Work Continues at Vrokastro 1910-12, 1979-82
A New Plan and Description of the Early Iron Age Settlement
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Richard Seager originally identified the early Iron Age settlement of Vrokastro, on a limestone spur (Fig. 1) just south of the main east-west coastal road between the harbor town of Aghios Nikolaos, to the west, and the village of Pachyammos ("deep sand") east of the site, near the narrow isthmus of Hierapetra (Fig. 2).

Immediately west of the limestone spur of Vrokastro is the modern village of Kalo Khorio, looking much the same today as it did in 1910, when Edith Hall, the excavator of Vrokastro, described it as a small village of white buildings and red tile roofs.

The Vrokastro summit overlooks the Gulf of Mirabello, at the foot of the mountain. The site is a small village of white buildings and red tile roofs.

The Vrokastro settlement is located on the eastern side. Water sources for the settlement include two large springs south and west of the spur, and possibly a well located on a terrace flanking the mountain, mentioned by Hall (Hall 1912: 41; exact location unknown: "...women and chil-

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Crete, Edith Hall Dohan papers, University Museum Archives. The excavation was limited during the first summer to uncovering rooms on the summit, but Hall recognized the need to return to the site, for the extent of the settlement had not been determined. Fragmentary rubble walls of unworked stone extended far down across the precipitous northern slope of the mountain, indicating construction over a very large area, and rooms were identified on a ridge of hills southeast of Vrokastro (Karakovilla, Mazilkhorta, and Amighali; Fig. 3). The only setback to her brief excavation season was the passage of Halley's comet, which so terrified her workmen that she had to make the rounds of the excavation several times, providing reassurance and keeping her men from returning to their villages, to await the end of the world (Hall to family, May 30, 1910).

Hall's primary interest during both excavation seasons was the architecture of the village, but the associated tombs and their contents, particularly pottery. This pottery helped to establish the date of the village as Late Bronze/early Iron Age (ca. 1200-700 B.C., comprising the LM IIIC-Sub-minois, Protogeometric and Geometric periods, according to pottery styles). Though easy identification was not forthcoming, a large number of tombs were excavated (types included built tombs with rectangular foundations and corbelled roofs, pithos and cave burials, and cremations in rubble-built ossuaries; Hall 1914: 123-174).

When Hall returned to the site in the summer of 1912 for a longer, two-month season, most of the men were put to work excavating new rooms in the settlement. Though Hall rode her pony between tombs that were being excavated and the large settlement area, she admitted having difficulties keeping up with work spread across such a large area (Hall to family, May 28, 1912). The excavation lacked the services of an architect, and in a letter written to Gordon, then director of The University Museum (Hall to G. B. Gordon, December 27, 1910), she described deciding "to measure up the hill myself, remembering..." that not enough attention had been given to house-plans and architecture, I drew every wall uncovered, although they were the...
meanest, rudest, most irregular houses I ever saw." Because of lack of time and funding, a large part of the settlement, excavated in 1912 and located between 40 and 65 m. below the summit, was not described in the final publication of the site, and a plan of this area was never drawn (Hall 1914: 80, 83, 86). Further work on the mountain was curtailed by the First World War, and the incomplete plan drawn by Hall in 1910 of rooms located on the summit has remained in use until today (Fig. 5). This paper concludes work initiated in 1910-12, with a redrawing of the upper settlement area (Figs. 6, 7), a more thorough description of both the upper and lower portions of the excavated settlement, and a new plan of the north slope area excavated in 1912 (Figs. 9, 10).

The upper portion of the settlement remains the best preserved section. This area can be approached via a narrow path above a cliff along the western side of the summit (Fig. 8); this cliff-path joins path 2 in the southwestern area of the settlement (Figs. 9, 10). Three narrow, winding paths can be traced through the upper settlement area: (1) path 2 in the southwest opens onto rooms 8, 9, and 22; (2) a north-south path leads through the center of the settlement; (3) in the eastern area, a path extends east-west between rooms 27, 31, 32 on the north and rooms 37, 33, and 34 on the south (Figs. 6, 7). This path leads to a door in the eastern wall of room 28 before turning south to end in a possible court (33), south of room 34 (Fig. 6). Wooden ladders must have been used to gain access to rooms 27 and 31 north of the path, as room floors are well below (ca. 1.50 m.) the level of the path (Fig. 7).

Room 20 is on the same level as the north-south central path, and connected to it via a door in its eastern wall (Fig. 6). Directly south, the floor of room 20 is over a meter below the level of the path, however, and access to this room could be gained only by ladder placed against the eastern interior wall.
In the lower settlement area, there are fewer discernible routes through the settlement. Path 20 (Fig. 9) connects courtyard 6, through area 13, to the rectangular structure 22-26 farther east. The narrow north-south passage 21, between courtyard 6 and structure 22-26, may have led out to a door in the encircling northern terrace wall, or perhaps to a drain. Pieces of rubble placed on the edge in the passage broke the flow of rainwater from higher up the slope. Courtyards 6, 41, and 50 also served to connect groups around them (Figs. 9, 10).

The eastern portion of the lower settlement is so precipitous (Fig. 9 section and Fig. 11) that ladders or rubble-built stairs must have been used to link different room levels, or doors may have opened onto roofs of rooms at a lower level (i.e., structures 43-44, 45-47; Figs. 9, 10).

Building techniques show little variance at sites of the Cretan early Iron Age period (ca. 1200-700 B.C.; LM IIIA-Geometric). Terracing was required at all high sites settled, and two complementary techniques were used: (1) a level space was dug back into the slope of the hill and enclosed on three sides with a rubble wall; (2) a floor was leveled with earth fill behind a terrace wall. The rear wall, formed by cutting out part of the hillside, was lined with rubble, and often the front wall of a room above and directly behind was placed on top of it (sections, Figs. 6, 9). Rubble walls at Vrokastro were constructed of pieces of the local limestone. Inability to cut back projecting bedrock necessitated its inclusion into wall construction, resulting in walls that were often far from straight, but substantial enough to endure for three millennia. Flat roofs necessary for communication between structures placed on different levels were upheld by wooden columns; the three-column bases Hall identified from the upper settlement are no longer extant (Fig. 8), but a round column base, no longer in situ, can be seen in room 52 of the lower settlement (Fig. 9). Flat pieces of rubble with straight edges were used to frame doorways, and employed as thresholds (door location is indicated by "D" in plans, Figs. 6, 9).

A few simple building plans can be discerned on the summit corresponding to plans in use in Crete for several hundred years (ca. 1400-700 B.C.). A one-room building is the simplest type of structure, e.g., rooms 1, 22, 27, 31, and 34 of the upper settlement (Fig. 9). Rooms 22 and 27 have interior chambers or "closets" built into corners (Fig. 6). In the lower settlement area (Fig. 9) rooms isolated on different levels or terraces may have formed one-room dwellings (i.e., rooms 31, 33, 39, 40, 51, and 54) since those rooms at least 10 meters square internally are large enough to have served as modest dwellings.

Two- or three-room units constructed along one long axis are also found scattered amid one-room buildings in the lower and upper settlement areas. On the summit, rooms 16-17, and possibly 19-20, are two-room units. It is possible that room 17 of structure 16-17 was approached from the east by a narrow path paralleling the north wall of room 19, or that it was entered from the north, via the small room 16 (Figs. 5, 6, 7). A ladder must have connected the higher level of the path to the floor of 17 unless the path led directly onto the roof of 17 or into a second story of this two-room building (Fig. 7). The western wall of 16-17 is massive enough to have sustained a second floor. The large size of this building (ca. 78 square meters) and its possible second story make it one of the most important buildings in the settlement.

In the upper settlement, the rooms 28-30, oriented north-south, may have formed a three-room building, but again ladders or rubble steps would have been required between the three floor levels (Figs. 6, 7). In the lower settlement area, a two- or possibly three-room dwelling, comprising rooms 3-5, was built behind a massive rubble terrace wall (Fig. 11) which encircles the entire lower town (Figs. 8, 10). The dwelling is the approximate size of the summit building 16-17 (ca. 80 square meters), and is one of the better preserved buildings in this part of the settlement. A central door in the east wall of room 8 opens onto an exterior court, 6 (Fig. 12); rooms occupying a roughly triangular area to the south and up the slope (rooms 14, 15; Figs. 9) may have served as auxiliary or storage rooms for structure 3-5. They were linked to the lower floor of the court by a roughly built rubble staircase (Figs. 9, 10).

Poor preservation makes it difficult to
possession of rooms sharing party walls. The four building types described above occasionally had internal features, such as stone built benches that can be paralleled elsewhere in construction of this period (east wall, room 20, upper settlement; south wall, room 27, lower settlement). In an area where Hall found figurines (room 11; Figs. 5, 6), a rectangular stone built projection, possibly a bench, can be seen built against the western exterior wall of room 9 (Fig. 6). This construction in conjunction with the building's fragments suggests the presence of a "bench sanctuary," a type of shrine derived from the Minoan period that continues to be constructed into the Iron Age (Caswell 1972: 181-191; Hall 1974: 101-102). Another feature of importance is the partially preserved, rubble-built terrace wall, encircling the lowest level of the north slope settlement (Figs. 9, 10). The wall is composed of medium to large, dry-laid stones and served to retain the rooms built against it to the south while protecting the mountainous community from winter winds from the sea. It may have functioned as a defense wall as well, though this cannot be proved. Other possible fortifications of the transitional Late Bronze/early Iron Age have been identified across the island (Hayden 1981: 156-160; 1985: n. 27, in press). Fortifications indicate that the third phase of the Cretan Late Bronze Age (LM III A 2) and the succeeding early Iron Age (LM III C - Geometric) was a more unsettled time than the previous LM Ie, neo-palatial period.

The range of building plans found at Vrokastro is fairly representative of domestic house plans in use at this period (at sites such as Karphi, Kavousi, Dreross, and Phaistos; Hayden 1981: 130-143). At Karphi one-room dwellings appear to have been the most common type identified at the site, and as at Vrokastro, doors are usually off-center and face either courts or routes through the settlement (Dreupel 1969: 39). One to three-room buildings may have been preferred at Cretan high sites because of the very rough terrain facing builders. It was far easier to construct small terraces for one to three rooms on different levels than to accommodate a larger structure of many rooms placed upon one terrace. There are some variations of the basic two- or three-room axial plan. Auxiliary (storage?) rooms are occasionally found aligned beside the main chamber, as possibly in the case of rooms 12, 13, paralleling the large structure 10-17 on the summit (Fig. 6); this plan occurs at other Cretan sites of this period, such as Phaistos, House AA-Q, and Karphi, the so-called "Great House." Rooms 8-14; Levi 1961-62: 405-408; Pindlebury, Money-Coutts 1937-38: 77-78, 84-85). The anatomy of this structure may possibly be traced to the Mycenaean mainland, for the "Mycenaean megaron" with its auxiliary rooms has a similar plan. Rooms sharing party walls also form houses at other sites (e.g. Karphi, rooms 130-133). For a description of other variants, see Hayden 1981: 130-145; 1983: in press.

It should be emphasized that this small number of house plans does not reflect the entire range of possibilities. A large structure of many rooms (on three levels) found at the Praisos illustrates the type of complexity possible, where the terrain did not present major obstacles to construction (Bossanquet 1901-2: 237-238; Dreupel 1969: 33-36; Renaud 1967: 591-592). Little is known of Cretan architecture for several hundred years after the close of the Minoan palace period, and while the completed Vrokastro plan augments the slim Late Bronze Age/Iron Age typology, there is still much to learn about the architecture of this transitional period. The origins of Vrokastro are likely constructed, simple buildings have not yet been determined. The plans may be the result of internal development beginning about 1450 B.C., at the close of the Minoan palace period, or they may be related to Mycenaean architectural influences affecting Crete after the fall of the Minoan palace.

Edith Hall's "mean, rude, and irregular" building plans are thoroughly representative of the basic forms in use at mountainous sites in early Iron Age Crete, and may demonstrate a continuous architectural tradition traceable, perhaps, to the mid-15th century B.C. It is possible that their ancestry, whether Minoan or Mycenaean, may one day be established, and if more can be determined about room function, these structures will tell us more about how people ordered their lives and went about their work activities. The house plans presented in this paper can only be supplemented by future excavation, accompanied by careful attention given to the architecture of this transitional period. Vrokastro's significance extends beyond its architecture, however. It has been described as "...the second most important site in Crete..." of this period (Desborough 1932: 286). It remains one of the few settlements where both domestic architecture and over fifty tombs have been excavated. The large amount of pottery produced from this early excavation has been only partially published, and analysis of the published pottery (Desborough 1952: 262-268) indicates that the site was not affected by the introduction of mainland Crete (Attic) Geometric pottery shapes and motifs, possibly in the early 10th century B.C. (Katsa 1980: 8). This Attic influence was felt in central Crete, especially at Knossos. It has been assumed, therefore, that settlements of this period (1200-700 B.C.) were relatively isolated, with trade and contacts restrained during an unsettled time in which descendants of the old Minoan stock fled to mountainous sites for protection (e.g., settlements such as Karphi at the northwest edge of the mountain range inclosing the upland plain of Lasithi).

Possibly a more thorough analysis of unpublished Vrokastro pottery will alter this view somewhat, and indicate stronger ties to other island communities. This new study, which I have undertaken, will supplement other ideas emerging concerning life in Crete at this time. It has been recognized
that not all Cretan early Iron Age communities were located in mountainous and remote areas, and that some sites are low-lying, inland or coastal (Vrokastro itself might qualify as a "coastal" community, with parts of its economy based on fishing, for the summit is a forty-minute climb from the coast; Figs. 2, 3). Many more villages and farms belonging to the LM IIIC. Subminoan, and Protogeometric/Geometric periods have now been identified either through location of tombs or surface sherds. Defense was not the only motivation in choice of site. A number of villages in remote areas may have resulted from the cultivation of upland plains and mountain slopes for wheat and grapes, or may have been related to the seasonal movement of sheep flocks from low-lying to mountainous pastures (Binfilff 1977: 115-117, 930). Today Cretan farmers often maintain two dwellings, one in a village, the other near fields which require cultivation on a seasonal basis (Binfilff 1977: 114). A number of these sites (i.e., Vrokastro, Kavousi, Deresos, Arkades, etc.) are also located near important cross-island routes, indicating that trade and communication between sites may be a more important factor than previously believed.

Vrokastro as a large Iron Age community is an important part of this emerging picture of a long-neglected phase of Crete's prehistory. The 1910 excavation directed by Edith Hall has provided the basis for continued work at the site which will increase our understanding of this complex period.

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The Return of The University Museum Demeter
A Greek Goddess Attempts to Establish Her Identity

KARLA KLEIN ALBERTSON

For more than forty years a graceful marble statue of a Greek goddess (Figs. 1-3) stood unnoticed in a storage room of The University Museum. Eventually, as time passed, its history, records, even its very existence were forgotten. Suddenly in 1979 the petite goddess appeared in public once again in an exhibition of ancient Greek art in Allentown, Pennsylvania. In order to determine why and how this happened, it is necessary to review the circumstances concerning the arrival of this statue in Philadelphia, its subsequent disgrace, and most recent reappearance. The background to these events is the story of the sculptural type—the 'family' to which this example belongs—and this complete story presents problems as difficult and frustrating as any historical deduction is ever called upon to solve.

The early days of this work of art in its new home were filled with praise and publicity. The headlines which topped an article in the now defunct Philadelphia Ledger for 21 February 1954 explained that the museum had received a Greek statue of the goddess Demeter from an anonymous donor who had paid $350,000 in Italy for the figure which might be an original by the sculptor Praxiteles (Fig. 4). $350,000 in 1926 was a small fortune, and may be compared to the $3 million plus recently paid by the J. Paul Getty Museum for a Greek bronze statue of a nude male figure, possibly of the 4th century B.C. sculptor Lysippus, as reported in the Los Angeles Times of December 12, 1977.

In the 1926 newspaper article, Dr. George B. Gordon, Director of The University Museum, announced the gift with the optimistic remark that it would become priceless if proved to be a Praxitelean original. The statue was put on display, and its arrival formally noted in the Autumn 1926 number of The Museum B.C. newsletter. Dr. Gordon did the next year, perhaps taking with him the name of the still anonymous, but very donor responsible for the gift. That same year Dr. Edith Hall Dolan

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