie Miller

Hesperia 64.1, 1995

VRONDA

Exploration of the LM IIIC² settlement on the Vronda ridge (Fig. 1) and the Late Geometric cist-grave cemetery dug into it continued in 1989 and 1990. Excavation on the summit revealed more of the plans of Buildings C, D, and J and clarified their history and function. Investigation around Grave 18, a tholos tomb on the north slope of the hill, brought to light at least two more buildings and helped to determine the extent of the settlement on the north and the relation of the buildings to the cemetery. Trenches on the then unexplored northwest slope of the ridge investigated the limits and nature of the settlement in that area. On the southwest slope, more of the Shrine (Building G) came to light, with additional fragments of cult equipment and statues. Further investigation of the large complex west of the summit has revealed that there are three buildings (I, O, and N) and has determined their relation to the buildings on the summit. Finally, the Byzantine-Venetian building at Xerambela³

(Gustavus Adolphus College) 1989, Marilisa Nelson (Gustavus Adolphus College) 1989, Virginia Parks (Bryn Mawr College) 1989, D. Sydnor Pugh (Randolph Macon College, Ashland, Va.) 1990, Amy Raymond (Harvard University) 1989, Janusz Siewierski (Indiana University) 1990, Katerina Stamoudi 1990, Christopher Tillquist (Gustavus Adolphus College) 1990, Benjamin Venable (University of Tennessee) 1990, Barry Williams (University of Tennessee) 1990, Steven Williamson (Wabash College) 1990, Joshua Wright (Vassar College) 1989.

Biological Anthropologist: Maria Liston (University of Tennessee) 1989 and 1990.

Zooarchaeologists: Professor Walter Klippel and Lynn Snyder (University of Tennessee) 1989 and 1990.

Soil Scientists: Professor John Foss, Professor John T. Ammons, and Michael Timpson (University of Tennessee) 1989.

Palaeobotanist: Kimberly Flint (Duke University) 1989.

Other staff: Carol Hershenson (University of Cincinnati) 1989 and 1990 (registrar); Elizabeth Knudsen (University of Minnesota) 1990 (assistant registrar); Noël Siver 1989 and 1990 (head conservator); Jane Allison 1989, Richard Barden 1990, Nancy Buschini 1990, Barbara Hamann 1989, and Katherine Untch 1989 (assistant conservators); Martha Daura 1989 (conservator's assistant); Steven Hamilton 1989 and Christine Paterakis 1990 (photographers); Louise McInerney 1989 and Ralph Krisher (Wabash College) 1990 (computer specialists); Michele Miller (Stanford University) 1989 and Teresa Faulkner 1990 (artists); Andrew Mickelson (Beloit College) 1990, Douglas Pierce (University of Tennessee) 1989, Faye Polillo 1989 and 1990, Vanessa Rousseau (University of Minnesota) 1990, and Eric Rowland (University of Illinois) 1989 (architects); Jonathan Reynolds (University of Tennessee) 1989 and Scott Seay (Wabash College) 1990 (camp managers); Andrew Bieberich (Wabash College) 1990 and Michael Inman (Wabash College) 1989 (palaeobotanist's assistants).

We are grateful to the following consultants who shared their expertise with us: Peter Day (petrology), Carol Gillis (conical cups), Oliver Rackham (palaeobotany and palynology), David Reese (shells), and Heidi Dierckx (lithics).

We wish to thank Professor Harry C. Rutledge, former Head of the Classics Department of the University of Tennessee, for his assistance.

Volunteers included Richard and Jeannette Sias.

We owe great thanks to the people of Kavousi, who have worked with us and without whose help the excavations could never have taken place. We are especially grateful to our foreman, Nikolaos Spiliarotis, the Cultural Society of Kavousi, and the Mayor, Demetrios Kophinakis.

² The following abbreviations are used for dates: MM = Middle Minoan; LM = Late Minoan; SM = Subminoan; PG = Protogeometric; LPG = Late Protogeometric; EG = Early Geometric; MG = Mature Geometric; LG = Late Geometric; EO = Early Orientalizing; LO = Late Orientalizing.

³ For the approximate location of Xerambela near Vronda IX, see the Map of Vronda in Gesell, Day, and Coulson 1983, p. 395, fig. 3.

I. BUILDINGS ON THE SUMMIT (Fig. 1)

Extensive work was carried out in Buildings C and D, and soundings were made in Building J.⁴ High bedrock and erosion on the central spine of the ridge prevented further investigation of other buildings on the summit.

Building C

Excavation of areas east⁵ of Room 4 and south and west of Room 1 established the boundaries of the building. Building C can now be defined as a five-room structure (Rooms 1–4 and the room labeled Room 2 of Building D). Rooms 1 and 2 may have formed an independent structure; they have no connection with Rooms 3 and 4, which lie on a higher level. Work was concentrated in Rooms 2 and 4.

Room 2

Balks were removed within Room 2 to uncover more of LG Grave 2.⁶ This grave is not a built cist; the burial of a single cremated female was made in a cleft between two projecting spurs of bedrock, and then stones were placed on top.

The original floor of this room preserves several features. Of particular interest is a small oven⁷ along the east wall, built of two upright slabs on the north and west, stacked stones on the south (Pl. 17:a), and lined with fired clay. The interior was filled with burned clay collapsed from its superstructure. The oven had been deliberately positioned to make use of a natural cleft in the bedrock face of the wall; fired clay within the cleft suggests that it functioned as a flue. In and outside the oven were found fragments of a decorated fenestrated stand (Pl. 17:b), similar to the example found in Building J in 1988.⁸ Other fine LM IIIC pottery was recovered from the floor.

Room 4

Excavation of Room 4 has revealed its complete plan, with a bench along the east wall, a small oven in the northeast corner, and a hearth in the center of the room; a platform or shelf may also have stood in the southeast corner. The hearth was a feature only recognized in the 1989 season, when cleaning around LG Grave 5⁹ showed that the patch of red, burned clay at the bottom of the cist continues outside to the east and represents the hearth of the

⁴ Dr. Nancy Klein (Buildings C and D) and Dr. Lee Ann Turner (Buildings J and K) are preparing reports on this area for final publication.

⁵ Buildings A–D at Vronda are not oriented exactly on a north–south axis. For simplicity, in the text the walls of these buildings are described as if rotated counterclockwise so that the northeast walls become north, the southeast become east, the southwest become south, and the northwest become west.

⁶ Grave 2 was first uncovered in 1984; see Day, Coulson, and Gesell 1986, p. 376.

⁷ Two types of cooking areas have been recognized on Vronda. Irregularly shaped burned patches on the floor are designated as hearths, areas where an open fire was placed, probably with an opening in the roof above. Ovens, however, are built structures of stone, mud brick, and pisé in the corners of rooms.

⁸ Gesell, Coulson, and Day 1991, p. 151, fig. 3:1. This stand may have fallen into the oven by chance, or it may have served a function related to the oven. While the vessel shows no signs of blackening from fire or smoke, it could have been placed over a venthole in the oven for heating the contents of vessels placed on top. We are grateful to one of the anonymous reviewers for this suggestion.

⁹ For Grave 5, see Gesell, Day, and Coulson 1988, pp. 285–286.

original room rather than the result of burning within the cist.¹⁰ The plan and features of Room C4 are similar to those of Room 3 of Building I.

Room 5

The room (labeled Building D, Room 2 on Fig. 1) is now known to belong to Building C, with which it is connected by a doorway. Two small areas of this room were uncovered, the remainder having been cleared in 1984. That it was a room and not an open courtyard is shown by the presence of roofing clay over the floor. Of interest here were figurine fragments in the southeast corner and an oven along the west wall toward the north.

Boundaries of Building C

Trenches along the east, south, and west sides of Building C helped to determine its boundaries. The lack of architecture east of Room 4 suggests that this area may have served as a street, courtyard, or animal enclosure. Similarly, trenches south of Rooms 1 and 3 produced only bedrock with a few stones to fill the crevices, possibly a street, as suggested earlier.¹¹ To the west of Building C is a large, well-preserved terrace wall. The area between this wall and the west boundary of Rooms 1 and 2 was level. It too may have been a street or small courtyard.

Building D

Room 1

Further exploration of Room 1¹² revealed it to be a large (7.40 m. north–south by 5.00 m. east–west) rectangular room, entered by doorways on the south and possibly the north. Apparently it was large enough to require interior support; two flat stones, which lie in line on the floor in the south part of the room (Pl. 17:c), are probably bases for roof supports, and a possible third base lies along the east wall. The east wall is particularly fine: built chiefly of limestone blocks with few of the breccia boulders incorporated into other walls on the site, it resembles the east wall of Building A. The south wall lies on a layer of clay and may belong to a second phase of construction in the room.

A large, stone-built platform in the southeast corner (Pl. 17:c) also shows signs of two phases: the northernmost row of stones rests on bedrock, while the rest of the platform is founded on a thick layer of roofing clay. This deposit of clay represents an earlier phase of use of the building. A second layer of roofing clay, that deposited during the final collapse of the building, contained large chunks of burned wooden beams, and the surrounding clay had been fired hard and red. Obviously this room was destroyed by fire, the first evidence for a destruction which may be connected with the abandonment of the building.

The southeast corner of the room produced many interesting finds. On the platform itself were two animal figurines (Pl. 18:a): a horse (V90.109; Fig. 2:3, Pl. 18:b, center) and a bovid (V90.108; Fig. 2:2, Pl. 18:b, left). In the center of the room, near one of the “column

¹⁰ Ample evidence still remains, however, for the actual burning of the bodies within Grave 5; in particular, the limestone blocks lining the cist have been fractured from the heat of the fire.

¹¹ See Day, Coulson, and Gesell 1986, p. 376. The steep slope of the bedrock in this area, however, may have resulted in the removal of structures or walls.

¹² The room was first explored in 1984; see Day, Coulson, and Gesell 1986, p. 376.

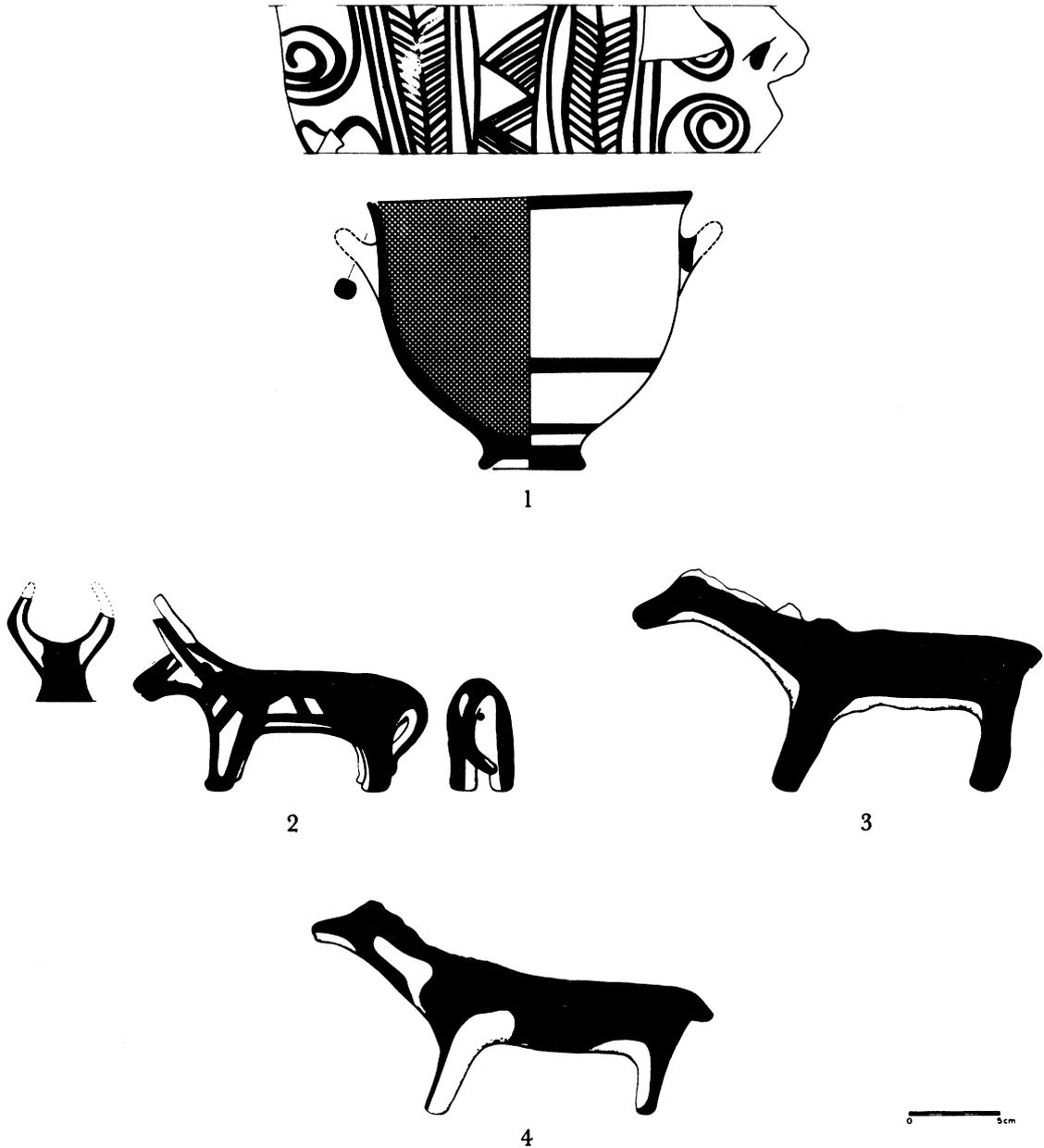


FIG. 2. Vronda. Building D, Room 1: Pottery and figurines

bases", was discovered a second horse figurine (V90.112; Fig. 2:4, Pl. 18:b, right), showing traces of burning.

Small terracotta figurines of bovids are very common in Minoan cult, and indeed another has been found with the material from the Vronda shrine (see p. 80 below). The body of the figurine from Building D is solid and handmade, with short stubby legs. Both ears and horns are carefully represented, nostrils and mouth are indicated by incisions, and the eyes are

small projections. For the most part solidly painted, the figurine has reserved and banded patches on the head, forelegs, and lower body. A figurine with similar rendering of the head came from the temple at Gortyn.¹³ Horse figurines, while less common, are not unknown. Both Vronda examples are solid figures with long bodies, elongated necks, short cylindrical legs, and short tails. The manes are indicated by added strips of clay on the neck, while the nostrils and mouths are incised. The bodies are either solidly coated with the underside reserved or are decorated with painted blobs. Similar horse figurines found on Crete are dated to LM IIIC or SM.¹⁴ Although the presence of these figurines might suggest a cult function for Room 1, the pottery, stone tools, and numerous pithos fragments show domestic use; it is possible that the platform served as the focus for a household cult.

In addition to the figurines, much pottery was recovered from this room. Next to the platform was a jug with banded decoration (V90.56; Pl. 18:c), a small terracotta lid (V90.52), and a fine LM IIIC deep bowl (V90.59; Fig. 2:1). This deep bowl is a very late shape which, with its deep curving profile and high ring base, suggests the later bell skyphos. The asymmetrical decoration in the handle zone, however, a development of the antithetic spiral motif, finds parallels in paneled patterns of LM IIIC.¹⁵ The jug is decorated with plain bands. With its depressed body, short cylindrical neck, and plain mouth, it is an unusual form with few close parallels.¹⁶ Both vessels can be dated to a late phase of LM IIIC.

After the fire had destroyed the room, causing the roof to collapse and stones from the walls to fall on top of the roofing debris, the room was used for a cremation burial. A pit designated Grave 31 contained a small quantity of burned human bones and a few fragments of Geometric pottery, lying over a thick layer of burned organic material in the bottom. The small amount of skeletal material and the lack of grave offerings suggest that this was a pyre site for a single individual, whose remains were deposited elsewhere. A pit dug through the roofing debris to the southwest of Grave 31 and filled with burned earth may have been connected with the burial.

Room 3

The room just south of Room 1 was further explored in 1990;¹⁷ the doorway linking it with Room 1 firmly establishes its connection with Building D. That it was used for storage

¹³ Rizza and Santa Maria Scrinari 1968, p. 55, fig. 85:d. This figurine has the same rendering of ears and horns and similar incisions for nostrils and mouth.

¹⁴ Comparable horse figurines, but more elaborately painted, have been found at Ayia Triadha; see Banti 1941–1943, p. 53, figs. 37, 38. A figurine similar to the Vronda horses, identified only as a “quadruped”, comes from the Patsos cave and belongs to the LM III period; see Kanta 1980, fig. 85:3. These are smaller and less elaborate than contemporary wheelmade animal figurines.

¹⁵ This combination of vertical panels with spirals can be seen on pyxides from Kastri (Sackett, Popham, and Warren 1965, p. 289, fig. 10:j) and Karphi (Seiradaki 1960, pl. 7:b, top right).

¹⁶ Few large jugs are published from LM IIIC contexts. The shape is not too far removed from Type 3 jugs at Karphi; Seiradaki 1960, p. 15, fig. 9:3. A jug from Kastri is not so depressed; Sackett, Popham, and Warren 1965, p. 296, fig. 16, which is thought to be of LM IIIB date. The very depressed shape seems to be a late feature that continues into the following periods; a similar shape can be seen in a PG jug from Fortetsa (Brock 1957, no. 119, p. 16, pl. 8).

¹⁷ This room was first explored in 1987; see Gesell, Day, and Coulson 1988, pp. 283–285. Grave 4 was found in its southeast corner.

is suggested by the many fragments of pithoi found within. The floor of Room 3 shows at least two phases of construction: the bedrock on the west representing the original surface and a later layer of paving stones over fallen roof debris.

Two more rooms to the west, although in their last phase converted into a separate unit, were originally connected with Room 3 by a doorway.

Room 4

Room 4 is a long, narrow room (7.15 m. north–south by 2.80 m. east–west) with a bench along its crudely constructed east wall. The west wall of the room doubled as a terrace wall, with two small benches or potstands along it; it forms the boundary for another building on a lower terrace to the west. In the northeast corner of Room 4 is a stepped entrance or stile, used during one of the later phases of the building. A burned red patch, possibly a hearth, lay on the uneven floor near the center of the room. In the thick layer of roofing clay overlaying the floor was a large coarse basin or jar with a piecrust decoration around its base (V90.60; Pl. 18:d), similar to one found at Karphi.¹⁸ This vessel, along with decorated fine LM IIIC fragments, provides a date for the use of the room. Above the roofing material, the room was filled with rock tumble and loose soil, containing fragments of Geometric pottery. It would seem that the upper walls were still standing in the Geometric period and tumbled down after the beginning of reuse of the site for burials in the 8th century.

Room 5

A small room abutting Room 4 on the north was a later addition. The east wall of Room 4 continues to the north; along it and leading up to the stile into Room 4 was a hard-packed surface, representing a street or path within the area of Room 5. The room itself was roofed, and a large quantity of fine ware was recovered from within and under the roofing debris. The function of this room is not clear, for it lacks the kind of evidence for storage or cooking found in many of the rooms.

Grave 36

Excavation to the southwest of Room 4 revealed more walls and traces of another room. This room had been disturbed by the construction of a LG cist grave (Grave 36), which obscured the original plan and removed the LM IIIC layers. The cist (Pl. 19:a) was set into the northeast side of the room, and its northwest and southeast corners had been disturbed. At least seven individuals were cremated in Grave 36: four adults, a child, and two infants. The last burial was an older man found in a semiflexed position.¹⁹ Grave goods include

¹⁸ Seiradaki 1960, p. 8, fig. 5:4, pl. 3:b.

¹⁹ Since this and other cists on Vronda represent both the site of the funeral pyre and the final resting place of the body, the last cremation and even some of the earlier ones, if undisturbed, often preserve some anatomical order or even articulation of the bones. When parts of the skeleton are still articulated and other parts are in some recognizable order, we call it “semiarticulated”. The bodies were carefully excavated by the Project’s biological anthropologist, Dr. Maria Liston, who was able to determine the positions of many of the last burials in the cists by plotting the major body parts; these positions may result from the effects of the funeral fire rather than reflect the way the body was placed on the pyre. Most known cremations from Greece in this (or any other) period are secondary, often in containers, so that no position has been preserved. Pyre sites also exist but have been found disturbed when the bones were collected for burial elsewhere. Primary cremations are

five terracotta beads²⁰ from the north side of the cist, a splendid rock-crystal bead (V90.55; Pl. 19:b) from the south, and fragmentary iron pins (V90.153, V90.154, V90.155). The plentiful pottery resembles that from other Vronda burials: many cups and skyphoi, several trays with reflex-type lugs,²¹ and an aryballos, all badly burned and warped.

Building J

More remains of Building J and another burial (Grave 21) were uncovered during the removal of the balk north of Grave 9. A cobble layer extending over a narrow space from below Grave 21 to Grave 9 (Pl. 19:c) represents the earliest phase of use in the area, perhaps a street, platform, or foundation for a wall. A MM date is suggested by the associated fragments of coarse pottery with grano-diorite inclusions similar in fabric to those found in MM levels elsewhere on Vronda.²² Above the early cobble construction were two clearly distinct layers of debris associated with Building J: a lower layer of the gray clay identified as roofing material elsewhere on the site and a red claylike soil above it. These layers may represent two different phases in the use of the building prior to the disturbance caused by the Geometric burials. The lower layer of gray clay contained a fragment of a LM IIIC kylix and other contemporary pottery, while the upper red soil produced no datable pottery. Grave 21 was dug into both layers of debris.

Grave 21

This unusual grave contained cremations on top of an earlier pithos burial. Architecturally, the cist was not so clearly defined as are many built graves on Vronda, owing to disturbance by tree roots (Pl. 20:a). The grave contained the remains of six individuals, three within the pithos, three above it.

The undecorated pithos lay on its side; it was set into a pit dug out of the earlier debris from Building J and was surrounded by a circle of stones (Pl. 20:b). The mouth lay to the west and had been sealed with two stone slabs. Contained within were the remains of two cremated adults and an unburned child of 3–4 years. Placed within the pithos were both pottery and metal objects (Pl. 20:c), including four vessels, an iron dagger (V89.94), and a lead object (V89.92). Of the two oinochoai found within, one (V89.56; Pl. 21:a) is monochrome, painted with a reserved panel on the shoulder bearing a design of thin, parallel horizontal bands, similar to the decorative scheme on an aryballos from Grave 3.²³ Both shape and decoration find parallels at Fortetsa.²⁴ The cup (V89.57) is of the large monochrome type found in nearly all the graves on Vronda (see Fig. 5, from Grave 28). A kalathos (V89.68; Pl. 21:b) with large, flat base and a simple, widely flaring profile is monochrome except for

rare but in Crete are possibly found at Vrokastro (Hall 1914, pp. 154–172) and Eleutherna (Stampolidis 1990 and personal communication). All the soil from the cists was kept and water sieved; hence, more remains of infants and even fetuses have been recovered than is the case elsewhere in Greece.

²⁰ These were inventoried as V90.116, V90.117, V90.118, V90.119, and V90.120.

²¹ See the example from Grave 3: Gesell, Day, and Coulson 1988, pp. 294–296 and fig. 6:7.

²² For MM remains at Vronda, see Day, Coulson, and Gesell 1986, pp. 364, 382, 386.

²³ Gesell, Day, and Coulson 1988, p. 294, fig. 6:10, pl. 81:d.

²⁴ For shape, compare a small jug of Type I:c; Brock 1957, no. 1434, p. 125, pl. 96 (PGB–MG). A broad-bottomed oinochoe with a more depressed shape bears a similar metopal arrangement; see Brock 1957, no. 1392, p. 120, pl. 93, Type I:c (LPGA–LG).

a reserved metope in the handle zone, bearing a zigzag between pairs of thin horizontal lines. In general shape and decoration it resembles SM examples from Fortetsa, although the base of the Vronda kalathos is larger than is generally found.²⁵ Despite the early date of the kalathos, the cup and oinochoe within the pithos give a Geometric date for the pithos burial.

The three other burials in Grave 21 must postdate those within the pithos, but they were all made within the LG Period. The cist in which they were burned is roughly rectangular, measuring 1.20 m. north–south by 2.00 m. east–west. The south and west sides were constructed of large limestone blocks, more regular than the usual boulders and rubble used on the north and east sides and in other cists. The grave contained three cremated adults, with accompanying pottery and at least one iron spearhead (V89.93). These burials disturbed the earlier pithos and the circle of stones around it.

Byzantine Apsidal Building

A small section of balk was removed from the center of the Byzantine apsidal building erected in Building J.²⁶ It now appears that the unusual floor surface identified in 1988 was compacted roofing material that overlay the floor. Removal of this clay revealed a brecciating surface similar to the floors of the earlier houses. On this surface rested several flat stones and a fragment of a flat terracotta tile, possibly from the roof. This thin (0.018 m.) tile (V89.1) is decorated with a wave pattern, possibly impressed with the fabricator's finger (Pl. 19:d).

II. NORTH SLOPE (Fig. 1)

Five more trenches were opened in the vicinity of the robbed tholos tomb found in 1988 (Grave 18).²⁷ House remains from east (Building L) and north (Building M) of Grave 18 indicate that the whole area originally served a domestic function.

Building L

At least three rooms of this structure are preserved: one room lies north of a long east–west wall, and to the south of this wall are two more rooms. Although most of the surface of the north room was gone, a deposit of roofing clay along the wall and in the southwest corner shows that it was an interior space, and domestic pottery suggests that it was an ordinary house. Of the two rooms south of the wall, that on the east had a thick layer of roofing material over the brecciating surface. On and above the floor were found many stone tools and fine LM IIIC pottery, including a kalathos with horns of consecration on the rim (V90.43), similar to examples found in other buildings on Vronda.²⁸

²⁵ Brock 1957, no. 14, p. 9, pl. 3; the shape is closer to no. 1, p. 8, pl. 3, also of SM date. Common in SM, kalathoi continued to be placed in later Fortetsa tombs; Tomb X contained a number of examples (e.g., no. 418, p. 45, pl. 33; no. 524, p. 52, pl. 33; no. 485, p. 49, pl. 33) that date to PGB. An example was also found in the North Cemetery at Knossos, which may be from an EG context; see *AR* 1979, p. 49, fig. 22.

²⁶ For the Byzantine apsidal building, see Gesell, Coulson, and Day 1991, p. 156 and fig. 2.

²⁷ See Gesell, Coulson, and Day 1991, pp. 160–161. Further analysis of Boyd's published sketches indicating the location of the tholos tombs has shown that Grave 18 is Boyd's Tomb VIII (originally numbered Tomb 2), which was not found during the cleaning from 1978 to 1981. It had been robbed before Boyd's excavations. See Gesell, Day, and Coulson 1983, p. 403.

²⁸ One published example comes from Building E; see Day, Coulson, and Gesell 1986, pp. 380–381, fig. 13:37.

The west room has a cobbled paving, part of which appears to have been removed by the construction of the tholos tomb. Thus it would seem that Building L had gone out of use before the tomb was built. The 1990 cleaning of the west room revealed a foundation trench along the wall separating the two rooms. Since this foundation trench cut through the cobbled surface (Pl. 21:c), it would appear that the east room was a later addition.

Three phases of use for Building L can be distinguished. The first saw the construction of the long east–west wall; at this time the area to the south of the wall had a cobbled surface, possibly a street or courtyard. The east room of Building L was then constructed, its wall cutting through the cobbled layer. This room may have continued farther east, where a modern threshing floor has destroyed all traces of earlier remains in the area. Finally, Grave 18 was constructed, cutting through the cobbling of the west room.

Building M

The remains lying north of Grave 18 have been designated Building M. These rooms may belong to the same structure as Building L, but there is no certain connection. Much coarse domestic pottery lay along the wall on the south side of the building and on the floor. A typical hearth of hard, burned clay was found within.

West of Building L

Other walls to the west of Grave 18 may have belonged to either Building L or M, or perhaps to a third building to the southwest. Since much of the area has suffered from slope erosion and modern disturbance, the walls are poorly preserved. The large amount of pottery of LM IIIC date, stone tools, animal bones, shells, and pumice may simply represent slope wash from structures higher up the hill.

III. NORTHWEST SLOPE

The northwest slope of the Vronda ridge has not been much explored because the extensive modern terracing makes excavation difficult and has disturbed earlier levels. Nevertheless, trenches in this area have recovered remains of buildings and helped to determine the extent of the settlement on the northwest.

Two trenches were opened, one to the west of Building D (Trench 13100), the other to the northwest (Trench 14400). As anticipated, many of the stones from the ancient walls had been removed to build the terrace walls, and the plowing of the terraces had cut into ancient levels and removed objects which lay close to the surface. Enough was preserved of the foundations of the walls, however, to show that there were buildings in the area in rough alignment with Building D and even an apparent cremation burial (Grave 29). This disturbed area represents a pyre site or secondary deposition; it consisted of a few burned and unburned human bones along with animal bones (sheep/goat and dog) amid tumbled stones and soft soil at the top of a large and irregular pit. There were no associated grave goods.

West of Building D (Trench 13100) more wall remains were uncovered, again badly disturbed.

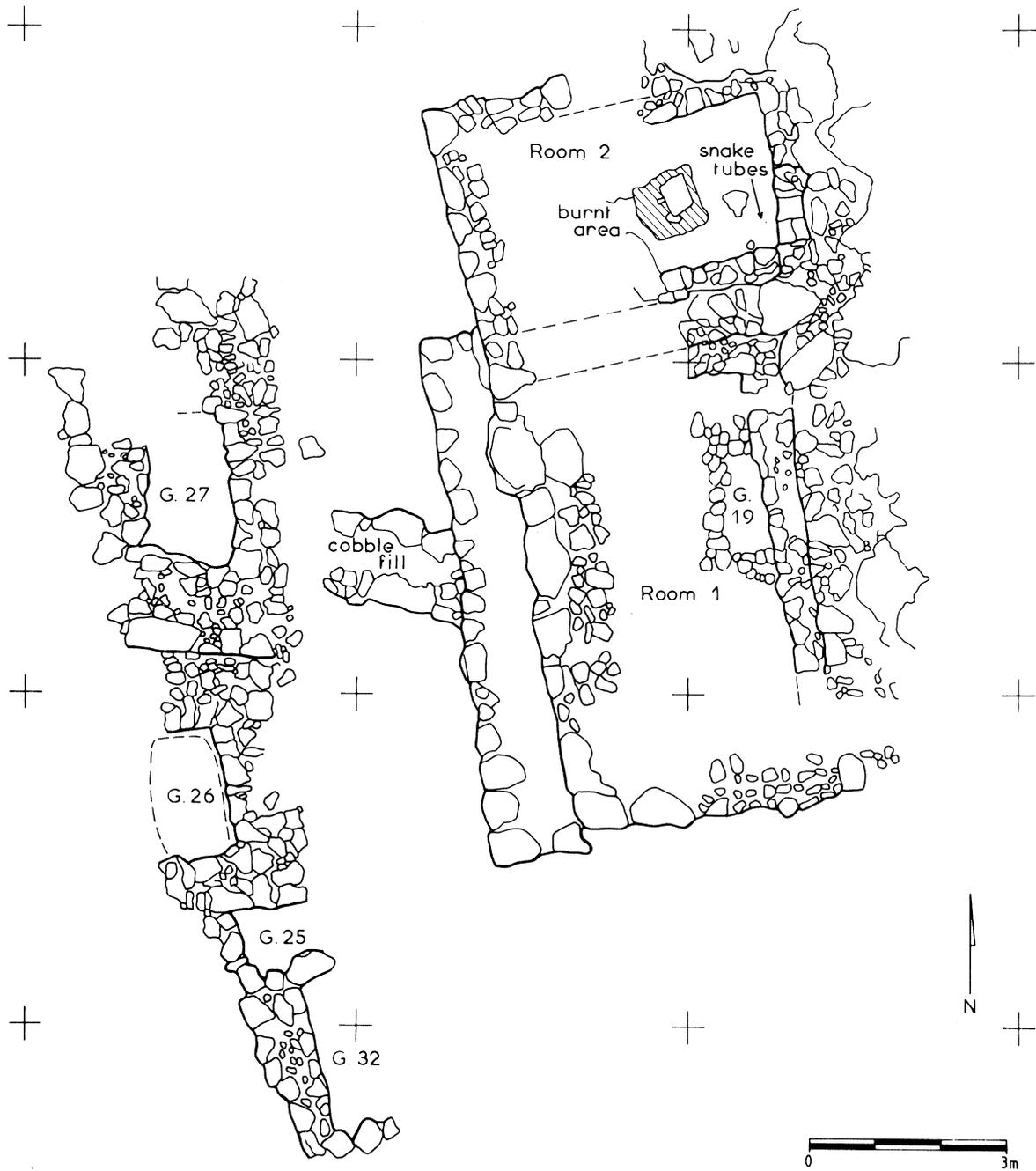


FIG. 3. Vronda. Plan of Shrine area (Building G)

IV. SOUTHWEST SLOPE

Building G (Shrine) (Fig. 3)

Building G, identified as a shrine from material found within one of its rooms in 1988,²⁹ continued to be a major focus of investigation. The rectangular building is placed against the bedrock face of the summit in such a way that its eastern boundary is uneven. The bedrock face protected and preserved a small part of the original floor of the building, but the rest of it had eroded down towards the west. The shrine is divided into two rooms. The positions of the entrance and the connecting doorways are uncertain because so few of the walls are preserved above the level of the foundations. Outside, a large bench runs along most of the west wall of the building.³⁰

Room 1

Since the large south room had been disturbed by a LG cist (Grave 19)³¹ and worn down by erosion, very few of its original features are preserved; only the bench along the east wall and a deposit of clay in the northeast corner remain. Cult objects, including several plaques and the torso of a goddess with upraised hands (Goddess 3; Pl. 21:d), were found embedded in the clay. The join between this torso and an arm found in the deposit to the south of Building G in 1987 provides evidence that the shrine material found to the south and west of the building had been discarded during the building of Grave 19.

Goddess 3 has several unique features. She is constructed of a heavy, micaceous, red clay. On her shoulders are added strips of clay resembling epaulets (Pl. 22:a). These probably represent a decorative feature of her dress. There is a slight Y-shaped indentation running up the center of the torso in the front, branching out above the breasts to the shoulders; a similar indentation runs up the center of the back but is covered by the tresses on the upper back (Pl. 22:b). Such indentations do occur on goddesses from other sites.³² Her tresses are widely spaced, thick, and flat compared with the other goddesses from the site.

A number of facial features and body parts from other goddesses have been found in this room. Several are attributed to Goddess 17, easily distinguished by her unusually sandy clay. Particularly interesting is an as yet unattributed hand broken in such a way as to reveal its construction. The fingers were rolled separately into small cylinders, then placed in a row into the pocket of clay forming the hand (Pl. 22:c). A large fragment from the head of Goddess 20 (Pl. 22:d) gives evidence for the construction of facial features, the ear, and the attachment of the tiara (not visible in the photograph).

Plaques, kalathoi, and snake-tube fragments were also found in the room. Most of the plaque and kalathos fragments were in the eastern part of the room, while the snake-tube fragments came from the western half. Particularly interesting is Plaque 4, which appears to be made from the same distinctive micaceous, red clay as Goddess 3 and so may well have

²⁹ Gesell, Coulson, and Day 1991, pp. 161–163.

³⁰ Although no such bench occurs outside any other shrine of the goddess with upraised hands, a long bench (20–30 cm. wide, 45 cm. high) for offerings runs along the outside of the shrine building on Terrace III of the Juktas Peak Sanctuary (Karetsou 1981, p. 145; 1984, pp. 601–610). Offerings dating from the end of the Old Palace Period to LM IIIC were found just below it.

³¹ For information on Grave 19, see Gesell, Coulson, and Day 1991, p. 163.

³² Levi 1959, p. 261, fig. 34:b.

been made for her as part of a set. The plaque is only partly preserved, but what survives has an added clay frame, one hole presumably for hanging (fully preserved plaques have two or none), and plastic decoration which is not clear but may have represented a face (Pl. 22:e).

Possibly the goddesses and cult material were grouped in the eastern area before the Geometric grave was dug. At that time they may have been broken and scattered.

Room 2

A thick wall separates the smaller north room from Room 1 (Pl. 23:a). Benches lie along the north and south walls; in the east wall is a possible shelf or ledge (Pl. 23:b). On the brecciating surface that served as the floor is a patch of hard, burned, red earth, possibly a hearth similar to those found in other buildings. A large flat stone found resting on top of this "hearth" probably collapsed from above or from one of the walls.

In 1988 the torso of Goddess 2 and six snake tubes were found in this room. More cult equipment, mostly plaques and kalathoi, was found in 1989.³³ Plaque 3, made from the same sandy clay as Goddess 17, adds more evidence that the goddesses and cult equipment came in sets.

Cleaning of Room 2 has made clear that the snake tubes found in 1988 were not resting on the floor but were well above it, embedded in a matrix of multicolored clay which contained much carbon and patches of ash. The snake tubes may have stood on the shelf, on one of the benches, or on an upper floor before they collapsed into the room.

Area South of Building G

Excavation was continued to the south of Building G to determine the limits of the deposit of cult material and to recover more fragments of the snake tubes and goddesses with upraised hands found in previous seasons.³⁴ Meanwhile progress has been made in piecing together the over 3,000 fragments from the deposit; so far 17 separate goddesses with upraised hands, 14 snake tubes, and 22 plaques have been identified.

A small bull figurine (V89.15; Pl. 22:f), similar to the one from Building D (see pp. 71–73 above), was also found in this deposit.

Area West of Building G

The area west of Building G has suffered from erosion and later disturbances, so that little remains of its original form. Most of the walls in the area belong to a series of Geometric graves, although some may originally have been part of structures bordering a court which stood to the west of Building G. At least four cist graves were built in a line (Graves 25, 26, 27, 32; Fig. 3, Pl. 24:a).

Grave 25

Grave 25 is not the usual rectangular cist but a small square area, with walls on only three sides. It was identified by the presence of burned human bones, which were apparently deposited here from elsewhere, possibly from Grave 26 or 32. Some Geometric pottery was

³³ For illustrations, see Gesell, Coulson, and Day 1991, pl. 63:d–g.

³⁴ For previous reports on this material, see Gesell, Day, and Coulson 1988, pp. 289–290; Gesell, Coulson, and Day 1991, pp. 161–162.

associated with the burial, and just outside this area to the west was found a bronze fibula (V89.77) with a knobbed bow, probably of LG date.³⁵

Grave 26

Grave 26 is a three-sided cist measuring roughly 2.00 m. north–south by 1.00 m. east–west; the west side is missing. Cremated bones were found in the grave, most in a pit at a level below the bottom of the walls of the cist (Pl. 24:b). The pit cut deep into a red claylike soil, which was fired hard from the heat of the pyre; remains of five wooden beams were preserved lying east–west across the tomb. An adult and a child were cremated in this grave. Part of an unburned sheep/goat skeleton was found in the northern part of the pit; among the grave goods are two iron spearheads (V90.135, V90.137), an iron dirk (V90.138a), a bronze fibula of simple arched type (V90.136), and an incised terracotta bead (V90.50). Pottery includes the usual cups and skyphoi, as well as a tray with reflex-type lugs, a strainer, and a jug. At a higher level amid the rock tumble within the cist was the secondary burial of a cremated adult in an amphora. The amphora was found smashed, and its shape has not been reconstructed. Traces of its decoration in added white can be distinguished; metopal panels bearing rosettes within circles suggest an EO date.³⁶ Associated with the amphora was a plain skyphos (V89.38), which may have served as a lid or covering for it, as in Grave 28 (see p. 86 below).

Grave 27

Grave 27 is a cist grave (2.10 m. north–south by 1.30 m. east–west) which had been robbed and partially destroyed. The northwest corner of the cist was missing, and nothing was found within except loose rubble, apparently deposited recently. Bone from a cremated adult and much fine decorated Geometric pottery (Pl. 24:c) were found to the north and northeast of the cist, apparently thrown out by the robbers. Some iron, no doubt also from the grave, was found in the vicinity, including a spear socket, a sickle, and a possible spit.

Grave 32

Grave 32 is much shallower and less well preserved, since it was disturbed by an olive tree. Again, the builders seem to have made use of an existing terrace wall. At least two individuals were cremated here, and an intact aryballos (V90.58; Pl. 24:d) was placed at the top of the grave. The aryballos is Orientalizing; the tongue design on the shoulder finds parallels of that date at Fortetsa.³⁷

³⁵ This is Sapouna-Sakellaraki Type VII:a, which was in use from the mid-8th century to about 600 B.C.; see Sapouna-Sakellaraki 1978, nos. 1267A and 1271–2, p. 95, pl. 37. Boardman (1961, pp. 36–37) says that this type with knobbed bow is common in East Greece in the LG Period and that it should date not much later than 700 B.C.

³⁶ The surface of the fragments is badly worn, but infrared photography has been used to reveal the original pattern. The rosette in a circle is closest to Brock's motif 9:bs but without so many petals; a somewhat similar metopal panel with an outlined rosette can be seen on Brock 1957, no. 895, p. 81, pl. 56, of EO date.

³⁷ Brock 1957, no. 938, p. 89, pl. 72, of LO date, is similar in decoration but looks more advanced in shape.

Building H

A trench was opened up north of Building G to determine its connection with Building H.³⁸ Although the walls of Building H continue toward the south (Fig. 1), erosion on the steep slope has removed any other remains in this area, and no additions could be made to the plan of the building.

Area Between Building G and Building I

Two trenches in the flat area northwest of Building G and southeast of Building I brought to light no architectural remains and very little pottery except near Grave 30. It would appear that during the life of the settlement the area was open, functioning either as a street or court, a garden, or a large animal pen.

V. WEST OF SUMMIT (Fig. 4)

Trenches opened in and around the large building complex west of the summit revealed the plan of the structure, its extent, and its relation to the buildings on the summit. It is now clear that there are at least three separate buildings on a series of terraces in the complex: the original Building I on the eastern upper terraces (Rooms 1–5), Building O on the terrace to the west (Rooms 1–3), and a third building (N) on the next two terraces down to the west (Rooms 1–5).³⁹

Building I

Room 5 of Building I was uncovered to the south of Room 3, and the courtyard to the north of the building was also explored. That Room 5 belongs with Rooms 1–4 is shown by the fact that it is on the same level and is connected by a doorway with Room 3.

Courtyard North of Room 4

Exploration of the area to the north of Room 4 showed that it was a large open courtyard, without roofing material or architectural features. Several crude walls on the surface of the courtyard indicate later disturbance of the area, and unburned human bones found in the vicinity (Grave 35) suggest that this disturbance may have been connected with burial activity. No pottery later than LM IIIC, however, was found associated with the bones or walls.

Room 5

This small (2.50 m. north–south by 3.75 m. east–west) room was excavated down to its floor of thin clay overlaying the cobblestones that were brought in to level up the area behind the south terrace wall. Many pithos fragments rested on the floor, along with three flat stones, which may have been stands or covers for these storage vessels (Pl. 25:a). In the east part of the room, at an upper level, was a large patch of black ashy earth containing some cremated human bones. Designated Grave 33, it represents either a spillover from Grave 30 or a secondary deposit. The absence of burning on the spot precludes its use as a pyre site.

³⁸ For Building H, see Gesell, Day, and Coulson 1988, pp. 287–289.

³⁹ Dr. Kevin T. Glowacki is making a study of this building complex for the final publication. For a preliminary analysis of Building ION, see Day and Glowacki 1993.

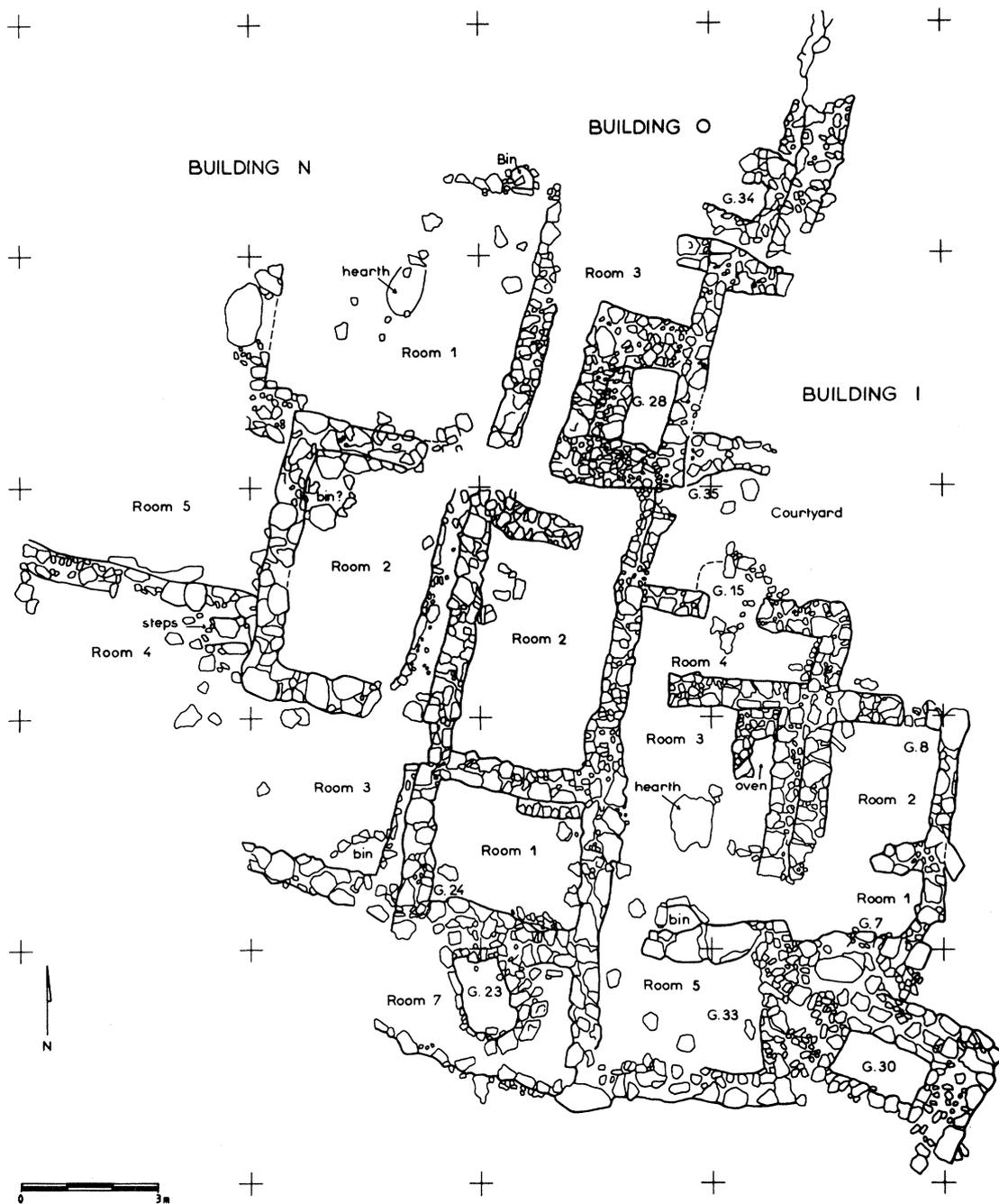


FIG. 4. Vronda. Plan of Buildings I, O, and N

Building O

At least three rooms of Building O are preserved on a terrace west of Building I, and rooms to the north may also have belonged to it.

Room 1

Room 1 is large enough to require an interior support (2.60 m. north–south by 3.15 m. east–west; Pl. 25:b), the base of which is still preserved in the center of the room.⁴⁰ Since the room lacks doorways, it may have been entered from above. There is evidence for at least two building phases preceding its use for a burial (Grave 24). In the second phase a bench was added in the northeast corner, apparently over a hearth or oven. The south wall of the room was robbed out by the builders of Grave 23, but its line can be seen in the bedrock, and the small stones used for the foundation are still visible beneath the later grave walls.

Grave 24

Grave 24 has been identified in the southwest corner of Room 1. No architectural features can be associated with it, unless the south wall of Room 1 was modified for the burial. Bones from a disarticulated secondary inhumation were found scattered amidst the rubble along the south wall. The teeth indicate that the remains are of a child of 6 to 7 years; the cranium shows lesions, which were caused by histiocytosis.⁴¹ This grave is unusual in the Vronda sequence for several reasons: it lacks architectural features, there are no grave offerings, the body was not cremated, and there is evidence that the person had suffered from a deadly disease.

Room 2

Room 2 lies north of Room 1. This large (4.90 m. north–south by 3.00 m. east–west) rectangular room has a wide doorway in its northeast corner leading to Room 3 (Pl. 25:c). Several large flat stones in the northwest corner seem to have collapsed onto the floor from above or from the walls; one stone in the southern section of the room may have served as the base for a roof support. No benches or hearths appeared in this room, but coarse domestic pottery and stone tools were found within.

Room 3 and Grave 28

Room 3, which lies to the north of Room 2, was disturbed by the construction of Grave 28. It is clear that clay roofing material had filled the room first, and then stone tumbled into the room from the walls; Grave 28 was constructed on top of this tumble. The room has not yet been thoroughly investigated, but the presence of fired clay in the northeast corner suggests an oven, like that found in Room 3 of Building I.

Grave 28 is a large cist (1.80 m. north–south by 1.50 m. east–west; Pl. 26:a), which contained the remains of eight cremations, the largest number so far found in a single grave at Vronda. Six of these, five adults and a child, were apparently primary burials,

⁴⁰ The support is not indicated on Figure 1 or 4 but shows clearly on the bipod photograph (Pl. 25:b) just left of the meter stick.

⁴¹ Histiocytosis is a disease syndrome of unknown cause, which affects both skeleton and internal organs. The most severe form of the syndrome is known as Letterer-Siwe disease. It is an acute, rapidly fatal condition characterized by visceral lesions and localized bone destruction usually confined to the skull. This disease has been identified by biological anthropologist Dr. Maria Liston and confirmed by X-rays. It represents the earliest known incidence of histiocytosis in Greece. The study of the human remains from Vronda formed the basis for Dr. Liston's doctoral dissertation (University of Tennessee 1994).

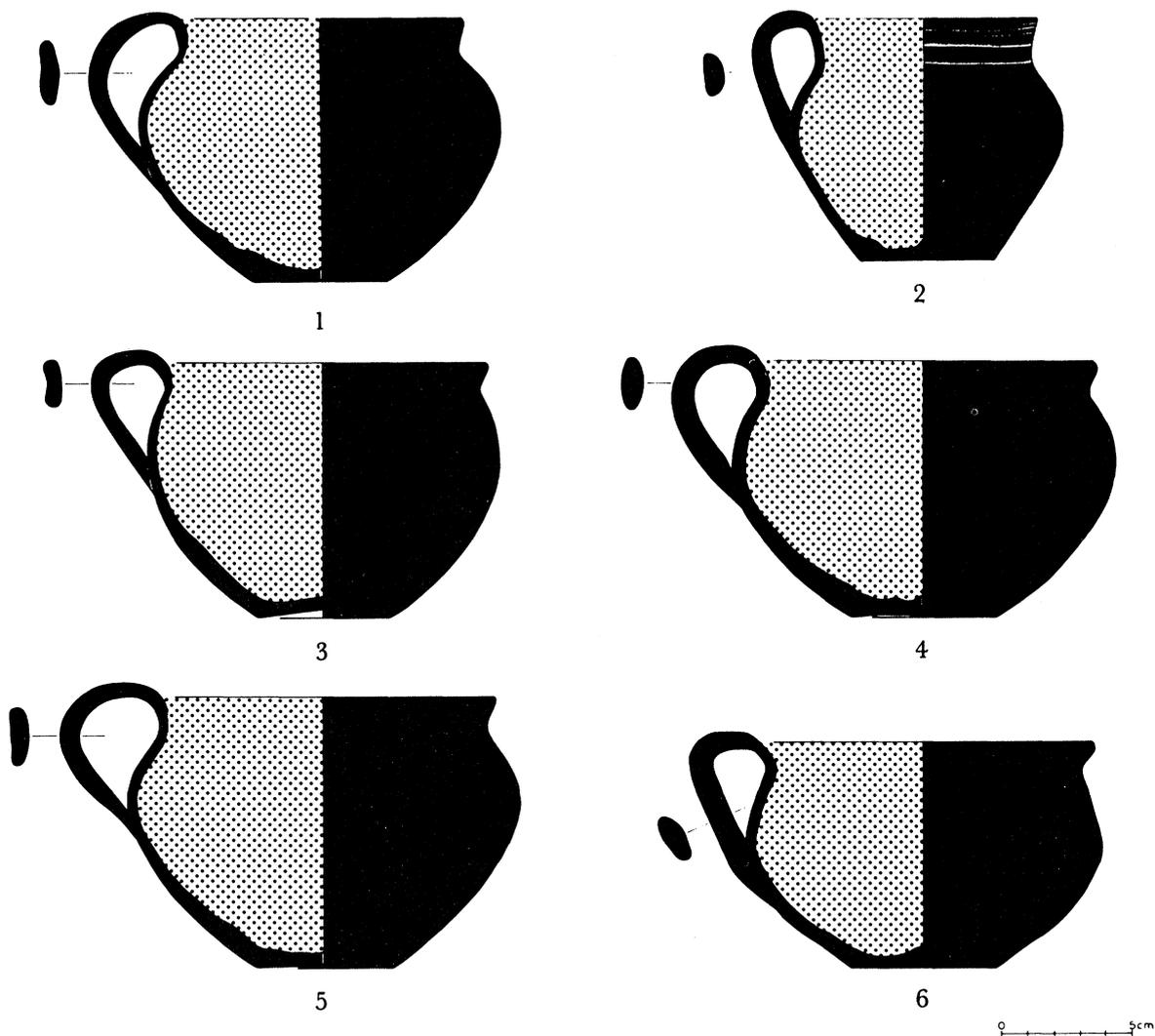


FIG. 5. Vronda. Grave 28: Cups from southeast corner

all but two of them pushed to the sides of the tomb to make way for later burials. The grave contained many objects which could not be associated with specific burials. A mass of fragmentary pottery was recovered from the southeast corner (Pl. 26:b); the fragments mended into six monochrome cups (Fig. 5), similar to those found in other Vronda graves.⁴² Figure 5:4 (V89.81) appears to be the earliest example; it is heavier and similar to the cups from Grave 3 and from tombs at Fortetsa.⁴³ Figure 5:6 (V89.79) is also an early form; its

⁴² Such cups were found in Grave 3 in 1987; see Gesell, Day, and Coulson 1988, p. 295, fig. 6:1–3. The cups from Grave 4 (Gesell, Day, and Coulson 1988, p. 284, fig. 2:7) are of a later type (Gesell, Day, and Coulson 1988, p. 285, note 29).

⁴³ A similar cup is Brock 1957, no. 434, p. 46, pl. 35; this is Type B ii, which he dates (p. 166) Late PGA–MG.

closest parallels are with a MG cup from Knossos.⁴⁴ The deeper, thin-walled cups (Fig. 5:1, 3, and 5; V89.84, V89.85, V89.86) are closer to the LG–EO examples from Fortetsa.⁴⁵ Figure 5:2 (V89.82) is very deep and might more accurately be called a mug; its tall rim is decorated with incised lines. The shape is reminiscent of an example from Grave 16,⁴⁶ but similar ones are also known from Knossos and Fortetsa.⁴⁷ Although Figure 5:4 and 6 are earlier types, the latest date for this deposit is LG–EO. Metal objects from the grave resemble those found in other Vronda burials; their quantity is small, however, in relation to the number of burials in the grave. They include two iron spearheads (V89.97, V89.98), an iron axehead (V89.66), an iron spit(?) (V89.67), a knife (V89.91), and a bronze fibula with knobbed bow (V89.78; Pl. 26:c) similar to the one found in Grave 25 (see p. 81 above).

Three more burials were found in the southeast corner of the grave; these are secondary burials in a pair of amphoras (Pl. 27:a), and they constitute the latest burials in the grave. The two amphoras were wedged together in the corner at a high level, and a ring of stones was built around them to hold them firmly in place. Amphora No. 1 (V89.65; Fig. 6:1) was covered over by a large monochrome cup (V89.53; Fig. 6:3) set upside down (Pl. 27:b). Amphora No. 2 (V89.54; Fig. 6:2) had a small bowl or lid (V89.55; Fig. 6:4) set upright in it, and this lid was in turn covered with a large flat stone (Pl. 27:b). Both of the amphoras contained burned human bone, representing the burial of two adults.

It is clear that the two amphoras were deposited at the same time, but they are of very different styles. Amphora No. 1, which is very crude and irregularly made, has a squat shape, which looks early. Although no exact parallels either in shape or decoration can be found, its shape is reminiscent of late PG vessels from Fortetsa.⁴⁸ The other vessels, however, appear to be later in date. The shape of Amphora No. 2, with raised base, ovoid body, and tall neck with flaring rim, although squatter than the usual Geometric belly amphora, resembles an imported amphora from Fortetsa.⁴⁹ Much of the body is monochrome painted, with a zone of thin horizontal bands on the lower body; the main area of decoration is a panel below the handle zone, which contains two zones of “running dog” motif between thin horizontal bands. Such a decorative scheme appears on Crete in MG.⁵⁰ On the neck are

⁴⁴ Coldstream 1972, no. G105, pp. 95–96, fig. 15; see also Brock 1957, no. 1032, p. 95, pl. 62 of Type B ii (PGA–MG).

⁴⁵ The closest parallel for No. 1 is Brock 1957, no. 1025, p. 94, pl. 73 (Type B iii) of LG–EO date. No. 5 closely resembles Brock 1957, no. 491, p. 50, pl. 35 (Transitional Type B ii–iii), which is not so advanced as no. 1025 but is probably MG–LG (p. 166). The concave base of No. 3 is an unusual feature.

⁴⁶ See Gesell, Coulson, and Day 1991, pp. 158–159, fig. 4:3.

⁴⁷ Knossos: Coldstream 1972, no. F19, p. 87, fig. 8; no. G124, pp. 96–97, fig. 15, of Melian MG. Fortetsa: Brock 1957, no. 1058, p. 96, pl. 62 and no. 1023, p. 94, pl. 73, both of Orientalizing date.

⁴⁸ Brock 1957, no. 227, p. 27, pl. 17, although this is a smaller example and is called a skyphos. Like the Vronda example it is “practically handmade” and decorated with crude wavy lines. It is of the “developed Protogeometric style” (p. 26). Of similar shape are the monochrome pyxis no. 1397 (p. 121, pl. 103) and pyxis no. 643 (p. 61, pl. 45), decorated with a zigzag panel. They are Type A ii (p. 165), which is found from PGA to EO but is “mostly PGB–MG” in date.

⁴⁹ Brock 1957, no. 269, p. 32, pl. 19, although this example has a taller neck and is not so squat; the handles are at mid belly and do not rise above the shoulder as on the Vronda amphora. It is EG and is probably a Cycladic import.

⁵⁰ Coldstream 1968, p. 243.



FIG. 6. Vronda. Grave 28: Pottery from amphora burials

two zones of zigzags between bands. Although the “running dog” pattern (Brock’s “running loops”) appears as early as PG,⁵¹ it continues to be popular in East Crete, appearing on a skyphos from Grave 1 at Vronda, where it is probably LG.⁵² The cup (Fig. 6:3) is of the deep shape found in the LG–EO period. As for the lid (Fig. 6:4), its decoration of upright leaves with dots has no exact parallels, but leaves in outline are generally found at Fortetsa in the LG through O periods.⁵³ Thus a LG date for the amphora burials seems likely.

⁵¹ Brock 1957, p. 179, motif 11:l, dating to PGB–EG.

⁵² Day, Coulson, and Gesell 1986, pp. 383–384, fig. 14:39.

⁵³ Brock 1957, p. 180, motif 12:e.

Area North of Room 3 and Grave 34

Architectural remains lying north of Room 3 may belong to Building O, but the disturbance caused by Grave 34 makes their relationship uncertain. This LM IIIC room has a bench along the east side, and the undisturbed area north of Grave 34 contained stone tumble over roofing debris; smashed pottery was recovered, chiefly coarse cooking and storage vessels and some LM IIIC decorated sherds. All evidence points to a simple domestic function for the room.

Grave 34 is a cist grave or corner cremation like Grave 4 in Building D.⁵⁴ Erosion on the steep slope has removed any trace of a west wall, and the east and south boundaries are the walls of the LM IIIC room. Inside were the cremated remains of a woman and a small child; the woman was in a semiflexed position, the child found in the abdominal area. There were no grave goods except for Geometric cups similar to those found in other graves, but erosion may have removed other offerings. A LG oinochoe was found over the east wall.

Area South of Buildings I and O

A large terrace wall marks the southernmost extent of both Buildings I and O. South of Room II the terrace was disturbed by the construction of another cist grave (Grave 30), and the area labeled Room 7 was similarly disturbed by Grave 23.

Grave 30

Grave 30 is a typical rectangular cist (1.10 m. north–south by 1.90 m. east–west) with multiple cremation burials (Pl. 27:d). Placed at an oblique angle to Building I, it did not make use of any house walls. Two of its boundaries, on the northeast and southeast, were well-constructed walls with two faces, while the other two edges were marked with a single row of boulders; a similar construction technique was found in Grave 16.⁵⁵ The grave contained six individuals: the remains of four adults had been pushed to the sides of the cist, and an adult female was still lying semiarticulated in a flexed position in the center. An infant found along the north wall of the cist may have been buried at the same time. The grave is particularly rich in metal objects: of iron, 3 spearheads (V90.140), a dagger or dirk (V90.138), a sickle (V90.139), a chisel (V90.142), a needle (V90.149), an axehead, and 5 pins (V90.141, V90.144, V90.145, V90.148), and of bronze, a pin, a fibula (V90.113), and sheathing (V90.146), similar to that found in Grave 9.⁵⁶ Two terracotta beads (V90.37, V90.39) were also found, along with a quantity of burned, broken pottery of Geometric date.

Grave 23

The area designated Room 7 had been disturbed by the construction of another Geometric cist (Grave 23). Nothing of the earlier structure here remained except the stone packing that leveled the area behind the south terrace wall; it is now believed that there was no room here in LM IIIC.

Grave 23 is a rectangular cist (1.50 m. north–south by 1.00 m. east–west; Pl. 25:a), containing four burials: two cremated adults, a cremated infant, and an inhumation of a

⁵⁴ Gesell, Day, and Coulson 1988, pp. 283–285.

⁵⁵ For Grave 16 in Building K, see Gesell, Coulson, and Day 1991, pp. 157–160.

⁵⁶ Gesell, Coulson, and Day 1991, pp. 152–154.

third adult. Such mixed types of burials occur in other Vronda graves (Graves 5, 6, and 21).⁵⁷ Along with much broken and burned pottery, the grave produced an iron needle (V89.96), two bronze fibulas (V89.73 [Pl. 27:c], V89.76), a bronze pin (V89.74), and two stone beads (V89.26, V89.27). The fibulas are of the same beaded type; both have on the bow a large round bead with two biconical beads on either side.⁵⁸ The straight pin with disk top and biconical swelling, a type common in Early Iron Age Crete, is similar to one found in Grave 4.⁵⁹

Building N

The five rooms excavated immediately west of Building O have been designated Building N. Rooms 1–3 lie on the same level and are connected by doorways, while Rooms 4 and 5 are on a lower terrace to the west. A stair connects Room 3 to Room 5.

Room 1

Room 1 appears to be a large (*ca.* 5.00 m. north–south by 4.00 m. east–west) rectangular room; the north boundary is now missing, and the west wall is disturbed where a large breccia boulder slipped out. A hearth lies in the center of the room, and four fired mud bricks found on the floor near it may have been part of a built structure on or around the hearth. Much pottery, including a large fragment of a krater of LM IIIC fringed style (V90.110; Fig. 7:1), was found on the floor, along with a small pyramidal loomweight (V90.121) and numerous stone tools. The krater finds parallels at Karphi and Kastri.⁶⁰ The thick layer of clay above the floor represents either roofing debris or decomposed mud brick. A deep layer of stone tumble and soft black earth was found above this clay. The pottery amidst the tumble includes a considerable amount of Geometric date; either it was thrown in deliberately during the use of Grave 28 (which lies just to the east) or the walls collapsed at a late date, during or after the use of the grave. The latter picture matches well the history of Room 4 in Building D (p. 74 above).

Room 2

This room, the middle of the three on the upper level of Building N, is connected to Room 1 by a doorway in the northeast corner. It has a bench along the east wall; the bench, which curves around to block the doorway into Room 3 on the south, may have been a later addition. There were at least two floor levels in the room but little pottery to date them. A bin or pot stand occupies the northwest corner. In the clay layer above the floor were found many fragments of a pithos decorated with incised circles on a raised band.

Room 3

Room 3 also shows several building phases. It was originally entered from Room 2 by a doorway in the northeast corner, but in a later phase that doorway was blocked up. Like

⁵⁷ For Graves 5 and 6, see Gesell, Day, and Coulson 1988, pp. 285–286, 288–289. For Grave 21, see pp. 75–76 above.

⁵⁸ They are Sapouna-Sakellarakis's Type III:e; Sapouna-Sakellarakis 1978, nos. 467 and 469, pp. 63–65, pls. 15, 16. This is an East Island type that first appears in MG and continues down to early Archaic (p. 65).

⁵⁹ See Gesell, Day, and Coulson 1988, p. 283 and pl. 74:b and the parallels cited there.

⁶⁰ For the shape, cf. Seiradaki 1960, p. 24, fig. 16:3. The decoration is similar to that on a vessel from Kastri: Sackett, Popham, Warren 1965, p. 288, fig. 9:k.

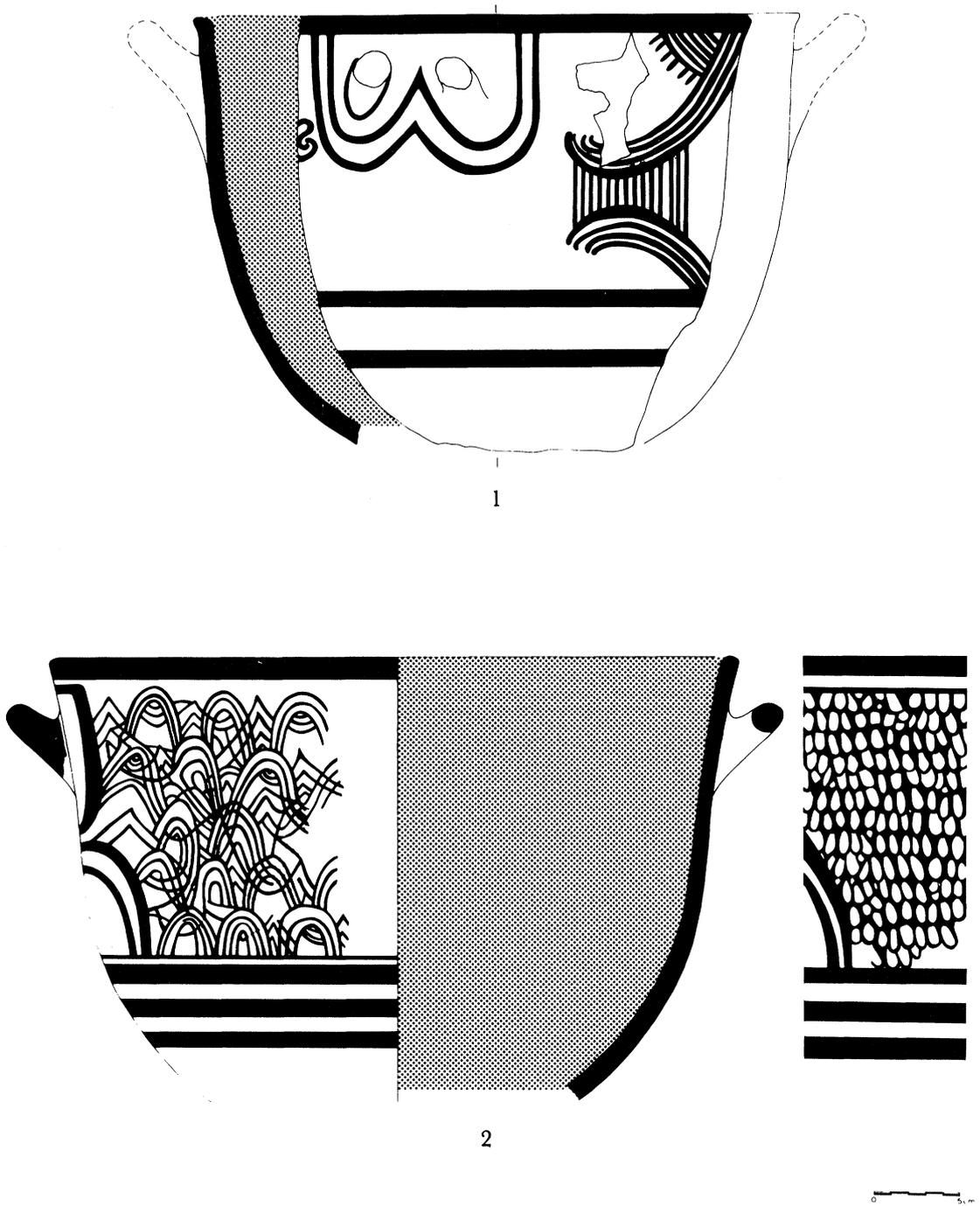


FIG. 7. Vronda. Building N: LM IIIC kraters

Room 2, Room 3 has a bench along the east side, this one built of small flat limestone slabs, different from the usual rubble construction of benches at Vronda. At the northeast corner the bench ends before the doorway, where there is a small niche in the east wall, possibly a cupboard. A bin was built in the southeast corner. No west wall was found for the room; it was probably destroyed by erosion or modern agricultural disturbances. The south wall of the room was founded on a thick layer of red clay, as was the blocking of the doorway into Room 2, a fact which suggests that these two constructions belong to a later phase of the occupation of the building.

On the floor of the room were pithoi and fine pottery, including a terracotta lid (V90.106), a jug, and many fragments of a LM IIIC krater (V90.115; Fig. 7:2, Pl. 28:b). Other fragments of this krater were found below in Room 5. The unusual close-style krater is decorated on one side with a scale pattern, while on the other it has alternating multiple loops and multiple chevrons. A similar krater, with a less elaborate design, was found at Karphi.⁶¹

Rooms 4 and 5

The exact relationship of these rooms to those on the terrace above is still not clear owing to later disturbance. Only the north wall of Room 4 has been uncovered, but the northwest corner may be preserved, and there is clay roofing material in the room. The floor has not yet been reached.

Only a small portion of Room 5 was cleared down to the floor level. It is entered from the south by a staircase, which goes through the wall in the southeast corner (Pl. 28:a) and connects this room with Room 3. On the floor, a clay surface incorporating bedrock, was found most of a large fenestrated stand (V90.114; Pl. 28:e), similar to those found in Buildings C and J (see p. 70 above) but larger. Fragments of the krater from Room 3 were also found in the northwest corner of the excavated area. It is probable that this krater fell down the stairs that connected Room 3 with the lower Room 5.

Area Between Building I and the Summit

Two trenches were excavated east of Building I to see what lay between it and buildings on the summit. Neither trench produced any evidence of architecture, and it would appear that the settlement was not continuous from the summit down to Building I. The west complex thus seems to be independent of the buildings on the summit, and the space between them lay open.

North of Buildings I and N and Tomb VII

Several trenches were opened to the north of Buildings I, O, and N in order to explore a terrace wall visible on the surface. Removal of a large pile of stones revealed a tholos tomb, identified as one of Boyd's tholos tombs, which was missing in 1981 (Tomb VII, Boyd's Tomb 4).⁶² This tholos is square in plan, but corbeling begins with the second course. Some of the stones had fallen out of the walls, and the lintel was pushed out of place in the

⁶¹ Seiradaki 1960, p. 31 and pl. 9:c. This krater also has a different pattern on each side.

⁶² Gesell, Day, and Coulson 1983, p. 395, fig. 3 and pp. 401–402. The location of this tomb would suggest that it is Tomb VII, although it does not match Boyd's description. It may therefore be another previously unrecorded tholos tomb.

doorway. A pit lies in front of the doorway, as in the other tholoi at Vronda; it was dug into the bedrock and after burial was filled with stones, which created a surface at the level of the lintel (Pl. 28:d). Cup and krater fragments were found above this level of “paving”, along with more stones. Soil left in the bottom of the tomb and along the walls was untouched by earlier investigations. Human bones and PG pottery appeared, but the deposit has not yet been completely removed.

A wall running to the southeast of Tomb VII (Pl. 28:d) may be a terrace wall, but whether it was constructed to hold back debris from the tomb entrance or is part of an earlier building is still uncertain. The domestic debris found to the east of this wall, including a pithos fragment next to the top of the tomb, suggests that the wall belonged with the settlement rather than with the cemetery.

VI. NORTH OF VRONDA

Several trenches were also opened to the north of Tombs I and II, where surface features suggested possible underlying structures. No tombs or houses were found, although there was a considerable amount of LM IIIC pottery.

VII. XERAMBELA

Another trench was opened in the area near Tholos Tomb IX to trace further the plan of the Byzantine-Venetian building found in 1987 and 1988⁶³ and to locate remains contemporary with the nearby Early Iron Age tholos tomb. The top of one wall appeared, but there was not time to excavate to its base. The pottery found was chiefly Byzantine, and so far there is no evidence for occupation here in the Early Iron Age.

KASTRO

The excavations on the Kastro in 1989 and 1990 concentrated on two areas: first, the terraces lying east, north, and west below Boyd’s 1900 excavation on the peak and, second, the Northwest Building in the saddle between the peak and the false peak to the west. Major goals included the better understanding of the architecture and culture of the main period of inhabitation (LG), clarification of the stratigraphy, and sorting out of the chronological phasing of the site. The excavation has revealed that the settlement is arranged on long, narrow terraces with houses of two or three rooms. Three test trenches opened at the very bottom of the south slope revealed parts of four rooms of a building (South Building; Fig. 8). The presence of this structure suggests that, at least in the LG period, the settlement covered the entire south slope and thus was of considerable size. Parts of the site appear to have been inhabited continuously from LM IIIC to EO. The work will be described in the following order: east slope, north slope, west slope, and false peak. All the rooms on the Kastro peak are consecutively numbered. Rooms 1–13 are those excavated in 1900;⁶⁴ 14–50 are those uncovered between 1987 and 1990. The rooms on the false peak have been designated NW1–NW11.

⁶³ Gesell, Day, and Coulson 1988, p. 296; Gesell, Coulson, and Day 1991, p. 167.

⁶⁴ See Boyd 1901, pp. 137–143 and Gesell, Day, and Coulson 1985.

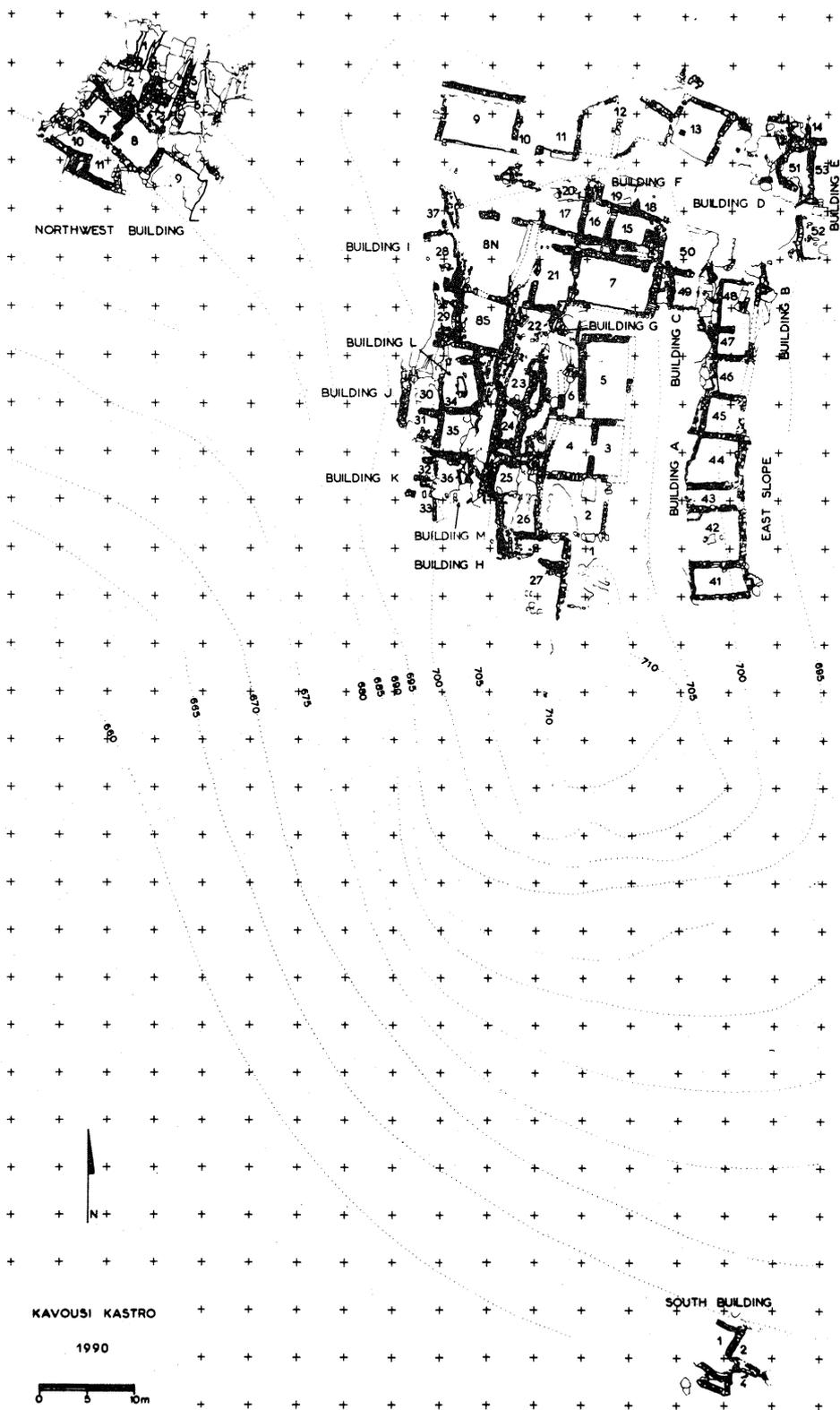


FIG. 8. Kastro. Plan of settlement (1990)

I. EAST SLOPE (Fig. 9)

This area consists of two terraces: Buildings A (Rooms 41–45) and B (Rooms 46–48) on the lower terrace and Building C (Rooms 49 and 50) on the upper terrace.

Building A

The excavation concentrated on five trenches,⁶⁵ which were found to contain a single building complex of five connected rooms (41–45), running south to north, with a large terrace wall forming their western limit and a less well preserved wall, partially built on bedrock, forming the eastern side (Pl. 29:a). The five rooms, all built on an irregular shelf of bedrock, are similarly constructed. The eastern, outside wall has two faces: an outer face built of large blocks of broken bedrock and schist and an inner face of smaller slabs of schist. On the west, the wall is placed to span outcroppings of bedrock, with an earth and stone fill between the wall and bedrock. The walls are of local schist that has been worked to create evenly shaped blocks. Larger stones were laid in rough courses with smaller ones filling the cracks, a technique called chinking. The walls were strengthened by use of mud mortar between the stones. They generally have two faces with smaller stones filling the interior core; occasionally, larger stones run through the entire width of the wall in the nature of a header course, which has the function of binding together the two faces. When possible, bedrock was used either as the foundation for a wall or as part of a wall face. This occurs especially on the west and may explain the extraordinarily good preservation, in places to a height of 3.50 m., of the walls on this side.

The stratigraphy in the rooms was consistent. Covering the entire area, in places to a depth of 2.00 m., was a layer of tumble. Beneath this tumble was a layer, varying in thickness from 0.30 m. to 0.50 m., of hard orange-yellow clay representing roofing material. Under the roofing clay were found the floors of the rooms, which had been built directly on the bedrock; in some cases clay was used to fill crevices in the bedrock. The floors consisted of a brownish clay mixed with the yellow clay of the roofing material. As this roofing material eroded and filtered onto the floors, it evidently became tamped down and mixed with the floor surface. It was thus difficult to distinguish any floor surface other than that laid directly upon the bedrock.

At the south end of the building is a small room (41; approximately 5.00 m. east–west by 2.70 m. north–south) with a hearth, a burnt patch on the clay floor, on the east side of the room. Few objects were found to suggest the function of the room. It is connected to Room 42 by a doorway on axis. A stone containing a pivot hole lies just to the east of the door. A step in the doorway leads down to the lower floor in Room 42.

Of all the rooms of Building A, Room 42 is the largest and most impressive (Pl. 29:b). It is 5.00 m. square with unusually well preserved walls. Two column bases were found aligned east–west in the middle of the room, equally spaced from each of the side walls; a hearth lay between the two bases, and a bin was found in the northwest corner. The western base has been formed out of a roughly trimmed schist slab (0.40 m. east–west by 0.37 m. north–south), its upper surface approximately 0.05 m. above the floor. The burning of the

⁶⁵ The architecture of the east and north slopes is currently under study, and the final publication has been assigned to Dr. Jennifer Tobin. For a preliminary report on Building A, see Tobin 1994.



Fig. 9. Kastro. Plan of upper settlement (1990)

hearth reaches to its eastern edge. The eastern base, however, is a well-carved circular block of limestone on which chisel marks are still visible, most clearly on the top surface, where they range from 0.02 to 0.03 m. in length. The bottom face, which was on the floor, was unmarked. Limestone is used occasionally as building material on the Kastro, and indeed, outcroppings of this type of stone exist on the false peak at the northwest. The stone bin, measuring 1.40 m. by 0.80 m., has been formed out of a series of upright schist slabs, which surround a paved floor. The pavers are some 0.25 m. above the floor of the room, forming an elevated dry space ideal for storage. A number of other bins occur on the Kastro but none so carefully constructed or lined with stones.⁶⁶ The function of the room is difficult to determine, since the finds from within are few, mainly loomweights and stone tools. Such finds would argue for a simple domestic function.

Additional evidence for the function of Room 42 is provided by Room 43, which is adjacent to it at the north. Room 43, measuring approximately 5.00 m. east–west by 1.80 m. north–south, is small, narrow, and rectangular in shape. It does not have the usual floor of packed clay but is roughly paved. Three stone tools, two querns and a grinding stone, were found lying on this floor. In the southwest corner was an oven, square in shape (0.80 m. × 0.90 m.) and constructed of upright stones (Pl. 29:c). The oven may have had a domed pisé superstructure, since fragments of burned clay were found within, including a curved piece that may have been part of the dome.⁶⁷ The presence of an oven in one corner and coarse pottery and stone tools scattered over the floor would suggest that this room was used as a kitchen.

The proximity of Room 42 to a kitchen indicates that it was probably used for dining.⁶⁸ Such an interpretation is reinforced by the types of vessels found in Room 42. Parts of three large pithoi, one almost half complete, were recovered. The room yielded a preponderance of drinking vessels, mostly cups; coarse shapes also include a large number of open vases, such as kalathoi and lekanes. The general absence of closed shapes is striking. A similar situation occurs in the pottery shapes from the kitchen.

The main entrance into Building A was through a doorway in the east wall of Room 44 (approximately 5.00 m. square). The threshold block, together with a separate block with a pivot hole, is preserved *in situ*. The use of this room is not clear; finds include three spindle whorls and a few stone tools, which suggest a domestic function.

⁶⁶ For other bins on the Kastro, see Gesell, Day, and Coulson 1985, p. 335, fig. 5, pl. 92:a; Gesell, Coulson, and Day 1991, p. 169, fig. 8 and p. 172. The structure published in 1985 was called a bench, a jar stand, or a bin. Its similarity to the bin in Room 42, however, allows for its identification as a bin.

⁶⁷ Similar ovens have been found both on Vronda and on the Kastro; see p. 70 above and Gesell, Coulson, and Day 1991, pp. 164–165, fig. 5, pl. 65:a (Vronda) and p. 170, fig. 8, pl. 67:c (Kastro).

⁶⁸ Although the configuration of Room 42 with two columns, hearth in between, and bin in one corner recalls that of the so-called temples at Dreros and Prinias, there is no evidence, either from its plan or its contents, to suggest that it had any cultic connection. For Dreros, see Marinatos 1936; Beyer 1976, pp. 13–20; Martini 1986, pp. 32–33. For Prinias, see Pernier 1908; Pernier 1914; Pernier 1934; Beyer 1976, pp. 21–38. Recently Bergquist (1990) has identified these structures as dining rooms with, perhaps, cultic significance. The column bases of Room 42, however, are not on the main axis of the building, as in these structures, and the room is only one in a larger complex. There is also no evidence for an entryway into the room from the east, so that the column bases could never have been aligned on the axis of a major entrance into the room. The domestic character of the finds from within and the presence of the adjacent kitchen suggest use as a simple domestic dining room.

Room 45 at the north is a small room (approximately 3.50 m. square) that forms the northern limit of the building. The most interesting feature of construction is the presence of a series of three niches in its western wall (Pl. 29:d). All three stand approximately 0.70 m. above floor level and are equally spaced along the wall. They average 0.40 m. in height and 0.50 m. in depth. Nothing was recovered from these niches, but they were probably used for storage in the same manner as are niches of similar construction in older village houses in the Kavousi area today. No significant finds came from the floor, and so the function of the room is uncertain.

It appears that Building A underwent two building phases. The first is dated LG by associated pottery. At this time, the building consisted of a series of long, narrow rooms interconnected by doorways along its central interior axis. The building appears to have been entered at the east by a single doorway into Room 44. At some later date, probably in the EO period, when the interior doorways between Rooms 43 and 44 and Rooms 44 and 45 were blocked, a new door was opened in the east wall of Room 43; the exterior door of Room 44 continued in use.

In sum, the domestic character of the finds from Building A suggests that it was nothing more than a house. Room 43 was clearly used as a kitchen, and contiguous Room 42 may have been used for dining. Yet the care used in the construction of Room 42 and its impressive column base suggest that the building as a whole may have been the residence of an important member of the Kastro community.

Building B

Building B, to the north of Building A, is a structure of three rooms, 46–48; of these, the northernmost (Room 48; approximately 3.00 m. east–west by 4.50 m. north–south) is the least well preserved, since its walls exist in one course only (Pl. 30:a). As with Building A, Building B appears to have undergone two construction phases. In its earliest use, dated LG by associated pottery, it consisted of two rooms, one large room in the spaces designated 47 and 48, measuring some 3.00 m. east–west by 7.40 m. north–south, and a small square room, 46 (approximately 2.80 m. square), south of it. Later, perhaps in the EO period, the northern part of the large room (48) was abandoned and the walls dismantled down to one course. The building material was probably used elsewhere, most likely in the construction of a crosswall, which formed an exterior wall for Room 47 in the middle of the complex. This crosswall is clearly of later construction, since it runs over the single remaining course of the dismantled west wall of Room 48. There is no evidence to indicate what function space 48 had in the second phase. It may have served as a small courtyard in front of the building. From the floor of Room 47 comes a fine mid-7th-century B.C. lead pendant (K90.133; Fig. 10), which indicates the latest period of use for the room.⁶⁹ The southernmost room (46) had a door in its northern wall, which in the second phase of construction was blocked.

⁶⁹ The unusual head is Daedalic in style and appears to wear a headdress, although this is worn and hard to discern. Rare in most parts of Greece, a large deposit of lead pendants was found at the Sanctuary of Artemis Orthia at Sparta, but no close parallels occur there; see A. J. B. Wace in Dawkins 1929, pp. 249–284 and pls. CLXXIX–CXCI. Daedalic heads do occur on Cretan jewelry (e.g., Boardman 1967, p. 61, fig. 1), but none closely resembles our figurine in form and style.

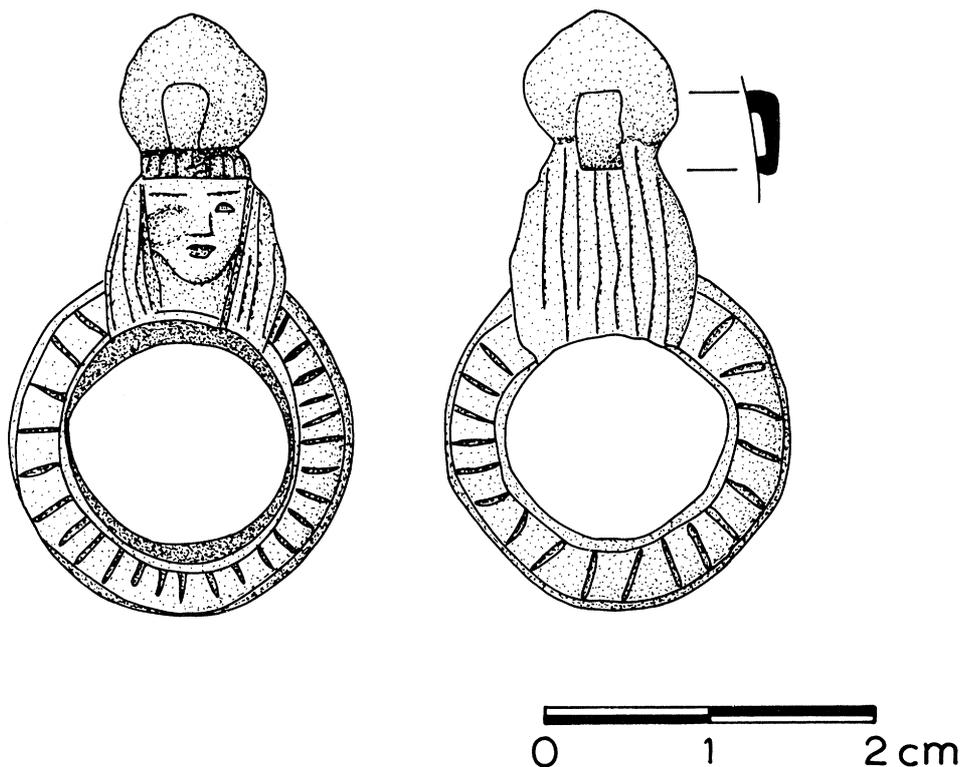


FIG. 10. Kastros. Building B, Room 47: lead pendant (K90.133)

Building C

This two-room structure (Rooms 49 and 50) lies on an upper terrace northwest of Building B. Originally a single, long room, measuring some 2.50 m. east–west by 8.00 m. north–south, it has a well-built western wall that acts as a terrace wall for support of the structures above it on the peak. The southern portion of this room was particularly well preserved, with a bench along its western side and a hearth in the center. A cluster of stone tools, including a stone pounder and four pierced objects, probably weights, was found sitting on the bench. Near the hearth were found parts of a coarse flat pan, a hydria, and a cup (Fig. 21:9), crushed by stones fallen from above (Pl. 30:b). This large room appears to have undergone a transformation similar to that of Building B. At some point in the EO period, the room was divided by means of an east–west crosswall. Only the northern portion (Room 50) continued in use; the southern part (Room 49) was deliberately filled with earth and stones. The purpose of this fill may have been to ensure the stability of the structures on the terraces above.

II. NORTH SLOPE (Fig. 9)

The north slope can be divided into two groups of terraces: one, consisting of three terraces stepping down toward the east, supported Buildings D and E; a second group, of two terraces descending toward the north, supported Building F.

Buildings D and E

These buildings contain a series of rooms ranging in date from LM IIIC to EO. The highest terrace (Building D, the area between Room 51 to the east and Room 13 to the west) provides evidence for three phases of occupation (Pl. 30:c). In its earliest phase, the terrace consisted of exposed bedrock upon which a few scattered LM IIIC sherds were found. In LG times, this area, measuring some 5.00 m. square, was leveled and used as an interior surface. The remains of the walls of the LG room are not well preserved but consist on the east of a coarsely built wall, on the west of cut bedrock, on the north of a cut bedrock shelf, which may have acted as the foundation for a wall, and on the south of a wall built into bedrock. The floor surface consists of a clay packing, which leveled what appears to be a cut-bedrock surface. On this floor were found a number of LG vessels, including an aryballos, a monochrome cup (Fig. 21:7), a coarse cup, and an amphoriskos. The latter two vases were found next to a smashed pithos and its stone-built stand. In the southern part of the room were a bench and a hearth; next to the bench were found two monochrome cups (Fig. 21:2, 5, Pl. 30:d). In its third phase (EO), the room was turned into an exterior courtyard possibly belonging to Room 13 to the west. The presence of a great number of animal bones, especially of cattle, some with knife marks on them, suggests that this exterior space was used as a slaughter area.

The middle terrace (Building E, Room 51) to the east provides a good example of architectural phasing in the area. The earliest remains (LM IIIC) consist of a rectangular structure (approximately 1.50 m. east–west by 2.00 m. north–south) in the southwest corner. Its western wall is slightly curved (Pl. 31:a) and has been built on bedrock. The pottery from within provides a LM IIIC date (Fig. 11) for the structure.⁷⁰ In LG times, Room 51 was filled with schist slabs and the ground level raised to that of the highest terrace in order to serve as a foundation for the east wall of an upper room.

On the lowest terrace of Building E lie three interconnected LG rooms (52, 53, 14), whose eastern wall has eroded off the edge of the slope (Pl. 31:b). The southern room (52; approximately 2.30 m. east–west by 5.70 m. north–south) appears to form a unit by itself.

⁷⁰ There are no exact parallels for the sherds in Figure 11. The motif in Figure 11:1, however, is probably similar to Prokopiou 1991, fig. 9:7, at Sybrita Amariou, which appears on deep bowl no. 4259 (p. 389, fig. 11), of early LM IIIC date. It is described as an antithetic spiral with filling ornaments in loops; the filling ornaments are concentric arcs. The Kavousi sherd appears to have a zigzag. The motif in Figure 11:3 is a double axe with loops on its cutting edges. Although the double axe with loops on its shaft is not rare, there is only one possible parallel with loops on the cutting edge. It is on a fragment of a small bell-shaped cup from Vrokastro, without context but dated to the LM IIIB period by Davaras (Davaras 1979, pp. 114–117, fig. 1, where the loops are called scallops). Among the examples of the double axe with loops on its shaft is one on a LM IIIC sherd from Vrokastro (Hall 1914, p. 92, fig. 49:j) and another on a LM IIIC krater from Krya (Davaras 1979, pl. 23). Other examples of this motif are listed in Davaras 1979, p. 116. We thank Costis Davaras for calling our attention to these parallels. The scale pattern in Figure 11:4 is similar to that on a krater from Vronda; see p. 91 above and Fig. 7:2. Kanta (1980, p. 283) says that it also occurs in LM IIIC on pyxides.

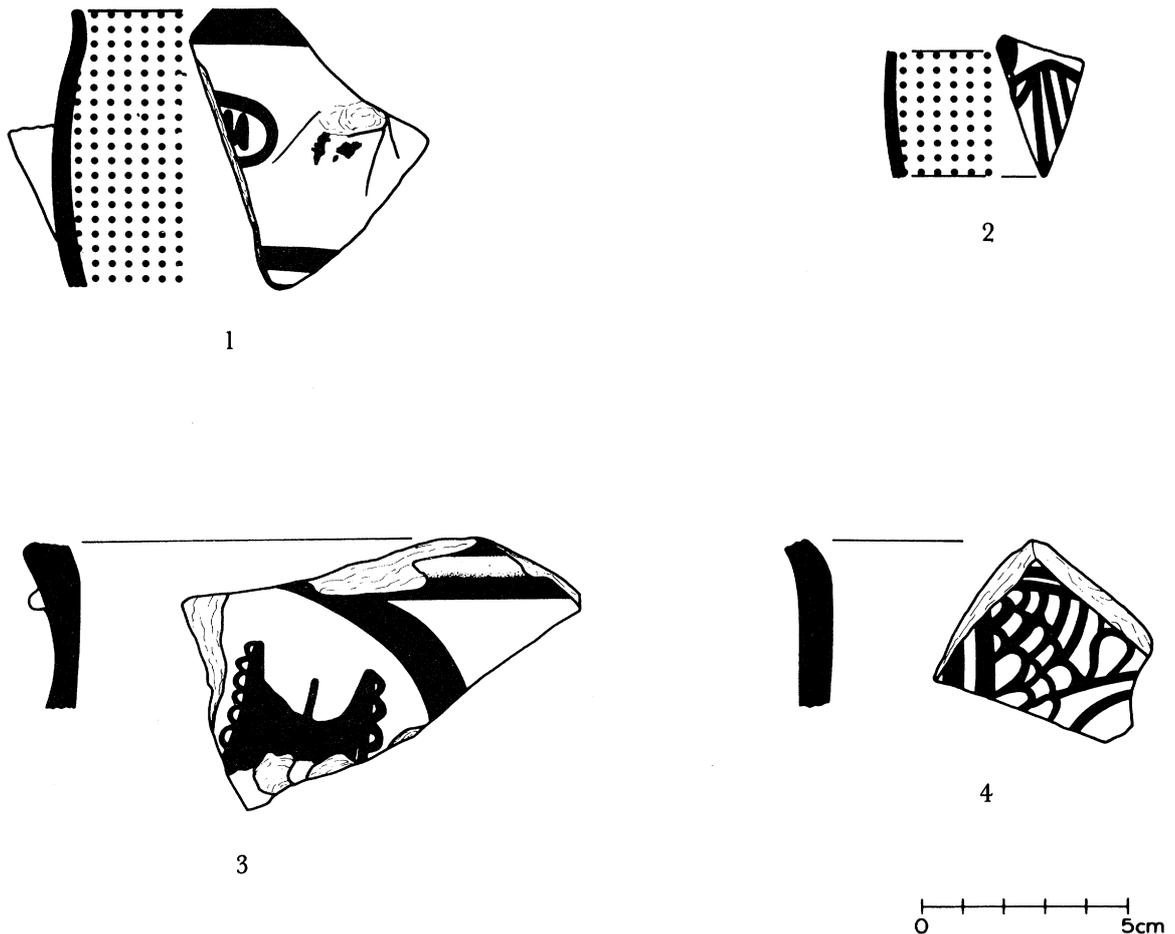


FIG. 11. Kastro. Building E, pottery from LM IIIC structure

The floor consists of hard-packed clay over a bedrock surface; on it were found two cups (Fig. 21:3, 6) and a number of stone tools. To the north of Room 52, four steps lead down to a second unit of two rooms (53 and 14), the northernmost of which was not completely cleared.

Building F

This building contains a series of long rooms arranged on two narrow terraces on the northern slope. Along the upper of the two terraces runs a series of three rooms (15–17) apparently belonging to a single complex. This complex is bounded on the east by a large staircase, of which seven steps are preserved (Pl. 31:c). The stairs lead directly into Room 7 on the uppermost terrace of the Kastro. Investigation at the head of the stairs, however, at the point where the north wall of Room 7 and the south wall of Rooms 15–17 run adjacent to each other, revealed traces of an earlier building under Room 7. As they run westward, these two walls diverge, leaving a space between them. Of Rooms 15–17, the easternmost room (15; approximately 4.10 m. east–west by 3.00 m. north–south) is the largest (Pl. 31:d). It

was filled with stone tumble and roofing debris and had a floor of clay mixed with roofing material laid directly on the bedrock, like the rooms on the east slope (see p. 94 above). A hearth was found in the center of the room and a large pithos fragment next to it. The other two rooms to the west (16 and 17), although smaller in size, have the same stratigraphy. As with the buildings on the east slope, this complex appears to have undergone two building phases. In the first phase, which is LG in date, rooms were connected by a series of doorways, which at some point, probably in EO times, were blocked.

Excavations also uncovered a series of three rooms (18–20) on a lower terrace to the north (Pl. 32:a). These are not well preserved, since in places their northern walls have eroded off the side of the slope. As with the upper terrace, there appear to be two building phases. Walls of the later phase, again EO in date, were found built upon debris of earlier structures.

III. WEST SLOPE: ROOMS 21–37 (Fig. 9, Pl. 32:b)

The structures of the west slope can be divided into three parts, those of the upper terrace (Buildings G and H), the middle terrace (Buildings M and L), and the lower terrace (Buildings I–K).⁷¹

The Upper Terrace: Buildings G and H

The excavations on the upper terrace have provided good evidence for both the earlier and the later phases of habitation on the Kastro.⁷² The earliest levels, belonging to the LM IIIC period, are represented in Building G, a long narrow structure of five rooms (21–25/26). Rooms 24 and 25/26 provide the best evidence for LM IIIC occupation, the extent of which is determined by the configuration of the bedrock, which in places has broken away leaving wide fissures (Pl. 32:c). It was in these fissures, which provided natural back walls on the east, that the Minoans built their dwellings. Building G thus took its basic form in the LM IIIC period, delimited on the east by the bedrock and on the west by a long north–south wall, which extends along the entire western edge of the upper terrace and was constructed on bedrock (Pl. 32:d). A succession of floor surfaces uncovered in Rooms 24 and 25/26 has provided the basis for the LM IIIC to PG pottery sequence outlined here. It should be emphasized that this sequence is only in its preliminary form and may be revised when correlated with pottery from the other buildings on the site during future study seasons.

The succession of floors (Fig. 12) in Room 25/26 (approximately 2.20 m. east–west by 6.70 m. north–south) is representative of Building G as a whole and has yielded three LM IIIC ceramic phases (Phases I–III). The first floor of the room, like that of so many other structures on the Kastro, had been laid directly on the bedrock and consisted of hard-packed yellowish brown clay. In the northwest corner was found the bottom surface of a clay oven or hearth (Pl. 32:d). The pottery from this floor represents Phase I of the ceramic sequence and includes, among other vessels, a krater with the fringed tentacles of a stylized octopus (Fig. 13:1), a carinated kylix with a fringed lozenge motif filled with arcs (Fig. 13:2), and a deep bowl with a dotted motif (Fig. 13:3). Reserved bands on the interior of the rim are also

⁷¹ Dr. Donald Haggis has been assigned the final publication of the architecture of the entire west slope.

⁷² Previous exploration of the upper terrace of the west slope has been reported in Gesell, Day, and Coulson 1985, pp. 335–337; 1988, p. 300; Gesell, Coulson, and Day 1991, pp. 167–171.

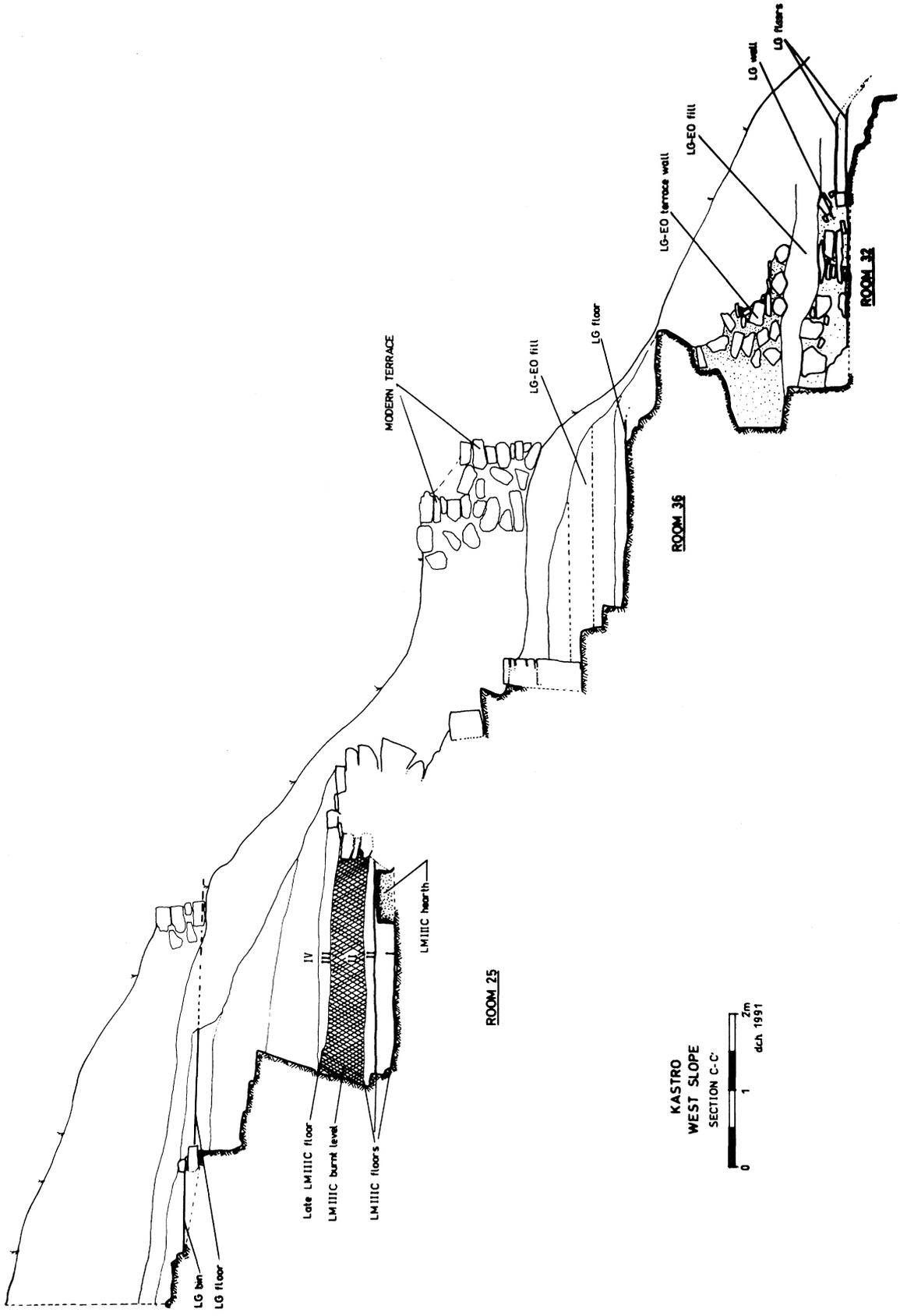


Fig. 12. Kastro. East-west section through Building G, Room 25 and Building M, Room 36

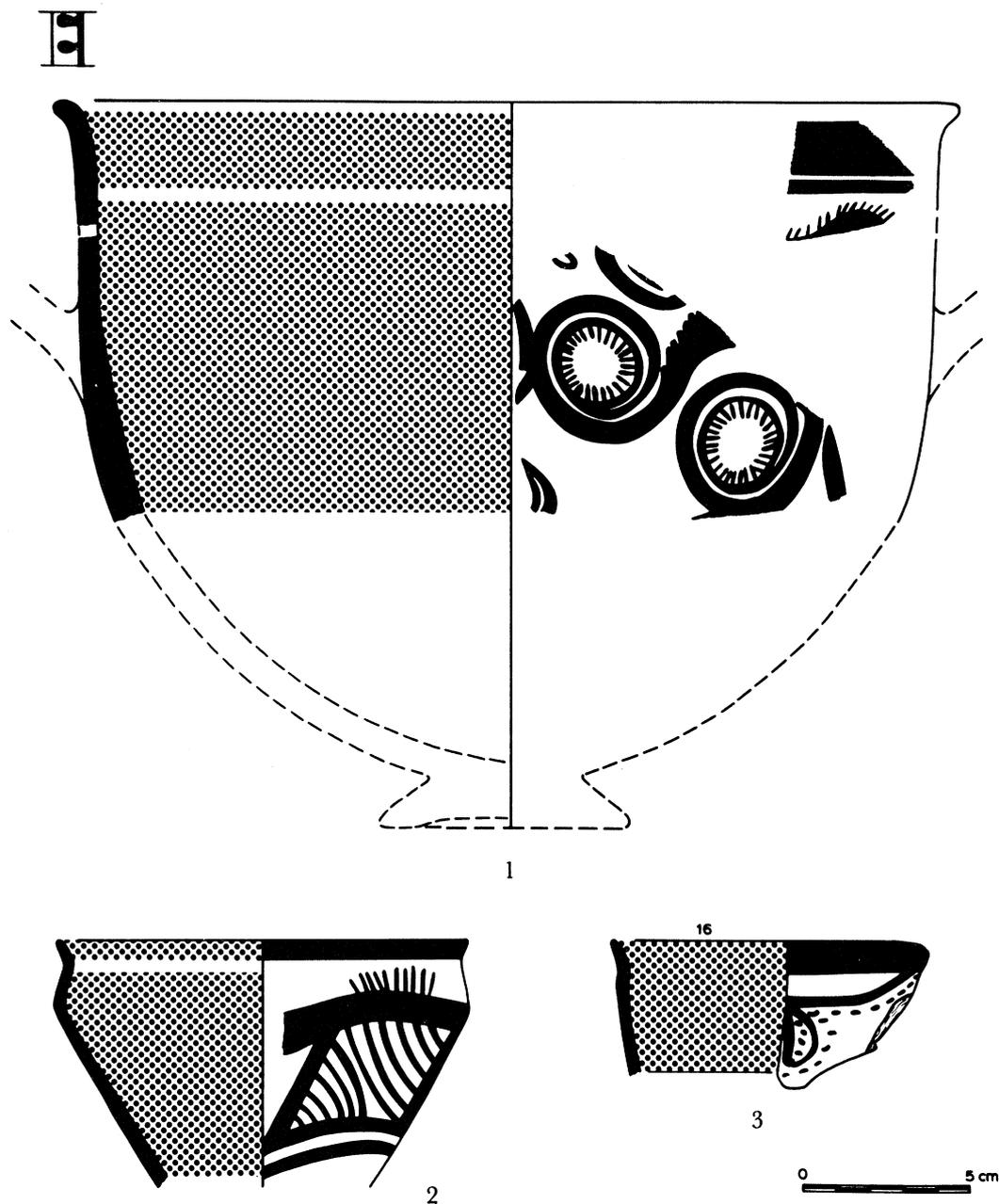


FIG. 13. Kastro. Building G, Rooms 24 and 25: Phase I pottery

common.⁷³ At some point, but still within the LM IIIC period, a second floor was laid over the hearth; the material from this floor constitutes Phase II of the ceramic sequence. The kylix with banded decoration (Fig. 14:1) is highly unusual for Crete, but banded decoration

⁷³ For the reserved band, see Popham 1965, p. 321.

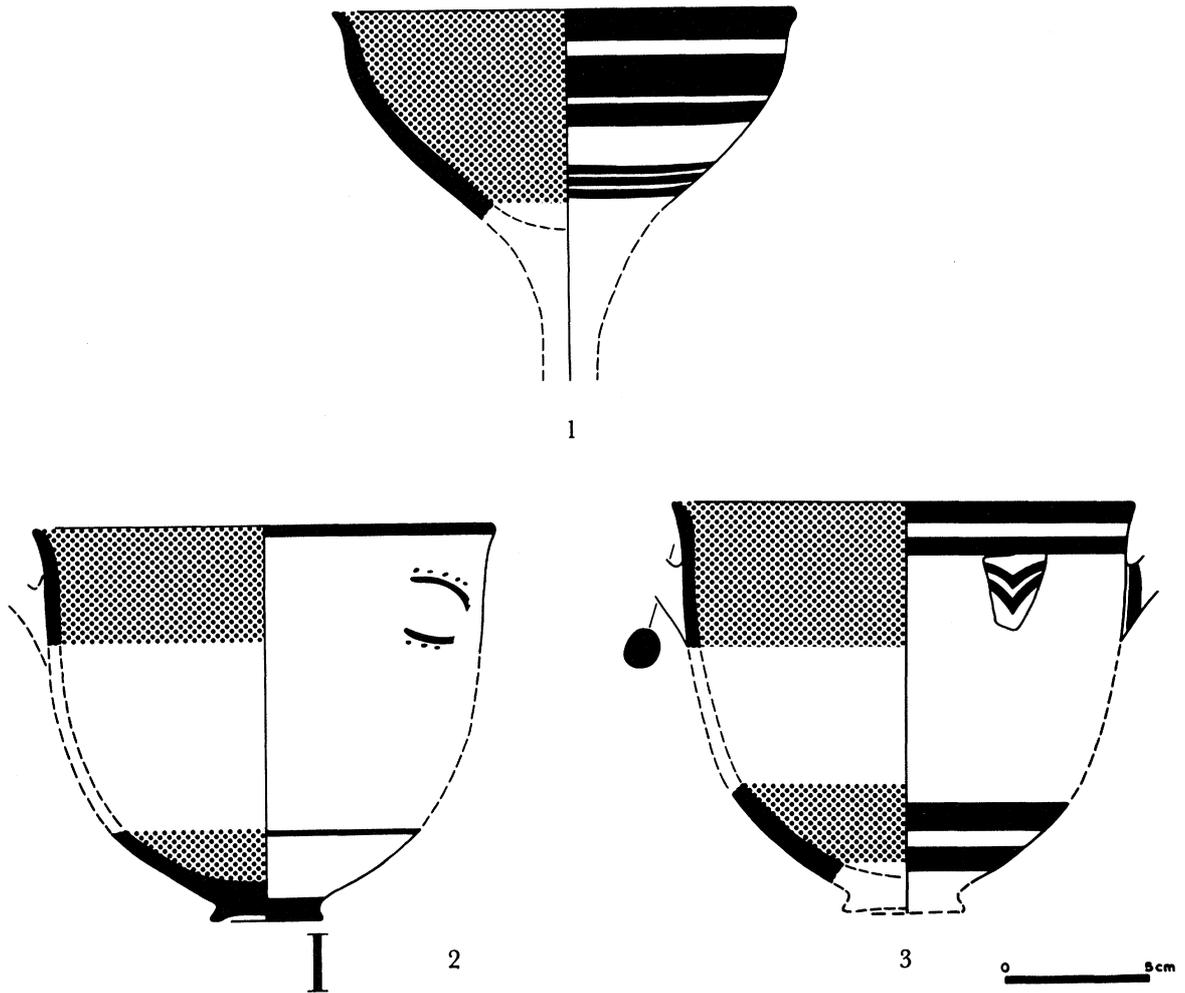


FIG. 14. Kastro. Building G, Rooms 24 and 25: Phase II pottery

becomes popular on the mainland in the middle phase of LH IIIC.⁷⁴ The rims of the deep bowls (Fig. 14:2, 3) become straighter, and the reserved band begins to disappear.

Above the Phase II floor was a thin layer of tumble, perhaps from the walls of the second LM IIIC room. Upon this scattered tumble rested a thick (some 0.50 m. at its greatest depth) burnt layer containing ash, carbon, animal bones, and LM IIIC pottery (Fig. 12). The thickness and compactness of this layer and the fact that the pottery, although rich and varied in shape and decoration, consists of nonjoining fragments indicate that it represents a deliberate leveling fill. On top of this burnt layer was found a third LM IIIC floor, the pottery from which constitutes Phase III of the ceramic sequence (Fig. 15). It shows a great preponderance of deep bowls with simple decoration and few reserved bands; the rim fragment at the bottom of Figure 15 is decorated with concentric arcs linked by arcs used as

⁷⁴ Mountjoy 1986, p. 172, fig. 222.

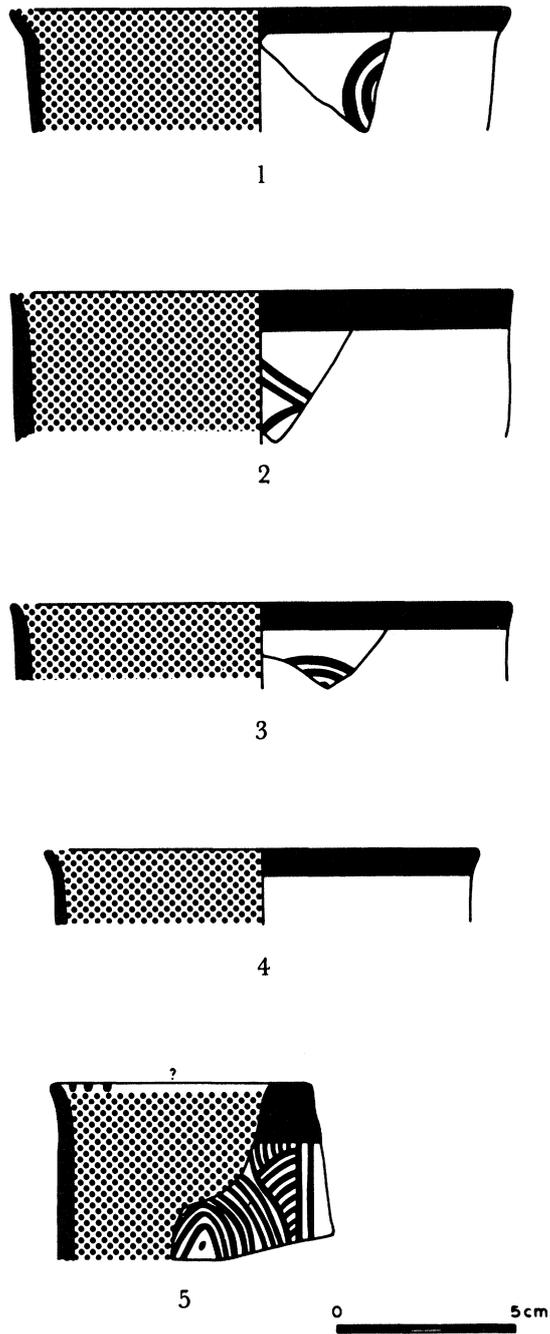


FIG. 15. Kastros. Building G, Rooms 24 and 25: Phase III pottery

filling ornament.⁷⁵ The motifs are still within the LM IIIC repertory: the use of linking arcs as filling ornaments places at least one sherd and therefore the whole assemblage toward the end of the LM IIIC period. The next floor surface had on it a deposit of mixed LM IIIC and PG pottery, which is viewed as representing a transitional phase (Phase IV).⁷⁶ The pottery continues the shapes and decorative motifs of Phase III but includes more monochrome skyphoi (Fig. 16).⁷⁷

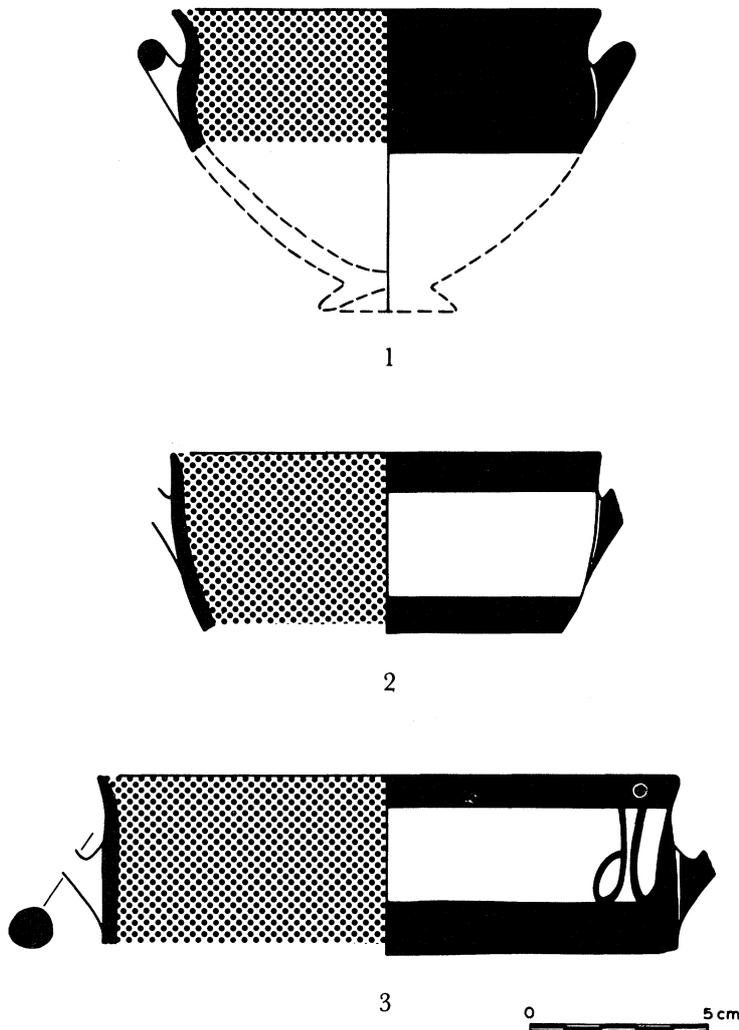


FIG. 16. Kastro. Building G, Rooms 24 and 25: Phase IV pottery

⁷⁵ See Davaras 1979, pl. 23 for a LM IIIC krater from Krya with similar linking concentric arcs. Another similar pattern is on a vessel from Karphi (Seiradaki 1960, p. 36, fig. 26:a).

⁷⁶ Phase IV is perhaps contemporary with SM deposits in central Crete. See Warren 1983, pp. 76–83 and Popham 1992, pp. 59–66.

⁷⁷ See Warren 1983, p. 76, fig. 62, of SM date; Coldstream 1992, p. 68, pl. 51:GA2, of PG date.

In the PG phase (Phase V), Building G takes its final form. The west wall is better constructed and differs from its LM IIIC foundations, making use of smaller stones, regular coursing, and facing. Rooms 23 and 24 are separated by an east–west crosswall. Little can be said about Room 22 (approximately 3.00 m. east–west by 5.00 m. north–south), since it was found in a badly preserved condition. A series of three steps leads north from Room 22 into Room 21 (approximately 3.30 m. east–west by 5.50 m. north–south) at the southeast corner. The presence of these steps and the well-constructed doorway here indicate that this was the main entrance to Building G in PG times and that Room 21 was a courtyard giving access both to the building itself and to Room 7 at the west.⁷⁸ Room 7, measuring some 7.50 m. east–west by 4.50 m. north–south, may have served as an ancillary building to the PG house or as a separate one-room dwelling. The rooms of the PG house are arranged axially and conform to the limits and natural contours of the bedrock. Their actual sizes vary but show a remarkable regularity given the confines of the terrace. Further study should allow an interpretation of the function of these rooms. The presence of a large well-built oven⁷⁹ in the northeast corner of Room 23 suggests its use as a kitchen. The pottery associated with Rooms 24 and 25/26, which constitutes Phase V in the ceramic sequence (Fig. 17), is typically PG. The most common vessel is the monochrome-coated skyphos;⁸⁰ conical feet from bell skyphoi are numerous.

Building G appears to have remained in use until the beginning of the LG period, when it was abandoned, filled in, and leveled in order to construct a terrace for the expansion of building activity on the hilltop. On the upper terrace, the best example of such leveling can be seen in connection with Room 27, which was called a courtyard.⁸¹ This structure (Building H), measuring approximately 4.50 m. east–west by 9.00 m. north–south, can now be identified as a long, narrow room similar to the rooms of Building A on the east slope. It was built on a double euthynteria course for added stability (Pl. 33:a), since the bedrock drops off sharply to the west at this point. This double foundation course carries a retaining wall of large schist slabs in regular courses preserved to a height of 2.00 m. It served not only to extend the surface of the terrace to the west but also to retain a fill of loose earth and stones upon which Building H was constructed. The best examples of LG construction, however, occur on the middle and lower terraces, which support a series of building complexes consisting of long, narrow rooms.

The Middle Terrace: Buildings M and L

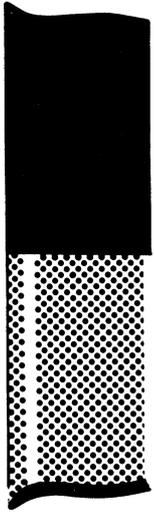
Five rooms of the middle terrace comprise two separate complexes (Buildings M and L). Building M (Room 36) appears to consist of a single room, measuring approximately 3.50 m. east–west by 4.50 m. north–south. Its floor is part clay and part bedrock, on which rest a bin,

⁷⁸ The space west of Room 7, now called Room 21, was originally interpreted as an exterior court; see Gesell, Day, and Coulson 1985, p. 335. In subsequent reports, however, the interpretation of this space changed to that of a room; see Gesell, Day, and Coulson 1988, p. 300; Gesell, Coulson, and Day 1991, p. 167. It now seems the original interpretation is more likely.

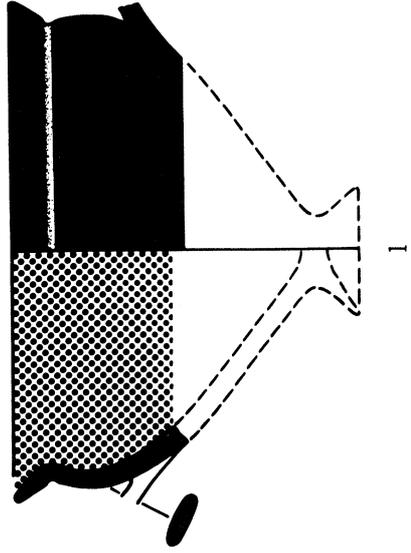
⁷⁹ Gesell, Coulson, and Day 1991, p. 169, fig. 8.

⁸⁰ Coldstream (1972, p. 67) discusses the PG skyphos. For a skyphos similar to Figure 17:1, see Coldstream 1972, p. 76, fig. 2, C37 (LPG). Similar to Figure 17:2–4 are Coldstream 1972, no. A18, p. 69, fig. 2 (SM) and Popham 1992, pp. 61–62 (SM); these vessels are illustrated on pl. 43:9–19, not pl. 42 as indicated in the text.

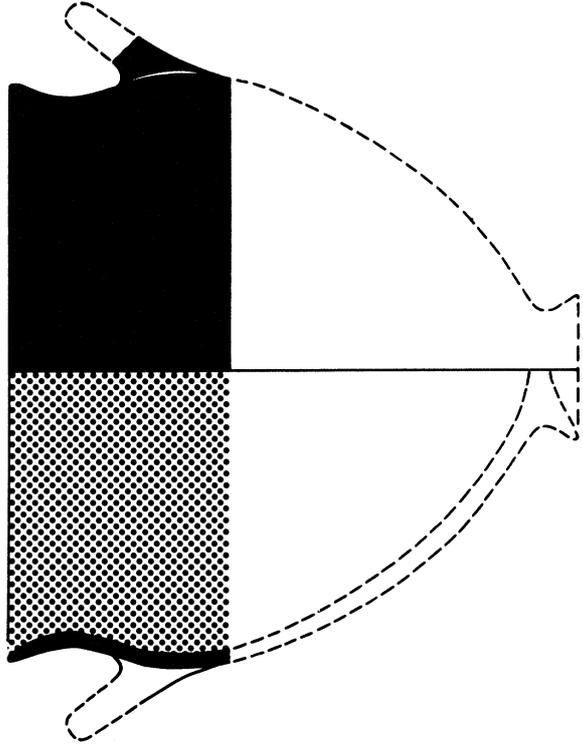
⁸¹ Gesell, Day, and Coulson 1985, p. 330.



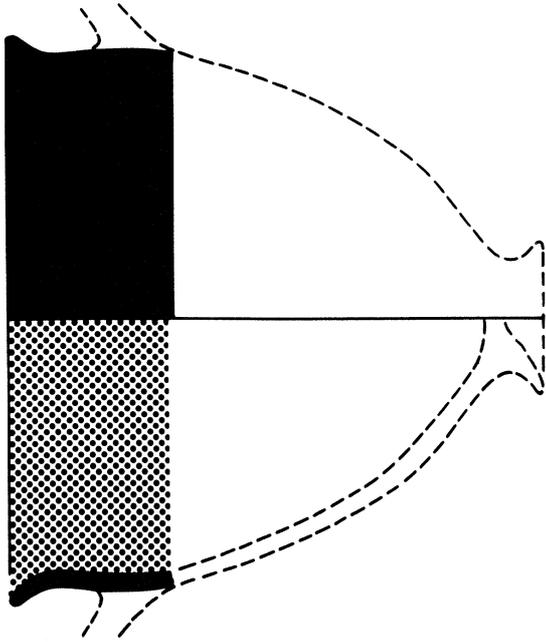
2



1



4



3



FIG. 17. Kastro. Building G, Rooms 24 and 25: Phase V pottery

a bench, and a hearth. At the end of the LG period, when there was a general collapse of the structures on the west slope, Room 36 was deliberately filled. This ancient fill layer, some 0.90 m. deep, consisted of dense habitation debris and stones within a matrix of light to dark brown clay and showed a reverse stratigraphy, with LM IIIC material on the top, PG in the middle, and LG at the bottom. It appears, therefore, that the builders in the EO period dug into the deep debris on the highest terrace, removing first the LG habitation debris, then earlier material, primarily PG in date, and finally reaching some LM IIIC at the bottom.

Building L (Rooms 8N, 8S, 34, 35) is a four-room house that occupies nearly the entire length of the middle terrace. Since Rooms 8N and 8S were excavated by Boyd⁸² and little new can now be said about them, this preliminary report will concentrate on the two newly excavated rooms (34 and 35) to the south (Fig. 18). In Room 34, measuring some 3.50 m. east–west by 4.50 m. north–south, the collapsed ceiling debris was removed to the level of the floor. In the middle of the floor was uncovered a stone-lined apsidal structure with a stone-built stand at the southern end and the stone base for a column at the northern end (Fig. 19). The orange-red clay within the apsidal stone boundary identifies the structure as a hearth (Pl. 33:b). Room 34 was entered from the north by means of a doorway in the southeast corner of Room 8S. The floor level of Room 8S is approximately 1.20 m. higher than that in Room 34 owing to a sharp drop in the bedrock shelf at this point. Access to Room 34, therefore, was gained by means of a wooden stairway, which was located in a narrow stairwell space between the south wall of Room 8S and the north wall of Room 34 (Fig. 19). Rooms 34 and 35 were connected by a doorway in the center of the south wall of Room 34. The presence of the hearth in Room 34 indicates its use as a kitchen. A large pithos found in the northeast corner of Room 35 suggests that this room was used for storage.

The construction of Building L in its final four-room form can be dated to the LG period. Two EO juglets (Pl. 33:c, d)⁸³ found on the floor of Room 34 indicate that this room at least continued in use into the 7th century B.C. It was at this time that the doorway between Rooms 34 and 35 was blocked and Room 35 filled in. This fill yielded a considerable amount of LG–EO pottery (Fig. 20),⁸⁴ which provides a *terminus ante quem* for the use of the room.

Excavation beneath the LG floor of Room 35 (approximately 3.00 m. east–west by 3.90 m. north–south) revealed a deep deposit of packing material, consisting of some 0.50 m. of stone and light-brown, silty clay. This packing material also contained some pottery that is

⁸² Boyd 1901, p. 140; Gesell, Day, and Coulson 1985, p. 337.

⁸³ There are no exact parallels for the unusual ovoid shape. The elements of decoration, however, find close similarities to Orientalizing pottery from Fortetsa: for the stylized “sacred tree”, see Brock 1957, no. 1335, p. 115, pl. 106, where it is found on the shoulder of an EO amphora; the nine-petaled rosette resembles the eight-petaled examples in a metopal arrangement on no. 1346, p. 116, pl. 104 and no. 1542, p. 133, pl. 105 (both imitation Protocorinthian kotylai); the step pattern below the shoulder is similar to that on aryballos no. 1196, p. 103, pl. 98 (LO) and on polychrome pithos no. 1216, p. 105, pls. 92 and 126 (LO).

⁸⁴ Parallels for Figure 20:1 are difficult to find, but in general it resembles Orientalizing jugs from Fortetsa; see Brock 1957, no. 1022, p. 94, pl. 69 and no. 996, p. 92, pl. 69; the shape is closer to the trefoil-mouthed oinochoe at Fortetsa. For Figure 20:2, see Tsipopoulou 1985, no. 15 (AN 1588), pl. X. For Figure 20:4, see the following examples from Fortetsa: Brock 1957, no. 883, p. 80, pl. 59 (O); no. 869, p. 79, pl. 59 (LG); no. 1343, p. 116, pl. 96 (EO). The use of white-on-dark decoration in Figure 20:8 and 11 indicates a LG–EO date for these sherds; see Brock 1957, p. 188.

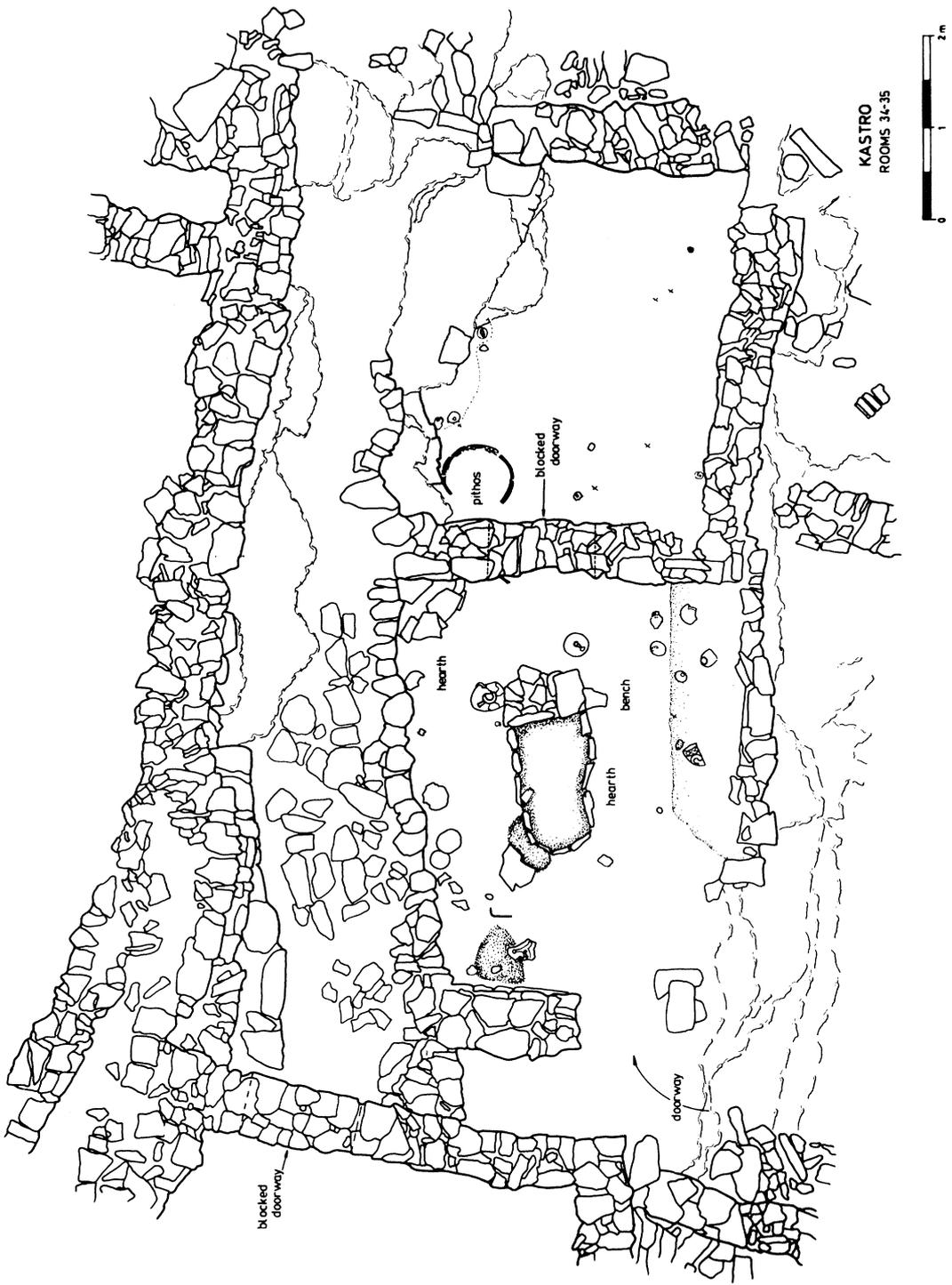


Fig. 18. Kastro. Plan of Building L, Rooms 34 and 35

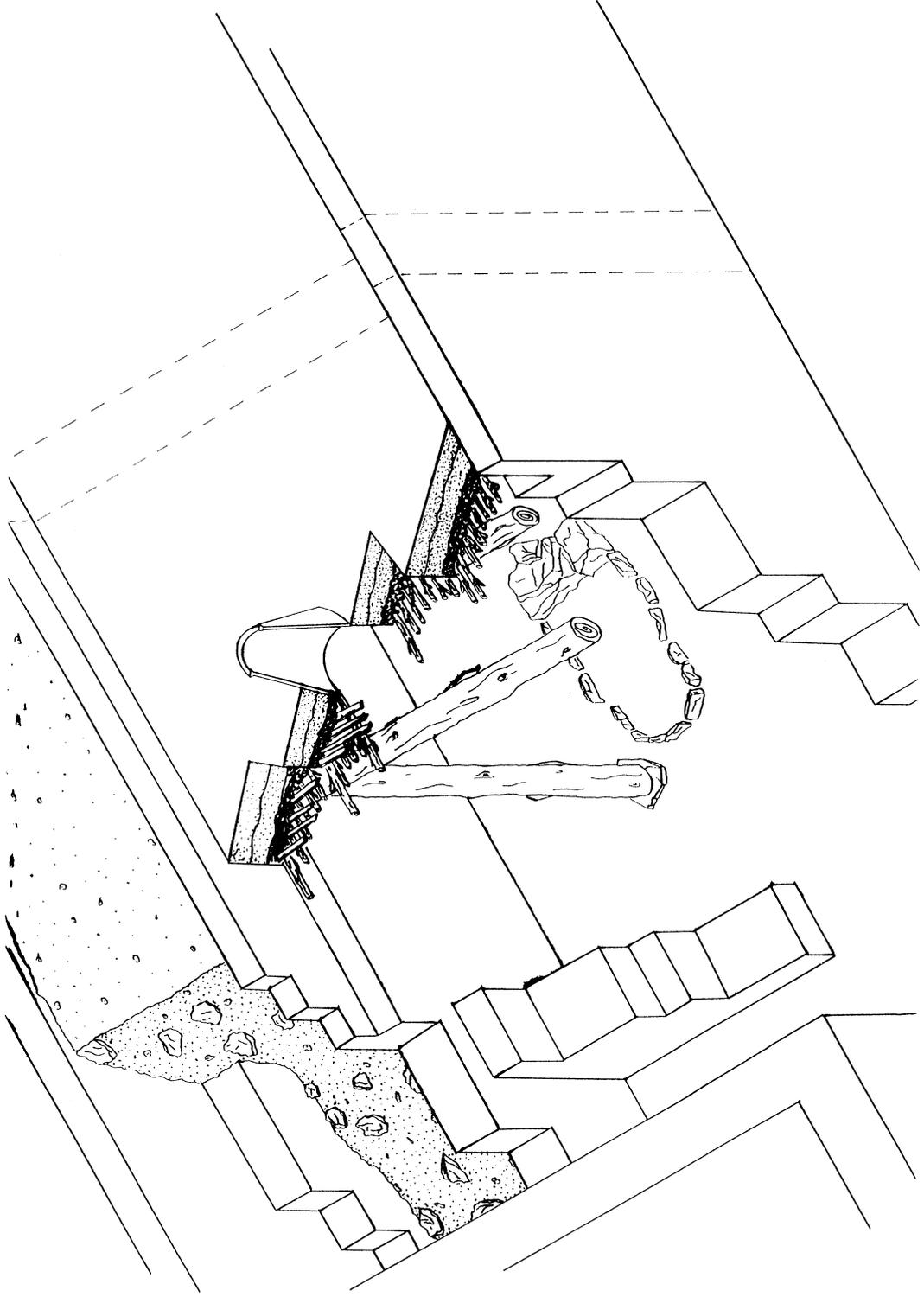


Fig. 19. Kastro. Building L, reconstruction of Room 34

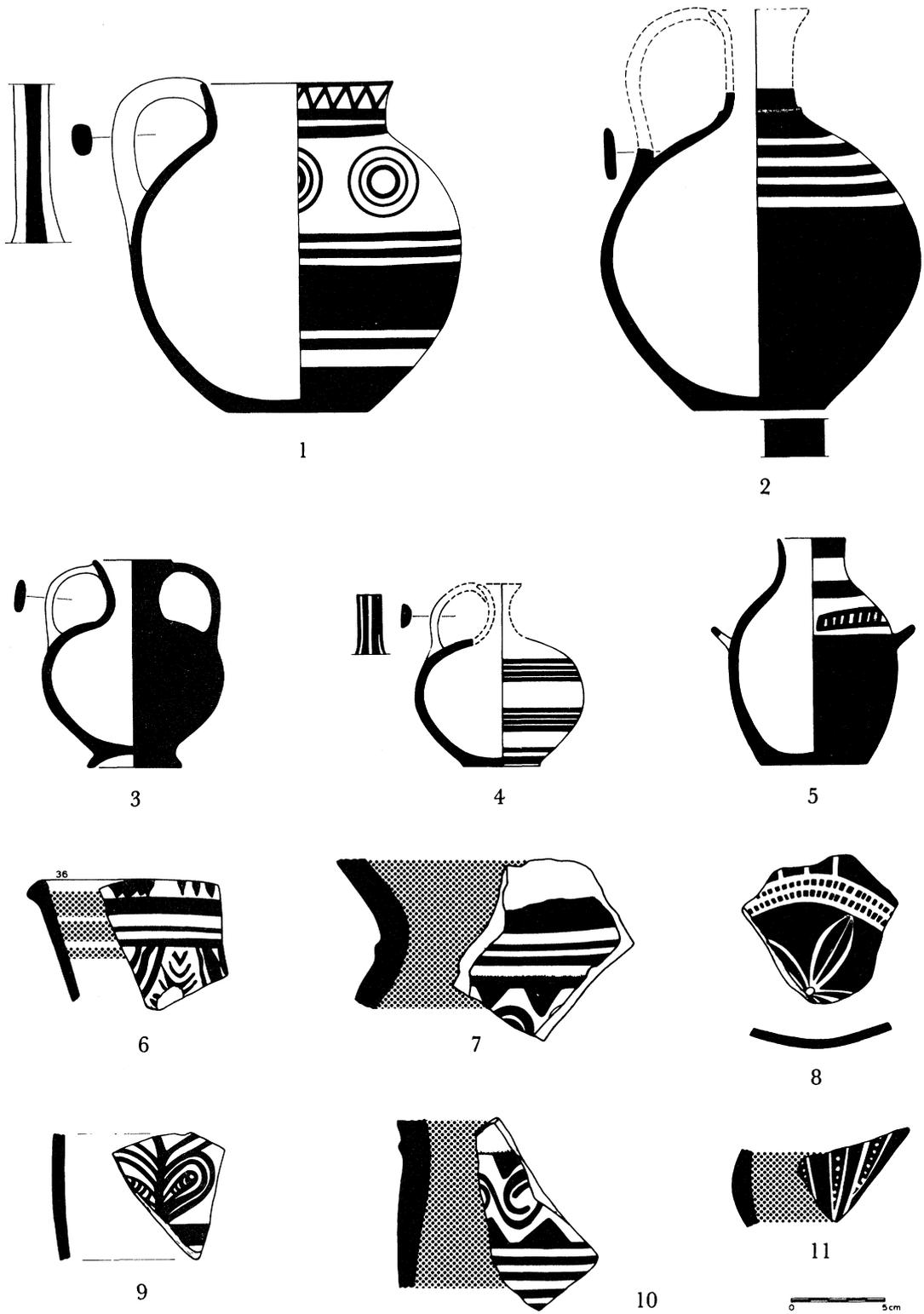


FIG. 20. Kastro. Building L, Geometric pottery

PG and LM IIIC in date. Removal of the floor packing revealed a layer of dense clay and large-stone tumble containing much habitation debris, including LM IIIC pottery. It is likely that it represents roofing material and house collapse. Beneath it was a LM IIIC floor surface of hard-packed clay (Pl. 33:e). Associated with this floor is a hearth cut into bedrock in the northeast corner of the room, as well as a bin in the north corner and a second stone-built stand or bin in the southeast corner, both constructed partly of bedrock and partly of field stones. Beneath this floor was another clay surface, also LM IIIC in date, which made use of the natural bedrock on the east side of the room (Pl. 34:a). Associated with this lower surface was a pit with traces of burning in the southeast part of the room and floor packing along the west side. This packing was apparently leveling fill deposited to even out the bedrock.

The Lower Terrace: Buildings I, J, and K

The lowest terrace excavated on the west had three complexes (Buildings I–K), each consisting of two or three rooms. The northern structure, of three rooms (Building I, Rooms 28, 29, 37), had been exposed in 1987 and 1988.⁸⁵ Subsequent work concentrated on excavating the floor of the middle room, 28 (approximately 3.00 m. east–west by 5.20 m. north–south; Pl. 34:b). In the roofing material in the northeast corner were found three small, shallow bowls. These bowls, all crude and handmade, were found resting on a shallow patch of ash on top of a stone stand in the middle of the room. On the floor itself, a hearth was found just northwest of the stand.

The middle complex (Building J) is represented by Rooms 30 and 31, the preserved floors of which are composed partly of bedrock and partly of hard clay. On the floor in Room 31 (approximately 3.40 m. east–west by 4.10 m. north–south) were found a number of large pithos fragments, bone debris, and, in the southern part, a badly disturbed stone-built stand or bench. The southern complex (Building K) is represented by Rooms 32 and 33. Both rooms contained a stone-built stand and a bench (Pl. 34:c). As on the upper and middle terraces of the west slope, the walls of the lower terrace had great problems of stability, especially the long east wall, which served not only as the back wall of the three complexes but also as the terrace wall of the middle terrace. In order to insure the stability of this wall and to prevent it from slipping, two short east–west buttress walls were constructed in Rooms 32 and 33, probably towards the end of LG times, shortly before the general collapse of the walls on the west slope. When these walls did collapse at the end of the LG or the beginning of the EO period, the rooms were filled with stones (Fig. 12) to provide greater stability for those buildings still in use on the higher terraces.

Although there is ample evidence for the spread of the LG settlement over the whole western slope, in EO times it appears to have shrunk in size, as is seen by the general filling-in of the rooms on the lower terrace and the confinement of the use of Building L to one room

⁸⁵ For a brief description of Building I, see Gesell, Coulson, and Day 1991, pp. 171–172 and p. 169, fig. 8, where the three rooms of Building I were designated Rooms 1–3. In a general renumbering of the rooms on the Kastro, these three rooms have been renumbered as follows: Room 3 = 37, Room 2 = 28, Room 1 = 29.

only. The west slope in general also yielded a fine series of LG (Fig. 21:1, 4, 8) and EO (Fig. 21:10) cups,⁸⁶ which further attests the activity here in both periods.

IV. FALSE PEAK: THE NORTHWEST BUILDING (Fig. 9)

Excavation of the Northwest Building complex was begun in 1987.⁸⁷ This large complex lies between the false peak of the Kastro and the main part of the settlement to the east (Pl. 34:d). The complex comprises at least eleven rooms, whose use spans the LM IIIC through Orientalizing periods. Habitation of the complex in the LM IIIC and PG periods appears to have been confined to a series of rooms in the northern part. The LM IIIC structure consisted of a single two-room building situated near the edge of the cliff and consisting of Room NW1 (approximately 1.00 m. east–west by 3.50 m. north–south) and the area comprising NW2–4 (approximately 8.30 m. east–west by 3.20 m. north–south). Two phases of habitation are indicated by two LM IIIC floors below NW2. As with Building G on the west slope, the rooms were built within recessed areas of bedrock and use was made of the bedrock for floors and socles. Also similar to Building G, the settlement of the NW building complex was greatly expanded in the PG period. The main room of the LM IIIC house was divided, creating NW2 to the west, which together with NW1 became a separate house. Rooms NW3 and NW4 were built over the eastern half of the LM IIIC house and, with the newly constructed NW5 and NW6, created another dwelling. In addition, two other houses were built on terraces to the southwest, a three-room house formed by Rooms NW7–NW9 and a single structure, NW10.

Again, as on the west slope, new construction took place in the LG period. Occupation continued in House NW1–2; the area occupied by Rooms NW3 and NW4 was rebuilt; House NW7–9 continued to be inhabited, and another room (NW11) was added to the eastern end of NW10, thus turning it into a two-room structure and doubling its size. In the EO period, there is a marked reduction in the number of rooms inhabited. House NW1–2 was refurbished, and House NW3–6 continued to be inhabited. House NW7–9 saw a reduction in size to the use of one room only (NW9); House NW10–11 was not inhabited at all, NW11 apparently being used for a rubbish dump. Even though the NW building complex appears to have the same general history as the structures on the west slope, the nature of the terrain necessitated a more compact arrangement of Rooms. Instead of long, narrow rooms occupying a single terrace, the structures, as with House NW3–6, can occupy two terraces.

⁸⁶ Similar types of monochrome cups are found in the Vronda graves; see pp. 85–86 above (Grave 28). For additional parallels, see the following: for Fig. 21:1, Coldstream 1972, no. G105, p. 95, fig. 15; for Fig. 21:2, see Tsipopoulou 1984, no. 98, p. 166, fig. 11; for Fig. 21:8, see Coldstream 1972, no. F 17, p. 86, fig. 8 (LG–EO).

⁸⁷ The Northwest Building was studied by Dr. Margaret Mook for her doctoral dissertation (University of Minnesota 1993) and is being prepared by her for final publication. We are indebted to her for the information on this complex that she provided for this report.

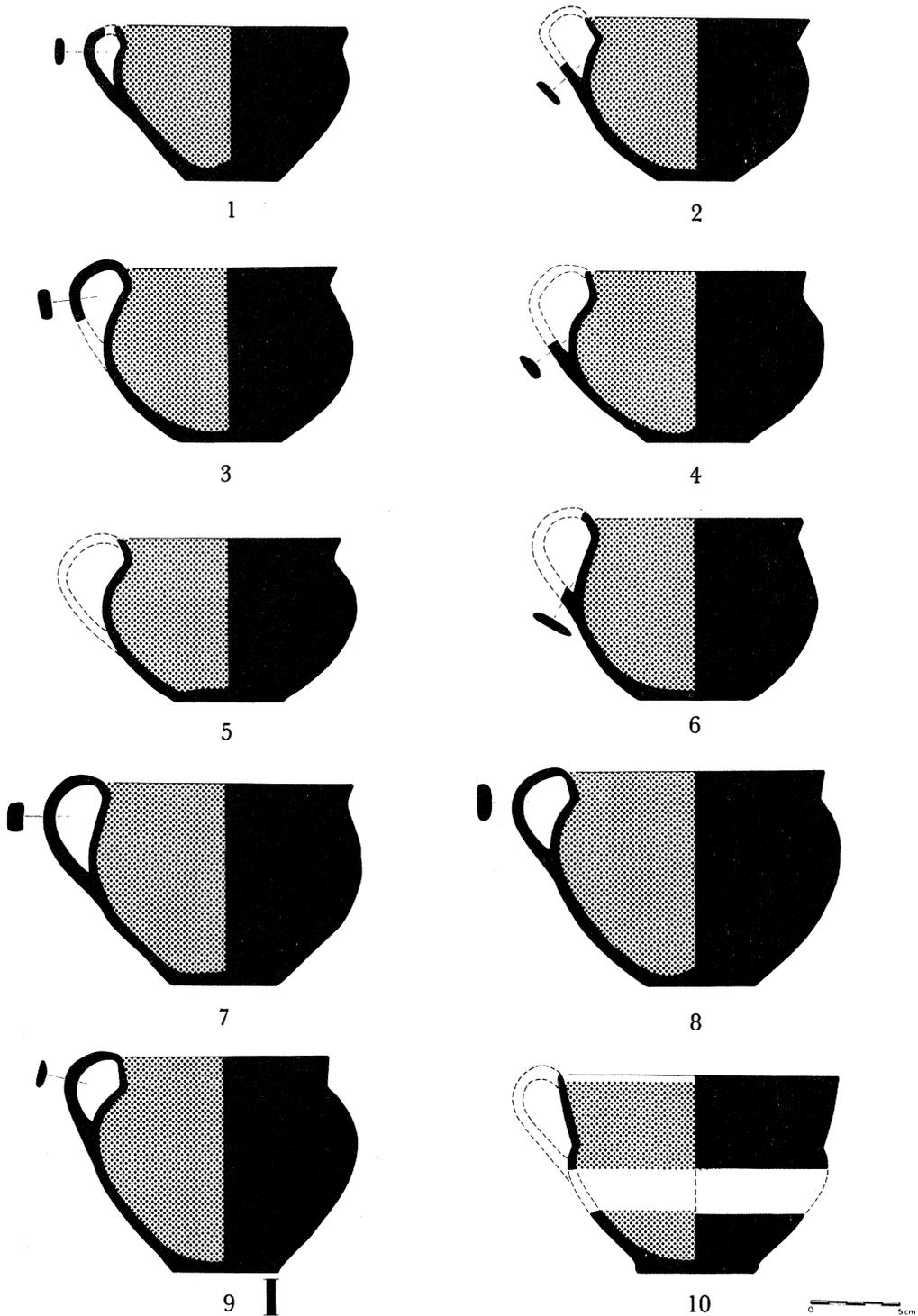


FIG. 21. Kastro. Selection of LG-EO cups from north and west slopes

CHRONOLOGY AND CONCLUSIONS

VRONDA

The 1989 and 1990 seasons at Vronda have clarified the history of the site. Vronda had several periods of intensive use punctuated by long intervals of abandonment, rather than showing the continuous stratified sequence found on the Kastro. Although copious Middle Minoan II pottery and objects from below the floors and along the bedrock attest to earlier use of the site, the main period of occupation at Vronda belongs to a late phase of LM IIIC, contemporary with Karphi and somewhat later than the earliest remains on the Kastro.⁸⁸ Most of the houses were abandoned at the end of this period, although at least one appears to have continued in use into the next period.⁸⁹ After the houses were abandoned, tholos tombs were constructed on the north and west sides of the ridge, some cutting into the deserted buildings. These tholoi continued in use into the Geometric period.⁹⁰ In the 8th and early 7th centuries (LG–EO) the area of the former houses was used extensively for cremation burials, possibly by the inhabitants of the Kastro; some 34 burials from this period have been excavated. Early in the 7th century the burials ceased, although some later 7th-century activity is attested by a pottery fragment found near the surface of Building I: an Orientalizing relief pithos (Pl. 28:c) decorated with centaurs, of which only the feet survive.⁹¹ The site was then abandoned until the Byzantine era, when the apsidal structure was erected in Building J sometime in the 8th or 9th century after Christ. Somewhat later (13th–14th century) is the Venetian/Byzantine farmstead farther down the ridge to the north at Xerambela.

More of the plan of the settlement and individual houses has also come to light and provides a clearer picture of how the people of LM IIIC Crete lived. A common pattern for house plans can be recognized in Buildings C, D, I, O, and N. These houses have two to five rooms connected by doorways; each building has at least one large room, along with several smaller ones. Many of the rooms required internal supports, and several of the bases for supports have been found *in situ*. Each house seems to have had its own hearth; benches, potstands, and ovens are also common. Except for House A/B, none of the houses had second stories. Houses are arranged on the site in groups; each group has an original core, and subsequent expansions down the terraces became, in turn, independent units when doorways were blocked. Recognizable groups of houses may be linked to family or social groups. Building A/B, which is unusual for its size and complexity, may have belonged to an important person or group. Building G, the shrine, is an example of a building restricted

⁸⁸ There is still much uncertainty about the ceramic sequence in Crete for the LM IIIC–PG periods, and the definition of pottery styles of the various periods is a matter of controversy. The material from Karphi is generally labeled LM IIIC–SM, but none of the material from Karphi or the Vronda settlement is so late in style as that from the Spring Chamber at Knossos or the Vronda tholos tombs, the earliest of which is certainly Subminoan. Hence we are calling the Karphi and Vronda material late LM IIIC.

⁸⁹ Building E, for example, seems to have continued in use until PG times; see Day, Coulson, and Gesell 1986, pp. 378–385.

⁹⁰ Gesell, Day, and Coulson 1983, p. 405.

⁹¹ A nearly identical example was recovered at Meseleroi (ancient Oleros) by the Vrokastro Survey Project under the direction of Dr. Barbara Hayden and Professor Jennifer Moody and is being studied and published by Professor Martha Rissler. We thank them for allowing us to mention their fragment.

to a special use. Also noteworthy are the many open spaces among the houses within the settlement; numerous streets and open courts show that space was not at such a premium as on the Kastro.

Although it is now clear that the site was largely abandoned by the time the tholos tombs were constructed in the Subminoan period, why the town was abandoned and where the inhabitants went are questions that are still unanswered. The new evidence for burning in Building D suggests that, at least in that building, destruction by fire in LM IIIC was the cause of its abandonment; no such burning has been found in the other buildings, however.

The shrine was apparently abandoned with its goddess statues and cult equipment intact. Room 2 held cult equipment that was mostly complete, although some objects had broken from falling or the collapse of the roof. On the other hand, it seems that the extensive deposit of broken and scattered cult objects, both goddess statues and equipment, outside Building G was formed by the builders of Grave 19 in Room 1. Thus Room 1 may have been the main room of the shrine.

Finally, the 34 graves of the 8th and early 7th centuries provide us with much information about the Geometric population of the Kavousi area and their mortuary practices. The graves show interesting variations in form, location, numbers of offerings, and types of burial and may help in reconstructing the social structure of the Kavousi population. Where these people who buried their dead on Vronda lived is still unknown, but a survey of the Kavousi area⁹² has shown no settlement site of the Geometric Period closer than the Kastro. Why anyone would have used the abandoned Vronda settlement for their burials rather than other cemetery areas, such as Plai tou Kastrou, Aloni, or Skouriasmenos, is unknown, but some social, political, or practical reason must have overcome the disadvantage of distance.

KASTRO

At the present stage of investigations, four main phases of occupation can be distinguished on the Kastro: LM IIIC, PG, LG, and EO. A transitional phase between LM IIIC and PG suggests continuity from the Late Bronze Age to the Early Iron Age. Less clear is the continuity from PG to LG.⁹³ The pottery from the later phases on the Kastro has not yet been fully studied, and it is hoped that in future seasons light can be thrown on this question. As far as the earliest habitation on the Kastro is concerned, to date, three phases of LM IIIC have been isolated on the west slope (Building G) and two on the false peak (Northwest Building). Just how these relate to each other must be worked out during study seasons, but it does seem that the first phases on the west slope and false peak belong to the earliest period of LM IIIC (Fig. 22).⁹⁴ Indeed, the similarity in construction techniques and the use of the natural contours of the bedrock in both areas also point to their contemporaneity. The second phase of LM IIIC on the false peak coincides with Phase III on the west slope and is

⁹² This survey was carried out by Dr. Donald Haggis as his doctoral dissertation (University of Minnesota 1992).

⁹³ East Crete in general lacks Early and Mature Geometric. Protogeometric styles lingered in this part of the island when Central Cretan potters were adapting to the new Geometric styles. Hence there is a need to define a PG style of East Crete contemporary with that of Central Cretan EG and MG.

⁹⁴ The pottery from the three phases of LM IIIC on the Kastro and the chronological implications are discussed fully in Mook and Coulson, forthcoming. See also Mook and Coulson 1993.

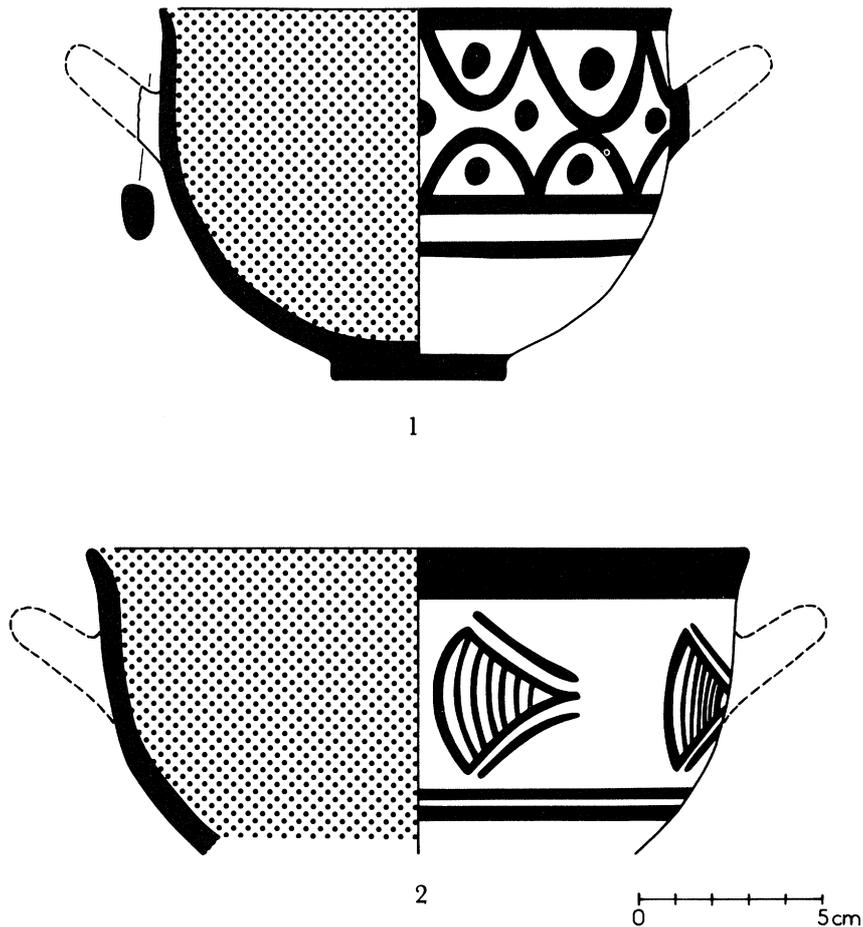


FIG. 22. Kastro. Northwest Building complex, NW2: early LM IIIIC pottery

possibly contemporary with Vronda. The Northwest Building lacks the Phase II pottery of Building G, but this may be the result of local rebuilding on the west slope, which does not occur on the false peak.

What is clear, however, is that there was building activity in Protogeometric and Geometric times. In the PG period, both Building G and the Northwest Building were remodeled. The remodeling of Building G was confined to the terrace on which it is situated; structures were added to the north so that the building became long and narrow. On the false peak, houses were simply added on adjacent terraces. The more confined terrain on the west slope necessitated a major leveling operation in LG times. Structures of earlier periods were filled in and leveled in order to expand the area available for building. It is plain that the LG builders desired a wider and more regular plan, such as is provided by Building L. Such expansion is seen elsewhere at the site on the east (Buildings A–C) and north (Buildings D–F) slopes. With the exception of the small LM IIIIC structure in the southwest corner of Room 51, all the houses in these areas belong to the LG and EO periods, as does

the South Building. No such leveling operation appears to have occurred on the false peak; the structures here were either remodeled, such as House NW3–6, or expanded, such as House NW10–11. The Orientalizing period shows a shrinkage in the size of the settlement. On the east and west slopes, the axiality of the structures was broken; doorways were blocked and habitation confined to individual rooms. On the west slope, at least, a number of rooms were filled in, in order to provide greater stability for the structures that continued to be occupied. Similarly, on the false peak there was a reduction in the number of rooms inhabited. The settlement as a whole seems to have been abandoned by the mid-7th century B.C.

In conclusion, the excavations on the Kastro at Kavousi have proved to be important not only for the extensive architectural remains they have uncovered but also for their stratigraphic sequences, which may run from early LM IIIC to at least the mid-7th century B.C. It is hoped that, when fully published, the pottery from the various phases will help in the dating of chronological sequences at other sites in East Crete.

BIBLIOGRAPHY

- Banti, L. 1941–1943. "I culti minoici e greci di Haghia Triada (Creta)," *ASAtene* n.s. 3–5, pp. 9–74
- Bergquist, G. 1990. "Symptotic Space: A Functional Aspect of Greek Dining Rooms," in *Sympotica*, O. Murray, ed., Oxford, pp. 37–65
- Beyer, I. 1976. *Die Tempel von Dreros und Prinias A und die Chronologie der kretischen Kunst des 8. und 7. Jhs. v. Chr.*, Freiburg
- Boardman, J. 1961. *The Cretan Collection in Oxford*, Oxford
- . 1967. "The Khaniale Tekke Tombs, II," *BSA* 62, pp. 57–75
- Boyd, H. A. 1901. "Excavations at Kavousi, Crete, in 1900," *AJA* 2nd ser. 5, pp. 125–157
- Brock, J. K. 1957. *Fortetsa, Early Greek Tombs near Knossos* (*BSA* Supplementary Paper 2), Cambridge
- Coldstream, J. N. 1968. *Greek Geometric Pottery*, London
- . 1972. "Knossos 1951–61: Protogeometric and Geometric Pottery from the Town," *BSA* 67, pp. 63–98
- . 1992. "Early Helladic Pottery," in *Knossos from Greek City to Roman Colony, Excavations at the Unexplored Mansion II* (*BSA* Supplementary Volume 21), L. H. Sackett, ed., Oxford, pp. 67–87
- Coulson, W. D. E. 1990. "The Protogeometric Period at Kavousi," in Πραγμαγμένα του Στ' Διεθνούς Κρητολογικού Συνεδρίου, Αύγουστος 24–30, 1986, Chania
- Davaras, C. 1979. "A Double-Axe Design (?) from Vrokastro," *ΑρχΕφ* 1979, pp. 114–117
- Dawkins, R. M. 1929. *The Sanctuary of Artemis at Sparta*, London
- Day, L. P., W. D. E. Coulson, and G. C. Gesell. 1986. "Kavousi 1983–1984: The Settlement at Vronda," *Hesperia* 55, pp. 355–387
- Day, L. P., and K. T. Glowacki. 1993. "Spatial Analysis of a Late Minoan IIIC/Subminoan Domestic Complex in Eastern Crete" (lecture, New Orleans 1992), abstract in *AJA* 97, p. 349
- Gesell, G. C., W. D. E. Coulson, and L. P. Day. 1991. "Excavations at Kavousi, Crete, 1988," *Hesperia* 60, pp. 145–177
- Gesell, G. C., L. P. Day, and W. D. E. Coulson. 1983. "Excavations and Survey at Kavousi, 1978–1981," *Hesperia* 52, pp. 389–420
- . 1985. "Kavousi 1982–1983: The Kastro," *Hesperia* 54, pp. 327–355
- . 1988. "Excavations at Kavousi, Crete, 1987," *Hesperia* 57, pp. 279–301
- Hall, E. H. 1914. *Excavations in Eastern Crete: Vrokastro* (University of Pennsylvania, The University Museum, Anthropological Publications III, iii), Philadelphia
- Kanta, A. 1980. *The Late Minoan III Period in Crete* (*SIMA* 58), Göteborg
- Karetsou, A. 1981. "The Peak Sanctuaries of Mt. Juktas," in *Sanctuaries and Cults in the Aegean Bronze Age*, R. Hägg and N. Marinatos, eds., Stockholm, pp. 137–153
- . 1984. «Το Ιερό Κορυφής Γιούχτα», Πρακτικά, pp. 600–614

- Levi, D. 1959. "La villa rurale minoica di Gortina," *BdA* 4th ser. 44, pp. 237–265
- Marinatos, S. 1936. "Le temple géométrique de Dréros," *BCH* 60, pp. 214–285
- Martini, W. 1986. "Vom Herdhaus zum Peripteros," *JdI* 101, pp. 23–36
- Mook, M. S., and W. D. E. Coulson. 1993. "The Late Minoan IIIC Pottery from the Kastro at Kavousi" (lecture, New Orleans 1992), abstract in *AJA* 97, p. 351
- . Forthcoming. "Late Minoan IIIC Pottery from the Excavations on the Kastro at Kavousi," in *Late Minoan III Pottery (Proceedings of the Danish Institute in Athens, supplementary volume 1)*, B. and E. Hallager, eds.
- Mountjoy, P. A. 1986. *Mycenaean Decorated Pottery: A Guide to Identification (SIMA 73)*, Göteborg
- Pernier, L. 1908. "Di una città ellenica arcaica scoperta a Creta dalla Missione Italiana," *BdA* 2, pp. 457–462
- . 1914. "Templi arcaici sulla Patèla di Priniàs: Contributo allo studio dell'arte dedalica," *ASAtene* 1, pp. 18–111
- . 1934. "New Elements for the Study of the Archaic Temple of Priniàs," *AJA* 38, pp. 171–177
- Popham, M. R. 1965. "Some Late Minoan III Pottery from Crete," *BSA* 60, pp. 316–342
- . 1967. "Late Minoan Pottery, A Summary," *BSA* 62, pp. 337–351
- . 1992. "Sub-Minoan Pottery," in *Knossos from Greek City to Roman Colony, Excavations at the Unexplored Mansion II (BSA Supplementary Volume 21)*, L. H. Sackett, ed., Oxford, pp. 59–66
- Prokopiou, N. M. 1991. "Sybrita Amariou: First Indications for a New LM IIIC Site," in *La transizione dal Miceneo all'alto arcaismo*, D. Musti, A. Sacconi, L. Rochetti, M. Rocchi, E. Scafa, L. Sportiello, M. E. Giannotta, eds., Rome, pp. 373–401
- Rizza, G., and V. Santa Maria Scrinari. 1968. *Il santuario sull'acropoli di Gortina I*, Rome
- Sackett, L. H., M. R. Popham, and P. M. Warren. 1965. "Excavations at Palaikastro, VI," *BSA* 60, pp. 248–315
- Sapouna-Sakellarakis, E. 1978. *Die Fibeln der griechischen Inseln (Prähistorische Bronzefunde XIV, iv)*, Munich
- Seiradaki, M. 1960. "Pottery from Karphi," *BSA* 55, pp. 1–37
- Stampolidis, N. 1990. "Eleutherna on Crete: An Interim Report on the Geometric-Archaic Cemetery," *BSA* 85, pp. 375–403
- Tobin, J. 1994. "The East Building of the Kastro: A Late Geometric House in East Crete" (lecture, Washington, D.C. 1993), abstract in *AJA* 98, pp. 307–308
- Tsiporopoulou, M. 1984. «Πρωτογεωμετρικά και γεωμετρικά αγγεία από τη συλλογή Κ. και Μ. Μητσοτάκη», *Δελτ* 33, 1978, A' [1984], pp. 146–170
- . 1985. «Κυπριακά στοιχεία στη γεωμετρική και ανατολιζουσα κεραμεική της ανατολικής Κρήτης», *Archaeologia Cypria* I, pp. 33–48
- Warren, P. M. 1983. "Knossos: Stratigraphical Museum Excavations, 1978–82. Part II," *AR*, pp. 63–87

GERALDINE C. GESELL

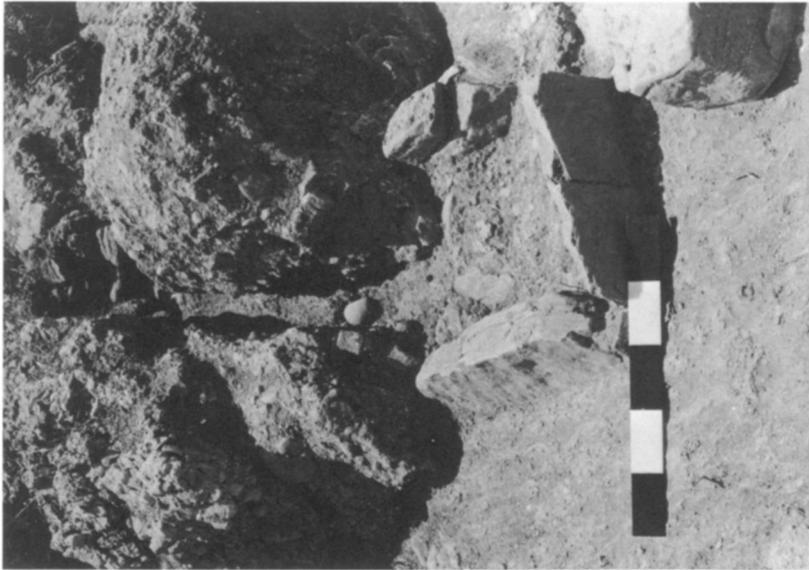
THE UNIVERSITY OF TENNESSEE
Department of Classics
Knoxville, TN 37996-0471

LESLIE PRESTON DAY

WABASH COLLEGE
Department of Classics
Crawfordsville, IN 47933

WILLIAM D. E. COULSON

AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS
54 Souidias Street
GR-106 76 Athens
Greece



a. Building C, Room 2: oven, from west



b. Building C, Room 2: fenestrated stand *in situ*, from above, north at right



c. Building D, Room 1: platform in southeast corner, east wall, and column bases from west

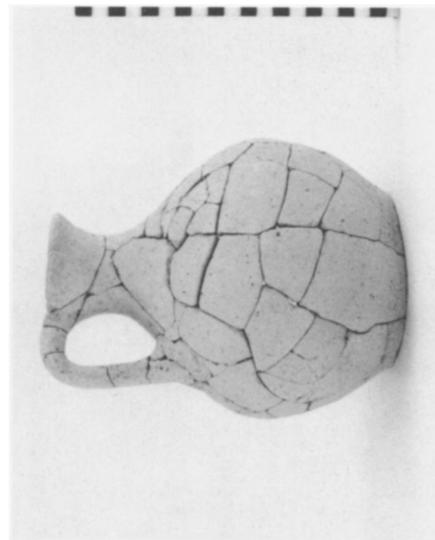
Vronda



a. Room 1: animal figurines *in situ*, from south



b. Room 1: bovid (V90.108) and horse (V90.109, V90.112) figurines



c. Room 1: jug (V90.56)



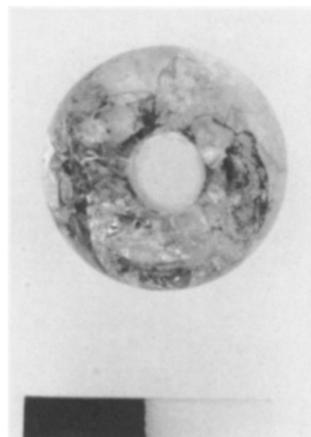
d. Room 4: basin (V90.60)

Vronda
Building D



a. Grave 36 from above (north at top)

Vronda



b. Grave 36: rock crystal bead (V90.55)



d. Building J, Byzantine apsidal building: roof tile (V89.1)



c. Building J: cobblestones beneath Grave 21, from above (north at top)



a. View from south



b. Pithos burial from south



c. Interior of pithos burial, from above

Vronda
Grave 21



a. Grave 21: oinochoe (V89.56)



b. Grave 21: kalathos (V89.68)

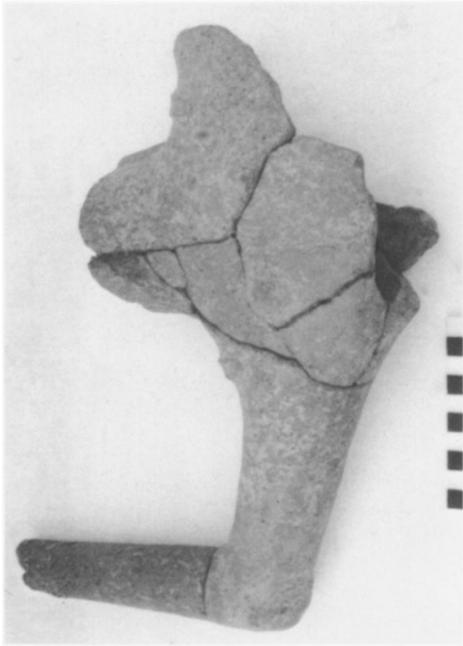


c. Building L from south

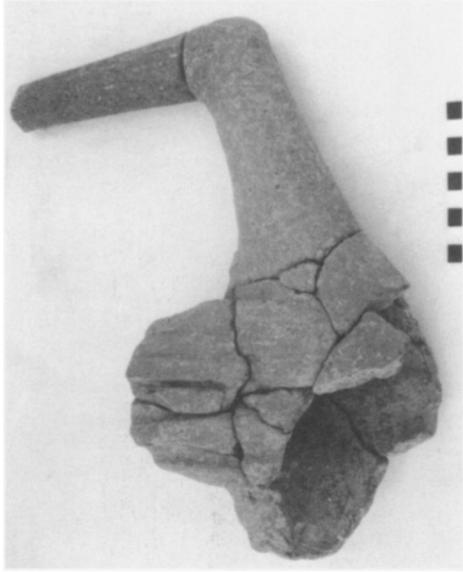


d. Building G, Room 1, showing Goddess No. 3 *in situ*, from northwest

Vronda



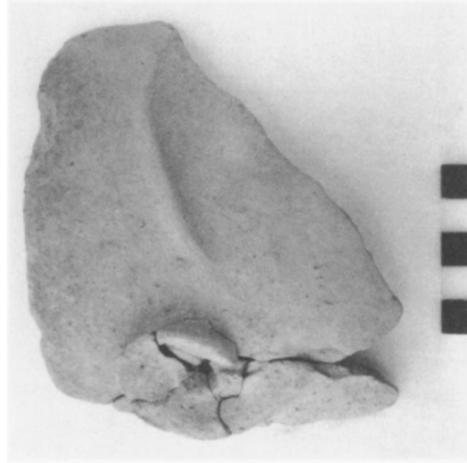
a. Goddess No. 3



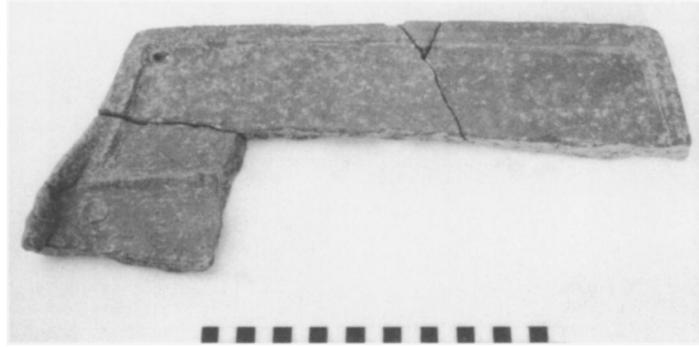
b. Goddess No. 3, back view



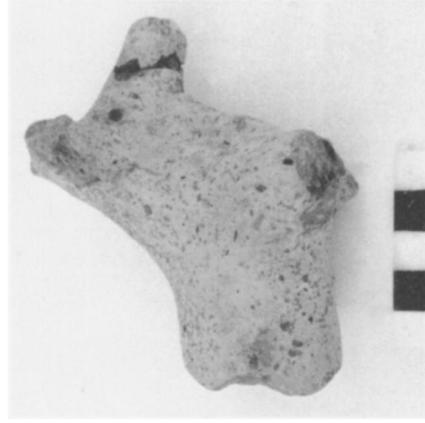
c. Goddess, hand (unattributed)



d. Goddess No. 20, head

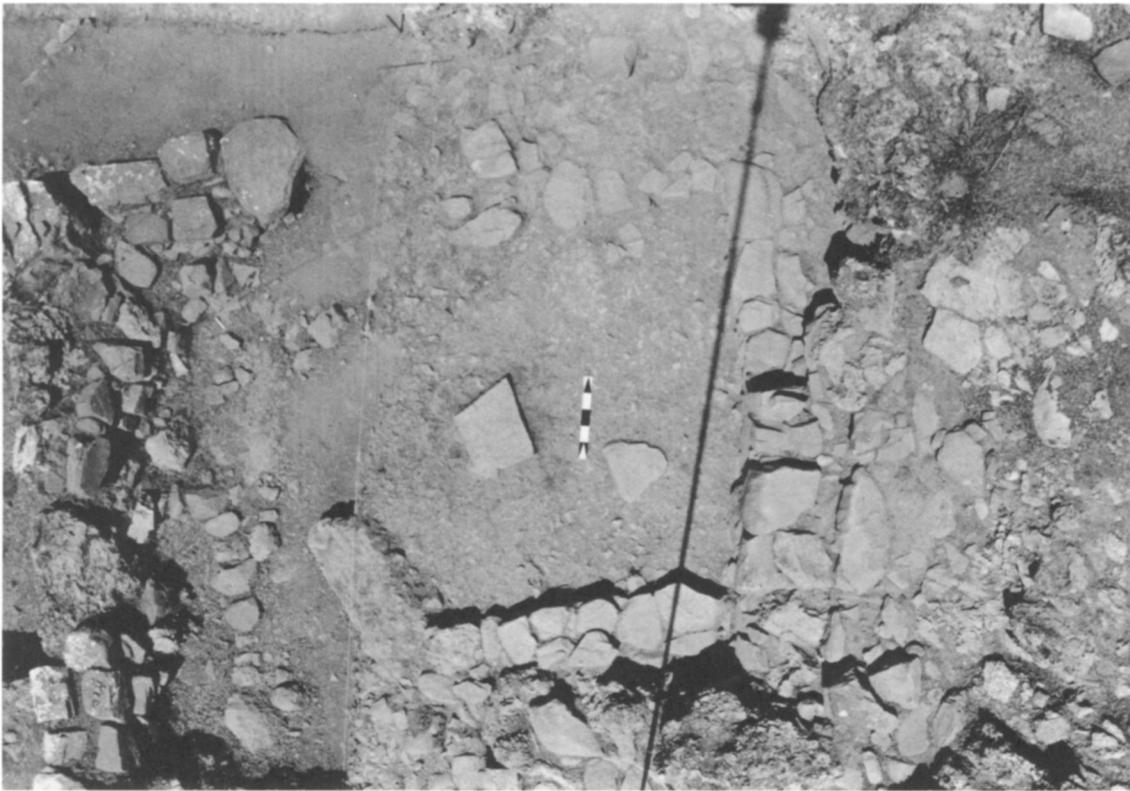


e. Plaque No. 4



f. Area south of shrine: terracotta bull figurine (V89.15)

Vronda



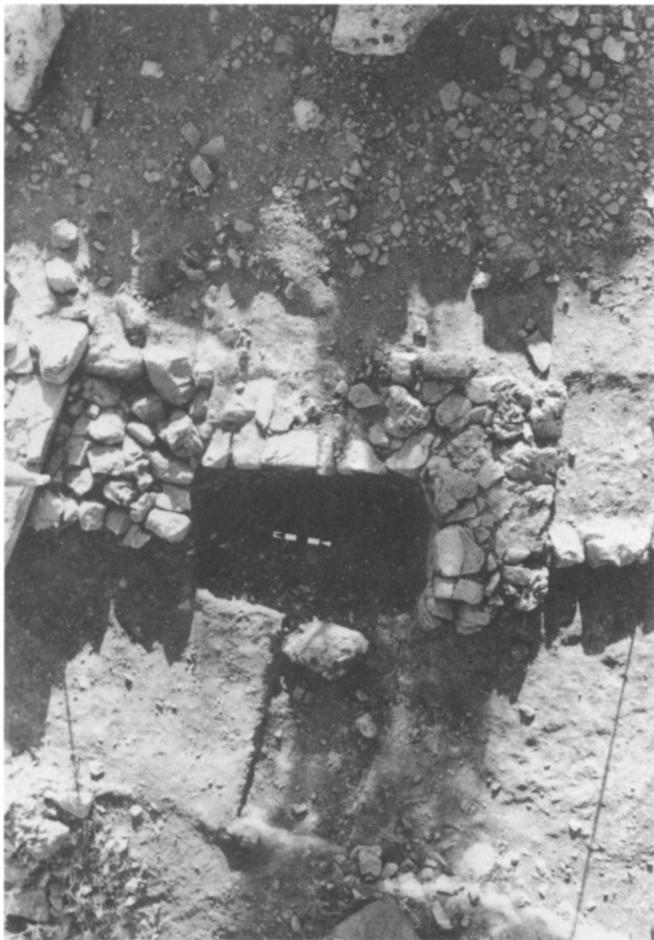
a. View from above (north at top)



b. View from west

Vronda, Building G, Room 2

Vronda



b. Grave 26 from above (north at top)



a. Graves 25, 26, 27, from south



c. Grave 27: geometric sherds from vicinity



d. Grave 32: aryballos (V90.58)



a. Room 7, Grave 23, and Building I, Room 5, from above (north at top)



b. Room 1 from above (north at top)



c. Rooms 2 and 3 from above (north at top)

Vronda
Building O

PLATE 26

Vronda
Grave 28



a. View from above (north at top)



b. Deposit of cups in southeast corner, from northwest



c. Bronze fibula (V89.78)

Vronda



a. Grave 28: amphora burials in southeast corner from west



b. Grave 28: amphoras and cups from southeast corner

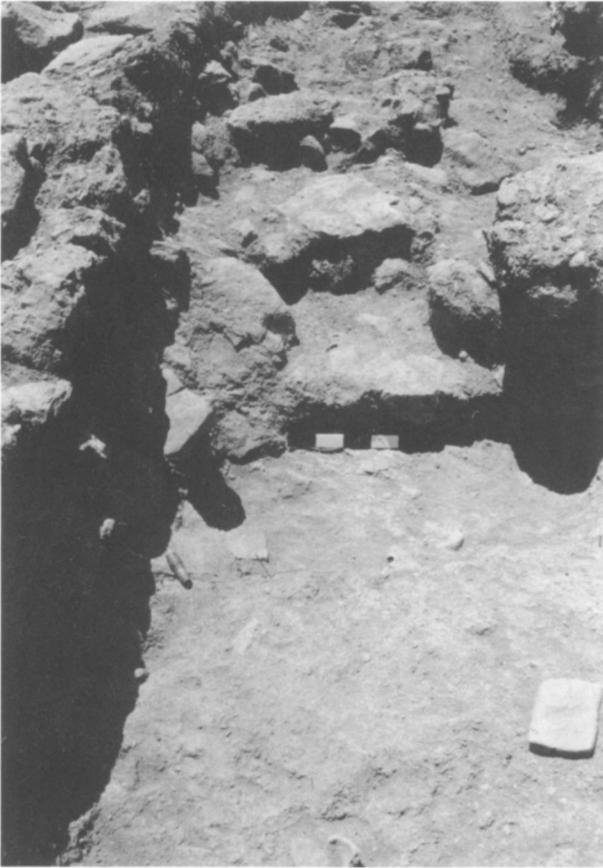


c. Grave 23: fibula (V89.73)

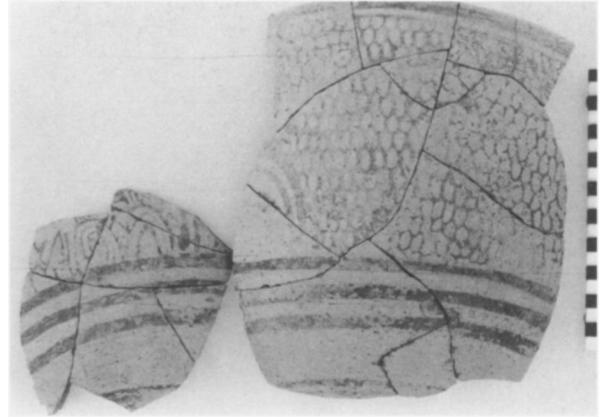


d. Grave 30 from above (north at top)

PLATE 28



a. Building N, steps from Room 3 to Room 5, from north



b. Building N, Rooms 3 and 5: krater (V90.115)



c. Building I: relief pithos (V89.87)

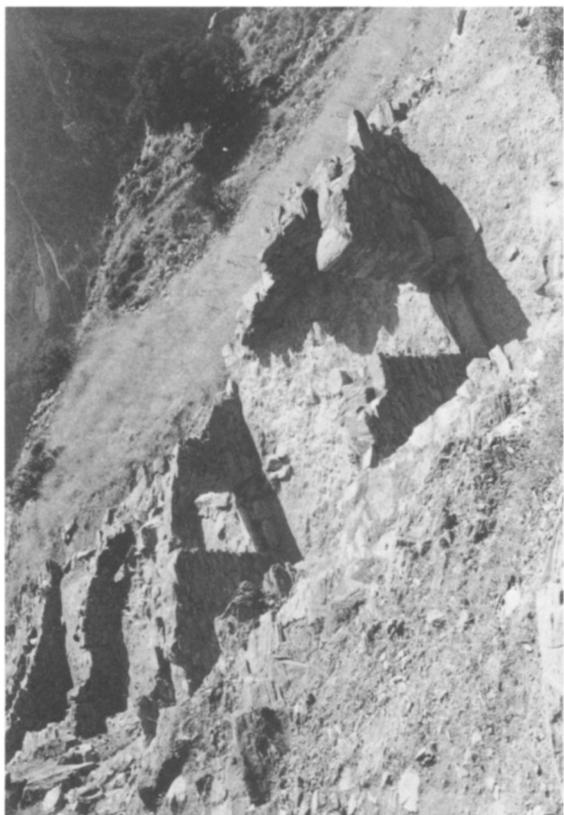


d. Tholos Tomb VII from southeast

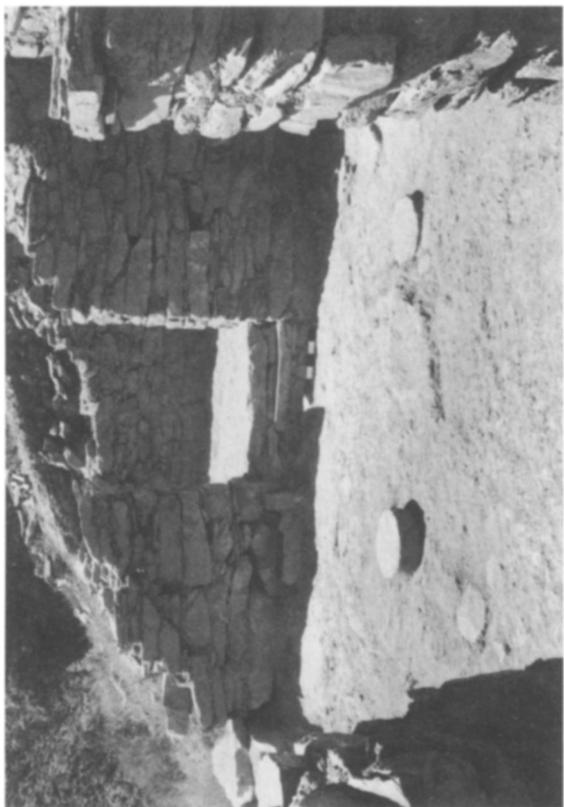


e. Building N, Room 5: fenestrated stand (V90.114)

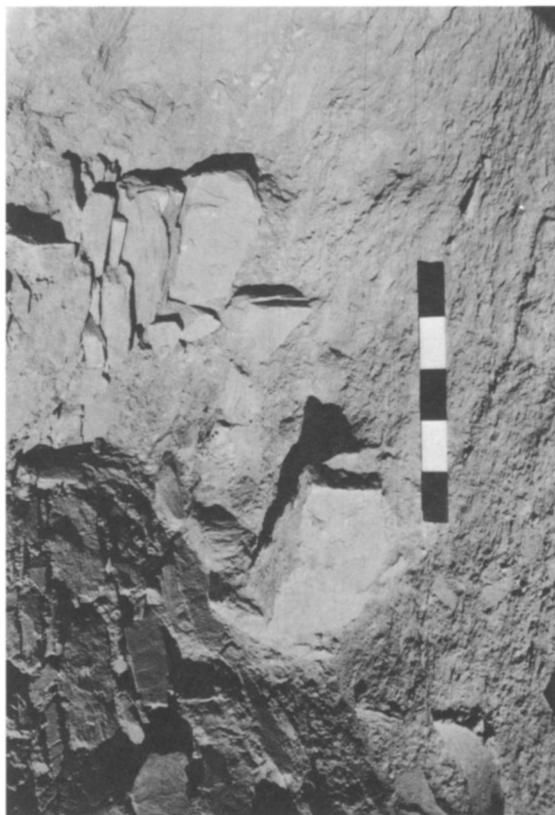
Vronda



a. View from southwest



b. Room 42 from north



c. Room 43, oven, from northeast



d. Room 45 from east

Kastro, Building A

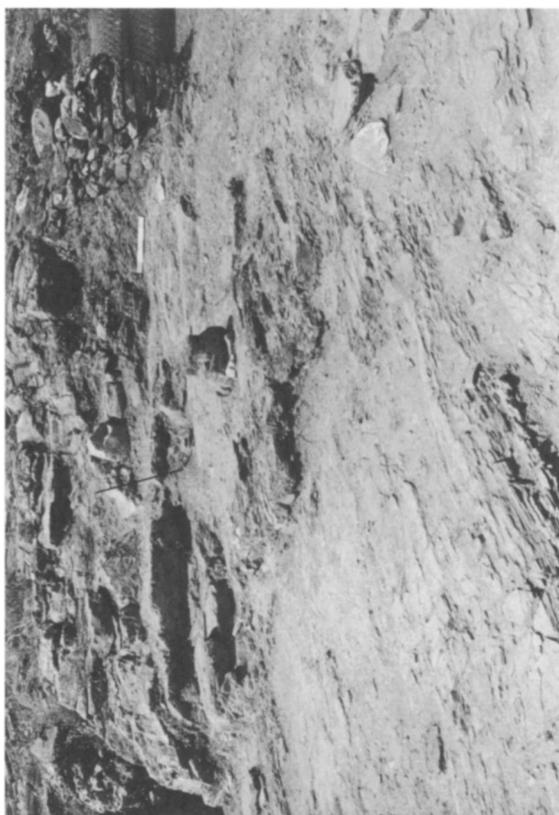
G. C. GESELL, L. P. DAY, AND W. D. E. COULSON: EXCAVATIONS AT KAVOUSI, CRETE, 1989 AND 1990



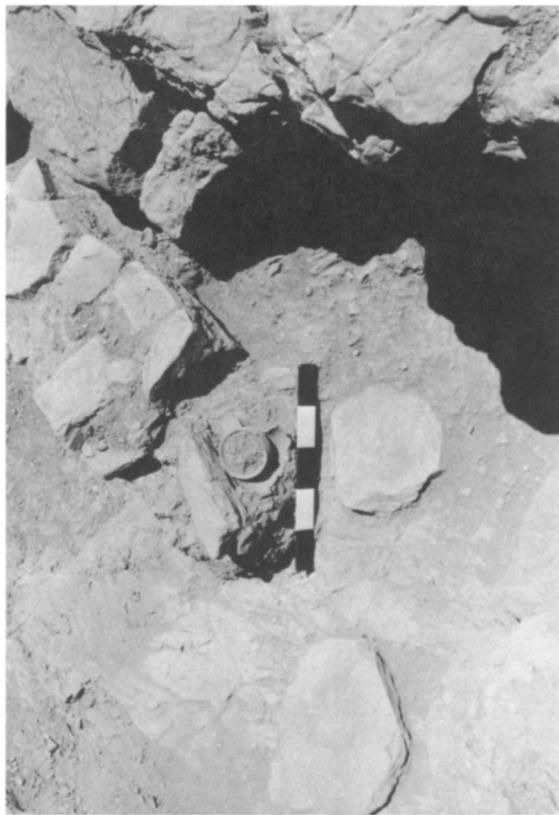
a. Building B, Rooms 47 and 48, from southeast



b. Building C, Room 49, from southeast



c. Upper terrace, west of Building E, from northeast



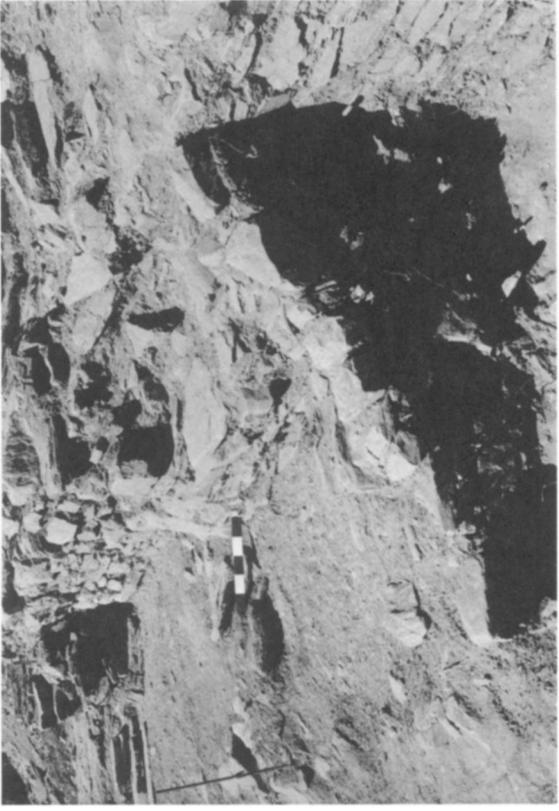
d. Building D, bench and cups, from southwest

Kastro

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a. LM IIIc structure in southwest of Room 51, from south



b. Building E, Rooms 52, 53, 14, from northeast



c. Building F, stairs, from northwest



d. Building F, Room 15, from northwest

Kastro

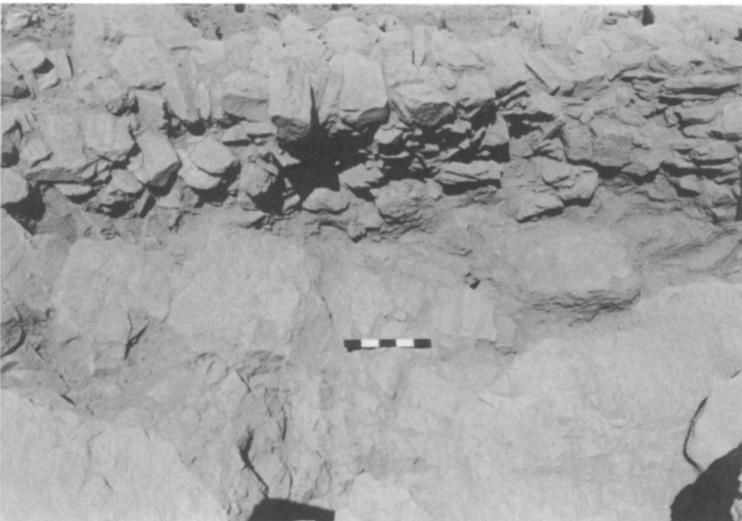
G. C. GESELL, L. P. DAY, AND W. D. E. COULSON: EXCAVATIONS AT KAVOUSI, CRETE, 1989 AND 1990



a. Building F, Room 18, from north

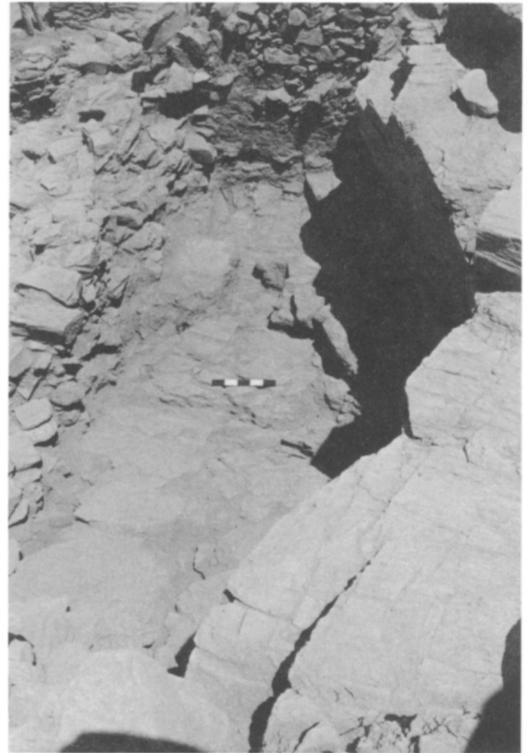


b. West Slope, view from northwest. Room 8 in foreground



d. Building G, Room 25, LM IIIC west wall and oven, from east

Kastro



c. Building G, Room 25, bedrock fissures, from south



a. Building H, Room 27, double foundation course from northwest



b. Building L, Room 34, apsidal hearth, from north



d. Building L, Room 34: juglet (K90.131)



c. Building L, Room 34: juglet (K90.130)



e. Building L, Room 35, upper LM III C floor, from south

Kastro

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Kastro



a. Building L, Room 35, lower LM IIIC surface, from south



b. Building I, Room 28, from south



c. Building K, Rooms 32 and 33, from south



d. Northwest Building, view from southeast