

# THE UNIVERSITY OF CHICAGO EXCAVATIONS IN THE RACHI SETTLEMENT AT ISTHMIA, 1989

(PLATES 10–30)

**D**URING THE 1989 SEASON, the University of Chicago conducted excavations in the early Hellenistic settlement on the ridge south of the Sanctuary of Poseidon at Isthmia (Fig. 1).<sup>1</sup> The site is known locally as the Rachi, or ridge, and had been located and partially excavated by Professor Oscar Broneer from 1954 to 1956, after the chance discovery of a gold earring on the summit. The excavations in 1954 and 1955, supervised by Chrysoula Kardara, uncovered votive pits at the summit and structures occupying the long narrow surface of the ridge. A well and a cistern in the settlement were discovered in 1955, and excavation of those features was completed in the spring of 1956 with William B. Donovan as trenchmaster.<sup>2</sup>

The goals of the 1989 investigations on the Rachi were to reveal the plans of individual buildings and the extent and chronology of the settlement in preparation for publication of the site. Trenches were opened in three areas (Fig. 2): the central part of the settlement, the east end, and the south slope of the ridge. As a result of the work in 1989, a stratigraphic sequence is now available for the entire period of occupation of the site. Several areas not completely excavated during 1954 and 1955 were cleared, and new buildings were discovered at the east end and along the south slope. This report is intended to serve as

<sup>1</sup> The University of Chicago Excavations at Isthmia were directed by Elizabeth R. Gebhard and carried out with the permission of the Ministry of Culture of Greece under the auspices of the American School of Classical Studies at Athens and the University of Chicago; the work was supported by a three-year grant from the National Endowment for the Humanities (#RO-21847-89) that was matched by private contributions. I also gratefully acknowledge the assistance afforded by the Drusilla Stevens Mazur Research Professorship at Wilson College.

In addition to the author, Donald Jones, Dragan Stojanović, and Jennifer Tobin served as trench supervisors. Field photographer was Caitlin Rockman, and objects were photographed by Ino Ioannidou, Lenio Bartzioti, and Michiel Bootsman. Aristomenes Arberores served as foreman, assisted by Athanasios Notes. I am indebted to John W. Hayes for his help in sorting and inventorying the masses of pottery recovered during the 1989 excavations and for additional assistance in 1993. Architectural drawings and sections for this article were made by Pieter Collet and Frederick P. Hemans from plans produced by Hemans, Donald Jones, Ab Koelman, and David Peck. Pottery profiles are the work of Pieter Collet.

<sup>2</sup> Preliminary reports for the Rachi excavations appear in Broneer 1955a, pp. 124–128, and Broneer 1958, pp. 17–20, 31, 32, 36. Further mention is made of the Rachi settlement in Broneer 1955b, pp. 61–62. A partial description of the remains uncovered in 1954 and 1955 appears in Kardara 1961, with additional discussion in Kardara 1974. We are grateful to Dr. Kardara for her careful descriptions of those excavations in the field notebooks. The workshop in House IV is illustrated in White 1984, p. 40, fig. 32. Discovery of the gold earring is described in Broneer 1953, pp. 184, 194–195, and illustrated on plate 60:d. A study of the entire Rachi settlement, together with the finds, will be published by the author in a volume of the *Isthmia* series of the American School of Classical Studies at Athens.

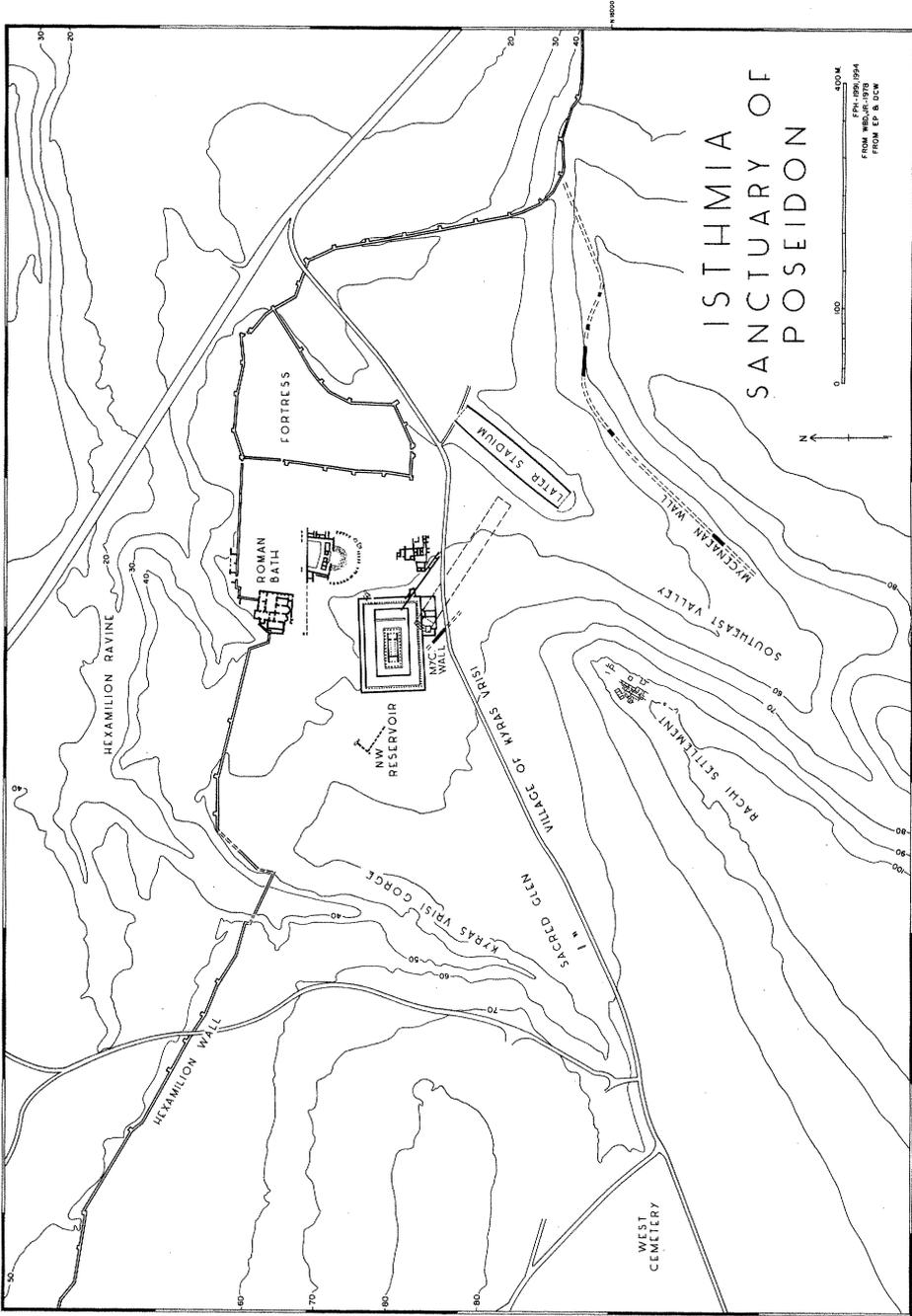
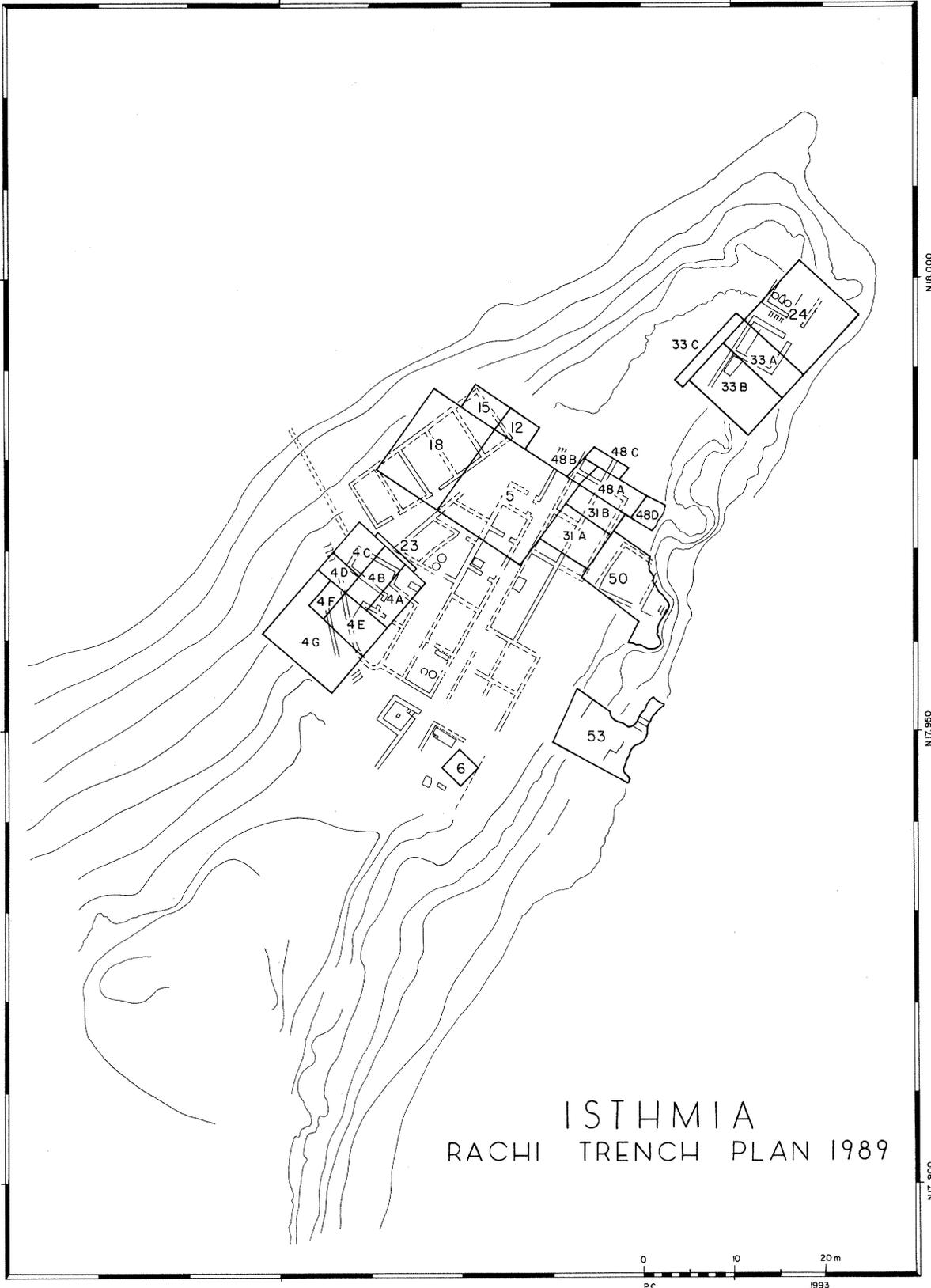


Fig. 1. Sanctuary of Poseidon at Isthmia and its environs, including Rachi settlement (after earlier drawing by W. B. Dinsmoor Jr.). Ten-meter contour intervals marked from sea level

E 2100

E 2150



ISTHμία  
RACHI TRENCH PLAN 1989

0 10 20m  
PC 1993

FIG. 2. Plan of excavation trenches, 1989

a preliminary account of the results of the 1989 excavations, but, of necessity, some relevant features of earlier discoveries will be included.<sup>3</sup>

## THE SITE AND ITS SETTING

The Rachi is a ridge running southwest to northeast, rising more than 50 meters above the Isthmian sanctuary and 103 meters above the nearby Saronic Gulf (Pl. 10). For ease of reference in the following description, the ridge will be treated as if it ran east–west. On the south flank of the hill is a precipitous drop into the valley that was occupied by the Hellenistic stadium.<sup>4</sup> On the north flank the ridge slopes more gradually toward the temenos of Poseidon.<sup>5</sup> Along the axis of the ridge at the west end, the surface is level and connects with a large plateau that overlooks the Kenchreai valley.<sup>6</sup> The exposed, upper surface consists of poros overlying deep layers of marl that alternate with layers of limestone.<sup>7</sup> The ridge is typical of formations in the Corinthia in the way that the drainage erodes the marl layer beneath the limestone, causing the edges of the stone to break away and form caves, gullies, and valleys.<sup>8</sup>

Extensive quarrying in antiquity and in modern times has altered the original appearance of the ridge, and removal of large segments of rock at the east end and along the south slope has damaged or removed ancient structures.

The settlement, located at what is now the eastern point of the promontory, consists of closely spaced house-workshop units that were built on and cut into the exposed bedrock of the ridge; the settlement area covers a convex surface approximately 120 meters in length and 35 meters in width at the broadest section along the top (Fig. 3, Pl. 11:a). A long structure with five rooms (the North Building) is located at the edge of the north slope. The building

<sup>3</sup> Trenches are designated by the prefix 89-. Elevations cited in the report are with reference to sea level, and measurements (including those in the catalogue) are in meters. All dates are B.C. Numbers in boldface refer to catalogue entries. Wares are Corinthian unless another source is noted, and Munsell readings are not given in the catalogue for objects of Corinthian manufacture. The Munsell colors for fired Corinthian clay range from 5YR 7/6, reddish yellow, to 7.5YR 7/6, reddish yellow, or 7.5YR 7/4, pink, to 10YR 8/3, very pale brown (Munsell Soil Color Charts, Baltimore 1975). For a fuller discussion see *Corinth* VII, iii, p. 10. I have used the typology of Richard Howland in *Agora* IV to refer to Attic lamps and that of Oscar Broneer in *Isthmia* III for Corinthian lamps as the most straightforward references, even though revisions in types and chronology are needed. Inventoried ceramics that help establish chronology or contribute to the typology of the ceramic shapes are included in the catalogue and numbered consecutively throughout this report. Other inventoried objects are included to illustrate representative, unusual, or well-preserved types. Coins appear in the Appendix. The following prefixes refer to classes of inventoried objects: IC = Isthmia Coin; IM = Isthmia Miscellaneous Find; IP = Isthmia Pottery; IS = Isthmia Sculpture; IT = Isthmia Tile.

<sup>4</sup> This stadium, referred to by Broneer (*Isthmia* II, pp. 55–63, 66) as the Later Stadium, was built in the late 4th or early 3rd century B.C.

<sup>5</sup> The physical relationship of the Rachi hill to the Sanctuary of Poseidon is discussed in Gebhard and Hemans 1992, pp. 3–5.

<sup>6</sup> The Rachi follows the pattern of a series of similar ridges spreading out from the Agios Demetrios ridge toward the Saronic Gulf.

<sup>7</sup> Gebhard and Hemans 1992, p. 5.

<sup>8</sup> Salmon 1984, pp. 8, 20.

E 2,100

E 2,150

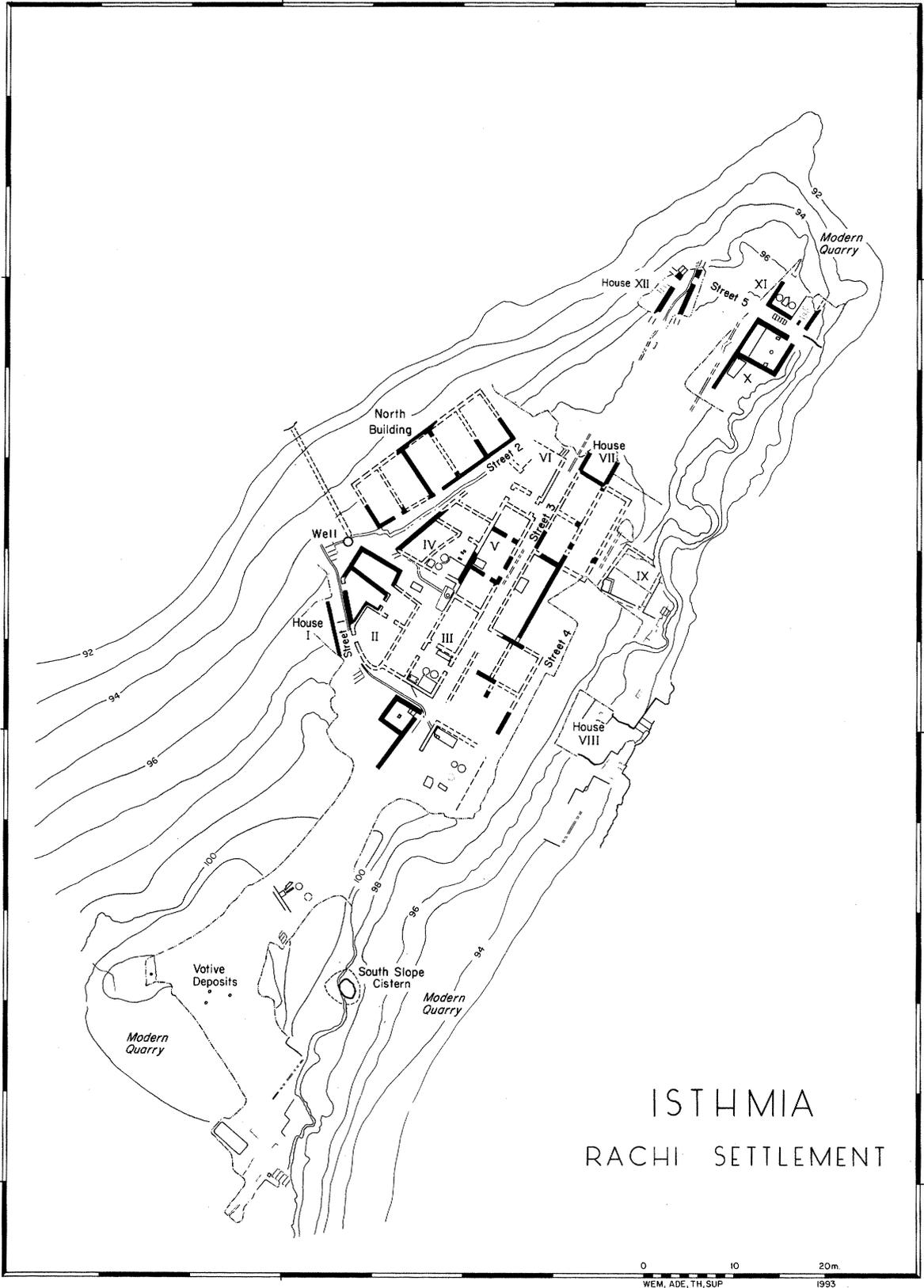


FIG. 3. Partially restored plan of settlement

faced inward toward the settlement at an angle slightly different from that of the houses. The houses themselves are organized in approximately the same orientation in long irregular blocks separated by narrow passageways (1–1.3 m. wide), three running east–west and two north–south.<sup>9</sup> The North Building and House XII are part of a single row of buildings at the top of the north slope and mark the limit of the settlement in that direction. Although this slope facing the Sanctuary of Poseidon has a gentler incline, it seems not to have been occupied by houses or other structures.<sup>10</sup> The south slope was more densely developed, and remains of walls and steps extend down the slope to a point where the incline becomes very steep and the limestone changes to a friable conglomerate (Pl. 11:b). At this level (below House VIII) are several recesses carved into the rock, one of which appears to be a small cistern (it has not been excavated). A large bottle-shaped cistern (South Slope Cistern, Fig. 3) was cut into the rock below the summit. Access to the settlement from the northwest was gained by a set of broad steps leading to Street 1, while the south side contains numerous stairs that connected rooms and provided access to the lower terraces where the cisterns were located. It is possible that the surface of the ridge farther to the southwest was also occupied by structures, but that area, which has not been excavated, is now covered with quarry debris. A very deep well at the northwest corner of the site provided drinking water until it went out of use in the late 4th or early 3rd century.<sup>11</sup> No other wells have been located in the settlement.

## CHRONOLOGY

The earliest remains of activity on the Rachi are related to a shrine that must have been located close to the summit of the hill. Although no structure associated with the shrine is preserved, votive deposits were discovered in and near several bedrock depressions during the 1954 excavations.<sup>12</sup>

In the mid-4th century B.C. the well was put in, and during the second half of the century the first structures were erected. Although the buildings on the Rachi were built directly on the bedrock, several deposits contained enough material on which to base a date for construction of the buildings. Crevices and low areas in the bedrock were filled with a mixture of soil and poros chips to provide a level surface for floors and walls. The sherds

<sup>9</sup> Such narrow passageways are adequate for pedestrian traffic and advantageous for defense. They are common in the Sanctuary of Demeter and Kore on the north slope of Acrocorinth and in Corinth itself; for example, see Williams and Fisher 1972, p. 174; Williams 1977, p. 41, note 2; *Corinth XVIII*, i, Plan A. The modern Greek mountain or island village provides other, more recent examples (Moutsopoulos 1993, pp. 20–21). Such passageways in a village on the island of Skyros are illustrated in Oliver 1974, p. 12.

<sup>10</sup> In 1988 a survey of the bedrock profile taken with an electromagnetic conductivity meter revealed no sign of construction; therefore, no excavations were conducted here. Sherds, but no walls, are visible in the scarp of a new road cut on the north slope, and marl layers exposed for basements or foundations of new houses show no visible remains. There are several small caves high up on the north slope which have been hollowed out of the marl that lies below the top layer of poros.

<sup>11</sup> See Anderson-Stojanović 1993a, pp. 269–270.

<sup>12</sup> Broneer 1955a, pp. 125, 134, pls. 47:b, 52:c. See also Kardara 1970 and Anderson-Stojanović 1987b and 1994b.

found in this earth support a date for construction within the second half of the 4th century. Several thin earthen floors with pottery from the second and third quarters of the 3rd century show that use of the buildings continued throughout the 3rd century.

The destruction and subsequent abandonment of the settlement can be established at *ca.* 200 B.C. Overlying much of the area was a destruction deposit filled with burned mud bricks, tiles, and household equipment, particularly in the basements of Houses II, VII, IX, X, and XI, all discovered in 1989. Numerous items appear to have fallen into these basements from a living area above. The pottery, coins, and stamped amphora handles from this debris put the destruction after 210 B.C. The Rachi settlement, therefore, was occupied at most for a period of about one hundred and fifty years.

## ARCHITECTURE

Because consistent construction techniques were used in most buildings, it is helpful to summarize them before describing individual buildings. Throughout the exposed area, the bedrock was quarried, trimmed, and cut in order to create level surfaces for houses. Chisel marks from trimming the rock are clearly visible on the vertical scarps of bedrock that served as basement walls and in wall beddings, and the floor surfaces of the basements retain marks from quarrying. The quarried stone must then have been used in construction of walls. Irregularities in bedrock were filled with earth and poros chips. Beddings for ashlar blocks placed at intervals within the rubble walls can be identified by a cutting along one or two sides of a leveled surface. These are the most distinctive visible signs that still show the line of walls. Even when the walls themselves have disappeared, their position can be determined from these characteristic beddings.

The spaces between the blocks were filled with rubble masonry bound with mud mortar, and fragments of tiles were used to level uneven surfaces under the blocks. The thickness of the walls varies from 0.40 m. to 0.70 m. Above a base of two or three courses of stone and rubble, the walls were built of mud bricks. Although many mud bricks were encountered in the excavations, only one was found intact, in House IX. It was 0.42 m. square and 0.09 m. thick.<sup>13</sup>

Floors were finished with hard cement in work areas, while in other rooms the bare rock surface was left exposed or covered with an earthen floor. Quantities of roof tiles found during the excavations of the houses on the Rachi give firm evidence that the roofs were tiled. Study of the tiles from the 1989 excavations show that primarily Corinthian pan tiles were used in combination with reused Corinthian and Laconian cover tiles.

### THE NORTH BUILDING

A long building with multiple rooms occupies the lower terrace of the hill at the north (Fig. 4, Pl. 12). Revealed during excavations in 1955, it is here called the North Building.<sup>14</sup>

<sup>13</sup> Examples of mud bricks found in House XI were between 0.07 and 0.08 m. thick and varied in width from 0.19 to 0.27 m. None shows any traces of plaster. Sun-dried bricks of approximately the same thickness were used in the theater of the first Greek period (Gebhard 1973, p. 20).

<sup>14</sup> Broneer (1958, pp. 19–20) describes the building and suggests that it may have housed shops.

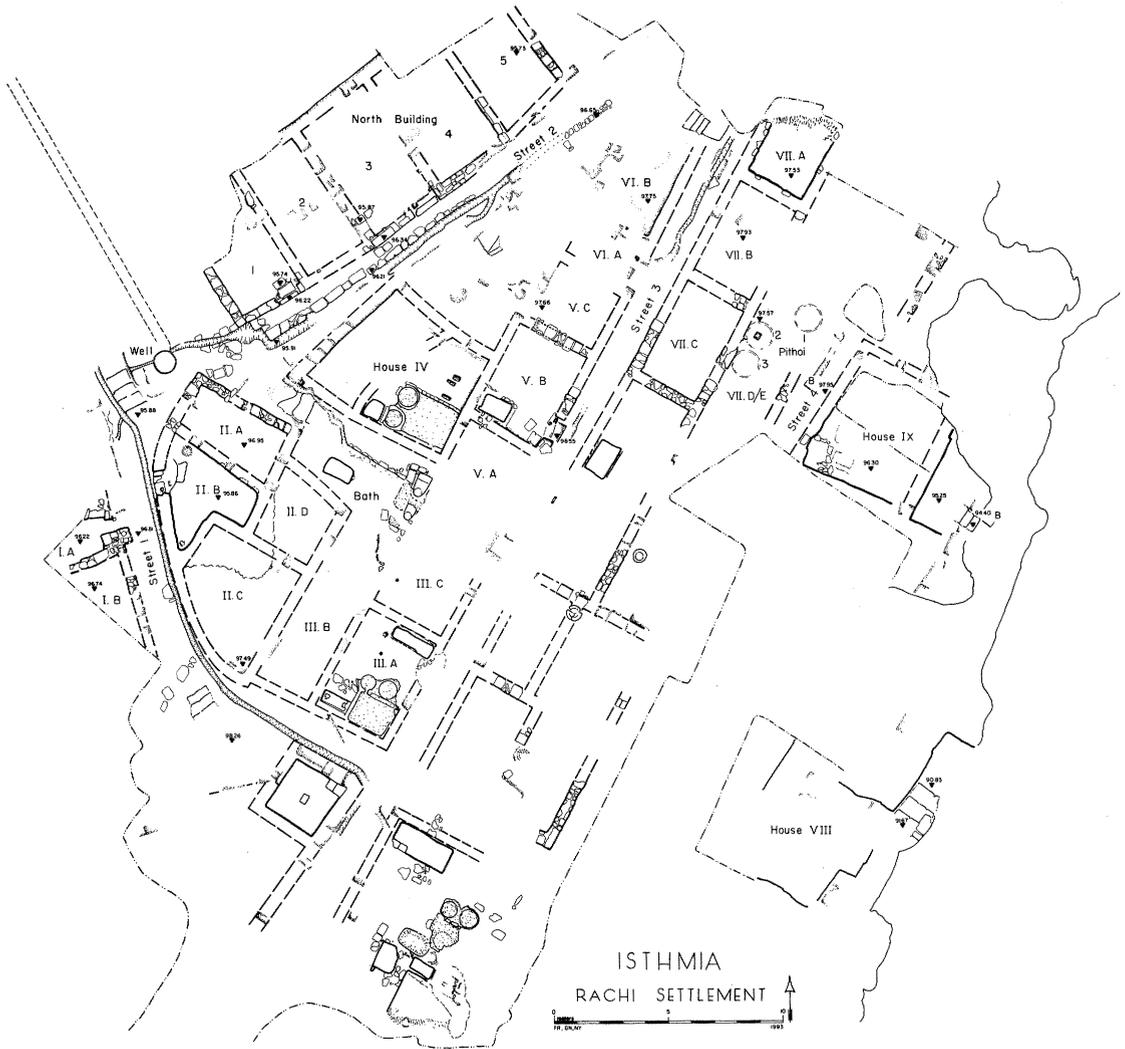


FIG. 4. Actual-state plan of central part of settlement

In 1989 trenches were put in along the east and north sides of the building to determine the limits of the structure in those two directions. With the discovery of the east wall and evidence for the location of the north wall, we know that the building was 17 m. long (east–west) and 6.50 m. wide (north–south). Each of the five rooms is approximately 3 meters wide. The structure faced south, and doorways in the south wall are preserved in Rooms 1 and 3.

### Room 5

Most of the stone socle of the east wall of the building was found to be *in situ* and is preserved for a distance of *ca.* 1.90 m. from the southeast corner. It is composed of two courses of roughly cut poros blocks with a height of 1.00 m. The continuation of the east wall to the north is indicated by a smoothed area on the bedrock. At the southeast corner, the wall abuts a bedrock ledge that rises to the south. Here a bedding marks the place for the corner block at the level of the second course. No blocks for the south wall of this fifth room were in place, but there are areas where the bedrock was leveled along its course.

Room 5 had three earthen floor levels (Pl. 13:a).<sup>15</sup> Ceramics from these floors provide evidence for the date of construction of this room and probably for the North Building itself. Above the irregular bedrock, a packing of poros chips lay beneath the clay floor. Ceramics in the packing, including a mortarium (1), provide a construction date in the last quarter of the 4th century B.C.<sup>16</sup> Floor 3, of red earth mixed with clay, probably dates to the early 3rd century as it contained a Broneer Type VIIC lamp (3) and a bowl (2) which need not be any later.<sup>17</sup> Two bronze Corinthian coins of the 3rd century (IC 1441, IC 1459), a late mortarium type (4), and other pottery found on the latest floor (Floor 3) in Room 5 date the destruction to the late 3rd century B.C.<sup>18</sup>

1 (IP 7873). Mortarium Pl. 13

H. 0.070. Diam. rim 0.300. Diam. base 0.220.

Slightly less than one half preserved, including a small part of one handle.

Coarse Corinthian clay. Flat base, broad convex rim with markedly concave wall below. Gray and red surface grits rise close to rim on interior.

Edwards Type I mortar. Cf. *Corinth* VII, iii, no. 622, p. 110, pls. 22, 59, which has a similar rim but not a concave wall.

Edwards would date the concave profile to the 4th century, and the absence of a lip on the rim profile suggests that its date is not 3rd century (p. 109). IP 6574, of the same type and with a similar profile, comes from a level of the Rachi well dated to the third quarter of the 4th century (Anderson-Stojanović 1993a, no. 13, p. 274).

Second half of the 4th century B.C. (?).

2 (IP 7779). Echinus bowl

Fig. 5

P.H. 0.046. Est. Diam. 0.126.

Large section of rim and profile to foot preserved.

Black to red mottled slip ending halfway down exterior. Curved wall and tapering lip; small, flaring ring base with shallow groove on underside. Indentation midway down body where color changes from pale brown (10YR 8/3) to reddish yellow (5YR 7/6) as a result of stacking in the kiln.

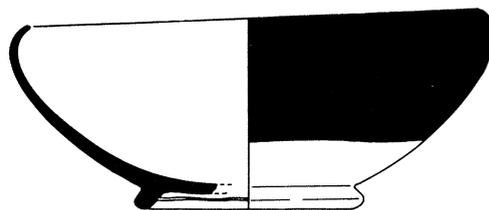


FIG. 5. 2. Scale 1:2

<sup>15</sup> Floor 1, the lowest, at +95.45 m., Floor 2 at +95.62 m., and Floor 3, the highest, at +95.73 m.

<sup>16</sup> Lot 89-169.

<sup>17</sup> Lot 89-177.

<sup>18</sup> Lot 89-176.

**3** (IP 7700). Broneer Type VII C lamp Pl. 13  
H. 0.030. L. 0.074. W. 0.049. Central pour hole  
0.020.

Body intact. Basket handle missing.

Pale fabric with flaking black slip on exterior, metallic slip on inside. Concave rim, high convex wall becoming vertical toward the bottom. Flat, wire-cut base. Tapering nozzle almost rounded on top. Stumps of horizontal band handle at rear.

Cf. *Isthmia* III, no. 125 (but without the handle), p. 17, pls. 3, 17. The shape is Howland Type 25 A, and the variety with handle suggests that this example, if it were Attic, would fall earlier rather than later in the life span of the type. Scheibler (*Kerameikos* XI, pp. 26–27) would date this shape, RSL 4, within the years 400–250 B.C.

Early 3rd century B.C.

**4** (IP 7773). Mortarium Pl. 13  
H. 0.070. Est. Diam. 0.260. Diam. base 0.114.  
About half preserved including spout.

Local coarse ware with fine gray grits on floor. Bowl rounded on inside, almost straight-walled on outside with flat undefined base. Sloping rim ending in a thin overhang. Projecting spout U-sectioned, slightly splayed, at rim level. One of the two piecrust handles preserved. Slight groove near top of rim.

Cf. *Corinth* VII, iii, no. 626, p. 111, "Mortar II", pls. 22, 59, there dated to 175 B.C., but from deposit 102, p. 228, which contains material of the 3rd century. This type of mortar with piecrust handles does not appear in the fill of the Rachi well, which appears to have an end date of the third quarter of the 3rd century B.C.

### *North Wall*

The northwest corner of the building remains unexcavated, as does the north end of Room 5. The bedrock surface at the northeast corner is now very irregular, probably as a result of quarrying activity. In the center of the building, however, two existing beddings and a single block probably mark the line of the north wall close to a quarry face that drops off below. Beddings for the wall between Rooms 2 and 3 extend to this bedrock face at the north. That destruction debris lay directly on the beddings for the north wall indicates that those blocks were robbed out before complete destruction of the building.

Nothing was found in the 1989 excavations to suggest what activities were carried out in the North Building. Given the size and arrangement of the rooms, it is possible that the building held shops, as Broneer suggested.<sup>19</sup> The stone paving in Rooms 1 and 3 reflects the need for a clean, dry space, which may mean that the building was also used for the storage of finished goods.

### HOUSES

Each of the houses on the Rachi contains certain characteristic features, although no two are identical in size or arrangement. A distinction between individual houses is frequently difficult because many houses share party walls, and many walls have been robbed of blocks. Preliminary study, however, suggests that the remains of approximately eighteen houses have been cleared in excavations at the site, and there are traces of at least five others that have not been excavated. Although some houses were removed and damaged by quarrying activity on the south slope and at the west, the total number may not have exceeded thirty. In 1989 eight new structures (Houses I, II, VII, VIII, IX, X, XI, XII) were brought to light, and two others (Houses V, VI), partly exposed in the earlier excavations, were further investigated.<sup>20</sup>

A typical house includes three to four rooms, one of which is a courtyard with a cistern in the corner and a doorway to the street. Many of the houses had a workshop which is easily recognized by a cement working floor approximately 2 meters square (Fig. 4, Pl. 12). At

<sup>19</sup> See note 14.

<sup>20</sup> Only those houses pertinent to discoveries in 1989 have been numbered on the published plans.

one end of this floor are two conical containers or vats, one larger and the other slightly smaller. One or more rectangular tanks are located nearby. Among the most important discoveries of 1989 was the basement storage room, cut out of the bedrock, over which was an upper story used for living and sleeping quarters. Maison no. 1 at Thorikos shows a similar arrangement of a basement room (C) with a room above it at street level.<sup>21</sup> Other rooms *may* have carried a second story.<sup>22</sup> In general, the basements in the settlement appear to have been purely storage areas entered from the street, with no direct access from the rooms above. In most houses, sockets for door pivots exist only for the outside doorways, which suggests that doorways inside the houses were not closed by solid wooden doors but perhaps by curtains. Possibly they were left as open passageways.<sup>23</sup> From the shape of the cuttings on the threshold, all the doors appear to have opened inward.<sup>24</sup> Although no rooms that could be securely identified as kitchens were found, numerous millstones, quantities of cooking pots, storage vessels, and table ware speak for the preparation and consumption of food.<sup>25</sup> Furthermore, an opaiion tile (29), recovered from the basement room of House VII (C), would have provided ventilation for a cooking area. Near House II is the only bathroom preserved in the settlement, equipped with one built-in tub of cement and stone and a place for a portable bathtub of terracotta.<sup>26</sup>

### CENTRAL PART OF SETTLEMENT

For purposes of description, the settlement has been divided into three sections: (1) the western part, or summit, of the ridge (Fig. 3, Pl. 10), where the votive deposits, South Slope Cistern, and remains of several houses were discovered in the excavations of 1954 and 1955; (2) the central part (Fig. 4, Pl. 12), which contains features excavated in both the earlier and later campaigns, including Houses I–IX and the North Building; and (3) the eastern end of the settlement (Fig. 13, Pl. 23), where Houses X–XII were discovered in 1989. Only the central and eastern parts of the settlement are discussed in this report.

<sup>21</sup> Jones (1975, p. 123, fig. 20) describes Maison no. 1. Note a parallel situation in a Roman house (N) near the Agora in Athens (Young 1951, pp. 272–276, and Jones, *op. cit.*, pp. 75, 77, fig. 4). Room j of the House of Good Fortune at Olynthos is an underground storage room (*Olynthus* VIII, p. 61). Williams and Fisher (1972, p. 163) suggest that two below-ground rectangular chambers underneath the South Stoa in Corinth (fig. 5, p. 166) may have served as wine cellars for public or cult buildings of the 5th century.

<sup>22</sup> The second story in the Greek house is discussed by Graham (1954), Jones (1975, pp. 74–75, with references), and Jameson (1990, p. 101). Hoepfner and Schwandner (1986, pp. 67–68) describe the remains at Olynthos.

<sup>23</sup> Pritchett 1956, pp. 236, 248; *Olynthus* VIII, p. 252.

<sup>24</sup> Doors at Olynthos also opened inward: *Olynthus* VIII, pp. 255–256.

<sup>25</sup> Much household activity in the ancient Greek house could be carried out in a variety of locations that changed according to the season of the year, because the necessary equipment, even various types of cooking apparatus, was portable. Thus, rooms and courtyards tended to be multipurpose spaces (Sparkes 1962, pp. 127, 129, 131–132; Jameson 1990, pp. 98–99).

<sup>26</sup> The tubs are of the type with circular depression at the foot and bench at the back. Fragments of several terracotta bathtubs were found in the Broneer excavations (Broneer 1955a, p. 127, pl. 49:c; Broneer 1958, pp. 18, 19, pl. 8:a). The best-preserved example was found near the votive deposits at the summit. For a discussion of the bathtub, or *puelos*, see Amyx 1958, pp. 253–255.

## HOUSE I

To the west of Street 1, the corner of a building, House I, was discovered. Two small sections of the east wall are preserved, but the rest of the building is unexcavated. Room A, a small room partly uncovered at the northwest (Pl. 13:b), contains a bench (*ca.* 0.40 m. high) in the southeast corner. A rough bedrock scarp forms the division between Rooms A and B. A relatively flat, worked section of bedrock marks the probable floor level (+96.22 m.) of Room A, which may have been a small storage room. The entire room was covered by a deep deposit of black, burned earth in which many roof tiles and crushed amphora fragments were found.<sup>27</sup> Other types of domestic objects were also recovered, including loomweights and two poros basins. The basins appear to have fallen into the room from above because one was found upside down and the other was broken.

The boundaries of Room B are defined by the bedrock scarp to the north and the east wall of the house. In this room was a drain, made of two Laconian cover tiles, that extended only to the east wall of the building.<sup>28</sup> Presumably the drain originally connected to the rock-cut water channel of Street 1 at a point where the stone is worn away. It may have brought water from a bathroom or courtyard to the west.

## HOUSE II

House II, located at the angle between Streets 1 and 2, consists of three rooms and a courtyard at the main level and a basement storage area (Room B) at the northwest corner (Fig. 4, Pl. 14:c). The courtyard (Room C) at the southwest has been identified from the remains of a cement floor still in place.<sup>29</sup> A construction deposit of earth and stone packing for the cement floor contained material dating to the late 4th and early 3rd centuries B.C.<sup>30</sup> Room C may have contained the working floor with vats that is typical of most houses. At the southeast corner of the house is a small room (Room D). A large portion of Rooms C and D was destroyed by dynamite in modern times.

Although no entrance to the main floor of the house has been preserved, it was probably located in the west wall of the courtyard, leading to Street 1. A separate entrance from the same street is located at the northwest corner of the basement (Room B).

Room B (the basement) is an irregularly shaped chamber cut out of the sloping bedrock with a floor level that slopes down markedly from the entrance toward the south. At the northeast corner and at the southwest corner of the chamber where the bedrock rises are two roughly circular depressions, perhaps used to support containers of some kind, small pithoi or amphoras. None of the walls preserved any traces of plaster or cement, while their upper portions at the south and southwest have been destroyed by modern quarrying. The east wall has four irregularly shaped large niches, two of which are spaced *ca.* 1.20 m. apart at the same level near the center of the room. A corresponding cutting is located in the west wall. Placed too low for floor beams of the room above, they were perhaps used instead for mounting shelves or some other fixture. On top of the east escarpment are beddings

<sup>27</sup> Lot 89-116.

<sup>28</sup> The tiles are inventoried as IT 1055 and IT 1058.

<sup>29</sup> The cement floor, 0.35 × 0.50 m. (+97.49 m.), was laid over hard earth with poros chips.

<sup>30</sup> Lot 89-120.

for the wall above. The surface above the diagonal west scarp, however, has not been evenly trimmed and contains no beddings.

At the time when the building was destroyed, a poros container rested on the earthen floor of the basement. On top of it were stacked two anta blocks, and nearby were several Corinthian pan tiles (Pl. 14:a) and an intact ridge tile (10).

In the lower layer of destruction debris was an almost complete West Slope kantharos (5) and part of a Silenos medallion from a drinking cup (6), as well as cooking wares (7), a Corinthian A amphora, a snake-and-helmet stele (8), loomweights, and millstones (9).<sup>31</sup> An upper layer of very reddish soil mixed with bits of clay and numerous mud-brick fragments was probably derived from the collapse of the wall dividing Room A and the room above B.<sup>32</sup> The objects in this deposit may originally have been located in Room A. Among the objects in this upper destruction layer were table wares (11–14) and several lamps (15, 16). The difference in the assemblages of the two deposits may well reflect the different functions of Rooms A and B. The millstones and loomweights suggest a working space for Room B, while table wares and lamps point to dining in Room A.

5 (IP 7702). Kantharos with West Slope decoration Pl. 15

H. 0.105. Diam. body 0.087. Diam. foot 0.042.  
Mended and restored.

Thin black gloss on interior, semiglossy on exterior to just above base. Deep, rounded body with small, everted rim of cyma type. Double-stepped, low-stemmed flaring foot, conical underneath. Strap handles with thumb plates. Reserved groove below rim. Incised swags with alternating dots in cream paint.

Cf. *Corinth* VII, iii, nos. 399–408, pl. 15.

6 (IP 7701). Bowl with medallion Pl. 15

P.H. 0.025. Max. p. dim. 0.079. Diam. base 0.034.  
Whole of base and one joining sherd.

Local clay with traces of black slip. Shallow form, probably from conical bowl with small flat base. Applied medallion of Silenos head, richly bearded, at center of floor (H. 0.044, W. 0.038). Cf. 48 with three-quarter view.

7 (IP 7734). Casserole Pl. 15

H. 0.072–0.082. Est. Diam. rim 0.262. Diam. foot, 0.086.

Half of base and one side with handle mended.

Gritty red-brown cooking-ware fabric with fine limestone grits. Outer surface fired gray. Vertical wall with short flaring rim, slightly convex top. Shallow, rounded bottom with low angular ring base of small diameter.

8 (IM 6003). Moldmade relief plaque: Pl. 15  
snake-and-helmet stele

P.H. 0.066. W. 0.017. Th. 0.008.  
Bar of clay, broken at both ends.

Coarse orange-red clay (2.5YR 6/6) with much temper present. Traces of heavy white paint on all sides. Finger marks on the back indicate that the clay was patted and smoothed into the mold. A serpent with its body formed into four undulations appears in relief climbing up the front. The front of its head and the tip of its tail are missing.

Cf. *Corinth* XII, nos. 183–184, p. 38, pl. 13, dated to the 5th century, and remarks about deposit III, pp. 15–17, no. 17. These stelai became more numerous in the 4th and 3rd centuries: see *Corinth* XII, nos. 365–375, p. 54, pl. 33, and discussion of deposits II and VI, which contained a number of examples (pp. 19–20). See also Williams and Fisher 1972, no. 57, p. 162, pl. 27; Williams and Fisher 1973, p. 8 and MF-72-2 on plate 3.

Late 4th to early 3rd century B.C.

<sup>31</sup> Lot 89-122.

<sup>32</sup> Lot 89-110.

- 9** (IM 5995). Millstone Pl. 15  
L. 0.27. W. 0.18. Th. 0.02.  
Intact.

Rectangular grinding slab. Vesicular basaltic andesite of southern Aegean origin. Upper surface incised with herringbone pattern.

Cf. *Olynthus* VIII, pl. 79:6. See discussion of grinding slabs, or lower stones, in Moritz 1958, pp. 36–39. Runnels (1981, p. 3) discusses the terminology for the upper and lower stones.

- 10** (IT 1009). Ridge tile Pl. 16  
L. 0.410. W. 0.165. Th. 0.045.  
Intact.

Local Corinthian coarse clay with smooth surface.

- 11** (IP 7757). Kantharos with West Slope decoration Pl. 16  
P.H. 0.104. Diam. rim 0.098. Diam. body 0.112.  
Three quarters of body and rim and one handle preserved; base missing. Mended and restored.

Broad, rounded body; offset, wide vertical neck with molded rim. Thin, rather angular strap handle(s) from rim flange to body with flat thumb plates on top. Incisions mark top of molding and base of neck. Bead and reel in cream slip in neck zone. Possible dilute white patterns on body.

- 12** (IP 7813). Articulated kantharos, Fig. 6  
inscribed

P.H. 0.072. Est. Diam. rim 0.103.  
Rim, wall, one handle preserved; base missing.  
Restored.

Local clay, discolored; slip varies from light orange through greenish gray to black on exterior, red on interior. High vertical wall with tapered lip. Carination above base. High strap handle(s) with thumb plates attached to upper wall. Scraped grooves bearing pink wash below rim and on upper part of wall. Shallow scratched inscription (see Fig. 6).

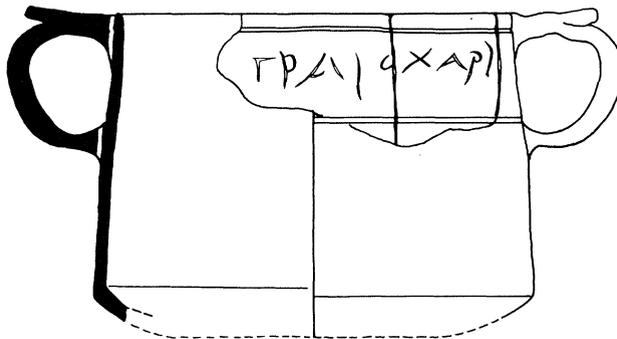


FIG. 6. **12**. Scale 1:2

- 13** (IP 7749). Kantharos with West Slope decoration Pl. 16  
H. 0.090. Diam. rim 0.066. Diam. body 0.074.  
Diam. base 0.036.  
Mended and restored. One side of wall and a handle missing.

Reddish yellow fabric (5YR 6/6) with dull black gloss. Angular shape with small two-stepped ring base. Thin strap handle(s) looped from below rim to mid-body, with small applied theatrical mask (slave?) as thumb plate. Scraped groove below rim and at carination; red slip in the grooves and between foot moldings. Decorated with simple incised wave running right with three lines below, the lowest of which has a zigzag pattern; diagonal incised lines at either side.

Either an Attic product or an imitation. Cf. Rotroff 1991, nos. 77, 78, pp. 85–89, pl. 33, for decoration characteristic of the “Incised Wave Group” of Athenian West Slope potters. Rotroff would date the shape of **13** to the third quarter of the 3rd century (personal communication).

- 14** (IP 7751). Bowl with outturned rim Fig. 7  
H. 0.040. Est. Diam. 0.120. Diam. foot 0.045.  
Complete profile.

Pale local fabric with traces of original dark slip on interior and upper part of exterior wall. Curved wall with overhanging rim, low ring base.

Cf. *Corinth* VII, iii, no. 76, p. 34, pl. 3, for rim type.

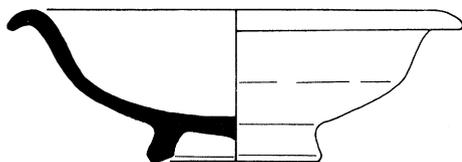


FIG. 7. 14. Scale 1:2

**15** (IP 7716). Broneer Type XI lamp Pl. 16

H. 0.029. P.L. 0.093. Diam. base 0.04.

Nozzle and one side with knob.

Thin, hard, light-gray blister ware with light orange patches (gray to light gray [7.5YR N7/ to N6/] with reddish yellow [7.5YR 8/6] patches). Sharply curved cushion-shaped body with vertically pierced knob

above belly at left side. Groove around filling hole. Hollowed base set off from wall. Deep, humped, round-topped nozzle, long and gently tapered, with rounded tip.

**16** (IP 7725). Howland Type 25 B' lamp Pl. 16

H. 0.032. L. 0.066. Diam. body 0.046. Diam. base 0.026.

Intact.

Light reddish yellow (7.5YR 7/6) fabric with black slip on inside and traces of red slip on outside. Rim has deep groove with convex raised band around filling hole. Small raised base, concave underneath. Pierced knob at left. Slender flat-topped nozzle, fairly deep; small wick hole. Slight blackening at end. No handle. Broneer Type VII D.

Cf. *Agora* IV, no. 333, p. 76, pl. 38; *Kerameikos* XI, RSL 6, no. 162, pp. 33–35, pl. 29, dated ca. 250.

On the main level of the house, the room above B must have been roughly triangular in shape, following the outline of the basement beneath it. Room A is long and narrow (Pl. 17:a) and probably communicated with Room D. Portions of stone foundations for the east and north walls are preserved. Placements for foundation blocks are found in the bedrock marking the position of the south and west walls. No floor level is preserved, and the deposits excavated within the room are part of the fill beneath the floor. The bedrock beneath the floor fill is very irregular and appears to follow the natural slope of the hill.<sup>33</sup> House II seems to have been built well into the 3rd century since the latest pottery in the fill above bedrock dates to the second quarter of that century.<sup>34</sup>

**BATH**

East of House II is a small Bath, which, along with the spaces immediately surrounding it, was excavated in 1954 and 1955.<sup>35</sup> Its entrance is from a stairway that leads from the triangular space outside the southwest corner of the North Building. The Bath is a unique feature in the settlement. Although it may be part of House II, perhaps an extension of the courtyard, its entrance from a public place suggests that it is more likely a separate establishment.

**HOUSE V**

Much of House V was cleared during the excavations of 1954 and 1955. It is one of the smallest structures in the settlement. The main floor facing Street 3 consists of two rooms (A and C) and between them a courtyard (B) with a cistern at the northwest. The entrance to the house was at the southwest corner of the courtyard. The threshold and a cutting for

<sup>33</sup> Within this room the bedrock rises almost a meter from north to south, and the floor level must have been above +96.954 m., the highest point of bedrock in the room.

<sup>34</sup> Lot 89-104.

<sup>35</sup> Broneer 1955a, p. 172; Broneer 1958, pp. 18, 19; Kardara 1961, pl. 80, fig. 1.

the pivot of the street door are cut into the bedrock one step below the level of the street. The drain for Street 3 passes just outside the doorway.

Since only Room C was excavated in 1989, the following discussion is confined to its features and deposits. Room C was the same width as the courtyard, *ca.* 2.70 m. The irregular blocks for the foundation between the courtyard and Room C have a maximum width of *ca.* 0.60 m. The length of the room is defined by a bedding at the southeast corner, positioned in line with the south wall of the house.

A portion of the fill beneath the original floor level was excavated and produced sherds belonging to the late 4th century.<sup>36</sup> A finished surface of bedrock in the northwestern corner of the room probably marks the floor level (at +97.66 m.). A layer of soil above it (Pl. 17:b) contained roof tiles and sherds, including a fragment of a Hellenistic molded relief bowl (17) and a Hexamilia mug (18).<sup>37</sup> 17 is the only relief-bowl fragment found in the Rachi excavations.

17 (IP 7743). Molded relief bowl Pl. 17

P.H. 0.026. P.W. 0.014.

One small fragment of wall.

Attic fabric with smooth black gloss. Very fine detail on the decoration. Dolphins to left over running spiral, with dot and spirals stippled. Plain band, then fine guilloche flanked by cables. One scraped groove below.

Cf. *Agora* XXII, no. 49, p. 50, pls. 8, 73.

*Ca.* 220 B.C.

18 (IP 7728). Hexamilia mug Pl. 17

H. 0.083. Diam. rim. 0.073. Diam. body 0.088.

Diam. base 0.041. Th. 0.002.

Mended and restored.

Traces of brown-black slip on inside and on upper half of outside. Tall vertical rim offset from very round body. Slightly flaring foot with underside hollowed out. Ring-shaped handle from shoulder to just below rim.

Cf. *Corinth* VII, iii, no. 521, p. 87, pls. 16, 54, dated third quarter of 3rd century B.C.

## HOUSE VI

House VI to the east is among the most poorly preserved of the houses because all wall blocks have been removed. Beddings for walls and smoothed areas of bedrock suggest that the house had four rooms. The entrance from Street 3 is preserved in the small Room A. The socket (0.20 m. in diameter) for the door pivot is visible, and its position indicates that the door opened inward. Leveled areas of bedrock and the earth on which roof tiles fell put the floor level at an elevation between 97.65 m. and 97.50 m.

A doorway in the east wall of Room A leads into Room B. A circular cutting in the rock marks the location of the door socket. Five iron bosses found here may have belonged to this door or the one in Room A leading to the street. Bedrock was cut to form the lower part of the south wall and to provide a floor surface (+97.75 m.) within Room B. From a point just beyond the doorway into Room A, the drain for Street 3 continues eastward.

A portion of the hard earthen floor was preserved in the northern parts of Rooms A and B. The latest sherds in this floor belong to the second quarter of the 3rd century and provide a *terminus post quem* for construction of the building.<sup>38</sup> In the destruction debris were a

<sup>36</sup> Lot 89-10.

<sup>37</sup> Lots 89-4 and 89-5.

<sup>38</sup> Lot 89-3.

number of millstones which may have been stored in this room or in a second story.<sup>39</sup> North of Rooms A and B, an extensive deposit of earth mixed with mud bricks probably reflects the collapse of the north wall of those rooms.<sup>40</sup> The lamp (19) may have stood in a niche in the wall.

**19** (IP 7715). Broneer Type VII C lamp Pl. 17 set off by single groove. Deep nozzle tapering to small opening with traces of burning.  
 H. 0.032. P.L. 0.078. Diam. 0.059. Cf. *Isthmia* III, no. 122, p. 16, pl. 17. Howland Type 25 A.  
 One piece preserving nozzle and front half.  
 Mottled fabric with thin, worn black slip. Rounded body with offset base, slightly concave. Sloping rim

## HOUSE VII

South of Houses V and VI, and located between Streets 3 and 4, are the remains of two or three houses that were partly exposed in 1954 and 1955. In 1989 we cleared several rooms (A–D/E) of House VII (Pl. 18:a), although the boundaries of the house are still not clear. It lies on a high portion of rock where some patches of the bedrock were already visible before excavations began, and many walls had been removed. No doorways are preserved in any of the rooms south of Street 3, so that it is difficult to isolate individual houses in this area.

### *Rooms B, C, and D/E*

Room C, most of which was cleared in the earlier excavations, is defined by three preserved walls, while the blocks of walls in B and D/E are almost entirely gone. A smoothed area of bedrock in Room B represents the floor level in that room, at +97.93 meters.

A long space (D/E) was probably divided into two rooms, but only a small section of the south wall and part of the north wall are preserved. The remains of three pithoi were found here.<sup>41</sup> The lower portions were embedded in a layer of earth above the bedrock, their upper sections long since vanished. The bedrock in the area where the pithoi were found is between 0.40 m. and 0.50 m. lower than the floor level in Rooms B and C and, therefore, appropriate for pithoi, which were normally buried in an earthen floor.<sup>42</sup> Each was placed against a wall and propped with stones and tiles as well as earth. Pithos 1 stood alone at the south wall (Pl. 18:b), and the other two were side by side at the north wall (Pl. 18:c). The pithoi in this area were clearly part of a second phase because a cutting (0.30 × 0.25 m.) below Pithos 2 was associated with an earlier phase of the room. This is one of the places in the settlement where there are clear traces of changes in the use of rooms.

Pottery found in deposits under the pithoi in Room D/E (20, 21) dates to the middle or third quarter of the 3rd century B.C. Thus, the remodeling may be placed rather late in the history of the settlement. The extensive deposit of mud-brick debris with earth of varying colors that lay on top of the pithoi in Room D/E and across the room represents the collapse of the house walls.<sup>43</sup> Because the destruction debris also extended across the robbing trench

<sup>39</sup> The millstones are inventoried as IM 3612–3615.

<sup>40</sup> Lot 89-7.

<sup>41</sup> The pithoi are IP 8251–8253.

<sup>42</sup> *Olynthus* VIII, p. 312.

<sup>43</sup> Lot 89-507.

of the north wall of Room D/E, the blocks from that wall appear to have been removed before the destruction took place. Found in Room D/E were pottery, primarily fine wares, including bowls with outturned rim (**22**, **23**), two Rhodian amphora handles with stamps (**24**, **25**) of the late 3rd century, a millstone, loomweights, and a number of metal implements and fittings, and one weapon (**26**).

**20** (IP 8328). Echinus bowl Fig. 8  
H. 0.050. Est. Diam. rim 0.098. Est. Diam. base 0.046.

Two fragments mended to give profile.

Peeling black-brown slip on interior and upper part of exterior. Small bowl with slightly incurved rim, ring foot.

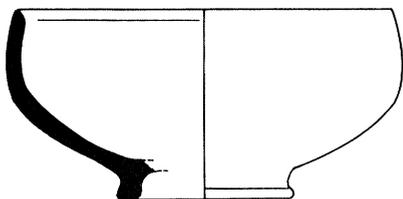


FIG. 8. **20**. Scale 1:2

**21** (IP 8329). Conical bowl Fig. 9

Max. p. dim. 0.100.

Five fragments, three joining.

Very soft, worn fabric with no slip preserved. Incised, short, hatched diagonal lines form leaf shapes on interior.

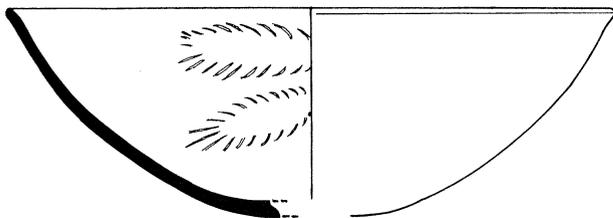


FIG. 9. **21**. Scale 1:2

**22** (IP 7822). Bowl with outturned rim Pl. 19

H. 0.035. Diam. 0.102. Diam. foot 0.037.

One fragment with complete profile. Several pieces from rim missing.

Pale local fabric with traces of black slip. Flaring, slightly rolled rim, carinated wall. Small foot.

**23** (IP 7824). Bowl with outturned rim Fig. 10

H. 0.037. Est. Diam. 0.119. Diam. foot 0.048.

Whole of base and one side preserved.

Local clay burnt to light gray. Partial black slip on exterior. Flaring rim over slightly carinated body and tall ring foot with nipple underneath.

Cf. *Corinth* VII, iii, no. 76, p. 34, pl. 3.

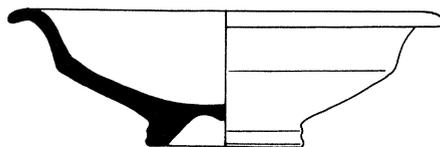


FIG. 10. **23**. Scale 1:2

**24** (IP 7837). Rhodian stamped Pl. 19  
amphora handle

W. 0.037, Th. 0.028.

Fragment preserves nearly whole handle, broken just above lower attachment.

Smooth fabric, pink to light brown (7.5YR 7/4 to 10YR 8/2).

Stamped on top of handle:

Helios 'Επι Σω

symbol Χάρεις

Virginia Grace dates the eponym Σωχάρεις in the third quarter of the 3rd century; see *Délos* XXVII, p. 293, where he is listed among eponyms close in date to Group B (i.e., soon after ca. 240 B.C.; see Grace 1974, pp. 193–200 and Thompson, Thompson, and Rotroff 1987, pp. 5–6).

**25** (IP 7866). Rhodian stamped Pl. 19  
amphora handle

P.H. 0.088, W. 0.040, Th. 0.029.

Fragment preserves top of handle, small part of neck with rim.

Clay variably fired light red (2.5YR 6/8) to reddish yellow (5YR 6/6) with very pale brown (10YR 8/3) surface.

Stamped on top of handle:

'Επι Ξενο

στράτου

The eponym Ξενοστράτος dated a year in the next to last decade of the 3rd century; see Grace 1985,

p. 16 with note 34; see also Thompson, Thompson, and Rotroff 1987, pp. 185–186.

**26** (IM 5988). Ribbed spear tip Fig. 11

L. 0.070. Max. p.W. 0.038.

Very corroded. Broken on all sides.

Iron blade with strong central rib, probably leaf-shaped. Similar to a strongly ribbed iron blade of spear or javelin (IM 3157) of the late 4th century in Broneer 1962, no. 5, p. 20, pl. 9:b, third from top.

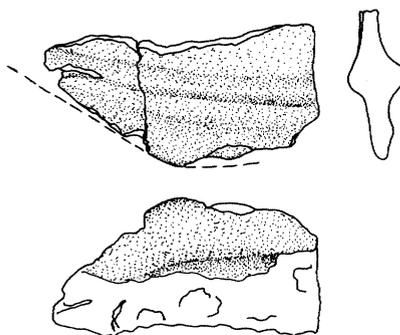


FIG. 11. 26. Scale 1:2

### Room A

Room A is a small storeroom below ground level. Only the eastern half of this almost square room was excavated. On the east side the floor slopes downward at about a 45-degree angle to the west to a maximum depth of approximately 0.60 m. In several places along the north and south sides of the room the bedrock walls were supplemented with cut stones. An opaion tile (29) that fell into the storeroom during the destruction suggests that there was a cooking area nearby.<sup>44</sup>

Tremendous amounts of pottery and roof tiles, much of it burned, filled the eastern half of Room A when it was excavated.<sup>45</sup> Pottery included types common in the late 3rd century, along with a Broneer Type VII C lamp (27) and a number of loomweights, one with the loomweight stamp (28). A Macedonian bronze coin (IC 1479) dated 277–239 B.C. provides a *terminus post quem* for the destruction. In and beneath the debris were objects that had been left in the basement before the destruction: several cut blocks of poros, some roof tiles, and part of a stone basin.

**27** (IP 7828). Broneer Type VII C lamp Pl. 20

H. 0.024. L. 0.074. Diam. 0.048.

Body complete, handle missing.

Traces of brown-black slip. Rounded sides, flattened top with large opening. Flat base with wire marks. Long nozzle, rounded and deep with small wick hole. Stumps of strap handle attached horizontally to rear. Blackening on tip of nozzle.

**28** (IM 5872). Conical loomweight Pl. 20

H. 0.096. Max. Diam. 0.064. Wt. 250 g.

Intact.

Local fabric. Stamp: loomweight with rod through hole.

Cf. *Corinth XII*, no. 1145, p. 154, fig. 25.

**29** (IT 1008). Opaion tile Pl. 20

L. 0.690. P.W. 0.430. Th. 0.030–0.062. Th. rim 0.068. Est. Diam. opening 0.023–0.024. Est. Diam. rim 0.027–0.028.

Two pieces mended preserving top center, lower left corner, and about one half of opening.

Corinthian coarse fabric with smoothed surface.

### HOUSE IX

In 1989 part of a large room (about 8 meters long and preserved to a width of 3 meters), with its north, east, and west walls partially formed from bedrock, was discovered to the south of House VII, on the other side of Street 4. Much of this structure, however, has been destroyed by quarrying, and only the western half of the room was excavated. Where the

<sup>44</sup> For an illustration of such a tile from Olynthos, see Hoepfner and Schwandner 1986, p. 61, fig. 49.

<sup>45</sup> Five baskets of pottery and fragments of 75 pan tiles and 20 cover tiles were recovered in Lots 89-508

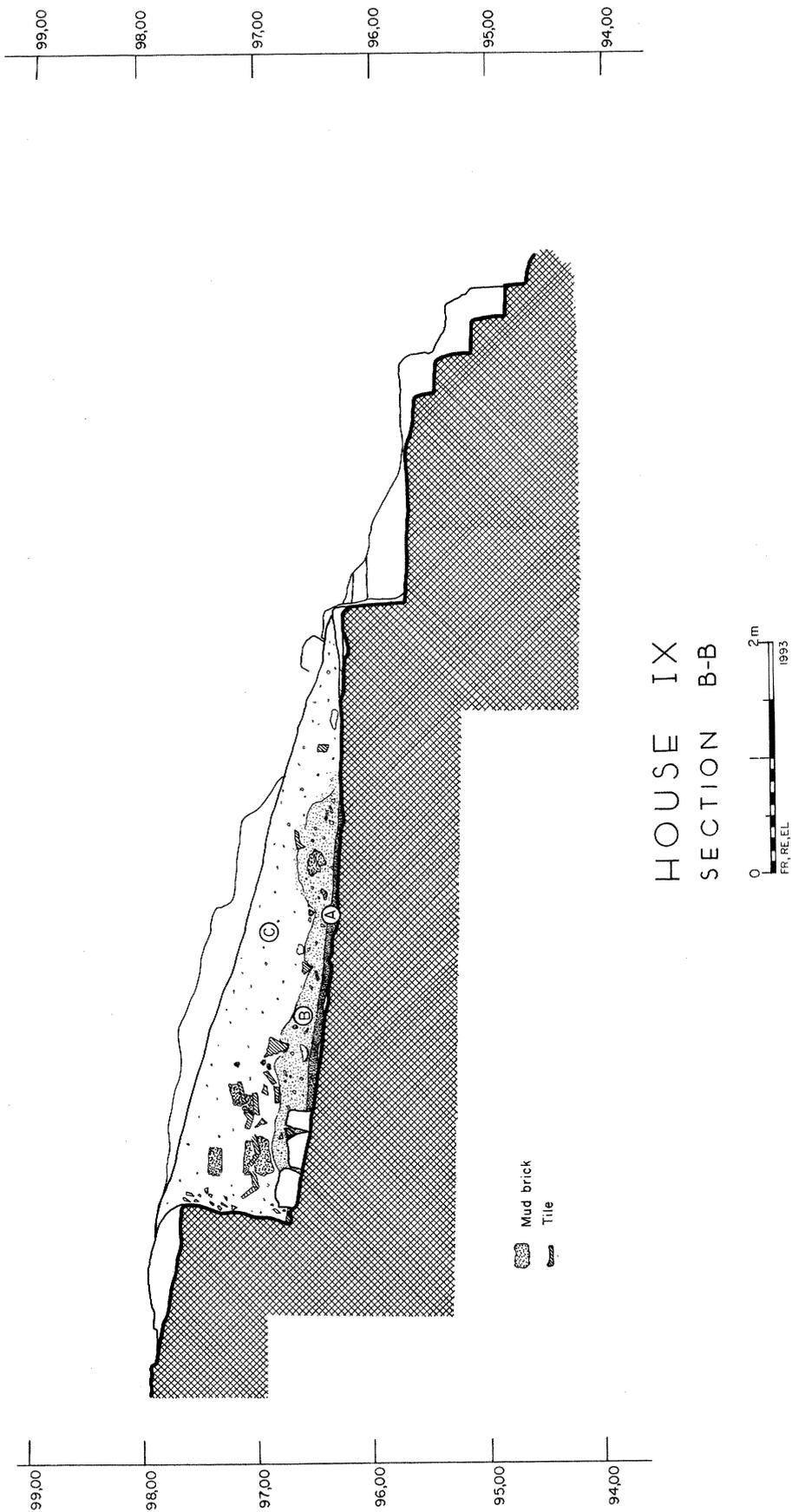


Fig. 12. House IX, section B-B, Trench 89-50, facing east. A: hard gray earth on bedrock floor; B: lower layer of destruction debris with blackened earth and broken pottery; C: upper layer of destruction debris with mud bricks and roof tiles

lower portion of the west wall is cut from the sloping bedrock, it varies in height from 1.20 m. to ground level. The line of the north wall of the structure can be traced above the bedrock scarp with the help of one large reused block (with drafted edge), in place, and beddings in the rock to the east, directly in line with this block. The room was a basement similar to others in the settlement.

At the southwest corner of the floor of the room, a square bedding may mark the entrance. On the west wall, just above the bedrock floor, is a carefully cut, shallow, curved niche.<sup>46</sup> Inside the room at the northwest corner, a small area (1.50 m. east–west by 1.16 m. north–south) was set off from the rest of the room by a line of stones and reused blocks set in earth. At the time of excavation, stones remained in place at the east and south, and the remaining six had fallen out of line at the southwest. No material was found in this feature to suggest its function; it may have been a foundation for a platform or a container.

Bedrock at the south edge of House IX was cut to form a terrace leading down to a staircase, exposed before the 1989 excavations began. The house probably extended farther to the east, and perhaps to the west as well, and there would have been a room above the basement.

A deep deposit of burnt debris from the collapse of the upper story lay over the room. The debris divides into two major layers. The lower (Fig. 12, Layer B) was a dark gray-to-black earth with great quantities of broken ceramics, including two drinking cups, one of which (30) is an unusual thorn kantharos and the other, a Hexamilia kantharos of the type commonly found in the Rachi settlement.<sup>47</sup> Most of the sherds were of amphoras (31–33), many of which were burned. In all, eight complete amphoras were mended from House IX.

**30** (IP 7839). Thorn kantharos Pl. 21

P.H. 0.085. Diam. rim 0.067. Diam. body 0.070.  
Mended and restored. Base missing.

Burned fabric (7.5 YR 6/2 to 7.5YR 5/1) with black gloss. Late Classical shape with small molding below rim. On neck, incised diminishing squares flank checkerboard pattern with added white on alternate squares. On belly, three rows of barbotine knobs set off by scraped grooves above and below.

A similar vessel, approximately twice the size of **30**, appears in *Corinth* VII, iii (C-47-802), p. 87, pl. 16, published by Romano (1994, no. 25, p. 70, pl. 17).

**31** (IP 7898). Ζη-group stamped Pl. 21  
transport amphora

P.H. 0.737. Max. Diam. 0.398. Diam. neck 0.143.  
H. neck 0.220. Handle: H. 0.220, W. 0.047, Th. 0.250.

Many joining fragments preserve most of jar and complete profile save for tip of toe.

Medium-fine fabric with some small, dark inclusions and some large, white inclusions, burned dark gray-brown over most of surface; lighter area on exterior (7.5YR 6/3). Outward thickened rim with convex upper and outer faces, overhanging lower edge. Cylindrical neck with groove below handle attachments contracts at top, flares at bottom into broad, sloping shoulder; carination where it meets ovoid body. Heavy knobbed toe would have been roughly conical in section, with sides flaring in a convex curve to rounded upper edge. Tall handles oval in section. Stamped on top of one handle: Π

Handles are relatively longer than those on Ζη-group jars from the Hellenistic wreck at Serçe Limani, which were dated by Virginia Grace *ca.* 275 B.C. (see Grace 1986, pp. 551–564, fig. 2 on p. 554, fig. 5 on p. 559, on the group she associated with Zenon of Kaunos and evidence for dating; and Koehler and Wallace 1987, pp. 49–57).

<sup>46</sup> The niche is approximately 0.05 m. from the floor and 0.22 m. wide, 0.20 m. high, and 0.04 m. deep.

<sup>47</sup> Lot 89-519.

- 32** (IP 7899). Graeco-Italic transport amphora Pl. 21  
 P.H. 0.725. Max. Diam. 0.358. H. neck 0.160. Diam. neck 0.155. Handle: W. 0.047, Th. 0.022. Mended, preserving much of profile and of body; most of neck, rim, and one handle mended and restored; lower part of toe missing.
- Medium-fine reddish beige fabric (5YR 5/3) with many small, dark inclusions; surface, now discolored from fire, has remains of a pale slip (7.5YR 7/5). Heavy, projecting rim with sloping outer face; slightly concave underneath; neck flaring at top. Sloping shoulder concave in profile to ridge at join with elongated, ovoid body. Side walls of cylindrical toe extended beyond solid bottom of jar. Handles are flattened oval in section, with sloping tops and vertical sides.
- Dipinto(?) on shoulder and neck: 
- 33** (IP 8333). Corinthian B transport amphora Pl. 21  
 H. 0.717. Max. Diam. 0.40. H. neck 0.135. Diam. neck 0.116. Handle: W. 0.050, Th. 0.023. Many joining fragments preserve complete profile, most of jar top, toe, and two thirds of body; restored.
- Fabric discolored by fire after jar was broken. Outward-thickened rim has convex outer face, thin upper edge, roughly defined lower edge. Neck cylindrical, but upper half was pushed to oval when handles were attached; two widely spaced grooves around neck near center. Biconical body narrows to simple pointed toe with a very slight swelling at the tip. Handles are flattened oval in section, widen where attached on shoulder, and slant in to rim, arching above it. No stamps preserved.
- Second to third quarter of 3rd century B.C.

The upper layer (Fig. 12, Layer C) contained a dense concentration of mud bricks and roof tiles, suggesting the collapse of walls and roof on top of the material already in the basement or fallen from a room above.<sup>48</sup> In fact, the one complete mud brick (Pl. 22:a) found on the Rachi was found in the middle of the room. That some of the mud bricks were almost fired and the pottery heavily burnt are indications of the severity of the fire. The floor of the room is burned in patches, as are the lower parts of the bedrock in the west and north walls.

Although it is possible that the amphoras were stored in the room above the basement, the disposition of deposits was not such as to preclude their having been stored in the basement and broken by the falling walls and roof. The variations in color of most of the mended vessels indicate that they were broken before they were exposed to fire. On the other hand, the loomweights and kantharoi probably came from the second story. Found in earth above the debris was **34**, a piece of marble sculpture representing an arm, probably from a sculpture of a child of the type popular in the late 4th and early 3rd centuries B.C. Several examples have been found in the area of the sanctuary.<sup>49</sup> The original sculpture may have been dedicated elsewhere and subsequently brought up to the Rachi settlement.

- 34** (IS 514). Small arm Pl. 22  
 L. 0.055. Diam. 0.020.  
 Single fragment, broken at both ends, heavily encrusted on one side.
- Marble, white, fine grained. Small arm, slightly bent. The piece probably represents an arm rather than
- a finger because the inner crease is marked, as is characteristic of arms, but no attention is paid on the outside to digitations.
- In addition to *Isthmia* IV, nos. 26–29, pp. 116–117, see Vorster 1983 and Rhfel 1984.

<sup>48</sup> Lot 89-518.

<sup>49</sup> As in *Isthmia* IV, nos. 26, 28, 29, pp. 116–117.

## HOUSE VIII

One large room of another building located on the south slope of the Rachi was investigated. This room was chosen because at the southeast corner there was visible a broad staircase leading down to a lower level (Pl. 22:b). The width of the steps (1.5 m.), which is comparable to the large stairs at the north side of the hill alongside the well, makes it likely that the staircase provided public access to the settlement.<sup>50</sup> This room or building, like the North Building, might, therefore, have had a nondomestic function.

All sides of the room were cut from bedrock. The faces of the south, east, and north walls are not straight but irregular in plan. As investigations at the north and northeast did not reveal any more steps, and the depth of fill prevented the complete excavation of the room, we can only suggest that access would have been at the northwest. Such a reconstruction suggests a traffic pattern from northwest to southeast and is consistent with the arrangement of buildings and streets in this area. It is perhaps significant that no evidence of burning was found here. The building may have gone out of use before the final end of the settlement.

## EAST END OF SETTLEMENT

A new area investigated during 1989 was the promontory at the east end of the hill. Remains of steps and beddings for wall blocks visible on the surface gave evidence of additional houses. Two structures, Houses X and XI, on the south slope were excavated, and parts of several others are preserved along the north edge of the excavations (Fig. 13, Pl. 23).

If our reconstructions of Houses VII and IX in the central part of the ridge are correct, Street 4, which separated those two houses, continued to the east end of the settlement. Two sections of drain can be seen north of Houses X and XI.<sup>51</sup> Streets 2 and 3 also continued eastward. The two drains that were built along their courses come together into one channel that continues in the line of Street 3 between buildings (south of House XII) that have not been completely excavated. Another street (5) intersects Street 3 at the north, dividing Houses X and XI on the south where a narrow staircase cut into the bedrock leads down to a sloping passageway, which in turn must have met with another staircase to the south, now missing (Pls. 11:a, 24:a).<sup>52</sup> A drain along the west side of the steps carried water from above to the channel still partly preserved in the passageway.

## HOUSE X

House X is located at the southwest intersection of Streets 4 and 5. Unfortunately, the southwest part of the house has been destroyed by modern quarrying activities utilizing dynamite, but two rooms and most of a third can be defined. Rooms A and B are at ground level, while Room C is a basement storeroom below B. The north wall of Rooms A and B was also the exterior wall of the house facing onto Street 4.

<sup>50</sup> The usual width of steps within the other houses varies from 0.40 m. (House XI) to 0.60 m. (House IX).

<sup>51</sup> Ten meters of unexcavated surface separate House XI from Houses VII and IX to the west, so that it is not certain that the street along Houses X and XI is the same as the one farther west (see Fig. 3).

<sup>52</sup> The staircase consists of seven steps, with risers *ca.* 0.20 m. high and treads *ca.* 0.35 m. wide.

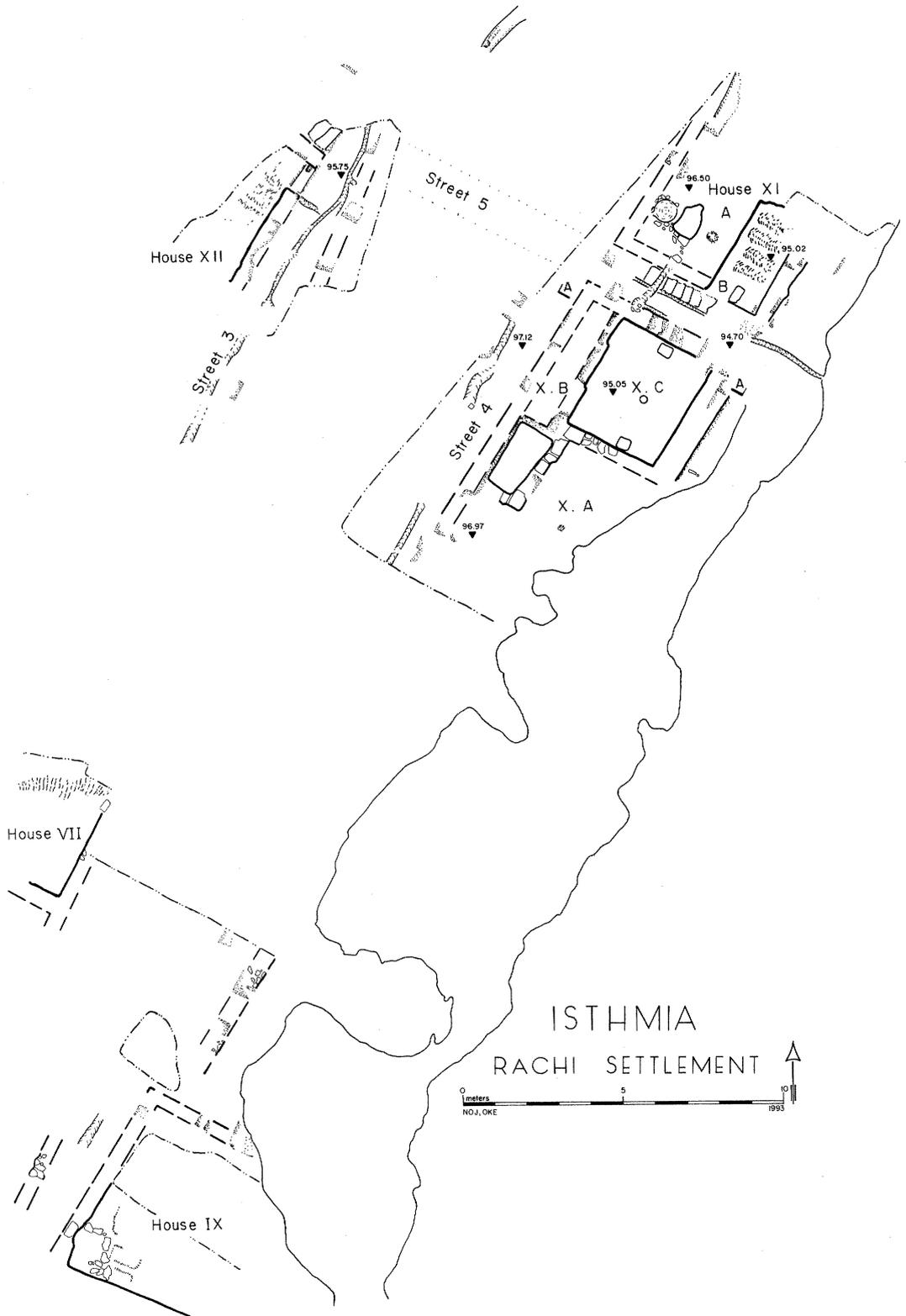


FIG. 13. Actual-state plan of east end of settlement

*Room A*

Although no doorway into House X is preserved, it is likely that it was located at the northwest side of Room A. Room A (the courtyard) contained a long, trapezoidal container (2 m. long  $\times$  0.80 m. [west] and 1.2 m. [east]) located in the northeast corner (Pl. 25:a). It was cut down into the bedrock and lined with cement. The upper edges have been broken away all around. Where the bedrock was lowest, along the south and at the southwest corner, the wall of the container was built up with blocks, some of which were found in the fill of the southwestern part of the room. Originally the tank must have been *ca.* 1.30 m. deep. Part of the room has a floor of hard-packed earth, while in the remainder there is simply a bedrock surface.<sup>53</sup>

A square cutting in the center of the room may have been for a post. On its west side Room A shares a wall with Room B. Ceramics in the construction fill, including the Corinthian kantharos of Attic shape (35) and the Howland Type 29 A lamp (36), provide a date for the construction of the floor in Room A during the late 4th century or the first quarter of the 3rd.<sup>54</sup> The terracotta figurine of a woman (37) makes it likely that construction did not predate 300 B.C. The few sherds recovered from a small section of the floor belong to the early 3rd century. A thin layer of debris lay over the courtyard.<sup>55</sup> Fragments of mud bricks and burned soil were mixed with material dating to the late 3rd century, e.g., a Broneer Type VII blister-ware lamp (38) and a small lead ointment pot (39).

**35** (IP 7821). Kantharos Fig. 14

P.H. 0.064. Est. Diam. rim 0.076. Diam. body 0.081.

One side of body and rim with handle.

Local fabric with some traces of black slip. Attic type with molded rim. Handle preserves scar of flat thumb plate.

Cf. Rotroff 1984, nos. 11, 12, p. 353, pl. 67, from Agora deposit F 11:2, dated to the late 4th century B.C. (p. 349).

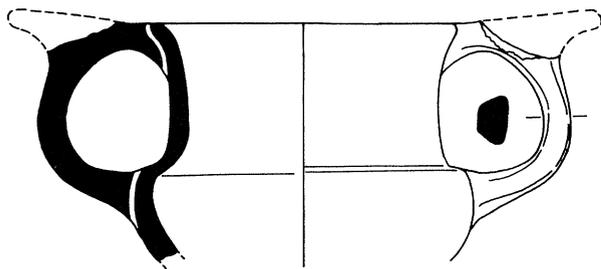


FIG. 14. 35. Scale 1:2

**36** (IP 7816). Howland Type 29 A lamp Pl. 24

P.H. 0.024. P.L. 0.064. Est. Diam. 0.065 m.

Front part with nozzle.

Orange to light-gray clay with black slip, fired brown in places. Cushion-shaped body, low-bellied with wide rounded shoulder. Deep tapering nozzle, flattish on top with solid rounded bottom. Two grooves surrounding orifice.

Cf. *Agora* IV, no. 409, pp. 94, 95, pl. 40; Scheibler (*Kerameikos* XI, pp. 50, 51) dates the type (FSL 1) to 300–220 B.C.

**37** (IM 5844). Terracotta figurine of woman Pl. 24

P.H. 0.031. W. 0.020. Depth (front to back) 0.030.

Head broken at neck.

Corinthian clay. Head of woman wearing elaborate "melon" coiffure and earrings, tilting her head to her proper right. Her hair bears extensive areas of a dark reddish brown (close to 10R 4/6) matte paint. There are also traces of white paint in the crease between her chin and the top of her neck.

<sup>53</sup> The earth floor was at a level of +96.97 m., the bedrock surface at +96.75 m.

<sup>54</sup> Lots 89-504 and 89-505.

<sup>55</sup> Lot 89-502.

Delicate, close-set, deeply recessed eyes, a long nose, and a small horizontal mouth set just under the nose. Hair extensively retouched with a sharp tool while the clay was still moist. The earrings are formed by small spherical clay pellets added to the head, then indented.

For two comparable female heads from Corinth but lacking the pronounced central part, cf. *Corinth* XII, nos. 273, 274, p. 46, pl. 23, dated in the late 4th century and the 3rd to early 2nd century, respectively. Also cf. IM 957 from the Rachi well (Anderson-Stojanović 1993a, no. 76, pp. 287–288), which may be slightly earlier; it exhibits analogous, if slightly coarser, plastic work in the hair.

300–270 B.C.

- 38** (IP 7809). Broneer Type VII F lamp Pl. 24  
P.H. 0.033. P.L. 0.064. Diam. orifice 0.018.  
Single piece preserving nozzle and front part.

Gray and orange blister-ware fabric without bubbles. Deep wheelmade body with shallow convex top separated from side by shallow groove. Long, narrow flat-topped nozzle with scraped surface.

Cf. *Isthmia* III, nos. 139, 140, p. 19, pl. 17.

- 39** (IM 5834). Lead ointment pot Pl. 24  
H. 0.025. Diam. base 0.023.

About two-thirds preserved, rim folded over, and part of one side bent inward.

Thin-walled, simple open lead container or medicine pot. Slightly everted rim, short base, offset from rounded body. Tripod emblem at center of one side. Single pierced hole (ca. 0.020 m. in diameter) above the relief.

See Sjöqvist 1960, p. 82, fig. 15, pl. 20 for a similar lead container. Ceramic ointment pots at Morgantina belong to the 3rd century B.C.

### *Rooms B and C*

The bedding for the north wall shows that Room B was slightly larger (ca. 3.0 × 5.5 m.) on the north than was the basement (Room C) below it. Since the basement was entered from Street 5 and the courtyard probably gave access to the main level from the street, it is likely that there was a doorway from the courtyard into Room B.

Room C was completely cut out of bedrock (Fig. 15). Its floor lies 0.45 m. above Street 5, and an earthen ramp led up from the street to the basement. At the south end of the east wall an opening, ca. 0.50 m. wide, marks the entrance to the room, although no threshold block or socket for the door pivot remains in place. A thin layer of hard-packed earth was preserved over parts of the bedrock floor.

Supports for the wooden floor of the room above (B) were carried on two piers, preserved at the east and west, and a central column (Pls. 24:a, 25:a).<sup>56</sup> All uprights are freestanding and would have held wooden columns or piers that carried a central beam running east–west across the basement. A large amount of destruction debris from the collapse of upper Room B and its roof filled the basement (Pl. 25:b).<sup>57</sup> There were sixteen baskets of pottery, including many fragments of amphoras, five of which were complete (including **40–43**) and have been mended. Two of the Corinthian B amphoras and one handle carry stamps. **42** has been dated to the second quarter of the 3rd century and **41** to the middle of the same century. Several fragmentary pithoi and a millstone were thrown into the basement after the destruction, as they were found above most of the tiles and broken amphoras. Also in the debris were fourteen loomweights (e.g. **44**) and much household pottery, including cooking ware and table ware.<sup>58</sup> Near the eastern pillar of the basement room was one of the most unusual objects from the Rachi, a fragment from the muzzle of a marble horse

<sup>56</sup> The preserved height of the east pier is 0.98 m. and of the west pier, 1.40 m. The central column is 0.25 m. in diameter and is preserved to a height of 0.67 m.

<sup>57</sup> Lot 89-497.

<sup>58</sup> The loomweights are IM 5770, IM 5783–5792, IM 5807–5809.

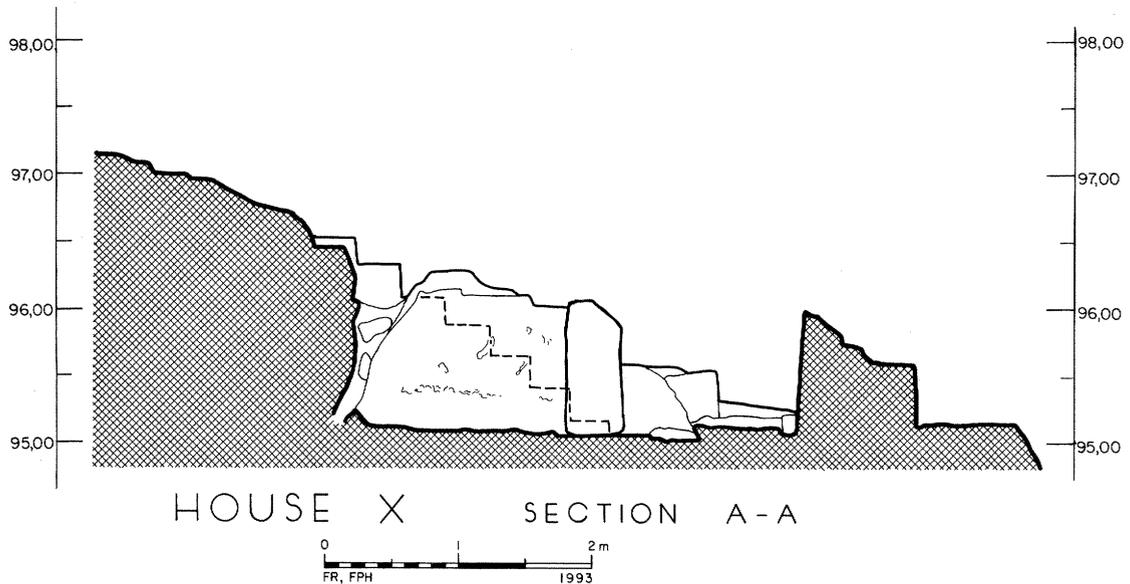


FIG. 15. House X, section A-A, Trench 89-33A, facing east

of the Archaic period (45).<sup>59</sup> It almost certainly originated in the Sanctuary of Poseidon; after being damaged it was brought to the Rachi and used as building material, as shown by the traces of mud brick on one side.

**40** (IP 7782). Graeco-Italic amphora Pl. 26

H. 0.710. Max. Diam. 0.357. H. neck 0.150. Diam. neck 0.106. Diam. rim 0.170. Diam. mouth 0.128.

Many joining fragments preserve complete profile and very nearly whole jar; small parts of body restored. Toe abraded.

Coarse reddish fabric (closest to 5YR 6/6), beige slip (closest to 7.5 YR 8/2), with many very large, dark brown inclusions, some small brown and a few white inclusions. Projecting rim with sloping outer face has sharp top and outer edges, horizontal undersurface; neck flares at top and bottom. Shoulder slopes to faint ridge at beginning of convex curve of body; short, plain toe hollowed out inside. Handles are flattened

oval in section; lower attachment irregularly formed, as is upper body.

**41** (IP 7788). Corinthian A' transport amphora Pl. 26

P.H. 0.680. Max. Diam. 0.454. H. neck 0.175. Diam. neck 0.114. H. rim 0.042. Handle: W. 0.040, Th. 0.040 (top).

Complete except for toe and some pieces from neck and body; restored.

Tall, collarlike rim with outer face sloping in two degrees; neck widens toward bottom; globular body. Handles round in section and largest in diameter at top of outer curve; attach at lower edge of rim and close to neck on shoulder.

First half to middle of the 3rd century B.C.

<sup>59</sup> The horse muzzle will be published in a separate article by Mary Sturgeon.

**42** (IP 7787). Corinthian B stamped amphora Pl. 26

H. 0.571. Max. Diam. 0.398. H. neck 0.093. Diam. neck 0.10. Handle: W. 0.036, Th. 0.024. Many joining fragments preserve complete profile, most of jar; restored. Traces of resin on some sherds.

Short jar top has flaring, outward-thickened rim with convex upper edge, angular outer face clearly set off from neck; most of neck was squeezed to oval and rim pressed inward between handles. Very broad, rounded upper body tapers below with straight sides to point, with trace of swelling at tip. Arched handles are flattened oval in section, slant in to rim. Stamped above lower attachment on handle: 8-petaled rosette in circular field.

Second to third quarter of the 3rd century B.C.

**43** (IP 7793). Corinthian B stamped amphora handle Pl. 27

P.H. 0.195. Handle: W. 0.048, Th. 0.030.

Single fragment preserves handle with lower attachment to beginning of curve.

Trace of burning at top and base of handle. Tall, heavy handle slightly bowed in profile, slanted in toward rim; in section, flattened oval with central thickening. Stamped at base:

N (retrograde, in round field)

Second to third quarter of 3rd century B.C.

**44** (IM 5784). Loomweight Pl. 27

H. 0.082. Max. Diam. 0.055.

Intact.

Well-fired, very smooth surface. Single oval stamp with festooned bull's head surmounted by an upside-down one-handed pitcher with ribbed body.

One of fourteen loomweights found in Room C.

Cf. *Corinth* XII, p. 149, fig. 23, profile IX (1137) or X (1168), dated to the 4th century B.C.

**45** (IS 513). Archaic horse muzzle Pl. 28

P.L. 0.145. W. 0.090. Th. 0.110.

Single fragment, broken vertically at back of mouth; upper surface weathered and somewhat discolored.

Light-grayish white marble, very coarse grained, probably Naxian.

Upper part of life-sized horse muzzle with deeply carved, flaring nostrils. The head is realistically carved, including rounded flesh at sides of mouth, teeth, and the ridged underside of the mouth. The mouth perhaps wore a metal bit. Asymmetries indicate that the head turned right and the horse was in an active position. The relatively flat treatment of the side, front, and top surfaces and the lack of modeled veins or bones indicate an Archaic date.

A similar horse muzzle was found in the Gymnasium area in Ancient Corinth. See Wiseman 1967, pp. 421–422, pl. 89:b; Ridgway 1981, p. 423.

The Isthmia horse muzzle would seem to date midway between mid-6th-century and late Archaic Akropolis horses.

Cf. *Akr. Mus. inv. nos.* 565, 540 (Schrader, Langlotz, and Schuchhardt 1939, no. 312, pl. 137, and fig. 229 on p. 220) and the more complete marble horse, *Akr. Mus. inv. no.* 697 (Payne and Young 1936, p. 52, pls. 139, 140).

A pattern emerges from a preliminary look at the distribution of objects in the basement. Table wares and lamps were found in destruction layers in Rooms A and C and Street 5, which suggests that the material fell from Room B, the room above the basement (C). Loomweights and amphoras were found primarily in basement Room C. The loomweights were discovered alone or in groups of two or three, which makes it unlikely that they were stored in the basement. Probably they fell from the upper room (B) owing to their weight. The amphoras, however, with one exception were all found in the basement, so it is probable that they were originally stored there. One of these (IP 7792) was found in an approximately upright position in the northeast corner of the room (Pl. 25:c).<sup>60</sup>

## HOUSE XI

East of Street 5 was a structure with two rooms remaining and traces of a third (Pl. 24:a). Before excavation the bedrock of the upper (N) area of House XI was exposed for one to two meters toward the south, including a portion of the upper cement container in Room A.

<sup>60</sup> The lower part of the vessel was so badly broken that the base could not be mended or restored.

All wall blocks have been robbed out, but the beddings for the north wall and part of the south wall are visible, and we reconstruct the west wall alongside Street 5. The eastern side of House XI is no longer preserved because of extensive quarrying activity in the area where the living quarters would have been located.

### *Room A*

In Room A (Pl. 29:a) traces of a vat rim prompted the opening of a trench in this area. The room contained three vats arranged in a row (Pl. 29:b), which is a rather different configuration than that seen in other workshops. Two conical containers flanked an irregularly shaped deeper tank; a working floor was located on the smoothed bedrock surface to the east (+96.50 m.). The northernmost vat (Vat 1) rim has been broken but preserves an upper diameter of 0.70 m. and is 0.60 m. in depth. The lip of the container originally extended *ca.* 0.20 m. above floor level in the same manner as in other working floors with vats.

The large middle container (Vat 2) is approximately 0.70 m. wide, 1.40 m. long, and much deeper than the upper vat.<sup>61</sup> The upper part was constructed of poros blocks covered with cement. Only the base of the third and southernmost vat has been preserved. The entrance to Room A must have been either at the northwest corner or at the east end of the room.

A number of the pieces from the rim of the largest vat (Vat 2) were found inside the vat itself, along with part of an Ionic column base, a fragmentary poros column, and a large cut block, suggesting that the damage to the container occurred when these architectural pieces were dumped inside. Prior to this, however, the vat had been allowed to fill up with earth; near the bottom were found an intact loomweight, part of a bowl with outturned rim (46), and a small complete unguentarium (47).<sup>62</sup>

**46** (IP 7835). Bowl with outturned rim Pl. 29  
H. 0.042. Est. Diam. 0.117. Diam. foot 0.042.  
Single fragment with profile but most of rim missing.

Thin slip on interior and upper part of exterior with drip on one side. Shallow body with curved profile and flaring ring base.

**47** (IP 7741). Fusiform unguentarium Pl. 29  
H. 0.088, Diam. rim 0.039. Diam. body 0.040.  
Intact.

Corinthian clay with traces of black slip. Ovoid body with small cushion base.

### *Room B*

The floor of Room B is approximately 1.50 m. below the floor of Room A. The room was entered from Street 5 through two openings separated by a pillar, now 0.62 m. in height, which was created by trimming away the surrounding rock. The upper surface of this pillar was broken off and exposed before excavation. The floor of the room was cut out of bedrock and resembles the surface of a rough washboard or a series of alternating furrows. The difference between this surface and the relatively level bedrock in other areas of the structure suggests that the washboard effect may have been deliberate and connected with the function of the room.

<sup>61</sup> The preserved height of the walls varies from 0.30 m. at the south to 1.30 m. at the north, where the two vats share a common wall.

<sup>62</sup> Lot 89-488.

The north wall of Room B was formed of bedrock cut back for a distance of 3.5 m. The south boundary of the room was also marked by a section of bedrock cut to form a low wall, irregular in height but now preserved to about 0.40 m. at its highest point. The eastern part of the room is not preserved.

Overlying the western part of Room B and the steps of Street 5 were several layers of destruction debris, perhaps from the collapse of Room B of House X.<sup>63</sup> Among the objects in the deposit is a conical bowl fragment (**48**) with a Silenos medallion, similar to **6** but not made from the same mold, found with other fine table ware (**49**, **50**, **52**, **53**), some of which was decorated in the West Slope technique.

**48** (IP 7768). Conical bowl with medallion Pl. 30

P.H. appliqué 0.020. Diam. base 0.040. Max. dim. 0.051.

Single fragment from base.

Traces of black slip all over. Close-set horizontal grooving on wall. Small recessed base with applied medallion mask in high relief at center of floor. Mask is Silenos head, ivy wreathed, in a three-quarter view.

**49** (IP 7796). Conical bowl Pl. 30

Max. p. dim. 0.050. Th. 0.003.

One fragment from upper wall.

Peeling black slip on both surfaces. Traces of scraped groove, probably just below rim. West Slope decoration of ivy scroll with incised tendrils separating yellow-buff leaves; white triple dots above or below each leaf.

**50** (IP 7795). Plate with offset rim Pl. 30

H. 0.025. Est. Diam. 0.150. Diam. foot 0.048.

About half of dish plus one joining piece.

Pale fabric with black gloss and decoration in West Slope technique. Broad, flat offset rim. Sloping ring foot with nipple under center. Scraped grooves at rim edge, at junction between wall and floor, and defining tondo. Decoration: rough star in applied orange paint at center; around groove a row of incised eggs with white dots and yellow darts. On rim: sets of incised diminishing rectangles superimposed by X incised from corner to corner, each set separated by alternating white and checkerboard bands.

A late-3rd-century form at Corinth (*Corinth* VII, iii, pp. 39–40; *Corinth* XVIII, i, p. 50).

**51** (IP 7797). Howland Type 29 A lamp Pl. 30

Max. p. dim. 0.053. Est. Diam. 0.070.

One piece from top.

Attic clay (5YR 7/6, reddish yellow) with metallic black gloss. Wide, shallow shoulder with small part of wall. Round opening marked off by a broad, unslipped groove.

Cf. *Agora* IV, no. 414, p. 96, pl. 41, dated 325–260 B.C.; *Kerameikos* XI, FSL 1, pp. 50, 51, dated 300–220 B.C.

**52** (IP 7754). Kantharos Pl. 30

P.H. 0.036. W. at rim 0.026. Max. p. dim. 0.053.

Single fragment of rim and wall. Edge of handle stump just below rim.

Reddish yellow to yellowish red (5YR 6/6 to 5/6) hard fabric with thin red gloss of same color on inside. Outside fired reddish brown (5YR 5/3 to 4/3). Vertical wall with tapered lip. Painted cream decoration includes a horizontal palm leaf with looped ribbon at end. In added white are dots at the tips of each frond.

Perhaps an import from Pergamon. Cf. Behr 1988, pp. 104–105, for fabric description, although this pattern does not appear.

**53** (IP 7858). Semiglazed bowl Pl. 30

P.H. 0.040. Est. Diam. 0.120–0.140. Th. 0.003.

One fragment of rim and wall.

Dark brown slip on interior, at lip, and a single stripe at the point of maximum diameter. Short, everted rim.

<sup>63</sup> Lots 89-491 and 89-492. A lead sling bullet, IM 5715 (wt. 23.64 grams), was found in the deposit just above the destruction debris (Lot 89-486).

There appears to have been another room to the east of Room A, but a cutting and a small part of a smoothed bedrock surface are all that remain.

## THE OBJECTS

Many household objects were preserved in the destruction debris of the houses, especially in the deep fills of the basement rooms. Similar types and amounts of fine wares, cooking pots, transport amphoras, lamps, millstones, loomweights, and metal objects were part of the equipment of each house. A selection of objects has been presented in the catalogue above.

### *Pottery*

Much less Athenian pottery was found in the houses excavated in 1989 than was recovered in the clearing of the well and large cistern on the south slope in the years 1955 and 1956. The latter features also contained a greater quantity of late-4th- and early-3rd-century material. From the recent excavations, the small Attic kantharos (**13**) with West Slope decoration, perhaps a product of the "Incised Wave Group" workshop, belongs in the third quarter of the 3rd century.<sup>64</sup> Hellenistic molded relief bowls are represented by only one small finely made fragment (**17**) from the earliest production of the type and should date *ca.* 220 B.C.<sup>65</sup> No other relief bowls were found in the Rachi deposits. The paucity of fine-ware imports from Athens in the late 3rd century may be due to unsettled conditions in the Corinthia at this time. Athens was also less involved in producing ceramics for export.<sup>66</sup>

Corinthian wares, of course, constitute the majority of the pottery. The most common shapes are the bowl with outturned rim (**14**, **22**, **23**, **46**) and the conical bowl (**6**, **21**, **48**, **49**).<sup>67</sup> Although the chronology of these shapes has not been well established, in the Rachi deposits both appear to be more characteristic of the second rather than the first half of the 3rd century.<sup>68</sup> The two fragments of conical bowl bases (**6**, **48**) with detailed Silenos medallions have no parallel, although relief faces or masks of Dionysiac characters have been found on vessels of the late 4th and early 3rd centuries B.C. and on hemispherical bowls with

<sup>64</sup> Rotroff 1991, nos. 77, 78, pp. 85–89.

<sup>65</sup> Rotroff 1990, p. 177, and personal communication.

<sup>66</sup> Rotroff 1990, p. 178.

<sup>67</sup> Quantities of types and shapes will be presented in the final publication report.

<sup>68</sup> Edwards dates the Hellenistic shape of the outturned-rim bowl with carination after 250 B.C. (*Corinth* VII, iii, p. 34, pl. 3). The Rachi well, which contained very little material datable after 250 B.C., produced no examples of the bowl with outturned rim (Anderson-Stojanović 1993a, p. 265). Bowls of this type dated to the first half of the 2nd century display a carination quite low on the wall (Romano 1994, nos. 21, 22, pp. 69–70, pl. 16).

The conical bowl appears first in Athens during the second quarter of the 3rd century (Rotroff 1991, p. 70) and is common in the lower fill of the Satyr Cistern, among material dated to the third quarter of the 3rd century (Rotroff 1994, pp. 21–22), the date of the earliest examples of the type in Corinth (*Corinth* VII, iii, p. 91). An example dated *ca.* 200 B.C. occurs in group 10 of the Sanctuary of Demeter and Kore on Acrocorinth (*Corinth* XVIII, i, no. 187, p. 106), but the conical bowl seems not to have been a popular shape at Corinth (*Corinth* XVIII, i, p. 43), and none would appear to have been found in the Hellenistic deposit recently published by Romano (1994). Two examples of the conical bowl appear in the uppermost filling of the Rachi well (Anderson-Stojanović 1993a, nos. 127, 128, p. 296), dated to the second half of the 3rd century.

West Slope decoration of 3rd-century date.<sup>69</sup> Echinus bowls (e.g. **2**, **20**) and semiglazed bowls (e.g. **53**), in production since the 4th century, are less well represented.

Kantharoi of various types are present; **12**, an articulated type, carries an inscription. Both the kantharos with molded rim (**11**) and the cyma kantharos (**5**) are decorated with rather simple designs in the West Slope technique. The Hexamilia kantharos (from Lot 89-519) and the Hexamilia mug (**18**) are found in the latest deposits on the Rachi and make it clear that the type was still being used in the late 3rd century. The rare thorn kantharos (**30**) cannot be assigned to a source because it has been so badly burned, but it is most probably an import.

### *Transport amphoras*

Approximately twenty complete or partially complete transport amphoras were recovered in the 1989 excavations, almost entirely from basement storerooms. The greatest numbers were recovered from Houses IX and X; eight from House IX, including **31–33**, and six from House X, **40–42** among them. Predictably, Corinthian B is the most common type (**33**, **42**, **43**), accounting for almost half of the total amount, including stamped handles.<sup>70</sup> The fabric of the jars is uniformly of the Corinthian yellow variety except for one stamped handle (IP 7755) made of a reddish clay.<sup>71</sup> A variety of profiles are represented among these. All have a point of maximum diameter below the shoulder, a characteristic of examples dated by Koehler to the mid-3rd century.<sup>72</sup> **33** has a somewhat narrow body with high arching handles and relatively tall neck with loosely defined rim, and **42** has a very broad body and short rim. Both **42** and one other (IP 7792) are lined with resin, which suggests that they contained wine.<sup>73</sup> The Corinthian B stamp types are dated to the second quarter or middle of the 3rd century.

There are three examples of Corinthian A', and of these **41** is a good example of the 3rd-century type.<sup>74</sup> The five examples of the Graeco-Italic amphora (e.g. **32**, **40**) appear

<sup>69</sup> A Silenos mask and figurines have been found in the Sanctuary of Demeter and Kore on Acrocorinth, where they give evidence of the connection between the cults of Demeter and Dionysos (Stroud 1968, p. 323, pl. 95). The Rachi examples may reflect the popularity of the cult in the Hellenistic period, or they may have been associated with the Rachi shrine (Anderson-Stojanović 1987b and 1994b). Edwards (*Corinth* VII, iii, p. 91) suggests that the substitution of a molded appliqué relief for painted decoration may have been adopted as a laborsaving device. For satyrs' heads in Athenian black gloss, see Miller 1974, nos. 16, 17, p. 203, pl. 31; also Webster 1960, pp. 270–272, and *Ephesos* IX, ii, 2.1, pp. 56, 63, C1, C3, pl. 64, for other cups with Silenos medallions. For the date of such appliqué, Rotroff (1988, p. 516) suggests that Athenian appliqué busts or heads in high relief appear on hemispherical West Slope cups in the 3rd century B.C., while Edwards (*Corinth* VII, iii, p. 91) notes that Corinthian examples belong typologically to the first half of the 2nd century.

<sup>70</sup> Corinthian B amphoras not in the catalogue include IP 7755, IP 7792, IP 7810, IP 7880, IP 8311, and IP 8335.

<sup>71</sup> The reddish fabric is characteristic of jars made in the late 4th and 3rd centuries B.C. (Whitbread 1986a, pp. 347–356 and Whitbread 1986b, pp. 97–99).

<sup>72</sup> The most recent studies for the Corinthian B class are now Koehler 1992, 1982 (where on pl. 79, for no. 20 read no. 21, and for no. 21 read no. 20), and 1978.

<sup>73</sup> Koehler 1992 and 1986, pp. 50–52.

<sup>74</sup> Koehler 1992.

to be Will's Type 1a, dated to the second half of the 3rd century.<sup>75</sup> An unusual find is the one example of the Ζη-group amphora of the large type with a newly documented stamp (ΠΙ) in an oval frame (31).<sup>76</sup> The two Rhodian stamped handles are among the latest objects from the site. 24 bears the eponym Σωχάρεις with the Helios symbol in a rectangular frame, dated by Virginia Grace to the third quarter of the 3rd century, and 25 carries the eponym Ξενοστράτος, dated to the late 3rd century B.C.<sup>77</sup>

That at least one jar in House X was found upright rather than upside down, the customary position for storing empty amphoras, suggests that perhaps many of the jars in the Rachi basements still retained their contents.<sup>78</sup>

### Lamps

A precise chronology for Hellenistic lamps continues to be a problem since the same types were produced and used over a long period of time.<sup>79</sup> The earliest lamp found in quantity on the Rachi is the Howland Type 25/Broneer Type VII lamp which occurs in both Attic (16) and local Corinthian (3, 19, 38) clays. 3, a type with basket handle, ought to be the earliest. One example of a Howland Type 29 A lamp (36) comes from a construction deposit of House XI. The presence of the type (51) in the destruction debris, however, provides support for Scheibler's lowering the end of the range for the type to at least 220 B.C.<sup>80</sup> The blister-ware lamp, Broneer Type XI (15), a 3rd-century type, is the most common lamp in the Rachi destruction deposits.<sup>81</sup>

### Figurines

A number of very fine terracotta figurines and molds, particularly of females, have been found on the Rachi.<sup>82</sup> The head with melon coiffure (37), from a construction context in House XI, is among the best made and preserved of the examples found in 1989. 8 is the first example of a snake-and-helmet stele to be found at Isthmia. Such plaques are well known at Corinth, where they have been associated with a hero cult.<sup>83</sup>

<sup>75</sup> Will 1982, pp. 341–344, and personal communication (Feb. 1994). Not in the catalogue are IP 7752, IP 7897, and IP 8243.

<sup>76</sup> The Zenon Group jars are described in Koehler and Wallace 1987, pp. 49–50, and in Grace 1986, pp. 557, 559–560, where the date of the Serçe Limani shipwreck containing these jars is placed at ca. 275 B.C.

<sup>77</sup> Examples of the eponym Ξενοστράτος were found in the Altar Well and the Satyr Cistern of the Athenian Agora, the former now dated ca. 200 B.C. and the latter somewhat earlier (Grace 1985, p. 16 with note 34; Thompson, Thompson, and Rotroff 1987, pp. 185–186).

<sup>78</sup> Koehler 1986, pp. 62, 66, and notes 68–70.

<sup>79</sup> See Blondé 1983, pp. 22–27 and her discussion of the common Hellenistic lamp, Howland Type 25 (Broneer Type VII), pp. 101–105.

<sup>80</sup> *Kerameikos* XI, pp. 50, 51.

<sup>81</sup> *Isthmia* III, p. 23.

<sup>82</sup> See Anderson-Stojanović 1993a, no. 23, p. 276; no. 76, pp. 287–288; no. 79, p. 288.

<sup>83</sup> Broneer 1942, pp. 129–133, 157–158. Davidson 1942, p. 113, note 12, p. 114, fig. 4. Other such stelai are illustrated in *Corinth* XII, nos. 184, 185, p. 38, pl. 13, dated the 5th century B.C. They became more numerous in the 4th and 3rd centuries B.C.: *Corinth* XII, nos. 365–375, p. 54, pl. 33, and discussion of deposits II and VI, which contained a number of these examples (pp. 19–20). Also from the forum area, see Williams and Fisher 1972, no. 57, p. 162, pl. 27 and 1973, p. 8 and MF 72-2 on pl. 3.

*Beehives*

Absorbed organic residue analysis of pottery fragments with grooved interior, recovered during the 1989 excavations, has confirmed their identification as beehives.<sup>84</sup> Approximately thirty examples of these vessels have been found in the Rachi settlement, one of which was inscribed with the name ΟΡΕΣΤΑΔΑ.<sup>85</sup> Numerous examples of such vessels have also been found elsewhere at the Isthmus, and many are known from Attica.<sup>86</sup>

*Loomweights*

Seventy-eight loomweights, more than half of which (47) have stamps, were discovered in 1989. The largest numbers were found in basement rooms of the houses; 14 in Room C of House X, 11 in the small sunken chamber (C) of House VII, 9 in Room A of House I, 7 in House IX, and 6 in House II. Since they were found in small clusters or, more rarely, individually, they were probably stored in rooms above the basement level and were dispersed in falling.<sup>87</sup> Within groups there is considerable variation in the weight and types of stamp.<sup>88</sup> The most frequent stamp (28 examples) is that showing a loomweight. **44** illustrates a unique example of one of the gem impressions commonly used to decorate Corinthian loomweights during the early Hellenistic period.<sup>89</sup>

*Metal Objects*

There is a broad array of bronze and iron nails, bosses, and fittings for doors.<sup>90</sup> An unusual object is a lead ointment container (**39**) with a tripod in relief. Although it is not inscribed, other examples of the shape found in the Athenian Agora and elsewhere are marked with the word *lykion*. They may have contained a medicine common in antiquity.<sup>91</sup>

## THE SETTLEMENT

The results of the 1989 Rachi excavations have provided new information about the brief history of this community near the Isthmus of Corinth. The existence of comparable installations in many buildings suggests that similar tasks were performed in some of them.

<sup>84</sup> Evershed and Anderson-Stojanović 1994.

<sup>85</sup> The Orestada vessel was published by Broneer (1958, no. 42, p. 32, pl. 14:b) and discussed by Kardara in two articles (1961, pp. 264–265, pl. 81; Kardara and Papadopoulou 1984).

<sup>86</sup> Jones, Graham, and Sackett 1973, pp. 397–414, esp. pp. 399, 401, pl. 78; Jones 1990, p. 69, note 9 (for a discussion of the Rachi-type vessels).

<sup>87</sup> Barber 1991, pp. 101–102.

<sup>88</sup> Differences in weight within a set used on a single loom is not uncommon. See comments of Barber (1991, pp. 95–96).

<sup>89</sup> *Corinth XII*, p. 153.

<sup>90</sup> See discussion of House VI, p. 72 above.

<sup>91</sup> In Athens three lead containers were found at the west foot of the Areiopagos in a Hellenistic context in the filling of the Great Drain (Thompson 1948, p. 191, pl. 69:4). Other uninscribed examples made of clay were discovered in the excavation of the Prison Annex, where they were perhaps used for administering hemlock (Vanderpool 1980, p. 20, fig. 10). See also a selection of inscribed clay ointment containers from Morgantina published by Sjöqvist (1960, pp. 79–83, fig. 15, pl. 20), including an inscribed lead container with tripod, now in the British Museum.

Each may have belonged to a different owner or lessee.<sup>92</sup> A glance at the plan of the settlement and its houses makes it clear that it does not conform to the standard Hellenistic city plan. The space available at this end of the ridge was limited by the configuration of the hill; the houses were therefore small compared to those of larger towns. But the tendency to place courtyards at the southern part of the house and the utilization of the steep south flank of the hill (avoiding the colder north side) follow the ancient recommendation for the design of an ideal Greek house (Xenophon, *Mem.* 3.8.8; *Oec.* 9.4; Aristotle, *Oec.* 1.6.7 (1345a); *Pol.* 7.10.1; Aischylos, *Pr.* 450).<sup>93</sup> Three parallel streets cross the settlement from east to west, and two from north to south, providing virtually each house with access to several passageways. A similar plan existed in the industrial quarter of Halieis.<sup>94</sup> Access to avenues of transport would have been important for moving raw materials into workshops and moving products out. The courtyard may have been located adjacent to the street rather than in the center of the house for the same reason. Furthermore, a defensive aspect of the settlement can be seen in the tightly massed houses on the steep south slope and the continuous back wall of the North Building and House XII along the north side. The narrowness of the passageways and streets also helped to make the settlement defensible (Aristotle, *Pol.* 7.10.1–2, 5).<sup>95</sup>

Combining house with workshop is a characteristic of ancient Greek domestic architecture, and indeed, it is still common in many parts of modern Greece.<sup>96</sup> In contrast, a large workshop or factory owned by the state or by a wealthy family is a feature found in Bronze Age Greece, the ancient Near East, and at Pompeii.<sup>97</sup> Such an establishment would efficiently group working areas by task in larger buildings.<sup>98</sup>

The presence of so many workshops in a small area, however, suggests the provision of a service or the manufacture of a product beyond subsistence needs. It has been suggested that the Rachi installations were dyeing establishments.<sup>99</sup> Given the shape of the vats and tanks, and the location of the settlement, fulling and tanning of animal products may also have been practiced.<sup>100</sup> Oscar Broneer's original suggestion was that the cement floors served for the treading of grapes and the vats for collecting the must.<sup>101</sup> The most likely use for the

<sup>92</sup> No two of the installations are identical, aside from the combination of the cement floor with raised edge and two vats, found in three structures.

<sup>93</sup> Note comments on typical Greek houses in Williams and Fisher 1972, p. 172 and note 28, and in *Olynthus* VIII, pp. 145–146. House plans were also irregular at Thorikos, but they too took advantage of a south-southwest orientation (Mussche 1974, p. 45). A difference in temperature of between ten and twenty degrees distinguished the north from the south side of the Rachi hill during excavations there in November of the 1989 season, depending on the direction and force of the winds.

<sup>94</sup> Jameson 1990, p. 110, note 10.

<sup>95</sup> Although there are numerous staircases on the south, they consist of short sections connecting rooms and terraces and could be blocked relatively easily.

<sup>96</sup> Jameson 1990, p. 102. See also Young 1951. The Attic ergasteria for silver processing near Laurion combined work areas with domestic units (Jones 1991, pp. 107, 108, 110, 114).

<sup>97</sup> Barber 1991, pp. 283–291; Moeller 1976.

<sup>98</sup> As also suggested by W. Thompson 1982, p. 221.

<sup>99</sup> Kardara 1961; this identification has been adopted in later publications, e.g., White 1984, p. 40, fig. 32; Barber 1991, p. 241; and Foxhall 1993, pp. 186–187.

<sup>100</sup> Anderson-Stojanović 1993b.

<sup>101</sup> Broneer 1958, p. 19. It is possible that a wine press would have been a feature of every house, at least in the country, as it is in many modern Greek villages, but the Rachi installations seem overly elaborate for the making of household wine, especially in comparison to the size of other rooms in the houses.

cement floors and vats in several workshops, however, would have been for the production of oil, because certain features may be interpreted as elements of an olive press: cuttings in the bedrock east of the cement floor in House IV and in a block north of the cement floor in Room A of House III might have served to hold uprights to support a weighted beam used to press the olives directly on the square cement surface;<sup>102</sup> a stone weight discovered in the 1954–1955 excavations might have been attached to the end of the beam.<sup>103</sup> Other portable stone containers found in 1989 and in the earlier excavations may have been used to crush the olives in a preliminary stage. Details of the process as it might have been carried out in the Rachi installations, however, need to be clarified and will form part of the final publication of the site.

If oil was being produced on the Rachi, the community was clearly producing more than was necessary for domestic consumption.<sup>104</sup> Although the number of olive presses per community may vary, only one was discovered at Olynthos, and four at Halieis, while the modern Greek village is normally served by one press.<sup>105</sup> The surplus production of olive oil, an expensive and essential commodity for athletes and for the meals that were consumed by visitors to the games, could account for the proximity of the settlement to the Sanctuary of Poseidon.

The foundation of a settlement at the end of the promontory overlooking the sanctuary (Fig. 1) was costly, given the work required to carve parts of the buildings out of the bedrock and to create the cement floors and vats. Located at the Isthmus, a busy religious and commercial center, yet somewhat removed on the windy ridge, it would have been a secure location for industry and commerce.<sup>106</sup> In addition to the industrial processes carried out on the Rachi, the loomweights found in most of the houses of the settlement speak for the production of textiles, and several fine molds for terracotta plaques and figurines are evidence for the production of votives.<sup>107</sup> The community may have been initiated and supported by the priesthood of Poseidon, which then would have obtained revenue from their investment, or it may have been an independent and enterprising group of artisans.<sup>108</sup>

<sup>102</sup> As seen in Amouretti 1986, p. 167, fig. 27 and described by Hadjisavvas (1992, p. 25) and Drachmann (1932, p. 86) at Stabiae. Foxhall (1993) presents a general description of olive processing and olive presses.

<sup>103</sup> The weight (IM 6000) resembles those illustrated in Hadjisavvas 1992, p. 39, fig. 65. Such weights have frequently been mistakenly identified as anchors (Amouretti 1986, p. 168, pl. 33:a).

<sup>104</sup> The function of the basement storage rooms and the presence of complete (probably reused) amphoras becomes clearer in the context of oil (and wine?) production.

<sup>105</sup> *Olynthus* VIII, p. 339 and Foxhall 1993, pp. 187–189; Halieis: Jameson 1990, p. 102 and Foxhall 1993, pp. 185–187.

<sup>106</sup> Gebhard (1993, pp. 165–169) summarizes the role of the Isthmian sanctuary as a traditional meeting place of the Greeks. Livy (33.32), in his description of the events surrounding the proclamation of freedom for the Greeks made by Titus Quinctius Flamininus in 196 B.C., refers to the importance of location between the two seas and to the wide array of items available for sale: “*concilium Asiae Graeciaeque is mercatus erat*” [this market was meeting place of Europe and Asia].

<sup>107</sup> The numbers of loomweights are not so large as to require anything more than domestic production, although in a situation where other goods were manufactured for sale, the Rachi households might have woven special items for the temple or for local festivals and markets.

<sup>108</sup> Kardara (1961, p. 266) suggests that perhaps a guild of dyers was given a lease by the Sanctuary of Poseidon. The Temple of Apollo on Delos owned land and buildings on Delos, Rheneia, and Mykonos which

The economic and religious relationship between the sanctuary and the Rachi, and the precise identification of the industry or industries practiced by the inhabitants of the settlement, whether dyeing, fulling, tanning, or oil or wine production (all of which are possible given the archaeological remains), must await the results of further study and analysis of organic residues.

## DESTRUCTION OF THE SETTLEMENT

Sometime before the destruction of the Rachi settlement, there were alterations in the use of some parts of the site. In several areas, cuttings in the bedrock that must have served as attachments for fixtures were filled with earth, and pithoi were placed on top. For example, in Room D/E of House VII, a large square cutting was covered by Pithos 2 (IP 8252), and in House III, the cuttings mentioned above (p. 92) in connection with olive pressing were covered by a pithos. In another case a large stone jar was built into a wall. Silt accumulated in several basement chambers (House II, Room C; House VII, Room A) around the objects stored there, and in Vat 1 in House XI. Blocks seem to have been robbed out of walls in various parts of the settlement.<sup>109</sup> Because of the unstable political situation in the Corinthia during the 3rd century, it is possible that some workshops were closed, although people continued to live in the community.

The settlement was ultimately destroyed by a fire that blackened the walls of basement rooms and fired many of the mud bricks from walls. What caused the fire that destroyed the settlement, and when did it take place? The homogeneity and similar date of most of the pottery suggest that the destruction throughout most of the site occurred at one time. The damage at about the same time to the Sanctuary of Poseidon may be indicative of a rather significant event. Destruction deposits in the sanctuary included a number of marble and poros architectural fragments and portions of the terracotta roofs of buildings.<sup>110</sup>

That the date of the destruction came at the end of the 3rd century is indicated by late-3rd-century pottery shapes such as the bowl with outturned rim, the conical bowl, and the plate with offset rim, types that predominate among the ceramics in the basement destruction debris. Coins from destruction levels include two Corinthian coins struck before 200 B.C. and one Macedonian coin of Antigonos Gonatas (277–239 B.C.); the latest is a coin of

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it leased to tenants (Kent 1948, pp. 243–244). Walbank (1983) discusses the leasing of properties by Attic deities; see especially pp. 227–230.

The presence of beehives indicates the production of honey, but like the loomweights, they may be evidence for primarily domestic production. Absorbed organic residue analysis by a collaborative program between the Wiener Laboratory of the American School of Classical Studies at Athens and Dr. Richard P. Evershed at the School of Chemistry, University of Bristol, has confirmed the presence of beeswax in samples of beehives from the Rachi settlement (Evershed and Stojanović 1994).

<sup>109</sup> The North Building and House VII.

<sup>110</sup> The sanctuary was not protected by a trans-Isthmian wall in either the Classical or the Hellenistic period (Wiseman 1978, pp. 60–63), although another wall may have surrounded the temenos itself. Archaeological evidence indicates a destruction in the sanctuary between the renewal of the Hellenic Symmachy in 220 B.C. by Philip V and a clean-up operation (filling the gully) dated to the first quarter of the 2nd century. See Gebhard and Hemans, in preparation.

Philip V, dated 221–197 B.C., from the uppermost fill.<sup>111</sup> Among the coins discovered in the 1954–1955 excavations are three of Philip V, one Boiotian issue of 220–197 B.C., and one from Oiniadai dated 219–211 B.C., none of which is inconsistent with a destruction connected with the Second Macedonian War (200–196 B.C.).<sup>112</sup> The Rhodian stamped amphora handle (25) and the other pottery agree with a date in the last decade of the 3rd century B.C.

The presence of weapons such as sling bullets, spear tips, and javelin sockets in the destruction debris on streets, in basements, and in debris dumped into basements after the destruction suggests that there was a military struggle on the Rachi.<sup>113</sup> The destruction of the settlement may then have been a result of military action in 198 B.C.<sup>114</sup> Such a hypothesis would provide a much-needed fixed point for the chronology of the early Hellenistic period. Final conclusions, however, must await the study of all the objects from the entire settlement on the Rachi.<sup>115</sup>

<sup>111</sup> The Corinthian coins are IC 1441 and IC 1459, and the Macedonian coin, also bronze, is IC 1479. The coin of Philip V is IC 1480.

<sup>112</sup> Coins of Philip V are IC 175, IC 195, and IC 277; Boiotian issue, IC 276, and Oiniadai, IC 167.

<sup>113</sup> Weapons include IM 3622: iron boss and barb arrowhead; possible iron javelin sockets: IM 5625, IM 5989–5991; iron speartip: 26; lead sling bullets: IM 3694, IM 5630, and IM 5715. IM 5630 was made in a mold decorated with a dolphin and trident. Allies of the Romans in the Second Macedonian War, the Rhodians were particularly well known as slingers (Xenophon, *An.* 3.3.16–18).

<sup>114</sup> A description of the events in the Corinthia during the Second Macedonian War is recorded by Livy (31–33) and discussed by Walbank (1940, pp. 138, 155, 157–158) and Eckstein (1976).

<sup>115</sup> I am indebted to a number of scholars for information and contributions to catalogue entries for various classes of artifacts. Virginia R. Grace and Carolyn G. Koehler provided help in the identification and chronology of the amphoras, and Koehler wrote the amphora catalogue entries. The stamped amphora handles from the excavations have been included in the comprehensive data base AMPHORAS being compiled by Koehler and Philippa M. W. Matheson from the files of Virginia Grace. I am especially grateful to Stella Bouzakis and Nikos Didaskalou for mending and restoring the Rachi amphoras. The coins were identified by Liane Houghtalin, who is preparing their final publication. Martin Price was helpful in determining the dates of the Corinthian coins, and I thank him for permission to cite his unpublished chronology of Corinthian pegasos/trident coinage. The arms and armor are being studied by Alastair Jackson for his volume in the *Isthmia* series, and it is to Jackson and Nic Fields of the British School at Athens that I owe thanks for references and observations on military matters. David G. Mitten studied the terracotta figurines and prepared the catalogue entries. Mary C. Sturgeon included examples of sculpture from the Broneer excavations on the Rachi in *Isthmia* IV and will publish the sculpture from the 1989 excavations in a separate article. Curtis N. Runnels examined the millstones and provided information on their typology and origin. Discussions with P. Nick Kardulias on stone tools and their technology were most helpful. Anton Raubitschek, assisted by Helga Butzer-Felleisen, examined the metal objects and included them in the late Isabelle Raubitschek's forthcoming volume on metal objects, *Isthmia* VII. Special thanks are also owed to Kate Adams, student assistant, and Anna Stojanović, assistant to photographer Michiel Bootsman.

## APPENDIX: RACHI COIN LIST

IC 1437	AE 13.0 mm., 2.11 gm.	400–146 B.C.	Corinth. Pegasus flying l./Trident. A-[?]	Edwards 11
IC 1438	AE 12.5 mm., 1.70 gm.	400–146 B.C.	Corinth. Pegasus flying l./Trident. Uncertain controls	Edwards 11
IC 1441	AE 14.0 mm., 2.25 gm.	Before 200 B.C.	Corinth. Athena head l. in Corinthian helmet/Zeus standing l. and holding staff and thunderbolt. [Σ]- Race-torch	Edwards 14, Price 1967, p. 365
IC 1456	AE 12.5 mm., 1.44 gm.	400–146 B.C.	Corinth. Pegasus flying l./Trident. Race-torch in r. field	Edwards 11
IC 1457	AE 14.5 mm., 1.34 gm.	400–146 B.C.	Corinth. Pegasus flying l./Trident. Σ-[?]	Edwards 11
IC 1458	AE 11.0 mm., 1.72 gm.	400–146 B.C.	Corinth. Pegasus flying l./Trident. Uncertain controls	Edwards 11
IC 1459	AE 12.0 mm., 1.67 gm.	Before 200 B.C.	Corinth. Herakles head r./Pegasus protome r.	Edwards 13, Price 1967, p. 365
IC 1479	AE 19.5 mm., 4.98 gm.	Antigonos Gonatas 277–239 B.C.	Macedonia. Athena head r. in crested Corinthian helmet/Pan standing r., erecting trophy. Uncertain controls	Edwards 240
IC 1480	AE 15.0 mm., 2.63 gm.	Philip V 221–197 B.C.	Macedonia. Poseidon head r., wreathed, bearded/Prow r.; above BA below Φ	<i>SNGCop</i> 1247, Mørkholm 1991, p. 136

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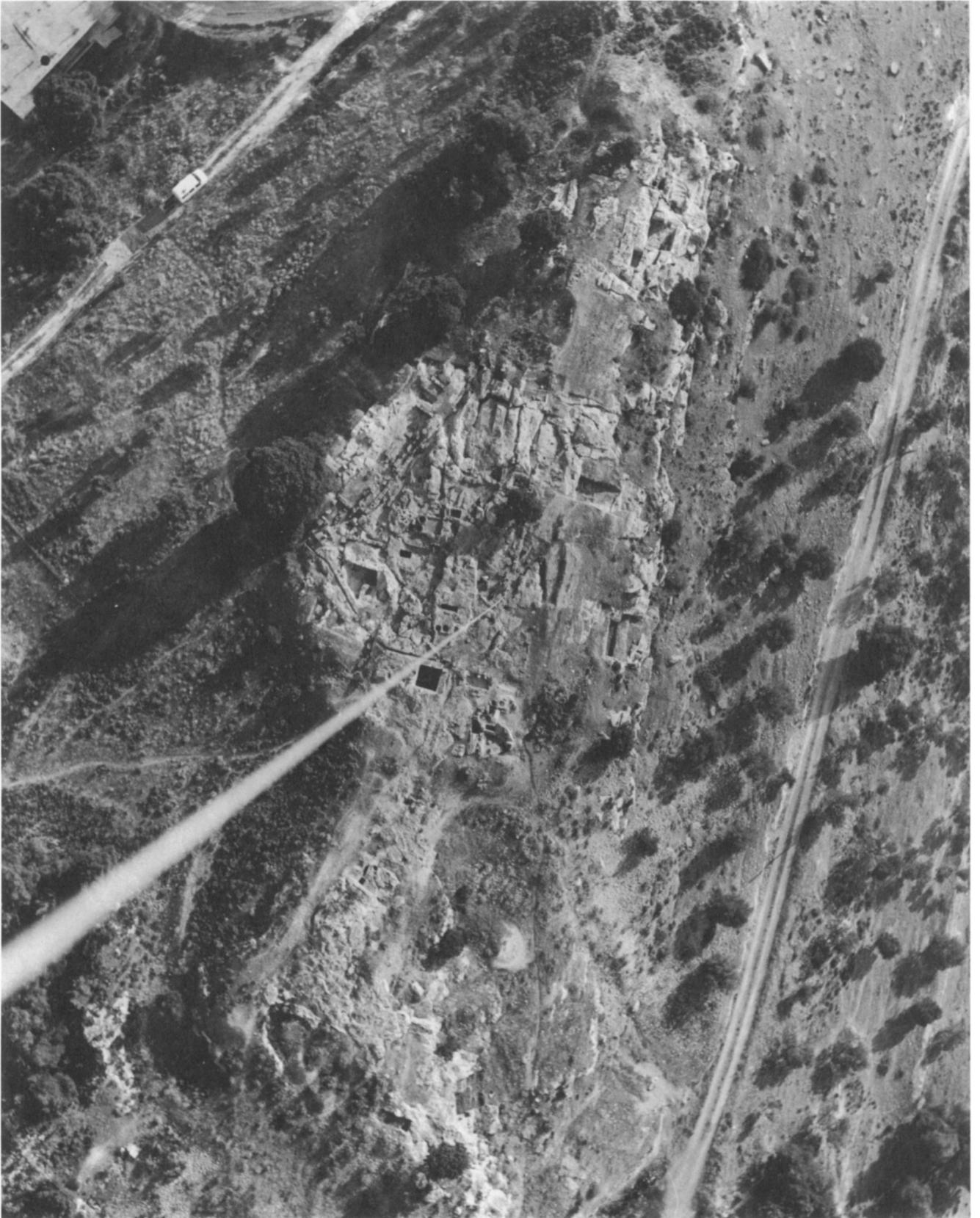
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PLATE 10



Aerial view of settlement (W. Myers and E. Myers)

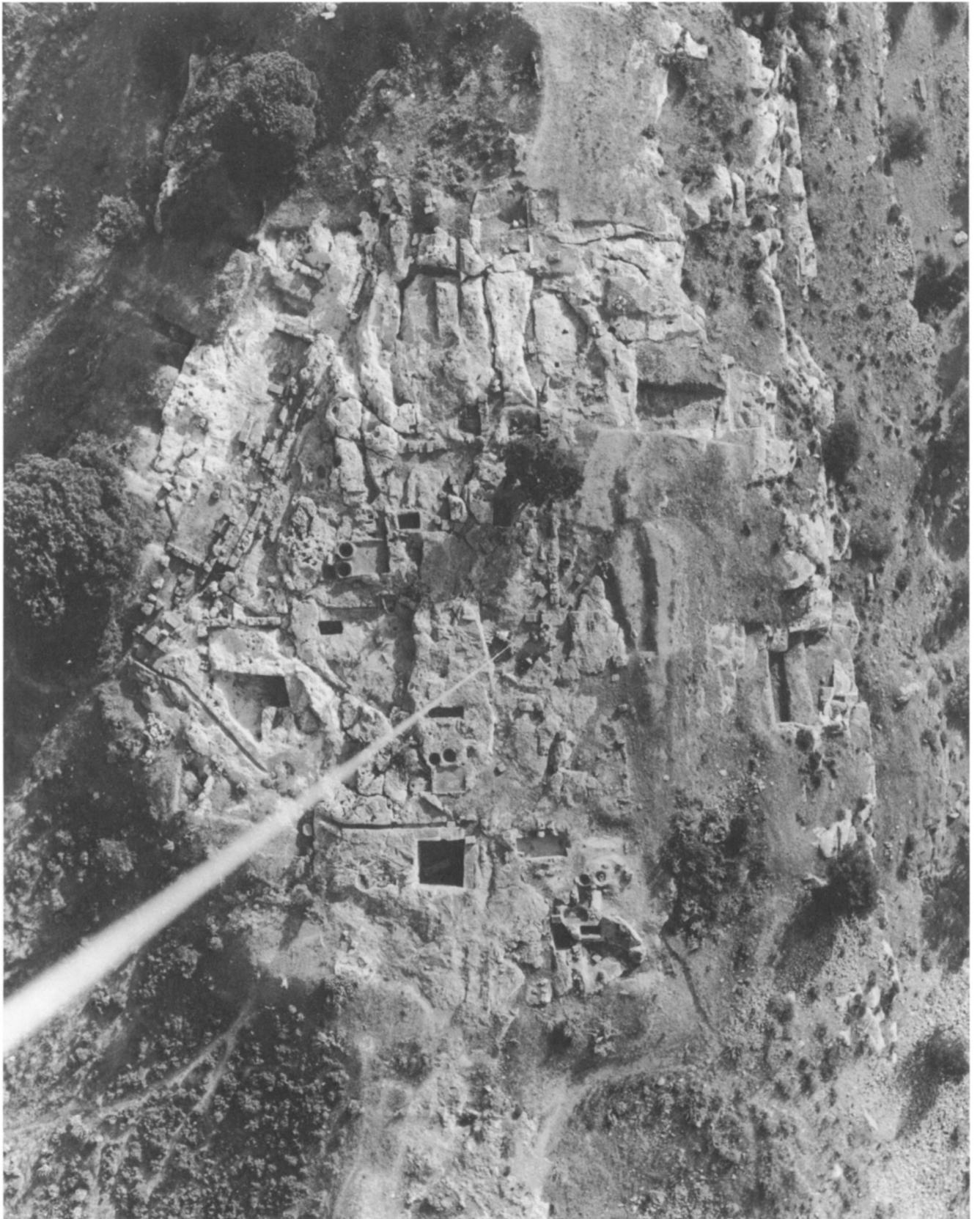
VIRGINIA R. ANDERSON-STOJANOVIĆ: EXCAVATIONS IN THE RACHI SETTLEMENT AT ISTHMIA, 1989



a. Settlement, looking west



b. Remains of Houses X and XI with steps of Street 5, looking north



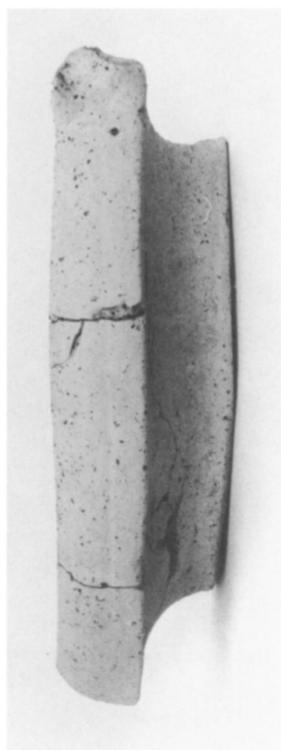
Aerial view of central part of settlement (W. Myers and E. Myers)

VIRGINIA R. ANDERSON-STOJANOVIĆ: EXCAVATIONS IN THE RACHI SETTLEMENT AT ISTHMIA, 1989



a. North Building, Room 5, east wall at right (a) and earthen floors 1 and 3 in foreground, looking east

1



b. House I, Room A with contents as fallen on floor, looking east



3



4

PLATE 14



a. House II, Room B, basement with poros container and roof tiles as found on floor, looking south



b. Bath (2) with cistern in foreground; House II with Rooms A, B, and C; and Street 1 (1). Looking west



5



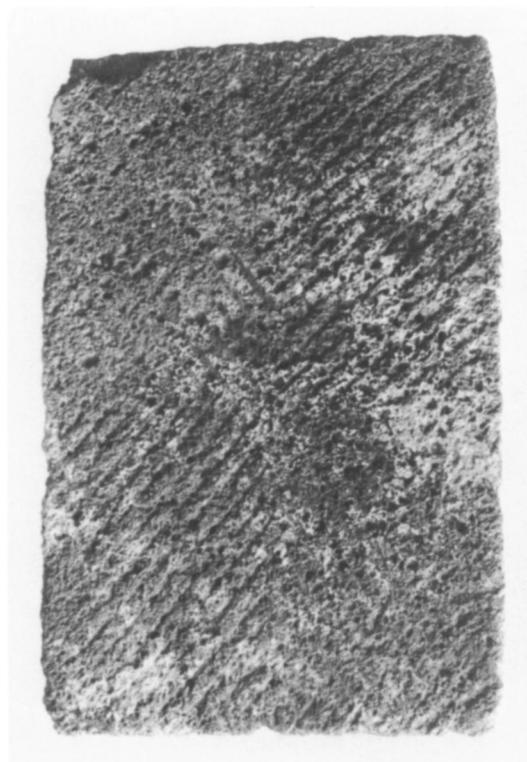
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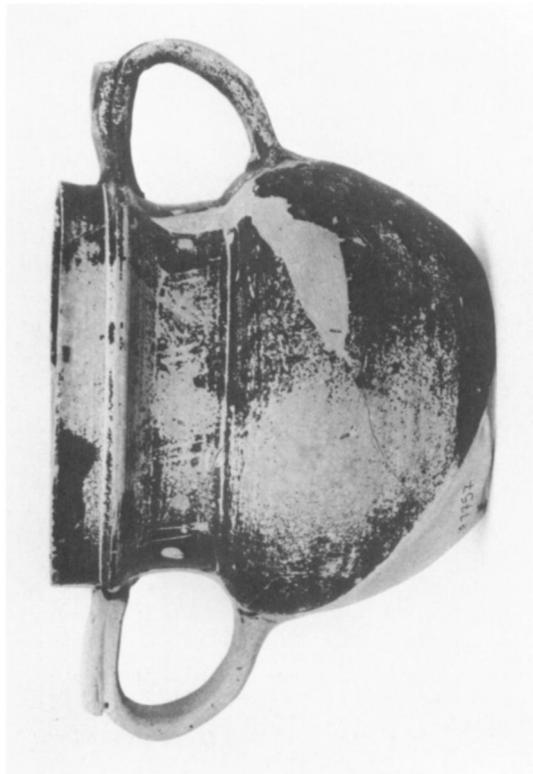
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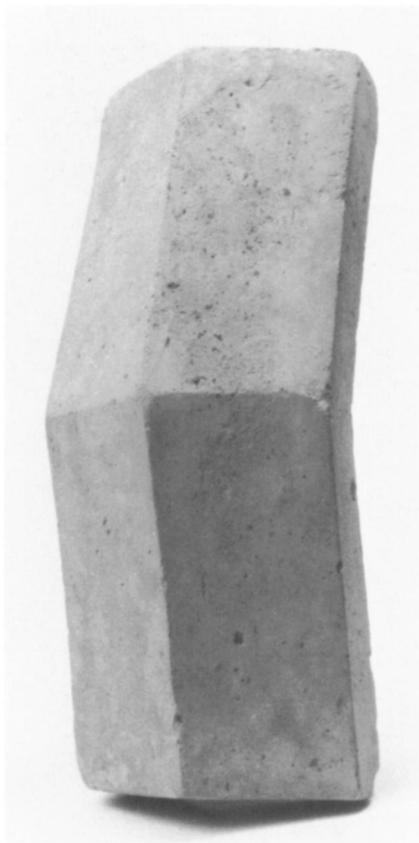
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10



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15



13



a. House II, Rooms A, B, and North Building (C), looking east



b. House V, Room C, destruction debris with fallen roof tiles, looking west



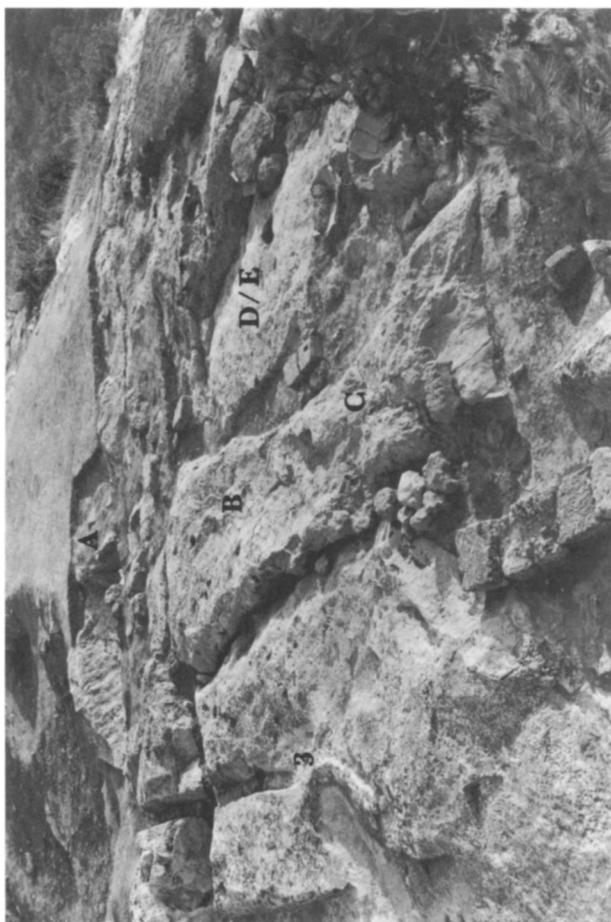
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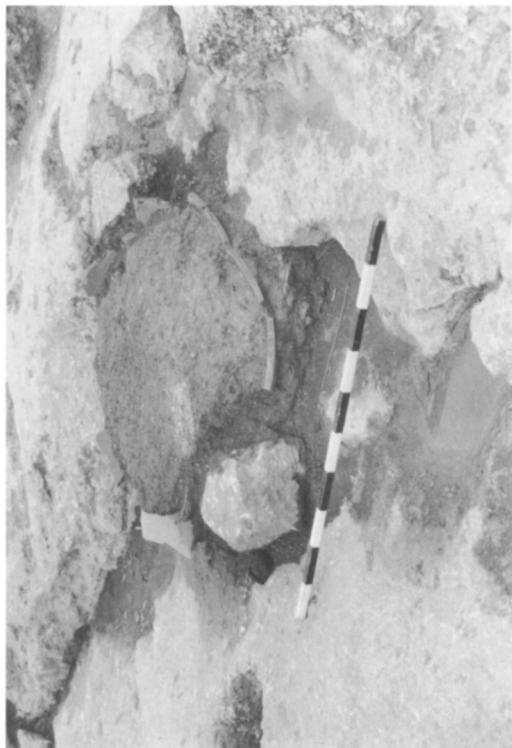
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19



a. Drain in Street 3 at left (3); House VII, Rooms A, B, C, and pithoi in Room D/E at far right. Looking east



b. House VII, Room D/E, Pithos 1 before removal, looking east



c. House VII, Room D/E, Pithoi 2 and 3 as found, looking west



24



25, stamp



22



25

PLATE 20



27



28



29



30



31



32



33



a. House IX: complete mud brick discovered during excavation of destruction debris, looking west



34



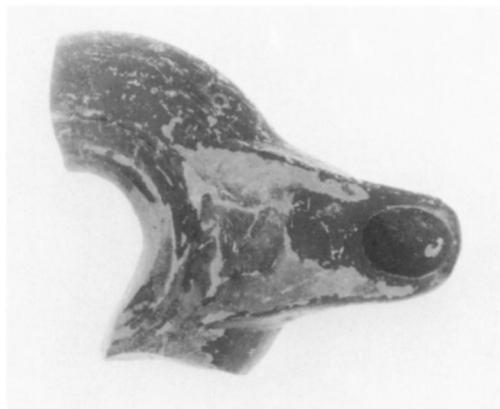
b. House VIII, staircase, looking west



Aerial view of east end of settlement (W. Myers and E. Myers)



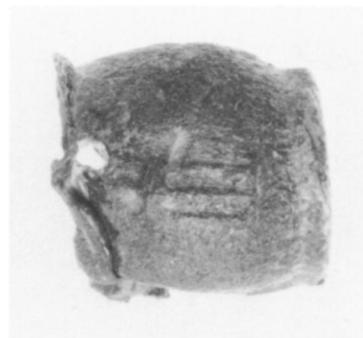
a. Street 5 with Room X visible at right and Rooms A and B of House XI at left, looking south



36



38



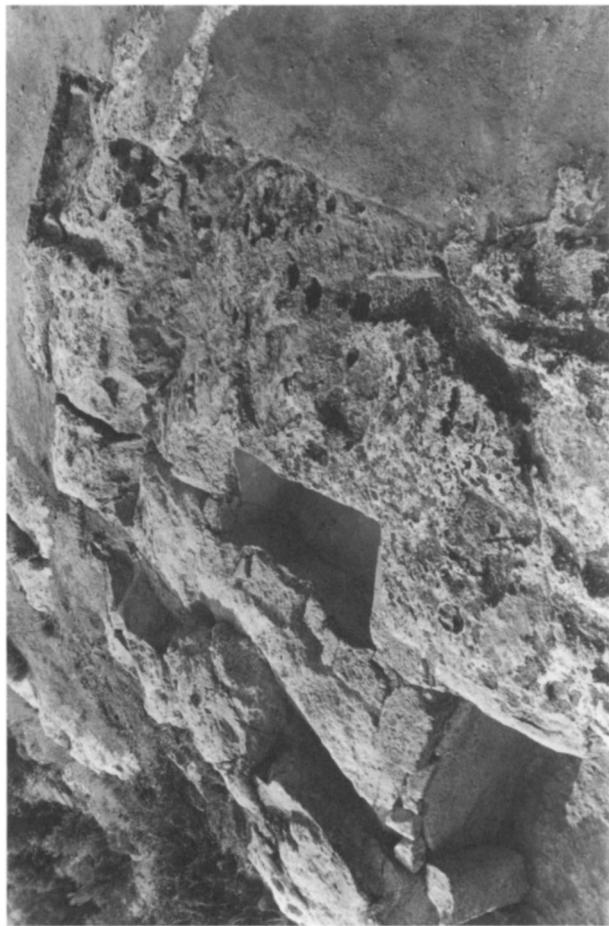
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37, front



37, profile



a. House X, Room C, with cistern in corner at lower left, looking west



b. House X, Room C, with broken tiles of destruction debris, looking south



c. House X, with amphora (IP 7792) and tiles, looking south

PLATE 26



40



41



42



43



44



44, stamp



45, front



45, from above



45, from below



46



47

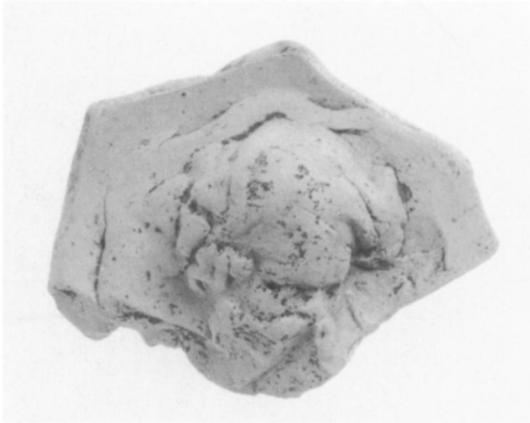


a. House XI, Room A: vats beginning to emerge, looking east



b. House XI, Room A: vats, looking west

PLATE 30



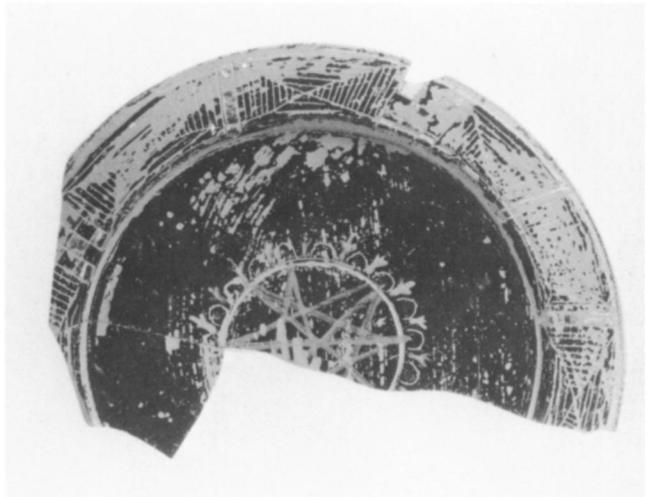
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49



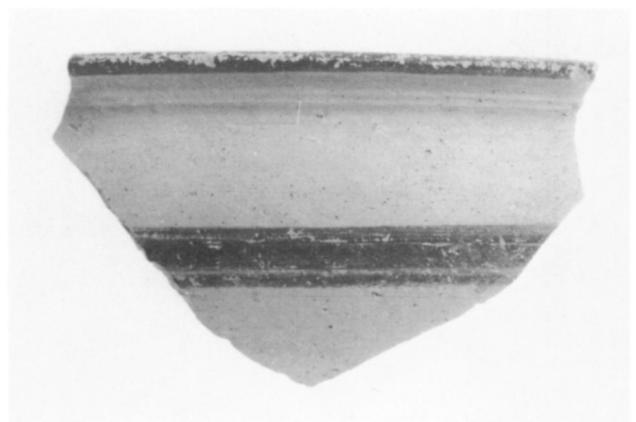
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50



52



53