

# EXCAVATIONS AT ISTHMIA

THIRD CAMPAIGN, 1955-1956

(PLATES 1-17)

THE first exploratory campaign at Isthmia by the University of Chicago Expedition in 1952 resulted in the discovery of the Temple of Poseidon. In the spring of 1954 the whole Temple area was completely excavated; and at that time the extent of the temenos of Poseidon was determined, the Theater was investigated, a large section of the settlement on the Rachi was uncovered, and a section of the Isthmian fortress was freed of its accumulation of debris.<sup>1</sup> The work in these areas, except in the Theater, was continued during the 1955-56 season.<sup>2</sup> A small-scale cam-

<sup>1</sup> For reports on the campaigns of 1952 and 1954 see *Hesperia*, XXII, 1953, pp. 182-195; XXIV, 1955, pp. 110-141; *Archaeology*, VIII, 1955, pp. 56-62.

<sup>2</sup> Financial support for the excavation came chiefly from a generous contribution by the Bollingen Foundation. As in previous campaigns, the members of the staff lived in the excavation houses at Ancient Corinth and used other facilities of the American School of Classical Studies at Athens. The Director, John L. Caskey, and Mrs. Caskey gave their full coöperation to the work throughout the year. The Greek Archaeological Service of the Ministry of Education was represented by Demetrios Pallas, who also took active part in the field work. To him, and to the Ephor of Antiquities, Nikolaos M. Verdelis, the expedition is indebted for their cooperation and help in many ways. We owe special gratitude to Professor A. K. Orlandos, through whose courtesy we obtained the use of a dump car and track belonging to the Greek Archaeological Society. We also used some equipment of the Corinth Canal Company, placed at our disposal through the kind offices of the Director General, Demosthenes Pippas, and the Director, Michael Mavromatos.

During the autumn campaign of 1955 the excavation on the Rachi was supervised by Chrysoula Kardara, that in the Temple Precinct by the author; the architect was Piet de Jong; and Julie Boegehold did inventories and secretarial work.

In the spring campaign the permanent members of the field staff were: Dorothy K. Hill, in charge of excavation in the ancient dump north of the Temple of Poseidon; William Donovan, supervising the work on the Rachi and in the southeast section of the Precinct of Poseidon; John Overbeck, in the Palaimonion area; Demetrios Pallas, in the Fortress of Justinian. Elizabeth Courtney and Françoise Rosen assisted with the field work for shorter periods. Patricia Donovan helped with secretarial work and did most of the inventories. Eunice Work, who devoted most of her time to the study of the coins from the 1954 campaign, also assisted with the work in the field. Sara Overbeck, Lula Logan Broneer, Lucy Turnbull, and Stella Vafiadakis rendered valuable service at various times during the year. The architectural drawings were made by George V. Peschke and Piet de Jong; most of the photographs were taken by Emile Seraf, the rest by the author of this article. The foreman was Evangelos Lekkas, whose long experience and efficient handling of all routine matters made for smooth running and efficiency in the field work. George Kachros, chief guard of the Museum at Ancient Corinth, cleaned coins and bronzes on hours when the Museum was closed to the public and assisted the expedition in many other ways. The mending and restoration of most of the pottery was done by Argyres Marines. Andreas Mavraganes

paigned in the autumn of 1955, from October 3 to November 28, was devoted to a testing of the ground in a large area preparatory to the more extensive excavation in the spring, which lasted from March 21 to May 26, 1956.

## PRECINCT OF POSEIDON

### NORTH TEMENOS DUMP.

During the alterations that took place from time to time within the temple precinct the debris from demolished buildings was disposed of in the gully north of the Temple, and on the sloping ground east of the sanctuary. The dump on the north side of the Temple has now been nearly completely excavated. In early times, prior to the destruction of the archaic Temple, *ca.* 475 B.C., a road with well-marked wheel ruts extended along the slope of the hill (Pl. 1, a). Its course, from north of east toward the southwest, was determined by the configuration of the terrain. After the destruction of the first Temple the area occupied by the road was turned into a dumping ground for rubbish from the building. Terrace walls were constructed at various levels to keep the earth from washing into the gully. The earliest and best-constructed of these has been laid bare for a distance of 8 m. near the northwest corner of the temenos (Pl. 1, b, center). Its preserved height is slightly over 2 m., its direction about the same as that of the archaic road. The blocks are large, some measuring over a meter in length, 0.70 m. in width and 0.60 m. in height. The exposed, northwest face is smooth, the other side is quite irregular. The wall seems to have been built in early classical times, possibly when the debris from the archaic Temple was dumped or perhaps even earlier. A short crosswall of somewhat lighter construction extends from the face of the longer wall toward the north. Both of these walls were interrupted and largely concealed by the heavy north temenos wall of the late Roman period (Pl. 1, b, left). Higher up the slope the 1954 excavations revealed two other retaining walls constructed for the same purpose.<sup>3</sup> With the growth of the sanctuary the north dump extended further and further into the gully, until it reached a depth of nearly 7 m.

In Roman times, and perhaps earlier, the area of the north temenos dump was largely covered with an east-west wagon road, the surface of which appears at the top of the archaic fill in Plate 1, c. It ran in approximately the same direction as the archaic road, though at a higher level, but there is otherwise no real connection between them. At the west end of the area there was some building material from the

and his brother Spyros Mavraganes, released for a fortnight from their regular duties in the Excavations of the Athenian Agora, undertook the delicate and difficult job of restoring the *perirrhanterion*.

Preliminary studies partly covering the results of the 1955-1956 campaign have been published in *Archaeology*, IX, 1956, pp. 134 ff., and 268 ff.; and in *I.L.N.*, Sept. 15, 1956, pp. 430-431.

<sup>3</sup> *Hesperia*, XXIV, 1955, pp. 118-119, pl. 46, b.

destruction of the fifth century Temple, which was much damaged in the fire of 394 B.C., but most of the fill consisted of debris from the archaic Temple. Hundreds of building blocks with the characteristic grooves for ropes on the under side,<sup>4</sup> large quantities of archaic roof tiles, and red earth from the sun-dried bricks of the Temple walls made up the bulk of the deposit. Throughout this fill are well-marked layers of black earth (Pl. 1, c and d) containing bronze and iron objects, marble fragments and pottery, all earlier than the destruction of the Temple. Some of the building blocks have shallow cuttings in the top, probably for wooden planks used as reinforcement for the masonry. A few retain bits of the stucco with traces of painted decoration. The patterns seem to have been both geometric and naturalistic. The roof tiles are of the archaic variety, similar to those found on the north slope of the Temple hill in Corinth.<sup>5</sup> No pieces of sima, antefixes or ridge palmettes were found, and we may safely conclude that none had existed. The eaves tiles were undecorated, but in the center of each tile was a triangular projection, alternating with the triangular profiles of the cover tiles. The cover tiles and pan tiles were made in one piece, with a total width of *ca.* 0.63 m. and a length of 0.65 m. The pan tiles were slightly concave. The cover tiles were curved on top, except at the eaves where they had an angular profile.

Underneath this area, at a depth of *ca.* 8 m., a large drain runs from west to east. One manhole was excavated in 1954; another, 30 m. further east, was cleared this season. It has a diameter of *ca.* 1 m. and is cut through solid rock, down to the level of the drain. No objects of any kind came from the fill, and the abundance of water in the drain prevented its complete clearance. Close to this manhole the Roman road is interrupted by a pit, measuring 4.08 x 3.06 m. in area and 0.65 m. in depth. Its floor and walls were lined with roof tiles of a type common in Roman Imperial times, and at the bottom was a deposit of pure clay, 0.25 m. thick. It had obviously served as a clay-pit, close to the manhole of the drain which provided water for the melting of the clay. It is unlikely that the clay was used for the making of pottery or tiles in an area so close to the Temple. More likely it served as binding material in the flooring within the sacred precinct or in the neighborhood.

#### ALTARS OF POSEIDON.

At various points east of the Temple of Poseidon we came upon a pavement made of smooth pebbles, the largest about as big as a man's fist. They were packed down in the earth without any kind of pattern, and without making a smooth surface on top. The most extensive area of this pebble pavement is located slightly south of the axis of the Temple, and *ca.* 23 m. to the east of the east façade. There are traces of two pavements, the earliest of which is a *ca.* 0.35 m. below the level of the later one. The fill between the two and directly above the top pavement contained animal bones and

<sup>4</sup> *Ibid.*, p. 118, pl. 43, a.

<sup>5</sup> *Ibid.*, pp. 149, 154-157; pl. 62, e, f, g.

ashes, some archaic pottery, and many bronze and iron objects. From this area came the painted pinax described on p. 35, No. 25. Although no altar of this early period was found, the nature of the fill indicates that the area had been used for sacrifices. Somewhere in the vicinity, we may assume, stood the altar that went with the archaic Temple.

East of the temple façade we uncovered a foundation which doubtless supported an altar of heroic proportions. Of the superstructure no recognizable pieces have been found. What remains is a well-constructed foundation of squared blocks preserved at its highest point in two courses (Pl. 2, a). The length of the foundation is almost exactly 40 m. and its width at the north end 1.88 m. Here it consists of two rows of blocks of unequal width with smaller stones filling the space between them. The blocks have deep shifting-notches and some have lifting holes near one end. Many of them appear to be re-used in their present position. Farther south the construction changes. The width is here only 1.74 m., and the two rows of blocks meet in the center without intervening stone fill. They are somewhat irregular in size so that the joint in the middle is far from straight. The blocks in this part of the foundation are less well cut than are those farther north. This type of construction continues to a point *ca.* 26 m. from the north end and here the foundation is broken off. The next 8 m. have been removed, leaving almost no trace on the rock. At the very south end the lowest course of the foundation is preserved for a length of *ca.* 4 m., and at the southeast corner part of a second course is *in situ*. Despite the unusual length of the foundation,<sup>6</sup> there can be little doubt that it supported the chief altar of Poseidon.

Since the accumulation of earth is very slight and the blocks in most places rest directly on rock and virgin soil, no pottery or other datable objects were found in significant relationship to the foundation to help establish its chronology. Between the altar foundation and the temple façade there is a level area paved partly with hard clay flooring and partly with pebbles like those used in the sacrificial area farther east. The fill directly above the pebbles contained a few pieces of sixth-century B.C. pottery and a silver coin of undetermined date. It has not been possible to establish whether these objects were scattered on the floor before or after the construction of the altar foundation. Although the date is uncertain, we may tentatively assume that the altar which the foundation supported was in use during the time of the classical Greek Temple. It did not survive through the Roman period. Across the foundation run

<sup>6</sup> A comparable example is the long altar foundation in front of the Temple of Zeus at Nemea, which is 40.58 m. long and 2.42 m. wide. See Carl W. Blegen, *A.J.A.*, XXXI, 1927, p. 422. Cf. Constantine G. Yavis, *Greek Altars*, p. 188. These are unusually large examples of altars connected with a temple. There are, of course, larger individual altars, like the Great Altar of Hiero II at Syracuse, which measures 194.95 x 20.85 m. (Cf. Koldewey and Puchstein, *Griechische Tempel*, I, pp. 70-74, II, pl. 10; and C. Yavis, *op. cit.*, pp. 189-190, fig. 47); the Great Altar of Zeus at Pergamon, *ibid.*, pp. 198-199, etc.

three well-marked roads (Pl. 2, a and b) which unite north of the northeast corner of the Temple and form a single road, continuing almost due west (see above p. 2). The southernmost of the three roads, which cuts across the altar foundation diagonally a little to the north of the axis of the Temple, was in use over a long period. The ruts through the foundation reach a depth of 0.25 m. The three roads, all avoiding the corner of the Temple (see plan, Fig. 1), were in use while the columns were still standing; they are earlier than the earliest Roman temenos walls, to be described later. Since the altar had been removed before these roads came into use, its destruction took place at a comparatively early date, probably before the beginning of the Roman era. Possibly this event should be connected with the change of management of the Isthmian Games, after the destruction of Corinth under Mummius in 146 B.C. For the next hundred years, while Corinth lay in ruins, the Sikyonians were in charge of the games, but after the founding of the Roman colony under Caesar the Corinthians resumed control.

The successor to the long altar may be recognized in a heavy foundation, 19 m. farther east and *ca.* 5 m. to the south of the long axis of the Temple (Pl. 2, c and d). It measures *ca.* 10 m. from north to south and 8.20 m. from east to west, and is made with a solid core of *opus incertum* extending to a depth of nearly 3 m. The highest point of the foundation was visible above the ground before the excavations began. Surrounding the rubble core is a row of well-cut building blocks, preserved on the south, east and west sides, but missing on the north. The blocks are large, some having a length of nearly 2 m. On all three preserved sides there is a well-marked setting-line, *ca.* 0.45 m. from the outer edge. Apparently a single course, no stone of which is preserved, was set back along this line, thus forming the second of two steps round the building. No pieces of the superstructure have been identified.

West of the Foundation for the second altar, facing the Temple of Poseidon, there was a large paved area, *ca.* 6 m. wide and some 15 m. long. It may have been originally floored with marble slabs, but only the mortar bedding was found partly preserved. This overlay the pebble flooring of the early sacrificial area and thus had to be partly removed to expose the earlier remains. The identification of the rectangular foundation as the second altar of Poseidon rests in part on its location—in front of the Temple, though not on its axis—and partly on the pavement close to the foundation and facing the Temple. The type of structure, with steps surrounding the solid core of concrete, would be suitable for a monumental altar. This altar, too, was destroyed before the end of the Roman era. The front wall of the east stoa (see below, p. 8), which is the last of the precinct enclosures and seems to date from the second century after Christ, was laid over the altar foundation after the blocks had been removed at the north end (Pl. 2, d). Presumably a new altar was constructed at that time, but none of the foundations laid bare in our trenches can be identified with it.

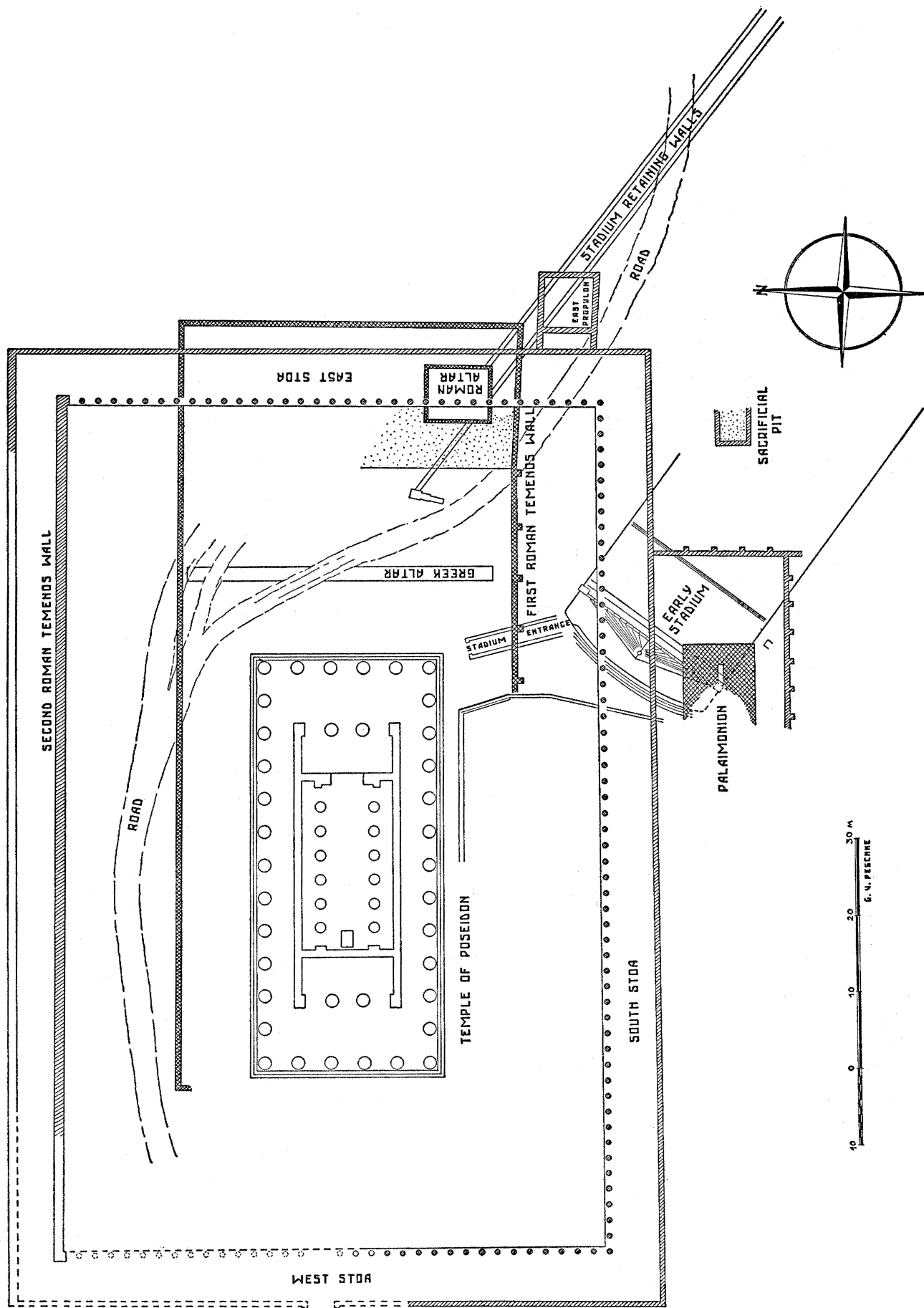


Fig. 1. Sanctuaries of Poseidon and Palaimon, Restored Plan.

## TEMENOS WALLS.

The Temple of Poseidon was probably from its earliest period surrounded by a temenos enclosed by walls, but little remains of the walls from the Greek period. On the north side an early wall that can be traced for a distance of 15.50 m. was laid bare in the campaign of 1954. It does not run parallel to the Temple, but at an angle from northeast to southwest, following roughly the line of the archaic road. A wall at the east end of the temenos, which runs very nearly at right angles to the wall on the north side, has been exposed for a distance of 2.50 m. and some cuttings in the rock, 20 m. farther to the north, indicate that it probably connected with the north wall. Although the orientation of these walls is very different from that of the Temple of Poseidon, it seems likely that they formed part of an early temenos, which would not have been rectangular in shape.

After the reorganization that probably took place subsequent to the founding of the Roman Colony of Corinth under Caesar, the temenos at first appears to have been very small. On the north side a foundation runs parallel to the Temple at a distance of 9 m. from the north flank (Fig. 1). It has been traced toward the west to a point opposite the northwest corner of the Temple, and here a poorly preserved wall runs at right angles to the east-west wall toward the Temple. This probably does not mark the west end of the temenos, but beyond this point the east-west wall did not appear in our trenches. Toward the east the foundation of the wall has been exposed 3.50 m. beyond the long altar. A terracotta water pipe with a diameter of 0.13 m. runs along the south side of the foundation. On the south side of the Temple there is a corresponding wall, which has been exposed for a distance of 48.50 m. (Fig. 1). Here a part of the first course of building blocks is preserved. The wall had a thickness of 0.80 m., and at intervals of *ca.* 6.70 m. it had buttresses on the south side, indicating that the ground level was lower on that side than within the temenos area. This wall extends eastward for a distance of 42 m. from the east façade of the temple, and there turns north to form the east temenos wall. It encloses the area of the second, i. e. Roman, altar of Poseidon described above. Its foundation is constructed in a technique which differs from that of the other Roman foundations of the area. After a foundation trench had been dug through the deep fill, a row of stones, each small enough to be readily portable, was laid down, and above it a deep layer of lime mortar was spread. Then a second row of stones and chips was laid, and covered with a thick layer of mortar. The process was repeated to the top of the foundation. This peculiar technique (Pl. 3, a) appears only in the foundation of this wall and its extensions. At one time, probably during construction of the wall, the temenos was enlarged by a southward extension, *ca.* 5 m. wide. This first Roman temenos wall seems to have been built while the second altar of Poseidon was in use. The distance from the south temenos wall to the south end of the altar is only 3 m., and on the east

the distance between the two is *ca.* 5 m. The "layer-cake" technique of the wall foundation does not occur in the foundation for the altar, which may be earlier than the wall. On all sides of the Temple have been found poros blocks resembling engaged half-columns set against a pier (one is visible near the lower right corner in Pl. 2, c). These may have been used as coping stones for the temenos wall of the first Roman period.

The west end of the south temenos wall abuts against another enclosure, probably of earlier date. This extended clear across the temenos from the Temple of Poseidon to the rear wall of the later south stoa (Fig. 1). At its north end it connects with a stone curb running parallel to the south flank of the Temple. The north-south arm of the wall makes two obtuse angles, and the area west of the wall appears to have been paved. Only the rubble bedding of the pavement is now preserved. The terrain here sloped gradually from west to east and the wall seems to have been used to support a terrace, marking the line between the lower area on the east and the higher area farther west. Another foundation (visible in Plate 5, b, a little left of center) of heavy construction runs north to south, approximately on the line of the east façade of the Temple. It begins *ca.* 8 m. from the south flank of the Temple and can be traced for a distance of *ca.* 18 m. toward the south. It is preserved in two courses, the upper one having a width of *ca.* 1.25 m.; the lower course, projecting 0.39 m. toward the east, forms a step. Apparently this wall also was constructed to support a terrace along the edge of the higher area toward the west. Both of these north-south walls are earlier than the first Roman temenos wall with the buttresses.

In the second Roman period the temenos of Poseidon was greatly enlarged, and stoas were constructed facing the Temple on the south, east and west (Fig. 1). They were *ca.* 7 m. deep, of the Ionic order, and built of a grayish marble of brittle consistency. A similar stoa, which was never built, seems to have been planned for the north flank. The foundation for the columns of the east stoa, as stated above, extended across the foundation for the second altar of Poseidon, the top of which has been dressed down along the line of the colonnade. In the southeast corner a heavy foundation, measuring 10.50 m. from east to west, and 8.30 m. from north to south, extends eastward from the rear wall of the east stoa. A cross-wall runs between the two east-west walls, 2 m. to the east of the stoa wall. This structure (Pl. 3, b) can only have been a propylon, probably the principal entrance way, by which Pausanias reached the precinct of Poseidon. In this part of the excavations almost no blocks from the superstructure of the stoas or from the propylon were found. All seem to have been sacrificed to make lime mortar and building material for the Isthmian wall and fortress of Justinian's time.

The stoa intended to close the north flank of the temenos would have crossed the gully that was used as a dump for the debris of the earlier Temple. In the west half of the temenos, where the fill was deep, the foundation for the colonnade is slightly

over 2 m. thick. A vaulted tunnel <sup>7</sup> was here constructed to carry off the water through the gully underneath the stoa. The rear foundation would have had to be built to an immense depth in order to support the fill necessary to raise the ground to the level of the temenos along the north flank of the Temple. Although the trench for this wall was dug and some stones were laid in place at the west end, it seems unlikely that the wall was ever built. Instead a temenos wall was constructed along the outer, north edge of the foundation intended for the stoa colonnade. This wall, which is built of small stones, rough-cut to resemble brick construction, seems to have been an after-thought. The wall does not rest on the center of the foundation, but projects over its outer edge, showing that the heavy foundation was not constructed specifically as support for the wall. The rebuilding of the temenos with its immense stoas may have been undertaken at the expense of Publius Licinius Priscus Iuventianus, the High Priest of Poseidon, whose munificence was immortalized in two inscriptions set up somewhere in the Isthmian sanctuary. The available evidence indicates that these changes were carried out in the second century of our era.<sup>8</sup> Below the foundations of the temenos walls, of both the earlier and the later Roman periods, runs the road from southeast to northwest which crosses the foundation for the long altar of Poseidon. The sides of the road are lined with stones, and in places deep ruts have been worn through stones that existed before the road was laid (Pl. 2, a and b).

A remarkably large number of water pipes cross the excavated area at all levels (Pl. 3, b and c). Most of them run parallel to the Temple, with a decided down-slope toward the east, but some run from south to north. The earlier pipes are all circular in section and constructed in the customary fashion with joints made tight with mortar. Some of the later channels are rectangular in section and covered with broken tiles and bricks. Two of the channels, encountered only a few inches below the present ground level and apparently dating from post-classical times, appear not to have been covered at all (Pl. 3, c). One is lined with roof tiles of a type still in use and laid with the concave side up; the other, and latest of the series, was cut out of poros blocks. All these conduits probably led water from the fountain <sup>9</sup> which has given its name to the village of Kyras Vrysi. It is located at the distance of some 500 m. southwest of the Temple of Poseidon.

<sup>7</sup> See Harold N. Fowler, *Corinth*, I, Introduction, pp. 69-70, fig. 35; R. J. H. Jenkins, *B.S.A.*, XXXII, 1931-32, p. 84. It was formerly thought that the tunnel was connected with the Temple of Palaimon.

<sup>8</sup> *I.G.*, IV, No. 203; *Hesperia*, VIII, 1939, pp. 181-190. See below, p. 23, Inscription No. 3.

<sup>9</sup> For its location see plan (lower left corner), *Hesperia*, XXIV, 1955, pl. 41 a.

## THE EARLY STADIUM

Underneath the complex of Roman foundations to the south and east of the second altar of Poseidon run two parallel walls of good Greek construction, oriented from northwest to southeast (Pls. 3, b and d; 4, c). They have been traced in trenches as far as the modern road, a total distance of nearly 80 m. (Fig. 1). The outer, northeast, of the two walls is preserved at one point to a height of five courses, 1.89 m. Each course is stepped back (Pl. 4, c) so that the outer face of the top course is set back *ca.* 0.80 m. from that of the bottom course. The exposed side of the wall was on the northeast; on the other side the courses overhang so that, if the fill between the two walls were removed, the upper courses of the northeast wall would topple over. The builders of the altar removed a section of this foundation, which now seems to abut against the concrete foundation of the altar. The wall must have extended farther toward the northwest, but how far cannot be determined; it does not reappear on the west side of the altar. Close to the altar the top of the wall has been broadened by the insertion of two L-shaped blocks, which fit over the stepped face of the wall so as to form a surface at the top, 1.15 m. in width and 1.05 m. in length. This probably served as a base for a statue or monument of some kind. The space between the two parallel walls at this height is *ca.* 2.14 m. wide, but at the bottom of the walls it widens to almost 2.50 m. The inner, southwest wall is here preserved to a height of only two courses. It, too, has been cut off by the foundations for the altar, but reappears on the west side and extends 11.50 m. toward the northwest (Pl. 3, d). Most of this stretch is preserved only in a single course, but the joints rest on heavy blocks inserted underneath the wall blocks. At the northwest extremity the wall ends against a large rectangular block, measuring 1.35 x 1.00 m. in area. This forms an acute angle with the line of the wall, and from it three smaller blocks extend toward the south where they terminate at the edge of the road described above (Fig. 1). At intervals the inner wall has buttresses on both sides. The space between the two walls, where it has not been disturbed by Roman constructions, is filled with stones and earth, and a stone fill packed against the inner wall extends for a considerable distance toward the southwest. This stone fill, which slopes gently toward the southwest, and the stepped-back character of the outer wall indicate that they served as retaining walls for a long embankment, the purpose of which will appear from our description of the southeast area.

In the autumn of 1955 we dug several trial trenches in the southeast corner of the precinct of Poseidon, where Pausanias' description led us to look for the Temple of Palaimon. In the largest of the trenches, at a depth of *ca.* 1.50 m., we came upon a smoothly-packed clay floor (Pl. 4, d) which covered the whole area of the trench, and at the south end the edge of a poros pavement appeared beneath the clay. In order

to reveal the underlying structure we removed part of the clay flooring and eventually uncovered all the poros pavement except for small patches left to show the original condition. The pavement is triangular in shape; it has a total length at the base of 10.07 m., and a width of 2.98 m. at the apex of the triangle. It is made of slabs, 0.15 m. thick, of different sizes, and along the base of the triangle runs a narrow border, 0.24 m. wide and *ca.* 0.23 m. thick. At the broad end there is a pit, 0.53 m. in diameter and *ca.* 1 m. deep. In the top of the pavement are eight grooves, the ends of which form a circle, roughly concentric with the pit, at a distance of *ca.* 0.53 m. from its rim. The grooves are triangular in section and measure *ca.* 8 mm. in width at the top, and 12 mm. in depth. From the pit they fan out toward the base of the triangle; their lower ends are nearly evenly spaced, *ca.* 1.05 m. apart. At either end of each line there is a bronze staple, fastened with lead to the poros pavement (Pl. 4, a). The staples bridge the grooves in such a way that a cord passing through the loops could be moved freely back and forth below the surface of the poros slabs. At the ends of the grooves farthest from the pit there are vertical cuttings through the base course, measuring 0.08 x 0.035 m. and extending through the whole thickness of the course (Pl. 4, b). They are very carefully made, at nearly equal distances of *ca.* 1.05 m. from each other, the center of the holes being marked with a scratch line. All these cuttings come almost, but not quite, opposite the ends of the grooves. In one case, near the broad end of the triangle, there is no corresponding groove for the cutting. The lengths of the grooves are indicated in Figure 2. Some of the grooves show interesting relationships to each other. Groove VIII measures almost exactly one-third of groove IV and groove VII measures half of groove IV; thus VII and VIII are in a ratio of two to three.

The puzzling structure just described aroused much speculation when it was first discovered, and a variety of explanations were suggested. When the whole area was cleared in the spring campaign it was found that the triangle uncovered in the trial trench was one-half of a larger triangle (Pl. 6, a). The slabs of the southwest half had been removed for a distance of *ca.* 4 m. from the apex, and the end of it was partly buried beneath a Roman foundation, through which we cut a tunnel to reveal all the existing slabs. Enough of the pavement in this half is preserved to show that it contained eight similar grooves with the same spacing at the lower ends. We can thus restore a gable-like pavement of thin slabs with a heavier course along the base, and with a circular pit on the median line. Over the whole area lay the hard clay flooring, *ca.* 5 cm. thick. The rear wall of the south stoa extended across the southwest half of the triangle, and it is clear that the missing slabs were removed when the foundation for this wall was laid. No recognizable fragments of the removed slabs were found in the excavations. West of the triangular pavement the original ground level rose rather steeply to a height of *ca.* 1 m. above the pavement. The edge of this slope has been cut back in a series of three steps which follow a broad curve

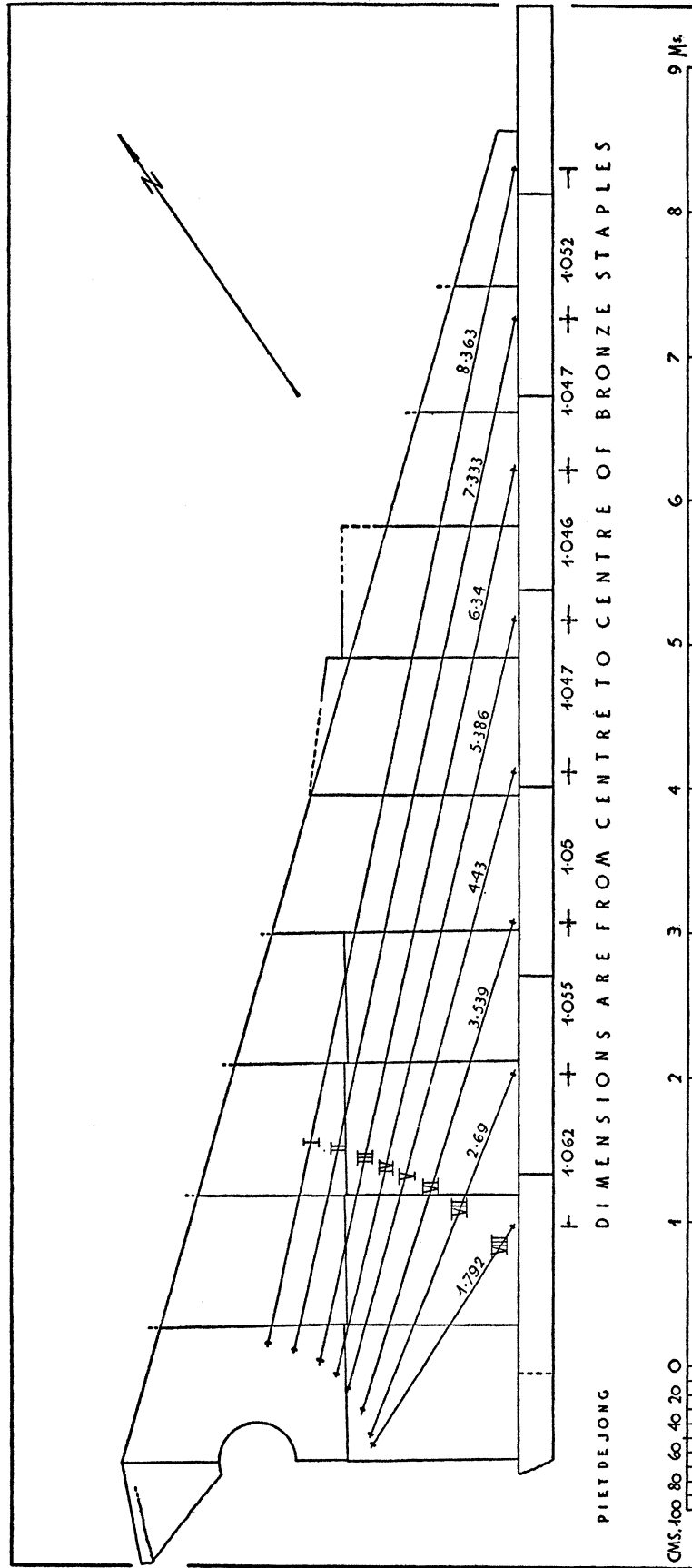


Fig. 2. Triangular Pavement, Northeast Half.

roughly corresponding to the sloping lines of the triangle (Pl. 5, b). At the bottom of the lowest step there are two water channels (Pl. 4, e, top), running almost parallel, one at a level *ca.* 0.20 m. above the other. At the south edge of the excavated area they disappear beneath the Roman foundation. Near the right end of the triangle the upper channel drops abruptly to the level of the lower, and the two channels join to form a single conduit (Pl. 5, a). At a distance of 2 m. beyond the juncture, the single channel makes an obtuse angle toward the southeast, then extends in a straight line for a distance of *ca.* 3.50 m. Here it empties into a cement-covered stone basin (visible in Pl. 4, b) measuring 1.02 m. x 0.73 m. in area, and 0.40 m. in depth. The southeast edge of the basin was broken away, but the fragments from the rim found within the basin made it possible to restore the missing parts. From this basin the channel continued toward the southeast.

At the point of juncture of the two channels a gently sloping ramp led from the paved area toward the Temple of Poseidon (Fig. 1). The clay flooring covering the poros pavement extended clear across the channels, which were here covered with slabs, and continued up the ramp. A retaining wall along the west edge of the ramp is still preserved and there are cuttings for a wall on the other side. The ramp, nearly 2 m. wide, terminated in a gateway, *ca.* 5 m. south of the southeast corner of the Temple. Three cuttings in the rock show the position of the gate and the nature of the cuttings indicate that the gate posts were of wood, and were probably made so that they could be readily removed and replaced.

From the southeast corner of the Roman foundation overlying the poros pavement a well-cut water channel, similar to that described above, extends in a straight line toward the southeast (Pl. 5, c). It has been traced in trial pits for a distance of 40 m. We may assume that it passed through a basin like the one preserved at the opposite end of the poros pavement, but this was probably destroyed when the Roman foundation was laid. East of this foundation, 10.70 m. to the southeast of the base of the triangle and running parallel to it, there is a stone sill covered with cement. Through the middle runs a groove, triangular in section (Pl. 5, c) and measuring 0.06 m. in width at the top and 0.04 m. in depth. There are vertical postholes at intervals, measuring 0.076 m. on the side, and extending to the depth of some 0.25 m. Two pairs of holes are spaced *ca.* 1.59 m. apart; the others are now somewhat irregularly spaced. These holes, obviously intended to hold upright posts, are encased with lead from the top all the way down.

Although there is only one groove in the sill,<sup>10</sup> it is obvious that this is a starting line of a stadium, the closed end (*sphendone*) of which is preserved in the curving seats and water channels northeast of the triangular pavement. The starting line

<sup>10</sup> In the paradromis of the Gymnasium at Delphi there are two similar starting lines, one at either end of the area, with single grooves and post holes, as at Isthmia. See Jean Jannoray, *Fouilles de Delphes*, Tome II, *Le Gymnase*, pp. 46 ff., pls. III, VII, XXII.

does not appear to be in its original position. At one point the sill is interrupted by a poros block which has no groove and was not covered with cement, and the southwest end is broken off in a rough line, at the distance of 0.31 m. from the water channel. Moreover, in its present position it seems unduly far from the curved end of the stadium. The original position was probably nearer the triangular pavement. At a distance of *ca.* 0.80 m. from the edge of this pavement, the clay flooring is interrupted along a broad strip, *ca.* 0.90 m. in width, running parallel to the base of the triangle and to the starting line with a single groove (it is clearly visible in Pl. 5, b). If the starting line was originally at this point, as seems likely, it must have been removed to its present position after the clay flooring had been laid down, since this does not extend over the filling of the trench. We can thus recognize three periods in the history of the stadium. The first is represented by the triangular poros pavement. Presumably the double water channel belongs to this period; the way in which the poros pavement fits against the water basin seems to show that the two are contemporary. In the second period the starting line was probably in the position indicated by the removed foundation. The poros pavement and the whole floor of the stadium was at that time covered with the clay flooring.<sup>11</sup> The third period is represented by the removal of the starting line to the place where it is now found.

At the edge of our trench near the exposed end of the starting line, there is a large block (visible in Pl. 5, c, left), apparently in its ancient position, its northeast face parallel to the water channel. The stone is 1 m. long and 0.40 m. high; and its bottom is approximately level with the top of the channel. The position of the block at this place in the stadium near the starting line would indicate that it was used as a seat, perhaps reserved for one of the judges or directors of the games.

The identification of the building as a stadium explains the use of the two parallel walls described above; they are the retaining walls along the outer edge of the embankment upon which spectators stood or sat during the games. It also furnishes the explanation for the mysterious grooves in the triangular pavement within the frame of agonistic performances. If we are right in assuming that the starting line with a single groove did not exist in the earliest period, we may conclude that the mechanism represented by the grooves and cuttings in the pavement served the purpose of a starting line at that time. The vertical cuttings opposite the lower ends of the grooves would have held upright posts, forming the frames for the gates which could be opened and closed to start the runners on their course (Pl. 5, d). Cords passing through the staples and up the vertical posts could be pulled or slackened to close or open the wickets at desired intervals. These would consist of simple horizontal bars (*balbides*), hinged to one of the posts and held in horizontal position by the cord.

<sup>11</sup> This is doubtless similar to the "white earth" stipulated for use in the Gymnasium at Delphi. See Jean Jannoray, *op. cit.*, p. 88.

A man stationed in the pit could singlehandedly manipulate all the sixteen gates (Pl. 6, b). The operation is described in scholia on Aristophanes.<sup>12</sup> It probably proved unnecessarily cumbersome, and eventually the pavement was covered up. A more normal starting line then took its place. It may be of significance that the distance indicated between posts in the later starting line is very nearly one and a half times the distance between the posts at the base of the triangle. The ramp at the north edge of the area can now be explained as the formal entrance into the stadium for athletes and officials at the opening of the games (for the relation of the race course to the Temple and Altar of Poseidon see Figure 1). Along the line of the water channel, between the ramp and the basin, there are three stones at intervals of *ca.* 1.25 m. in which are sockets for upright posts. These may have been used to hold banners brought by visiting delegations to the Isthmian Games.

### THE PALAIMONION

The stadium described above fell into disuse not later than the beginning of the Roman era. It may have been abandoned at the time when Altar I of Poseidon was demolished (see above p. 5). Directly above the clay flooring of the race course we discovered a wagon road with very hard road metal extending over the starting line from east to west (Pl. 5, c, center). In early Roman Imperial times, a heavy foundation of *opus incertum* was laid down over the southwest corner of the stadium. The width of the foundation is 7.50 m. and its preserved top is 1.85 m. above the level of the clay flooring. Only the rough core is preserved, but on the outside it retains impressions from the stone blocks that lined the masonry on all sides. There are indications of steps at the east end leading up to the floor level. Only a small part of the foundation has been exposed, the rest is concealed beneath a private garden (Pl. 7, a). In the middle of this massive construction there is an opening, now 1.75 meters wide, at the bottom of which is preserved the first course of the stone lining which reduced the passage to a net width of 0.73 m. In the tunnel which we cut through this foundation in order to expose the southwest end of the triangular pavement (see above p. 11), the wall lining the inner passage was partly revealed, and here it makes an obtuse angle toward the northwest. What is preserved of this passage seems to be the entrance to a basement room which grows wider toward the west. This is all that we can learn from the exposed remains without further excavation.

<sup>12</sup> *Knights*, 1159: βαλβίς δὲ καλεῖται τὸ ἐν τῇ ἀρχῇ τοῦ δρόμου κείμενον ἐγκαρσίως ξύλον, ὃ καὶ ἀφετηρίαν καλοῦσιν. ὅπερ μετὰ τὸ ἐτοιμασθῆναι τοὺς δρομεῖς εἰς τὸ δραμεῖν, ἀφαιρούμενοι ἀφίσταν τρέχειν. Such elaborate starting gates would hardly have been necessary for the final races, in which all the runners would have started at one time. It was probably invented for use at preliminary heats, by which the competitors for the finals were determined. See Pausanias VII, xiii, 4; E. Norman Gardiner, *Athletics of the Ancient World*, p. 136.

This interior passage may give us the clue to the identification of the building. Pausanias informs us that the sanctuary of Palaimon was equipped with an underground chamber in which the body of the boy-god was buried.<sup>13</sup> Those who descended into this chamber to take an oath in the name of the god could in no way escape punishment if they became guilty of perjury. On the basis of this description we are justified in identifying the building as the Palaimonion of Roman times.<sup>14</sup> Further evidence for this identification comes from objects found in the fill directly in front of the foundation. A peculiar type of lamp, not found elsewhere in Greece, occurred in large numbers at all levels, from *ca.* 0.50 m. below the present ground level down to the clay flooring. Many of these lamps were found standing right side up (Pl. 7, b) and some were quite unbroken. They have the form of a deep bowl, *ca.* 0.18 m. in diameter, in the center of which is a circular socket to hold the wick (Pl. 15, b, *a* and *b*). Since they had no handles they were not intended to be carried about. They were probably specific cult vessels in the worship of Palaimon. Many smaller, portable lamps (Pl. 15, b, *c-e*), mostly of the wheelmade variety, Type XVI, and some imported relief lamps, were found together with the cult lamps. The area in front of the Temple was doubtless illuminated during the nightly ceremonies of the hero. The cult lamps would have been set out on the ground while the smaller lamps were carried by the worshipers.<sup>15</sup> These lamps, and some pottery and coins from this area, date the fill to the first century after Christ. The Temple can hardly have been erected before the time of Augustus, and by the end of the first century after Christ the ground level had risen *ca.* 1.30 m. above the clay flooring.

The Temple, with its cult area on the east, was enclosed within a temenos wall. When this was constructed the ground level was about 1.25 m. above the clay flooring. The south and east walls, which have been partly exposed, are stuccoed on the side facing the Temple, and in the rear they have buttresses at intervals of *ca.* 3.30 m. (Fig. 1). The east wall seems to have abutted against the rear wall of the south stoa, which may have been constructed at about the same time as the temenos wall, in the second century after Christ. The south stoa wall is entirely missing at this point, but the line of its foundation is indicated by a trench through the clay flooring,

<sup>13</sup> It is not clear from Pausanias' account (II, ii, 1) whether the crypt, *ἄδυτον καλούμενον*, was in the basement of the temple or in a separate building. Cf. E. Will, *Korinthiaka*, pp. 172, 184 ff. On coins of Corinth from imperial times a circular building, which has been identified as the Temple of Palaimon, shows an opening in the foundation apparently giving access to a room in the basement; see Imhoof-Blumer and Gardner, *Numismatic Commentary on Pausanias*, p. 11, pl. B, XI-XIII; E. Will, *op. cit.*, p. 171.

<sup>14</sup> The apparent discrepancy between a rectangular foundation, as revealed by our excavation, and the circular building shown on the coins may be resolved by further excavation.

<sup>15</sup> Plutarch, *Theseus* 25, informs us that the *agon* in honor of Melikertes was held at night and had the character of a mystery celebration (*τελετή*) rather than that of a spectacle or public gathering.

and by the removal of some of the slabs in the southwest half of the triangular poros pavement. In the fill of this trench were found two inscribed statue bases (see below, pp. 22-23).

At a distance of 27 m. to the east of the Palaimonion we sunk a trial pit in search of the water channel that lined the race course on the northeast side (for the location of the pit see Figure 1). We found no traces of the channel here, and the ancient floor level in the area is lower than that of the clay flooring in the Stadium. The trench revealed what appears to be a basement, containing a deposit, 0.75 m. deep, of ash and burnt animal bones. The walls, which are poorly constructed of small stones and earth and covered with plaster, have crumbled from intense heat. In an area measuring only 4 x 3.40 m. were found 43 cult lamps resembling those found in front of the Palaimonion, but of smaller size and poorer workmanship (Pl. 15, c, *a* and *b*). Mixed with these were fragments of 654 small one-handled beakers of equally poor material (Pl. 15, c, *d* and *e*). At a level *ca.* 0.25 m. above the floor of the room there was a hard-packed strosis, preserved in large patches over the whole room. The cult lamps were found both above and below this level, the beakers only above it. Below the strosis were found some small bowls (Pl. 15, c, *c*) and several large pan-shaped vessels of a type of local ware that seems to have been derived from the imported Arretine and "Samian" plates of the first century after Christ. In the northwest corner of the room, just above the floor level, were found the fragments of a very fine relief lamp of Type XXVII made by the Corinthian lamp-maker Secundus, whose activity falls in the second century after Christ (see below p. 34). The exact connection of this basement with the Palaimonion cannot be established with certainty until more of the area has been excavated. The nature of the fill, however, indicates that the room was used for sacrifices, and its relation to the cult of Palaimon can scarcely be doubted. Chronologically the fill of the basement follows that of the area directly in front of the Temple.

Our excavation has unquestionably revealed the location of the Palaimonion, and has cast new light on the ceremonies in honor of the hero at the time when Pausanias visited the sanctuary; but it has produced no evidence for the existence of the early cult place of the hero. Presumably this is to be sought farther west below the private gardens that now occupy this area.

## THE RACHI

On the Rachi we completed the excavations begun in 1954.<sup>16</sup> On the south side of the main, lower area we excavated the remains of several houses, so poorly preserved, however, that in no case could a complete house-plan be determined. Near the

<sup>16</sup> Chrysoula Kardara, who has supervised most of the excavations on the Rachi, is now preparing a detailed publication of the whole area and of the objects found there.

northwest corner we discovered what appears to be a basement with walls and floor cut in solid rock (Pl. 7, c). It is a small structure, measuring only 2.63 x 2.50 m. in area. In the center was a column corresponding to a rough pier cut out of solid rock on the west side. An isolated drum of a column rising slightly above the floor may have been used as a seat or small table. On the line of the east wall was found a painted terracotta sima from the corner of a building, with a lion's head spout attached (Pl. 7, c, lower left). On the top is a depression which may have been made to receive a small akroterion. It is impossible to determine whether this piece of roof decoration had been used on the Rachi in its original position or brought from one of the buildings at the foot of the hill. Terracotta roof tiles were found in very large numbers all over the Rachi, and the painted sima may be from the roof on one of the buildings there, perhaps from a small temple in the upper area.<sup>17</sup> The basement contained considerable quantities of pottery, mostly coarse ware, and more than sixty loomweights (Pl. 7, d). These were all found in the deep layer of ash. The heat of the fire that destroyed the building was so intense that the stones and rock-cut walls of the basement had crumbled and disintegrated. Among the vases is a trough-like vessel of peculiar shape, described below (p. 32, No. 43, Pl. 17, g). Adjoining the house on the east side is an area paved with cement. When complete it probably measured 1.65 x 1.65 m., but only in the northeast corner are the edges preserved. In the center is a circle 0.77 m. in diameter, made with small white and dark gray pebbles embedded in the cement. To the east of this pavement are two circular basins, measuring 0.69 and 0.80 m. in diameter respectively. The top of the basins was level with the cement flooring. This is doubtless one of several wine-presses found throughout the area.

On the south side of the ridge there is a large cistern partly cut in rock and partly built with stones where the rock was too crumbly. It measures *ca.* 3.24 m. in diameter. It is roughly bottle-shaped, but the walls are very irregular and covered with stucco, much of which has peeled off. The water was brought to the cistern from the houses in the higher area. At the top is preserved one side of a narrow mouth, above which there may have been a wellhead for drawing water. The cistern contained immense quantities of pottery, mostly fragments of coarse amphoras, but also sherds of painted vases together with a few figurines, roof tiles and household objects.

On the north side of the hill we completed the excavation of the house in which a rock-cut bathtub was found in 1954.<sup>18</sup> In the area to the west of this tub we

<sup>17</sup> See *Hesperia*, XXIV, 1955, pp. 125, 128.

<sup>18</sup> *Ibid.*, p. 127, pl. 49, c. Numerous bathtubs with seats, much like those on the Rachi, have been found in Olympia, where the shape seems to go back to the fifth century B.C. Kunze and Schleif, *Olympiabericht* IV, 1940 and 1941, pp. 32 ff., figs. 21, 23, 24, pls. 15, 16. See also the bath found at Gortys in Arkadia, *B.C.H.*, LXXVI, 1952, pp. 245 ff., figs. 37, 38; and LXXVII, 1953, pp. 263 ff., figs. 60, 61, pl. XXXIX.

discovered several fragments of a terracotta bathtub, of much the same shape. A depression in the cement-covered floor of the room shows where the tub had been standing, only a few centimeters from the rock-cut bathtub (Pl. 8, a). East of the two baths there is a large wine-press, the most elaborate of those found on the hill (Pl. 8, b). On the east side was a large paved area approximately square, measuring 2.60 m. on the side. The cement pavement is here thin and poorly preserved. In the floor are three small rectangular cuttings, two of which have been filled up with stones, cut for the purpose.<sup>19</sup> Adjoining this area on the west is a somewhat smaller floor, likewise paved with cement, but of much better quality and completely preserved. It measures 1.72 m. from east to west and *ca.* 2 m. from north to south. The partition separating the two areas is only 0.13 m. high and likewise covered with good cement. At the north edge are two circular basins partly cut in rock and partly built up with masonry, and covered with cement. Between the two runs a narrow channel which emptied into a rectangular basin farther north. Another basin south of the larger of the two cemented areas may have been connected with the same establishment. There can be little doubt that this, like some of the smaller establishments on the ridge, served as a wine-press. The grapes would have been stored in the large paved area on the east, the smaller area covered with hard cement on floor and walls would have been used for the tramping of the grapes, and from it the must would have flowed through the narrow channel into the rectangular basin on the north.<sup>20</sup> It was then presumably left to settle before being scooped up and poured into the circular basins. If the large rectangular container on the south was part of the establishment, it could have been used for washing the grapes before tramping or for storage of the must. Perhaps the bathtubs in the adjoining room were part of the wine-making establishment. Another implement probably used by the wine-makers is the large terracotta jar described on p. 32, No. 42.

The best preserved remains of houses are at a lower level on the north side of the hill, where an area, *ca.* 19 m. long and 5 m. wide, has been excavated. Here the rock has been dressed down, and two roughly built parallel walls follow the line of the hill side for a distance of 13 m. The northern wall was the rear wall of a series of rooms opening toward the north. Many fragments of roof tiles and some pieces of hand

<sup>19</sup> The cuttings may have been used originally for some kind of mechanical press, such as have been found in Pompeii and Herculaneum. See note 20.

<sup>20</sup> Cf. the well preserved wine-press in the Villa of the Mysteries at Pompeii (Amadeo Maiuri, *La Villa dei Misteri*, pp. 96-102, and restorations by Luigi Jacono, figs. 40, 42). This is, however, a much larger and more elaborate establishment than the simple wine-presses on the Rachi. A well preserved example, less far removed in time (second century B.C.) has recently been excavated in the Crimea by a joint Soviet-Polish expedition. *I.L.N.*, Jan. 5, 1957, pp. 28, 29, figs. 4, 5. Here we find three areas, separated by low partitions, and a channel for leading off the must. Cf. also the sketches and description of the Catonian olive or grape press, Robinson and Graham, *Excavations at Olynthus*, VIII, pp. 339 ff., fig. 36.

mills were found within these rooms, but there is no real clue to their use. Their size and location at the foot of the settlement, facing the sanctuary, would make them suitable as shops. The second of the two parallel walls, *ca.* 1 m. farther south, served as retaining wall for the upper area. Between the two walls runs an open drainage channel in which rainwater from the hill was collected. The channel continued, partly cut in rock, toward the west and there emptied into a large well with a diameter of *ca.* 0.93 m. The shaft, cut in solid rock to a depth of over 40 m., has the usual footholds on the sides. It contained quantities of pottery, including some fine decorated vases of West Slope ware (see below pp. 31, 32, Nos. 37, 40, 41). At a depth of 8 m. a tunnel leads northward from the well-shaft, for a distance of 13 m., to the edge of the hill. At the mouth of the tunnel we found no signs of a building or cistern with which the tunnel could have been connected. The pottery from the tunnel is similar to that from the well-shaft. As we approached the 40 meter depth of the well the purpose of the tunnel became apparent. Until its mouth had been opened the workmen at the bottom of the well suffered headaches from lack of oxygen. As soon as the tunnel had been cleared, an air current was set up which brought sufficient ventilation down to the bottom of the well. The tunnel may have served no other purpose than to provide fresh air for the workmen cutting the shaft.

It is obvious that water was always scarce on the Rachi; this we may judge from the number of cisterns constructed among the houses. But it seems a little surprising that the occupants should have dug a well so near the top of the hill, and even more remarkable that the attempt proved successful. The water is still so plentiful that after reaching a depth of *ca.* 40 m. we were unable even by bailing for many hours to lower the water level sufficiently to complete the excavation. A metal rod thrust down into the fill of the shaft below this level indicated that the total depth is more than 42 m.

All along the ridge there are rock-cut stairways at various points both on the north and south sides. Some of these may have been used chiefly by the stonecutters who worked the quarries both before and after the ridge was settled. The principal ascent from below seems to have been on the north side, a little to the west of the deep well, where a broad stairway and ramp lead up to the area occupied by the houses. Along the west side of it runs a rock-cut water channel through which some of the rain water from the hill was led down the slope, where it may have been collected for use. The lower area at this point has become so altered by quarrying as to make further excavation unprofitable.

### THE JUSTINIAN FORTRESS

In the campaign of 1954 one tower and a stretch of the west wall of the Justinian Fortress were cleared. Among the debris from the demolished wall were recognized many fragments from the Temple of Poseidon, recut, however, to such an extent as

to make them virtually useless for the restoration of the Temple. The wall itself, and especially the tower, are constructed in a very imposing style of masonry, which could not be seen and appreciated before the excavations. In the 1956 campaign we resumed work on the Fortress, this time at the South Gate, which was the principal entrance from the Peloponnesian side (Pl. 8, c).

The gate had a clear opening of 2.84 m., but is now blocked up to a height of 2 m. above the Justinian ground level. On either side of the entrance, at the height of 2 m., there is a circular medallion, *ca.* 0.41 m. in diameter with a large cross in relief, on blocks built into the Fortress. Since these crosses can not be later than the time of the Fortress itself, they date the construction in the Christian era, and the structural and epigraphical evidence for the Justinian date is decisive.<sup>21</sup> A circle with a similar cross was found on a block with a curved surface, but here the medallion, which had been cut after the block was finished, does not stand out in relief. Directly west of the gate we dug a broad trench down to stereo, here *ca.* 0.80 m. below the Justinian level. Two walls of Roman buildings were laid bare in this area (Pl. 8, c, center and lower right), and beneath their foundation are remains of a paved roadway. Built into one of the walls were found two pieces of a statue of Hermes (Pl. 9, g).

The gate is flanked by towers, both octagonal on the outside and built on rectangular podia of massive masonry. The interior of the left tower—as one enters the fortress—is octagonal and has a diameter of *ca.* 4.25 m. The lower two courses are built with large blocks, some of which are cut with an obtuse angle to fit in the corners, and a few pieces of brick and tiles are inserted in the interstices. The upper section of the walls is built with smaller blocks and with more frequent use of tiles and bricks, all laid in lime mortar. The interior was reached by a stairway from above, consisting of large blocks projecting from the face of the wall. Three of the steps are preserved *in situ*, and the broken edges of three more can be seen in the wall. Between the outer and inner shells of the wall there is a rubble fill of small stones and rather loose, crumbly mortar.

The distance from the podium of the left tower to the left jamb of the gate is 1.68 m. The corresponding distance on the right side is 1.70 m. Here a low wall, cut in a single block, extends from the face of the fortress wall toward the south for a distance of 1.32 m. The space between this wall and the right tower is paved with mortar and was used as a fireplace, probably by the soldiers guarding the gate. In the corner between the tower and the projecting wall, there was a deep layer of ash, in which was found a coin of John I Zimiskis (A.D. 969-976).

The right tower has a circular interior, with a diameter of 3.09 m. It is made

<sup>21</sup> Prior to the investigations by Jenkins and Megaw, *B.S.A.*, XXXII, 1931-32, pp. 68 ff., various dates had been proposed, ranging from the fifth century B.C. to Byzantine times. Megaw's careful study of the fortress and the Isthmian wall showed clearly that these were constructed as part of Justinian's program of defense in the Peloponnesos.

with carefully cut blocks and tight joints, pointed up with lime mortar. The walls of the tower are preserved to a maximum height of 3.50 m. On the side facing the gate, at the height of 1 m. above the floor of the tower, there is a doorway, only 0.51 m. wide (Pl. 8, c, right of center). It is not a part of the original construction, but was cut through the wall at a later period. There is no evidence for an entrance of earlier date; the interior was probably then reached from above by a wooden ladder. The walls of this tower are somewhat thicker than those of the left tower, but otherwise constructed in similar manner. The interiors of both towers were filled with stones and building debris, mostly with blocks from the towers themselves. Some of the stones are shaped like the arc of a circle decreasing in diameter toward the top. Apparently both towers were ceiled with corbel domes.

The most imposing part of the wall exposed in our excavations is to the east of the right tower, where the wall is still standing to a height of 3.66 m. (Pl. 8, d, right). The blocks in this section are very large, one having a length of over 2 m., and some of the wall courses are as much as 0.73 m. high. Most of the blocks are re-used. Many column drums, seat blocks from the later Stadium, etc. can be recognized among the immense masses of stones removed from the debris along the wall. Although few objects of intrinsic value have been found in the excavations of the fortress, it seems worth while to expose sections of this imposing masonry which constitutes the best preserved example of wall building in Greece from the reign of Justinian.

## INSCRIPTIONS

A considerable number of inscribed fragments of stone and marble were found in different parts of the excavations. Included among these are some pieces of two Hellenistic documents, so small, however, that little of the contents can be restored. They were found in widely separated areas, within the Precinct of Poseidon, and there is thus some likelihood that more fragments will be recovered in subsequent campaigns. These must await further study. A few of the inscribed stones, which are of special interest in connection with the sanctuaries, are included here.

1.  $\text{I}\Sigma$  272. Pl. 9, a. Statue base of white marble, found in the trench of the removed rear wall of the south stoa in the Palaimonion area.

H. 0.34 m., W. 0.69 m., Th. 0.578 m.; letters, on front, *ca.* 0.067 m., on back, 0.05 m.

$\Sigma\epsilon\iota\sigma\upsilon\phi\omicron\varsigma$  (same inscription on the back).

In the top of the base is a shallow sinkage for the plinth of a statue.

2.  $\text{I}\Sigma$  293. Pl. 9, b. Statue base of white marble found in the same area, a little farther toward the west.

H. 0.34 m., W. 0.83 m., Th. 0.58 m.; letters, 0.06 m.

$\text{Βλασπ}\acute{\omicron}\varsigma \mu\acute{\alpha}\nu\tau\iota\varsigma$ .

In the top is a sinkage for a statue.

These two bases, found very close together, are similar in shape and material and were doubtless set up at the same time. Both were lying in the trench where the rear wall of the south stoa had been removed. This wall presumably enclosed the precinct of Palaimon on the north side, and it is likely that the statues supported by the two bases had been erected within the Palaimonion area. We may thus assume that the prophet Blastos was connected with the cult of Palaimon. A third base (No. 3), now in the courtyard of the Old Museum at Ancient Corinth, may have been set up at the same time, though probably not in the same place.

3. Corinth epigraphical inventory, No. 1626.  
Pl. 9, d. Statue base, like the preceding.

H. 0.325 m., W. 0.81 m., Th. 0.625 m.; letters,  
line 1, 0.065 m., line 2, 0.045 m.

Ἰουβεντιανὸς  
ἱερεὺς

This base was brought to Ancient Corinth from New Corinth, together with other inscriptions from the Isthmia. There can be little doubt that it had originally stood in the Isthmian Sanctuary.<sup>22</sup> The priest Iuventianus is doubtless the well known benefactor, whose donations for the Isthmian sanctuary are recorded on a stele now in Museo Lapidario in Verona.<sup>23</sup> The statues may have been part of the embellishments in the Palaimonion (τὸ Παλαιμόνιον σὺν τοῖς προσκοσμήμασιν) undertaken at Iuventianus' expense.

4. IΣ 295. Pl. 9, c. White marble fragment in the form of a handle attachment of a lamp, found in the northeast corner of the temenos of Poseidon.

H. 0.21 m., W. 0.175 m., Th. 0.07 m.; letters,  
line 1, 0.063 m., line 2, 0.037 m., line 3, 0.028 m.

Γ. Ἰούλιος  
Εὐτυχῆς  
νεοκό  
[ρος]

The third line, written across the small part of the handle attachment, may be the beginning of an unusual name of the father of Eutyches. It seems more likely, however, that the first *omikron* stands for an *omega* and that the word to be restored is νεοκόρος,<sup>24</sup> or some participial form of the verb νεωκορέω. The peculiar shape of the monument, in the form of a lamp, perhaps part of a support of a statue, would then be explained as alluding to his office of temple caretaker. Similarly the book-roll with portraits of literary figures allude to the profession of the man honored by the statue. For the occurrence of vases and armor on statuary supports see Fritz Muthmann, *Statuenstützen*, Heidelberg, 1951, pp. 58 ff., 104 ff.

5. IΣ 296. Pl. 9, e. Poros altar found among

<sup>22</sup> *Hesperia*, VIII, 1939, p. 189; where the second *iota* in the name was omitted by mistake.

<sup>23</sup> *I.G.*, IV, 203. For other inscriptions in honor of Iuventianus see Broneer, *Hesperia*, VIII, 1939, pp. 188-189, and Allen B. West, *Corinth*, VIII, ii, pp. 54-55. These inscriptions, and the career of Iuventianus will be further discussed in the forthcoming volume, *Corinth*, VIII, iii, by John H. Kent. For the date of Iuventianus Allen B. West (*op. cit.*, pp. 19, 55) favored a time shortly after A.D. 77. The epigraphical evidence for the activities of Iuventianus points to a considerably later date. In *Hesperia*, VIII, 1939, p. 190, I suggested the Antonine period. Professor Kent (by letter) is inclined to date all the Iuventianus inscriptions toward the end of Marcus Aurelius' reign. The date is of great importance for the history of the Isthmian sanctuary.

<sup>24</sup> The noun spelled with *omikron* occurs in an inscription from Ostia; R. Cagnat, *Inscr. Gr. ad Res Rom. Pert.*, vol. I, No. 391; and a verbal form with similar spelling is found in an inscription from Pergamon, containing also the noun νεωκόρων correctly spelled; R. Cagnat, *op. cit.*, vol. IV, No. 1689.

the scattered blocks from the Isthmian Wall, a little to the west of the point where the west arm of the Fortress of Justinian abutted against the Isthmian wall.

H. 1.15 m., W. (exclusive of mouldings) 0.495 m., Th. (at top) 0.53 m.; letters, 0.07-0.10 m.

HERCVL i  
SACR(um)  
EX VISV

At the top and bottom were mouldings on all four sides. The inscribed face is much weathered and the block is cracked to such an extent that it would break into pieces if it were moved. It had doubtless been built into the Isthmian wall.

There is no other evidence for a cult of Herakles at Isthmia; and the altar, erected in response to a vision in a dream, need not imply the existence of a sanctuary to the hero.

## SCULPTURE

Pieces of marble sculpture were found in all areas, but most of them are too small to be included in an interim report. From the north temenos dump came the left hand from an early archaic kouros and a toe of a life-size bronze statue. The debris from the archaic Temple also contained most of the fragments of the *perirrhanterion* described below.

1. IS 3, 161, 165, 220. Pls. 10, a, b; 11, a. *Perirrhanterion*.

Total restored height, including poros base 1.26 m.; height of kore from top of head (exclusive of polos) to bottom of drapery *ca.* 0.50 m.; diameter of basin, inside, 1.17 m., outside 1.235 m.; diameter of poros base 1.23 m.

The material is a blue-gray marble, with streaks of darker color, but with no marked tendency to split along the veins. It is so similar to the marble of the architectural members from the Throne of Apollo at Amyklai that there can be little doubt that it was imported to the Isthmia from Laconia. A circular block of poros, measuring 0.25 m. in height and 1.23 m. in diameter, and still standing in its original position on the axis of the Temple of

Poseidon,<sup>25</sup> doubtless served as base for the group. Its diameter is almost exactly the same as that of the marble basin.

The sculptural support of the basin was in the form of four caryatids, each standing on a recumbent lion and holding its tail in her right hand and a leash in her left. To the heads of the korai is attached a marble ring from which rams' heads project, alternating with the human figures. A marble plinth must be restored as support for the whole group. The plinth, the lion figures, the four korai, the rams' heads, and the ring at the top were all carved out of a single block of marble. The basin, which was carved separately, had two cleats at the bottom which fitted into slots at the inner edge of the marble ring.

There is enough preserved of each element in the stand to make possible the reconstruction shown in Plate 11, a. The extant pieces are: one nearly complete kore and the upper half of another; two rams' heads and fragments of a third; more than

<sup>25</sup> *Hesperia*, XXIV, 1955, p. 129, pl. 50, c. The marble *perirrhanterion* at Olympia, which is somewhat later in date but otherwise very similar to the Isthmia *perirrhanterion*, is also made of Lakonian marble. See Emil Kunze, *Olympiabericht* V, 1956, p. 30. For other references see *Hesperia*, XXIV, 1955, p. 129, note 26.

half of the marble ring at the top; one almost complete lion's head and a small piece of a second head; and considerably more than half of the marble basin, including nearly all the pieces of three of the four handles. Many of the fragments show the action of heat from the fire that destroyed the Temple. The missing portions have been restored in plaster with the use of moulds taken from the preserved parts. Since no fragments from the lions' bodies have been found, these have not been included in the plaster restoration. Although most of the fragments came from a restricted area in the north temenos dump, some were found within the Temple foundation,<sup>26</sup> and one half of a kore was discovered between the Temple and the Long Altar. As the excavation progresses, it is not unlikely that other fragments will be found which can be inserted later.

The better preserved of the lions' heads shows that the neck curved toward the right so that the lion would look almost straight forward as seen from the front. The head, with its short ears, large bulging eyes, and closed mouth, has a decidedly orientalizing appearance. Below the eyes there is a raised ridge terminating on the sides against the ruff, and a similar ridge, which has mostly flaked off, extending vertically between the eyes to the top of the head. These ridges are part of the anatomy.<sup>27</sup> A somewhat heavier ridge around the neck indicated the collar, and from it a leash extended along the back of the animals and up the side of the korai, who held the curved end of the leash in their left hands. They stand stiffly erect with their arms attached to their sides. They wear single piece garments held in at the waist with a belt without clasp or buckle. The hem of the garment appears below the neck, but the ends of the sleeves are not indicated. The hair comes down low in straight lines over the foreheads and hangs down in heavy masses on the backs and shoulders. The front locks curve forward like consoles framing the face and neck. The texture of the hair is not shown but may have been rendered by color. The ears are flat lugs pressed against the edge of the hair. The nose is prominent, the eyes large with deep grooves between lids and eyeballs. The mouth is almost straight and the lips thin. As seen in profile, the contours of the cheeks and chin describe an S-curve, and the lower part of the face recedes strongly from the upper. On the head is a low polos which merges into the marble ring at the top.

The rams' heads show slight modeling. As in the korai, many of the details are

<sup>26</sup> *Hesperia*, XXII, 1953, p. 191, pl. 59, d; XXIV, 1955, p. 129 f., pl. 50, d.

<sup>27</sup> Cf. the heads on some Late Protocorinthian vases, which Payne has dated in the decade 650-640 B.C. See, e. g., *Necrocorinthia*, pl. 9, 1, an aryballos in the British Museum from Kameiros. Here a double incised line, corresponding to the raised ridge on our lion figures, sets off the mouth and nose from the hairy part of the head. All the lions on this vase, and on a few other vases of the Middle and Late Protocorinthian period, have their mouths closed. Similarly the Kerkyra lion and the panther from the Gorgon pediment; F. Matz, *Gesch. der Gr. Kunst.*, I, pls. 132, 133, 137. Our best parallel in plastic art—also with its mouth closed—is the fine bronze lion from Perachora, which Payne dated to the middle of the seventh century B.C., *Perachora*, pp. 130-132, pls. 39, 40.

omitted, but the principal features—horns, ears and eyes—are boldly rendered. In the best preserved of the heads neither the mouth nor the nostrils are carved, but one of the heads shows slight depressions for the nostrils.

The large basin, carried by this sculptural group, has a finely moulded rim and four handles of two kinds, arranged so that each handle comes directly above the head of one of the korai. Two handles of the wishbone type extend above the rim and swing down the side of the basin, then curve up and terminate in double spirals a little below the rim. The smaller handles are mere lugs attached to the outer edge of the rim. Both types of handle are copied from bronze vessels. The walls of the basin vary in thickness from four centimeters near the center to only a little over one centimeter in some places close to the rim.

A stylistic study of the basin and its sculptural support will be reserved for a separate article. Anticipating the result of such a study we can state with confidence that the date would fall close to the middle of the seventh century B.C., according to the dating now accepted for early archaic art. The closest parallels are found in the Middle Dedalic period, which extends over a quarter of a century from about 655 to 630 B.C.<sup>28</sup> But our korai form a category all their own; they do not fit closely into any of the groups or schools of sculpture, which have been established for the seventh century. The reason for this is fairly obvious, once the observation has been made. The stylistic study of "Dedalic" art has been based chiefly on terracotta figures, which doubtless reflect the trends of their periods, but do not belong to a type of art that established these trends. For the origin of this art we must look to the technique of wood carving. If we bear this in mind, the peculiar treatment of the hair, the bold independent curves of the different planes of the girls' faces, the stubby, almost cubistic, form of the lions' heads find their explanation. These are features which are not likely to have originated in plastic art, but are the natural outcome of a tradition of wood carving. It is equally obvious that the marble basin with its two kinds of handle harks back to metal prototypes.

It was pointed out above that the marble is of the Laconian variety. This need not imply that the *perirrhanterion* was carved in Sparta and shipped to the Isthmia. It would have been far easier to transport the uncarved marble blocks, together with the sculptor, than to take this delicate group on the journey by land and sea from Sparta. Corinth had no marble of its own, so that the Laconian origin of the material in no way implies that the finished product must be ascribed to a Laconian sculptor or to the Laconian school of art. Some features, especially the large, prominent nose, the figures have in common with contemporary heads from Sparta. But the straight mouth, thin lips and the ringed eyes are typical of Corinthian heads from

<sup>28</sup> See R. J. H. Jenkins, *Dedolica*, pp. 33 ff., pls. IV-VI; and cf. two terracotta heads from Samos, F. Matz, *op. cit.*, pls. 76, 95, which show a somewhat similar arrangement of the hair.

the same period. Beyond such tangible details, which may be indicative of a specific school of art, the korai of our *perirrhanterion* possess a peculiar quality of style not readily defined but quite distinct. This quality, I believe, is to be explained, not in terms of stylistic differences in provincial schools of art, but on the basis of the material in which this type of sculpture developed.<sup>29</sup> It is pointless to remark that the wooden prototypes are lost, for there is little sculpture in existence in any material—except terracotta—that would be useful for comparison with the figures of the *perirrhanterion*. The two extant caryatids are the first seventh century statues in marble discovered in the Corinthia; they will provide a starting point and a firm basis for any future treatise on the Peloponnesian art of the seventh century, B.C.

2. IS 203. Pl. 9, g. Left foot and leg of Hermes, from trench in front of South Gate of Justinian Fortress. H. 0.70 m. Part of the right leg of the statue was found in the same place.

The material is white marble. The leg is attached to a tree trunk support, and small wings at the ankles identify the figure as a Hermes. The two pieces had been built into a Late Roman wall in front of the entrance to the Fortress. In 1954 another marble foot with wings at the ankles and wearing sandals, doubtless from a statue of Hermes, was brought by villagers to the excavation. There may well

have been a temple of Hermes at the Isthmia, but we have no literary or epigraphical record of its existence.

3. IS 205, A and B. Pl. 9, f. Head and right hand of statuette of Pan, from the Palaimonion area.

A. H. 0.095 m., W. 0.075 m.

B. H. 0.075 m., W. 0.05 m.

White marble. Very fine, delicate carving. There can be little doubt that the two pieces came from the same statue, and the syrinx identifies it as a figure of Pan.

## POTTERY AND LAMPS

The season's work at Isthmia yielded a considerable quantity of pottery of many periods, ranging from the early Bronze Age to Byzantine times. Some of the more significant pieces are described below.<sup>30</sup>

A few Early Helladic sherds came from the deep fill along the two parallel retaining walls of the stadium. There was a thin sprinkling of Mycenaean and Geometric pottery in all the sectors within and close to the precinct, but nowhere in significant concentration. Protocorinthian sherds were more common but still comparatively rare. These few early pieces indicate that the area had been inhabited since the third millennium B.C., but they point to no extensive occupation in the immediate

<sup>29</sup> Wood sculpturing seems to have been a specialty of Corinth and Sikyon, if we may judge from Pausanias' account of the two cities. He mentions five wooden statues in the Corinthia, one of which was believed to have been the work of Daidalos, and five in Sikyon.

<sup>30</sup> In my study of the pottery I am indebted to D. A. Amyx and Franklin P. Johnson for helpful suggestions. Professor Johnson is now engaged in a general study of the pottery from Isthmia, not including the vases from the Rachi, which are being studied by Miss Kardara.

vicinity of the classical sanctuary. The earliest pottery fragments in significant quantities (late Protocorinthian, Early Corinthian) coincide roughly with the construction of the archaic Temple in the seventh century B.C.<sup>31</sup> Most of the pottery of that period came from two dumps containing debris from the burned Temple, one at the east end of the temenos, the other—more extensive—north of the Temple. The latter, which is here referred to as the north temenos dump, also contained pottery from the sixth century B.C., including fragments of two Panathenaic amphoras.

The excavation on the Rachi produced the largest number of vases, dated in the fourth and third centuries B.C. A small amount of pottery of late Hellenistic times came from a manhole to a cistern in the southwest corner of the temenos of Poseidon. Roman pottery and lamps from the first century after Christ were found in the area east of the Palaimonion. The second century deposit of lamps and vases from the sacrificial pit farther east is impressive in quantity (see above p. 17), rather than in quality. Almost no pottery later than Roman times came from the main areas of excavation near the Temple of Poseidon. Only at the South Gate of the Justinian Fortress did any significant number of mediaeval pottery fragments come to light.

The Early Helladic vases, Nos. 1-8, are from one or more tombs turned over and destroyed by bulldozers on the side of the new road west of Kalamaki. In the course of the road construction a few complete vases were collected by the engineers, and these were later brought to the Museum at Ancient Corinth. When the discovery of the pottery was brought to our attention by the engineers, Mr. Pallas and I went to the site and, with the help of some workmen, succeeded in collecting a considerable number of fragments, and at a later visit we made more extensive search for sherds. Out of this lot came 21 inventoried pieces, including 17 whole or nearly whole vases, and many smaller fragments. The only patterned ware is a small piece of a sauceboat decorated with a row of triangles along the inside of the rim.<sup>32</sup> The pottery is of considerable interest, as will be seen from the following sample pieces.

1. IP 674. Pl. 12, a, a. From side of new road west of Kalamaki.

E. H. bowl on high foot. H. 0.112 m., diam. 0.165 m., H. of base, 0.048 m. Intact.

Turned-in rim and conical base, flaring out at the bottom. Rather coarse, gritty clay. The surface is covered with a smooth wash of the same color as the clay, varying from chestnut

brown to almost black. It is well burnished on the outside, less so on the inside.

The shape of this and of No. 2, which appears to be unknown in the Peloponnesos, has been found at Askitarío, near Rafína in east Attica. See *B.C.H.*, LXXIX, 1955, pp. 224-226, fig. 7. The shape appears to be Cycladic. Cf. Ch. Tsountas, *Εφ. Ἀρχ.* 1898, col. 174, pl. 9, 15; and 1899, col. 86, pl. 9, 16.

<sup>31</sup> Any inference, drawn from the pottery, regarding the earliest date for the existence of the sanctuary would, of course, be tentative at this stage of the work. Further exploration of the area may change the picture.

<sup>32</sup> Fragments of a similar sauceboat were found by Demetrios P. Theochares at Rafína, on the east coast of Attica. *Πρακτικά*, 1952 for the year 1951, pp. 82-84, figs. 5, 9.

2. IP 676. Pl. 12, a, b. Same provenance.  
E. H. bowl. H. 0.103 m., diam. 0.127 m., H. of base, 0.042 m. Intact.

Same general shape as the preceding but deeper in proportion to its width. Similar fabric, well burnished.

3. IP 667. Pl. 12, a, c. Same provenance.  
E. H. sauceboat. H. to rim of bowl, 0.092 m.; total H. to tip of spout, ca. 0.148 m.; W. 0.128 m., total L. ca. 0.21 m. Handle and end of spout restored.

Horizontal handle and low base. Light buff clay, glaze varying from reddish brown to nearly black.

4. IP 668. Pl. 12, a, d. Same provenance.  
E. H. one-handled pitcher. H. 0.095 m., diam. 0.079 m. Intact.

No base, mouth slightly turned out to form spout. Buff clay; dull glaze varying in color from red to dark brown.

5. IP 678. Pl. 12, b, a. Same provenance.  
E. H. jar. H. 0.13 m., diam. 0.15 m. Partly restored.

Two horizontal handles, slightly upturned rim as if the vase were intended to have a lid. Conical body. No foot, but on the bottom is a flat surface, only 0.018 m. in diameter, which has been roughened as if a foot had been intended. That this was the case is further shown by the fact that the vase cannot stand by itself. The outer surface shows traces of paring. Apparently the vase was fired in a semifinished state. Buff gritty clay, unglazed.

6. IP 663. Pl. 12, b, b. Same provenance.  
E. H. bowl. H. 0.068 m., diam. 0.128 m. Restored.

In-curving rim, low base. Light buff clay; dull, grayish brown wash or glaze.

7. IP 675, Pl. 12, b, c. Same provenance.  
Small, E. H. cup on high base. H. 0.07 m., diam. 0.090 m. Much restored.

No handle preserved. Buff clay, gray metallic glaze.

This shape, too, appears among the E. H. pottery from the Cyclades, published by Ch. Tsountas, *Ἐφ. Ἀρχ.* 1899, pl. 9: 10, 13.

8. IP 665. Pl. 12, b, d. Same provenance.  
Small E. H. bowl without base. H. 0.03 m., diam. 0.095 m.

Reddish brown clay, brown glaze, showing brush strokes.

9-13. IP 1131, 1170, 1056, 1162, 1168. Pl. 12, c, a-e. Mycenaean sherds, from the archaic deposit in the north temenos dump.

14. IP 1082. Pl. 12, c, f. Fragment of Sub-Mycenaean bowl from area east of Poseidon Temple. Reserved band on shoulder with wavy line pattern. Buff clay, reddish brown glaze. Cf. *Corinth*, VII, i, Nos. 1, 4, pl. 1; *Hesperia*, XX, 1951, pl. 89, b.

15-17. IP 1069, 1044, 1066. Pl. 12, c, g-i. Sherds of Geometric vases from areas east and southeast of Poseidon Temple. No. 16 (Pl. 12, c, h, 1-3) is Laconian Geometric, of hard brown clay and metallic glaze. Sherds of identical fabric and with similar decoration are found in considerable numbers on the site of the Amyklaian Throne of Apollo.

18. IP 983. Pl. 12, c, j.  
Small Geometric plate with flat bottom. H. 0.016 m., diam. 0.095 m.

The decoration consists of concentric bands, and on the rim is a row of dots. In the center are five holes made after firing. Light red clay, good brown glaze.

19. IP 1018. Pl. 13, a, a. Sub-Geometric cup from east temenos dump.

H. 0.052 m., diam. 0.091 m. Partly restored.  
Flat base and slightly out-turned rim. Buff clay, dull brown glaze, covering most of the vase except the base. Horizontal stripes of glaze on the handle.

The shape seems to have persisted over a

long period from Protogeometric to the end of the Geometric period. See Saul S. Weinberg, *Corinth*, VII, i, No. 21; Rodney S. Young, *Hesperia*, Suppl. II, Nos. C 51, 52; Broneer, *Hesperia*, VIII, 1939, pp. 401, 402, fig. 84, a.

20. IP 1020. Pl. 13, a, b. Same provenance.

Same shape and decoration. H. 0.048 m., diam. 0.098 m. Partly restored.

On the base is an X applied in brown glaze.

21-26. IP 871, 1114, 842, 1023, 845, 1126. Pl. 13, b, a-f. Fragments of six Protocorinthian conical oinochoai, all but two from the north temenos dump.

They have the usual bands on the body and a variety of patterns on neck and shoulder. All are made of the fine yellow or reddish clay, typical of Protocorinthian pottery. The glaze is of excellent quality.

27-30. IP 1037, 1140, 775, 868. Pl. 13, b, g-j. From north temenos dump.

Fragments of Early Corinthian ware, decorated with animal figures, sphinxes and filling patterns.

Fine buff clay, brown and purple glaze of good quality.

31. IP 776. Pl. 13, b, k.

Early Corinthian aryballos. Diam. 0.05 m.

Handle and top missing. On the shoulder a tongue pattern, on the body a long-eared animal, crudely drawn, of undeterminable species. Buff clay of excellent quality, dark brown glaze.

In the deformity of the animal body and in the haphazard use of incised lines the decoration on the aryballos resembles that on a terracotta mirror from the Corinthian Kerameikos. See Agnes Newhall Stillwell, *Corinth*, XV, ii, p. 212, No. 2, pl. 46, XXXIV, 2. The drawing is so similar that the two might be the work of the same "artist." The mirror has been dated in the first quarter of the sixth century.

32. IP 994. Pl. 13, a, c. From archaic dump east of Poseidon Temple.

Early Corinthian amphoriskos. H. 0.062 m., diam. 0.038 m. Intact except for part of base.

On neck and shoulders are tongue patterns. In the main zone are vertical rows of dots, grouped in squares; above and below are horizontal bands. Buff clay, dark brown glaze of good quality.

For the decoration cf. Saul S. Weinberg, *Corinth*, VII, i, pl. 22, No. 144. The amphoriskos seems to have developed after the Protocorinthian period. Cf. Payne, *Necrocorinthia*, p. 314, Nos. 1073-1089; and *Corinth*, VII, i, p. 78, Nos. 335, 336.

33. IP 852. Pl. 13, a, d. From north temenos dump.

Corinthian "football" aryballos. H. 0.06 m., diam. 0.056 m. Intact.

Double incised lines divide the rim into sections, and similar lines extend from the neck and meet in a central point on the base. Pale buff clay. The glaze has entirely disappeared.

Cf. *Necrocorinthia*, No. 638, fig. 126.

34. IP 1083. Pl. 13, a, e. Same provenance.

Late Corinthian aryballos. H. 0.066 m., diam. 0.067 m. Part of rim is missing.

On the shoulder is a row of elongated dots, apparently a degenerate tongue pattern. On the front a quadrifoil lotus design with a net pattern on the central pair of leaves. Underneath are three multiple loops. Buff clay, dull, brown glaze, which has largely peeled off.

Cf. *Necrocorinthia*, p. 320, No. 1263; and *Hesperia*, VIII, 1939, pp. 194-195, No. 3, fig. 4, A.

35. IP 1172. Pls. 14, a and 15, a. From north temenos dump.

Panathenaic amphora. H. ca. 0.71 m., diam. ca. 0.405 m. Much restored, and large parts missing.

On the neck is a double palmette and lotus pattern; on the shoulder above the front panel, a tongue pattern; above the base, a ray pattern.

Panel decorations:

A. Pl. 14, a. Figure of Athena striding to left, holding circular shield in left, poised spear in right hand. Her face, hands and feet in white. Details—necklace, finger nails, toes—are rendered with fine lines incised through the white so that they appear in black. Incised wavy lines, rosettes with crosses in center, and small circles in purple are used to show texture and design of her garment. On the shield was a figure of Pegasos in white. The crest of Athena's helmet extended up into the tongue pattern. Doric columns with figures of cocks flank the goddess. The painted inscription τὸν [Ἀθῆ]νεον ἄλλον reads from top to bottom, with bottom of letters toward column.

Purple was used on alternate tongues at the top of the panel, for comb and wattles and wing feathers of the birds, for the fillet in Athena's hair, and for the rim of her shield. Below the panel is incised in Corinthian letters, 0.02-0.065 m. high, the inscription Δάμων ἀνέθεκε.

B. Pl. 15, a. Four runners, to right. All are bearded, and the positions of their arms and legs are almost identical. On the extreme right is a large basket, the texture of which is indicated by wavy lines.<sup>33</sup>

The only use of purple is for the beards of the athletes and for borders above and below the panel. On the black zone below the panel are two letters, ⊙Α, in light brown color within a small oval area, where the surface is flattened and the black color has turned slightly brown. Apparently the base had been in contact in the furnace with another Panathenaic amphora, and two letters from its inscription came off on our vase during the firing.

<sup>33</sup> The basket would probably have been used to carry sand to the race course or wrestling ground. See vase in Brussels, reproduced in E. Norman Gardiner, *Athletics of the Ancient World*, fig. 56, opp. p. 87; and note 11 above.

<sup>34</sup> The drawing resembles that on Br. Mus. B 271. See *J.H.S.*, XXVII, 1907, pl. I; E. Norman Gardner, *Athletics of the Ancient World*, fig. 131, *Greek Athletic Sports and Festivals*, p. 416, fig. 141; Sir John Beazley, *Attic Black-figure Vase-painters*, p. 375, No. 212; *C.V.A.*, Br. Mus. Fasc. 4, pl. 67, 1.

<sup>35</sup> The process apparently entailed the application of miltos on the clay over the areas to be incised, before the black glaze had been applied. Later the glaze was scratched away with a stylus, so that the design stood out in red. For the process see Broneer, *Corinth*, IV, ii, p. 46; and Homer A. Thompson, *Hesperia*, III, 1934, pp. 439, 454.

Date: End of sixth century. Leagros Group.<sup>34</sup>

This is the better preserved of two Panathenaic amphoras found in the temple debris. The other amphora (IP 1173) had a chariot scene on the reverse. The two vases, which were found shattered into small fragments, were much discolored from the fire in the Temple. They have not been completely restored. They are so similar in glaze and fabric that it is difficult to distinguish the smaller fragments of the two vases.

36. IP 695. Pl. 13, c. From large cistern on the Rachi.

Kantharos. H. ca. 0.17 m., diam. 0.163 m. Much restored.

On the neck, at the height of the handles, is a floral design in opaque, light brown paint. The lower part is fluted. Red clay, good black glaze. Attic ware.

For shape and type of ware cf. Homer A. Thompson, *Hesperia*, III, 1934, p. 338, No. B 20; and p. 342, No. B 36; both dated at the end of the fourth century B.C. or early part of the third. This is the time during which the settlement on the Rachi flourished.

37. IP 436. Pl. 13, d, a. From the Rachi well.

Hemispherical bowl. H. 0.106 m., diam. 0.157 m. Partly restored.

Three feet, shaped like sea shells. Below the rim are two grooves tinted red;<sup>35</sup> on body a rather carelessly executed floral design, incised. Red clay, good black glaze. Attic ware.

The Attic fabric of these vases is readily distinguished from the common local imitations, *e. g.* No. 38, made with buff clay and decorated with a dull glaze of inferior quality.

38. IP 453. Pl. 13, d, *b.* From Rachi.

Deep bowl on three knob-like feet. H. 0.085 m., diam. 0.133 m. Much restored.

Below the rim are two incised lines, tinted red, and a carelessly drawn floral pattern, also incised. Buff clay, dark brown glaze.

39. IP 539. Pl. 14, c. From Rachi.

Casserole. H. 0.059 m., diam. 0.19 m. Partly restored.

Flange for lid, two loop handles. Red fabric, unglazed; blackened on the bottom.

For the shape cf. Homer A. Thompson, *op. cit.*, p. 467, fig. 121.

40. IP 538. Pl. 14, c. From the Rachi well.

Casserole lid with knob in center. Diam. 0.169 m. Partly restored.

It fits No. 39, as shown in photograph, but the two were not found together. Brick-red clay, unglazed.

41. IP 780. Pl. 14, d. From the Rachi well.

Squat pitcher. H. 0.18 m., diam. 0.19 m. Restored.

Large, flaring mouth and ribbed handle. The upper part of the body is decorated with rows of "blisters," i. e., finger impression made from the inside while the clay was wet. Reddish buff clay, mottled bluish gray and light brown wash with dull surface.

This type of "blister ware" was common in Corinth from the late fifth century B.C. to Hellenistic times, and is doubtless of local make. Cf. M. Z. Pease, *Hesperia*, VI, 1937, pp. 288 ff., Nos. 138-143.

42. IP 586. Pl. 14, b. From the Rachi.

Large open jar. H. 0.30 m.; diam. at top, 0.38 m., at base 0.23 m. Somewhat restored.

Heavy fabric, two sturdy handles and strong, molded rim. The bottom is flat. The walls on the inside have been roughened by drawing a comb over the wet clay from the bottom up. At the bottom is a horizontal slit, 0.05 m. long, 0.01 m. high, made before the jar was fired. Above one of the handles is the inscription  $\text{OPE}\xi\text{TAA}\Delta\text{A}$ , scratched after firing, in letters, *ca.* 0.015 m. high, doubtless the name of the owner in the genitive.

Gritty, reddish clay, unglazed. The vase was probably used for squeezing out the must after the grapes had been trampled in the *lenos* (see above p. 19).

43. IP 520. Pl. 17, g. From the House of the many loomweights on the Rachi (p. 18, above).

Trough-like vessel. H. 0.118 m. and 0.15 m., L. 0.55 m., W. 0.27 m. Partly restored.

Coarse fabric, with heavy molded rim, 0.028 m. wide; flat bottom. The vase is divided into two compartments. At one end, which is considerably narrower than the other, there is a circular container with flaring rim, and at the bottom is an opening, 0.04 m. high, 0.102 m. wide, communicating with the larger compartment.

The inside is blackened, and on the bottom is a thick, dark deposit, particularly heavy inside the circular container.<sup>36</sup> Although many of the fragments of the vessel were blackened by the fire that destroyed the house, the outside is blackened only in spots; clearly the vessel had not been used over a fire. It was probably a baby's toilet of unique shape.

44. IP 959. Pl. 15, b, *a.* From the Palai-monion area.

Cult lamp. H. 0.073 m., diam. 0.185 m.

<sup>36</sup> Analysis kindly made by Dr. George Skalos, Chemist in the Technical University of Athens, has shown that the deposit on the inside of the vessel consists of organic matter, with high silica content.

Deep bowl with flattened rim, and no handle. Socket in the center, with broad slit, for the wick; top of socket blackened. Buff, mealy clay, unglazed.

For the use of this and Nos. 45, 49, 50 see above p. 16.

45. IP 964. Pl. 15, b, b. Same provenance.

Cult lamp. H. 0.085 m., diam. 0.175 m.

Like the preceding. Buff clay, heavy fabric, unglazed.

46. IP 948. Pl. 15, b, c. Same provenance.

Wheelmade lamp. Type XVI. H. 0.032 m., diam. 0.063 m.

Buff clay, mottled red and light brown glaze.

This is an early specimen of Type XVI, Group III (Broneer, *Corinth*, IV, ii, *Terra-cotta Lamps*, pp. 58-60, 150 ff., fig. 78).

Date: First century after Christ.

47. IP 862. Pl. 15, b, d. Same provenance.

Wheelmade lamp. Type XVI. H. 0.033 m., diam. 0.068 m.

Brick-red clay, unglazed.

48. IP 860. Pl. 15, b, e. From area east of the Palaimonion, ca. 0.60 m. above clay flooring.

Relief lamp, Type XXV. H. 0.029 m., W. 0.067 m., total L. 0.107 m. Intact.

Plain rim, rosette on the discus, heart-shaped nozzle. On the base are two indistinct impressions, probably from stamps in the form of a human foot. Buff clay, reddish brown glaze. Probably imported from Italy.

Date: First century after Christ. Cf. *Corinth*, IV, ii, p. 85, fig. 41, 1.

49. IP 1032. Pl. 15, c, a. From sacrificial pit east of the Palaimonion.

Cult lamp. H. to rim 0.05 m., to top of socket 0.079 m., diam. 0.128 m. Nearly intact.

Same general shape as Nos. 44 and 45, but

smaller and less carefully made. The central socket extends above the bowl and has three small slits which do not reach up to the edge. Dark gray, almost black fabric, very coarse. Probably discolored from the fire in the pit (see above p. 17).

Date: Second century after Christ.<sup>87</sup>

50. IP 1007. Pl. 15, c, b. From sacrificial pit.

Like the preceding. H. to rim 0.04 m., to top of socket 0.056 m., diam. 0.116 m. Intact.

Coarse, dark gray fabric, possibly blackened further by fire from the pit.

51. IP 1051. Pl. 15, c, c. From sacrificial pit.

Small bowl. H. 0.047 m., diam. 0.12 m. Almost complete.

Angular profile with vertical rim and slightly raised base. Grayish brown clay, unglazed, discolored by fire.

This is a direct descendant of Terra Sigillata bowls of the first century after Christ. Cf. Oswald and Price, *Terra Sigillata*, pl. XXXIX, but the shape can be traced back to Hellenistic times. Cf. Homer A. Thompson, *op. cit.*, pp. 373-374, No. D 17, which has a somewhat similar profile and two handles.

52. IP 1025. Pl. 15, c, d. From sacrificial pit.

One-handled beaker. H. 0.086 m., diam. 0.08 m.

Coarse dark brown clay, unglazed. For the probable use of these vessels in the cult of Palaimon see above, p. 16.

53. IP 1053. Pl. 15, c, e. From sacrificial pit.

Beaker. H. 0.08 m., W. 0.088 m. Complete.

Like the preceding, but of somewhat finer fabric. Pressed out of shape in firing.

<sup>87</sup> The lamps and vases in Plate 15, c, Pottery, Nos. 49-53, which were found in a closed deposit (see above, p. 17), cannot be earlier than the second century after Christ. This is shown by the Kybele lamp, No. 54, fragments of which were found on the floor of the sacrificial pit.

Vessels of this kind, which doubtless go back to Hellenistic prototypes, have been found at Olympia in context of late imperial times, Kunze and Schleif, *Olympiabericht* IV, 1940-41, p. 84, figs. 56, 57. A similar cup decorated on the shoulder with a net pattern in white paint came from a chicken's grave at Corinth (see *A.J.A.* XXXVII, 1933, p. 569, fig. 13) together with a lamp of the late third century.

54. IP 1055. Pl. 16, a. From sacrificial pit, just above the floor.

Relief lamp, Type XXVII. H. 0.068 m., diam. 0.177 m., total restored length 0.238 m. Restored.

On the rim is a vine pattern, with alternating leaves, tendrils and clusters of grapes. A cult scene occupies the discus. On the left Kybele is seated on a throne, flanked by lions. The head of the lion on her left is barely visible. The goddess wears a crown and a veil that hangs down over her shoulders; her right arm leans against a tympanon, and in her left hand she holds a scepter. Her feet rest on a stool. In front of her stands a tree, apparently a pine, from a branch of which hangs a syrinx. At the extreme right is the figure of Attis, reclining on the ground and leaning his left elbow against a rock. He wears the pointed Phrygian cap, long sleeves and trousers, and a mantle is draped over his shoulders. In front of him lies a double flute. The base of the lamp is largely missing, but at the edge are preserved parts of two letters of the maker's name CЄ[KOYN-

ΔOY]. He was the most productive of the Corinthian lamp-makers in the second century of our era (see *Corinth*, IV, ii, pp. 204, 210, 211, 311, pl. XXXII). At the lower end of the handle there is an X impressed, and below it a vine leaf in relief. The lamp has suffered greatly from fire, and the clay, of a pinkish buff color, has turned dark gray in spots. Like most lamps of this type it is unglazed.

The lamp has some peculiar and interesting features. The size alone sets it apart from the common lamps of Type XXVII, although a few other equally large examples are known. The type of rim pattern, which is characteristic of group 2 of Type XXVII (*Corinth*, IV, ii, pp. 90 ff.), very rarely occurs with pictured reliefs on the discus. For another example of a luxury lamp with a similar figure of Attis but signed by Primus, see Furtwängler, *Samml. Sabouloff*, pl. LXXV. The lamp is said to have come from Sparta but is doubtless of Corinthian manufacture. The pose and drapery of Kybele connect the figure on our lamp with the cult statue in the Metroon in Athens; cf. Homer A. Thompson, *Hesperia*, VI, 1937, pp. 203 ff. The colossal seated statue from the Temple of Poseidon at Isthmia may be a modified copy of the same original, *Hesperia*, XXII, 1953, pp. 189 ff., pl. 59, a-c. There are two small statues of Kybele in the Corinth Museum, both copies of the same original. One, unpublished, was found on Acrocorinth recently, the other is published by F. P. Johnson in *Corinth*, IX, *Sculpture*, No. 55.

## ARMOR AND MISCELLANEOUS OBJECTS

1-6. IM 1450, 709, 1799, 1560, 1517, 1567. Pl. 16, b. Six nose guards from bronze helmets with various patterns along the rim and over the eyebrows. These and the cheek pieces, Nos. 7-10 below, are selected from the better preserved of an immense number of fragments, representing at least one hundred helmets, found in the debris from the archaic Temple in the north temenos dump. They illustrate the

great variety of helmets dedicated in the Temple. They have suffered so badly from the fire that destroyed the Temple that comparatively few pieces can be cleaned or even recognized. Many of them were melted into solid lumps.

7-10. IM 1853, 1693, 1676, 1640. Pl. 17, b. Four cheek pieces of bronze helmets from the north temenos dump.

The shapes of the helmets and the patterns along the rim vary a great deal, as shown in the four samples on Plate 17, b.

11. IM 1514. Pl. 17, a. Fragment of bronze rim of a shield with guilloche pattern, from north temenos dump.

L. 0.187 m., W. 0.055 m. The bronze is very thin and fragile.

This seems to have been a standard type of rim decoration for well over two centuries. A simpler form, with double or triple plated bands, occurs on shields from Olympia as early as the seventh century B.C. See Emil Kunze, *Olympiabericht* V, 1956, pp. 35 ff., figs. 24, 25, 28, 34. Another shield from Olympia has a rim almost identical with ours, including the row of small raised dots at the outer edge. See Hampe and Jantzen, *Die Grabung in Olympia im Frühjahr, 1937* (Sonderheft *Jahrb.*, LII, 1937, p. 54, fig. 23, pl. 16; and cf. Kunze and Schleif, *Olympiabericht* II, 1937-38, p. 73, fig. 73, pls. 20, 21). The shield from Pylos, found in the Athenian Agora (*Hesperia*, VI, 1937, pp. 346 ff., fig. 12; 'Αρχ. Έφ. 1937 A, pp. 140-143) has four rows of double braids with eight rows of circular bosses, as on our fragment. A fragment with two rows of double braids from the House of Bronzes at Olynthos is to be dated at about the middle of the fourth century B.C. Cf. *Arch. Anz.*, 1935, p. 569, fig. 18; and D. M. Robinson, *Excavations at Olynthus*, X, pp. 443 ff., fig. 27, pl. CXXXV. Extensive references to other examples are found in the footnotes to his publication.

12. IM 820. Pl. 17, d, top. Fragment of shield rim of bronze, from north temenos dump.

L. 0.27 m., W. ca. 0.043 m. The rim proper is plain and along the inner edge is a row of bolts. Heavy, coarse work, doubtless intended for use in the field.

13. IM 1891. Pl. 17, d, bottom. Shield boss, from early fill in sacrificial area west of Altar II of Poseidon.

Diam. 0.14 m. Along the edge is a row of

raised circles and in the center a plain boss, 0.05 m. in diameter.

14. IM 1256. Pl. 11, c. Fragment of a shield strap, from north temenos dump.

L. 0.20 m., W. 0.138 m. One end and part of the narrow strip from the middle are preserved. The decoration consists of two rampant lions with the figure of a frog between them. Fine repoussé work, probably of the late sixth century B.C.

For the shape of the strap see Kunze and Schleif, *Olympiabericht* II, 1937-38, pp. 78 ff., figs. 50, 51, 59, 60 and for form of decoration cf. *Ibid.*, pls. 27-30.

15-24. Seven spear heads of iron (IM 1060, 1069, 1075, 1061, 1068, 1076, 1066), Pl. 17, c, a-g; and three fragmentary spear butts of bronze (IM 1850, 1686, 1413 + 1483), Pl. 17, c, h-j, from north temenos dump. These are the better preserved of a large number of spears from the debris of the archaic Temple. With these should be compared the spearpoints from Olympia, such as those illustrated by Hampe and Jantzen, *Die Grabung in Olympia im Frühjahr, 1937*, *Jahrb.* LII, 1937, p. 50, fig. 19; *Olympia*, IV, pp. 173 ff., pl. LXIV. They are earlier and very different from the weapons found on the North Slope of the Acropolis in Athens, which seem to date from the time of the Persian invasion in 479 B.C.; see *Hesperia*, IV, 1935, p. 116, fig. 5; and VII, 1938, p. 249, fig. 79.

25. IM 1251. Pl. 11, b. Painted pinax, from archaic deposit west of Altar II of Poseidon.

Preserved H. 0.07 m., W. 0.042 m., Th. 0.006 m.

The fragment preserves the upper part of a figure of Poseidon to right, holding the trident in his right hand and carrying a dolphin on his back—not on his left shoulder, as appears at first sight. There was a painted border, and in the upper corners were holes for suspension. At the edge of the break is preserved a bit of paint, probably from the first letter of an in-

scription, or possibly the edge of a small altar or other piece of furniture. Fragments of two other painted pinakes were found.

These pinakes are very similar to the Penteskouphia tablets in Berlin, *Antike Denkmäler*, I, pls. 7, 8; II, pls. 23, 24, 39, 40; and Erich Pernice, *Jahrb.*, XII, 1897, pp. 9-48. On some of these tablets a dolphin accompanies the figure of Poseidon, but nowhere is the god shown as here carrying the dolphin on his back.

26. IM 954. Pl. 17, e, f. Halter (jumping weight), of coarse-grained, dark gray stone,

found in the manhole to a cistern in the southwest corner of the temenos of Poseidon.

H. 0.08 m., L. 0.182 m., W. 0.10 m., weight 1.850 kg. The cuttings show that the weight was intended to be held in the left hand with the curved side down.

Fragments of three other halteres have been found in the Isthmia excavation.<sup>38</sup> Two similar weights in the National Museum in Athens, said to have come from Corinth, are probably also from the Isthmia.<sup>39</sup>

## CONCLUSION

The third campaign of excavation at Isthmia has led to further elucidation of the topography and monuments of the sanctuary, and has shed new light on the two major cults. The principal results are: a) excavation of the debris from the archaic Temple in the north temenos dump, b) discovery of two altars of Poseidon, c) investigation of the temenos walls, d) the surprising discovery of an early Stadium with its intricate starting line close to the Temple of Poseidon, e) discovery and probable identification of the Roman Palaimonion, f) completion of the excavation on the Rachi, and g) clearing of the South Gate with its two towers in the Justinian Fortress.

The more important movable objects came chiefly from the north temenos dump, which produced prodigious quantities of bronze and iron objects, fragments of two Panathenaic amphoras, and the most important single find, the marble *perirrhanterion*. From the area east of the Temple of Poseidon came many pieces of archaic pottery, including the painted pinax with Poseidon carrying a dolphin. The pottery from the Rachi, much of it found in closed deposits, will give much new information about the ceramic industry of Corinth and the importation of pottery from Athens in the fourth and third centuries B.C. The pottery and lamps from the Palaimonion area, especially the peculiar type of lamp apparently used as a cult vessel in the mysteries, provide new evidence for the little known cult of Melikertes-Palaimon. Finally, the

<sup>38</sup> *Hesperia*, XXII, 1953, p. 194, pl. 60, f.

<sup>39</sup> They are illustrated in E. Norman Gardiner, *Greek Athletic Sports and Festivals*, p. 300, fig. 62, and *Athletics of the Ancient World*, p. 146, fig. 100, e. A much larger stone halter, weighing 4.629 kg., was found at Olympia, *Olympia*, IV, p. 180; and more recently a somewhat similar, though much earlier, weight of stone inscribed with a dedication by the victorious user has been found at the same site, Hampe and Jantzen, *Die Grabung in Olympia im Frühjahr 1937*, *Jahrb.*, LII, 1937, p. 82, pl. 25.

discovery of a complete halter used in the Isthmian Games will be of interest to students of ancient sport. All these objects have been taken to the Museum and store rooms in Ancient Corinth, and some are exhibited in the Hall of Greek Art in the Museum.

The plans for future excavation at the Isthmia give priority to the complete clearing of the sanctuaries of Poseidon and Palaimon, and to the search for the Palaimonion of pre-Roman times.

OSCAR BRONEER

THE UNIVERSITY OF CHICAGO



a. Archaic Road, from West



b. Early Terrace Wall (right), Roman Temenos Wall (left)

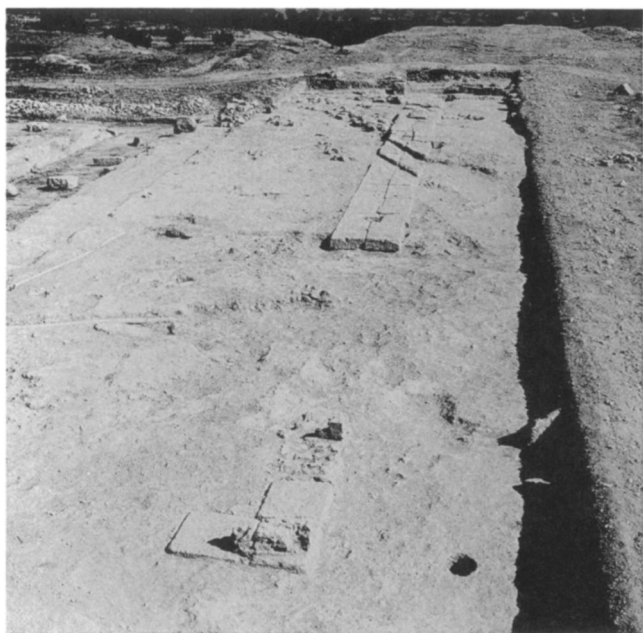


c. Section through North Temenos Dump



d. Debris from Archaic Temple

PLATE 2



a. Long Altar of Poseidon, from South



b. Roads Crossing Altar Foundation, from Northwest



c. Second Altar of Poseidon, from Southwest



d. Second Altar of Poseidon, from North

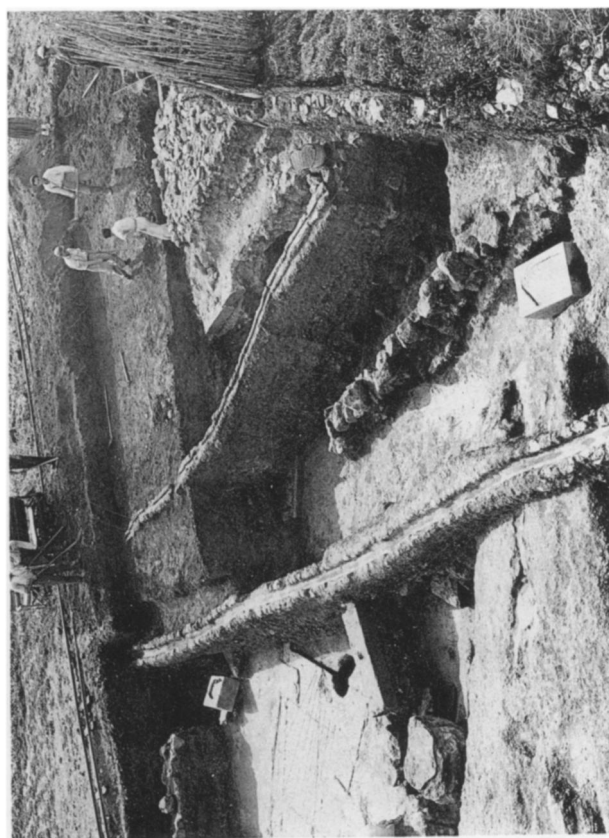
OSCAR BRONEER: EXCAVATIONS AT ISTHMIA, THIRD CAMPAIGN, 1955-56



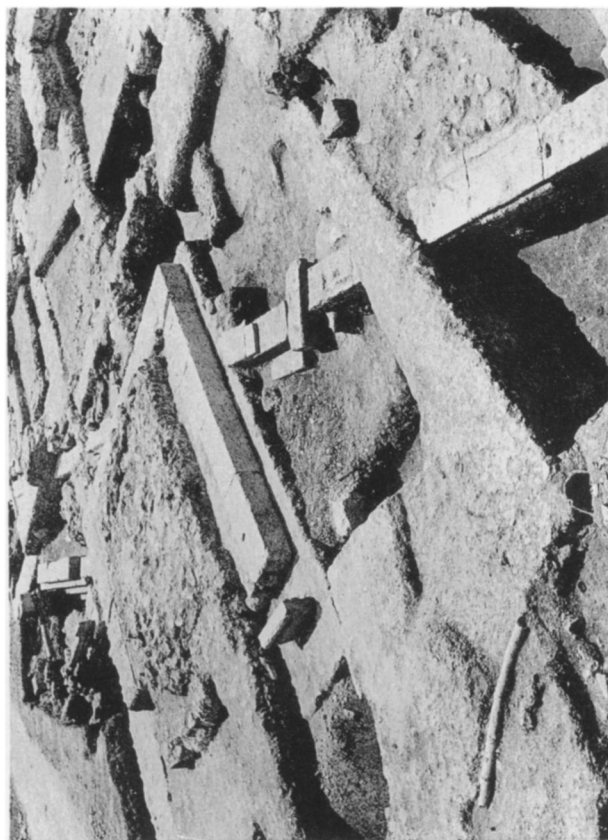
a. Foundation of Temenos Wall, Showing "Layer-Cake" Technique



b. Southeast Propylon, from Southeast



c. Water Channels Crossing Palaimonion Area

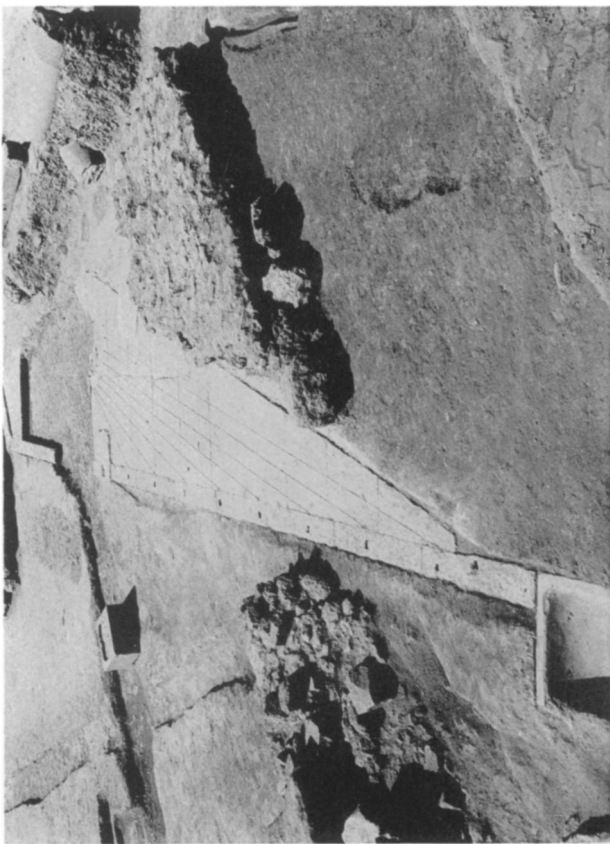


d. Parallel Walls, Intercepted by Second Altar of Poseidon

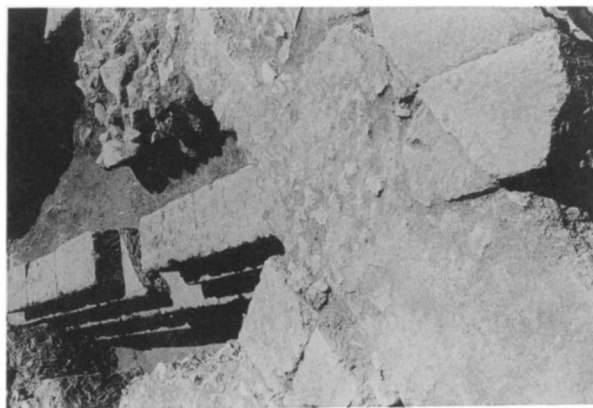
OSCAR BRONEER: EXCAVATIONS AT ISTHMA, THIRD CAMPAIGN, 1955-56



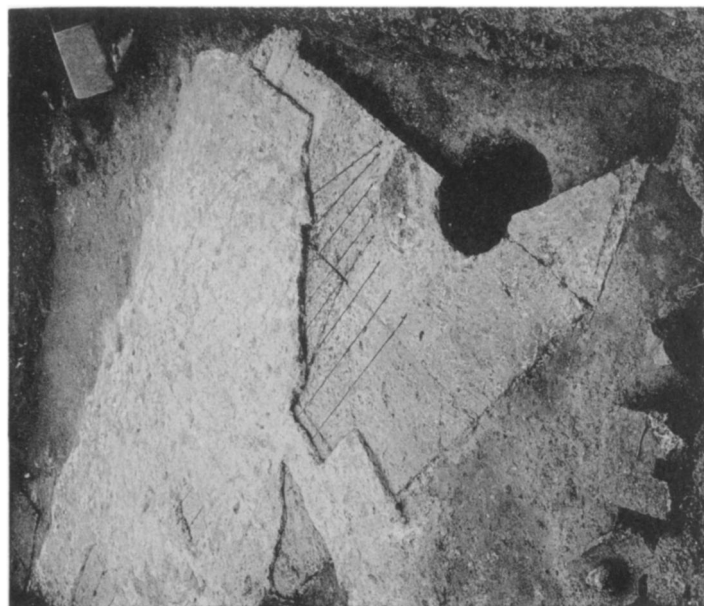
a. Triangular Pavement, Ends of Grooves Bridged by Bronze Staples



b. Triangular Pavement, from Northeast



c. Northeast Parallel Wall



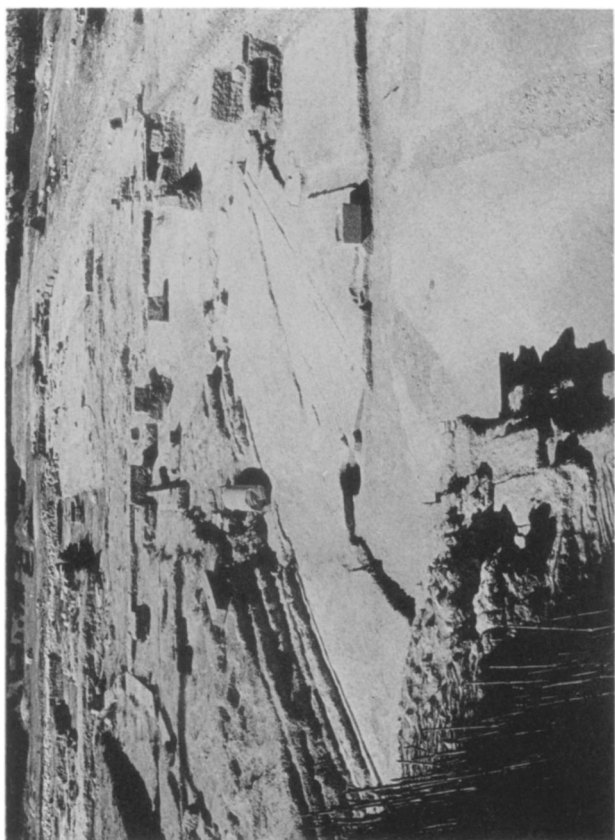
d. Clay Flooring Covering Triangular Pavement



e. Triangular Pavement, from East



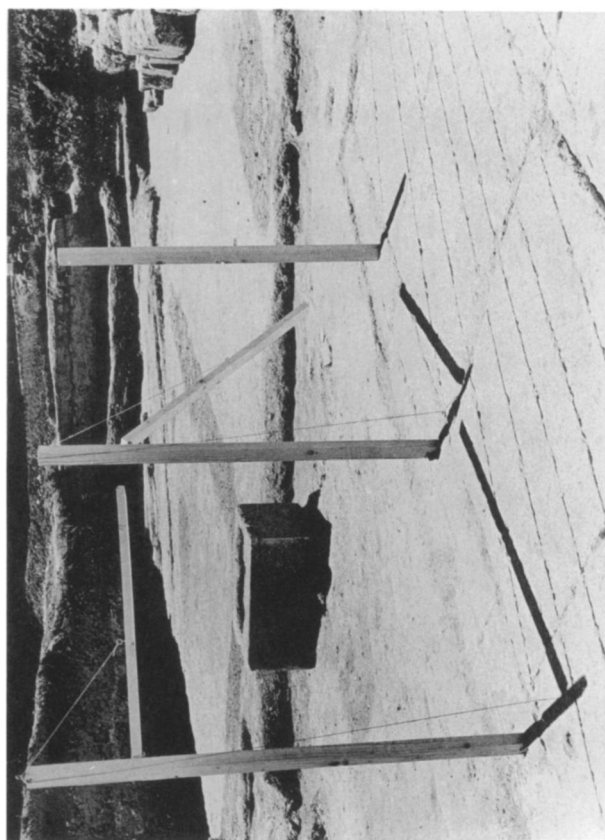
a. Junction of Water Channels



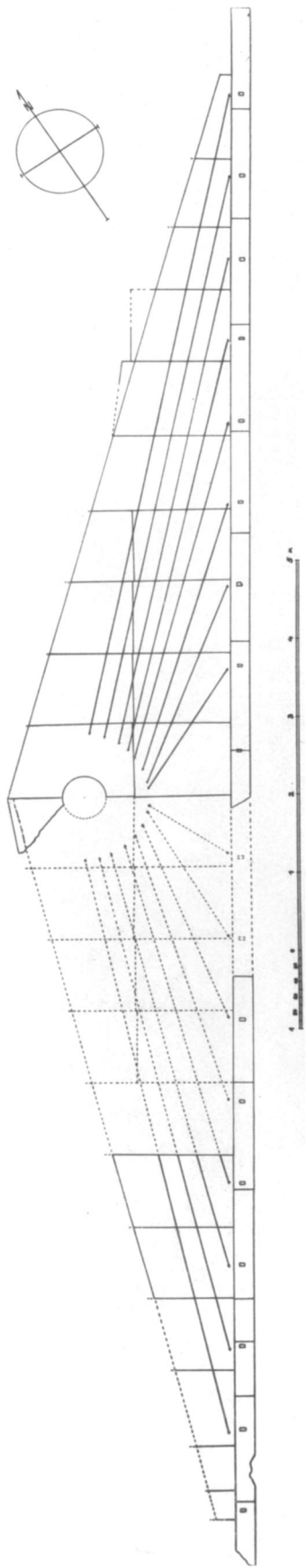
b. Early Stadium Area, from South



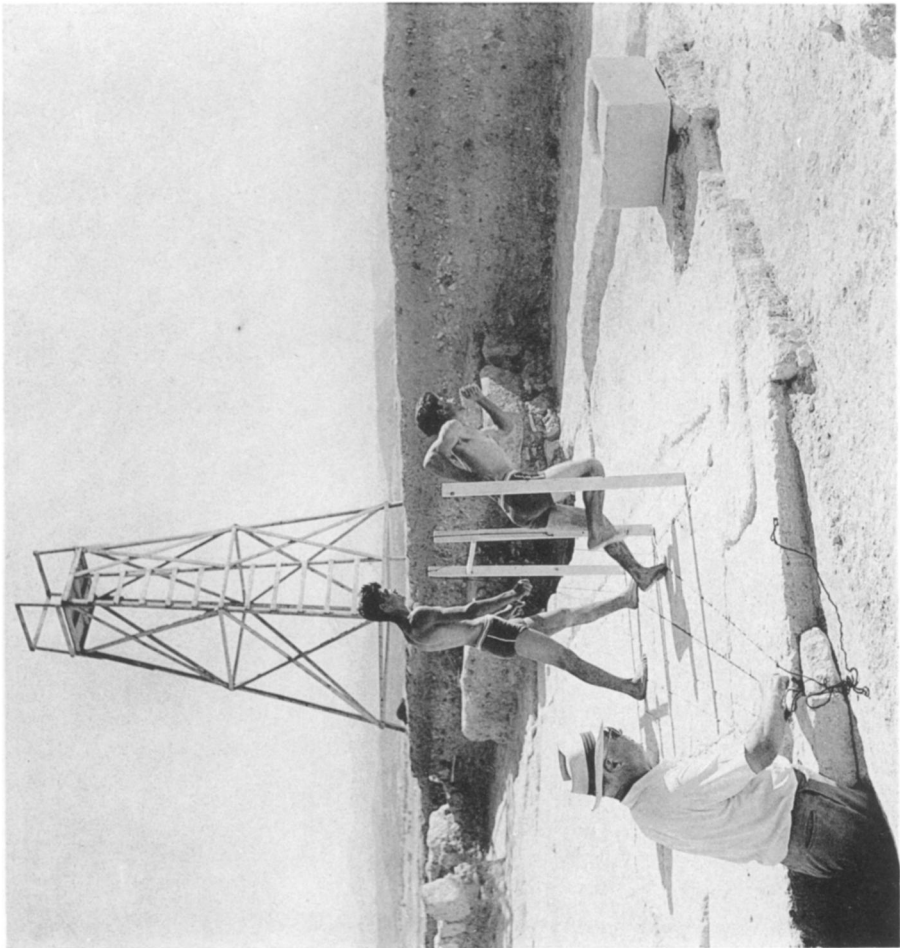
c. Late Starting Line and Water Channel of Early Stadium, from East



d. Starting Gates, with Balbides

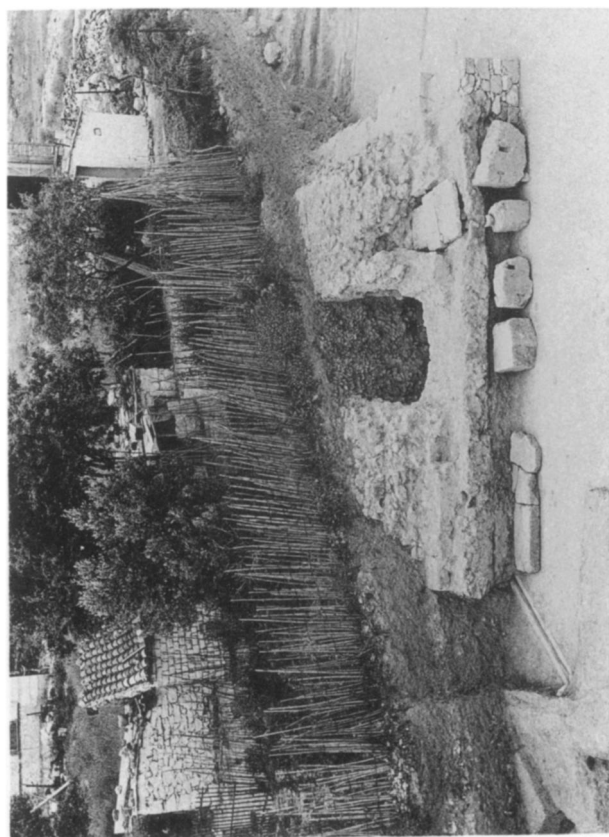


a. Triangular Pavement, Restored Plan



b. Starting Gates, in Use

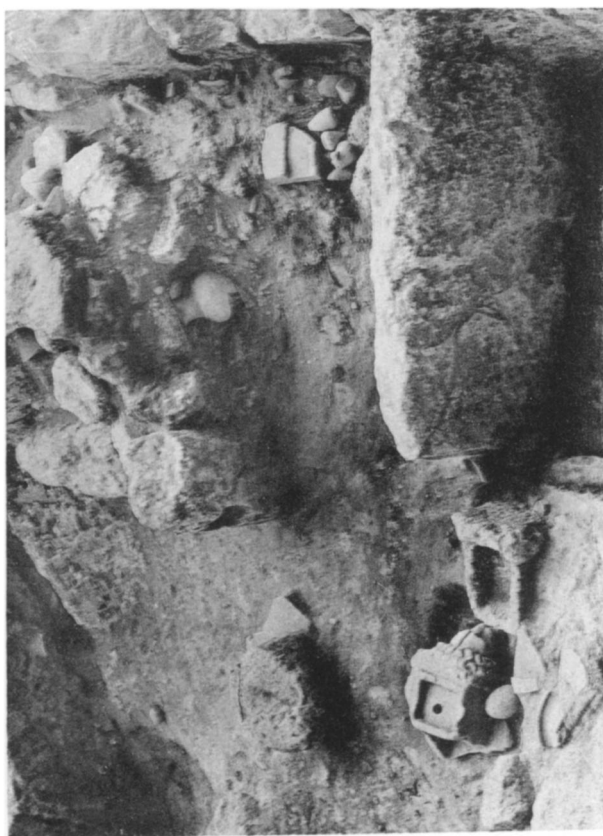
OSCAR BRONEER: EXCAVATIONS AT ISTHMA, THIRD CAMPAIGN, 1955-56



a. Roman Foundation, East End, Identified as Palaimonion



b. Lamps and Pottery in Palaimonion Area



c. House of Loomweights on Rachi

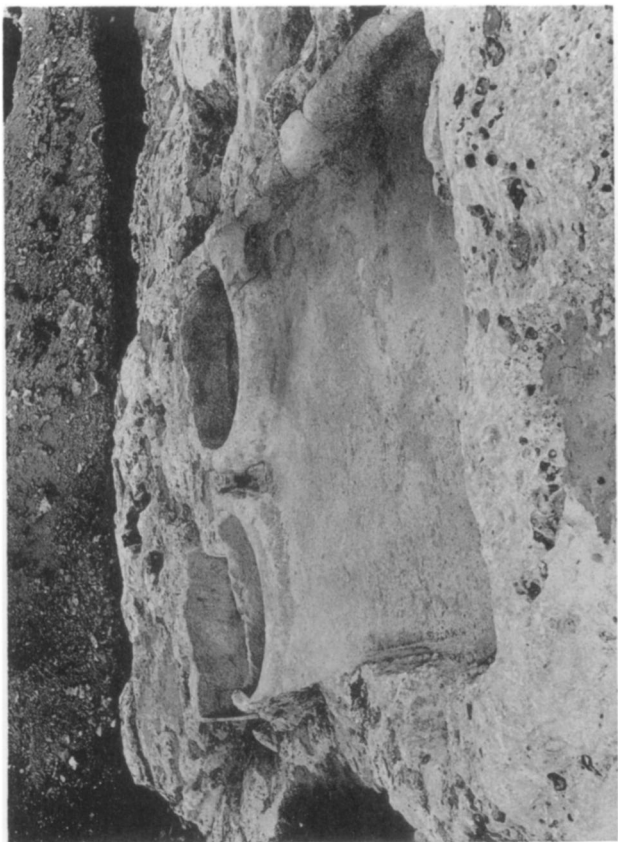


d. Cluster of Loomweights and Tiles

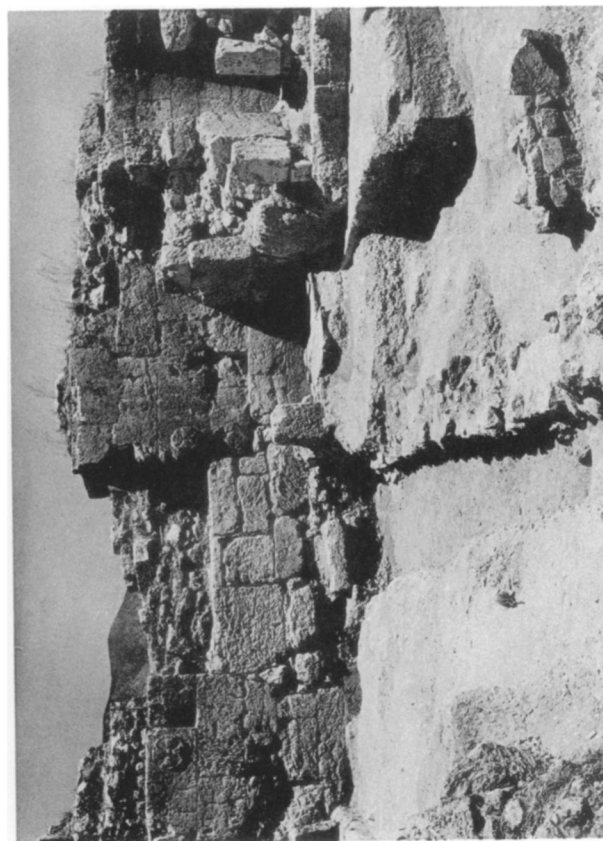
OSCAR BRONEER: EXCAVATIONS AT ISTHMA, THIRD CAMPAIGN, 1955-56



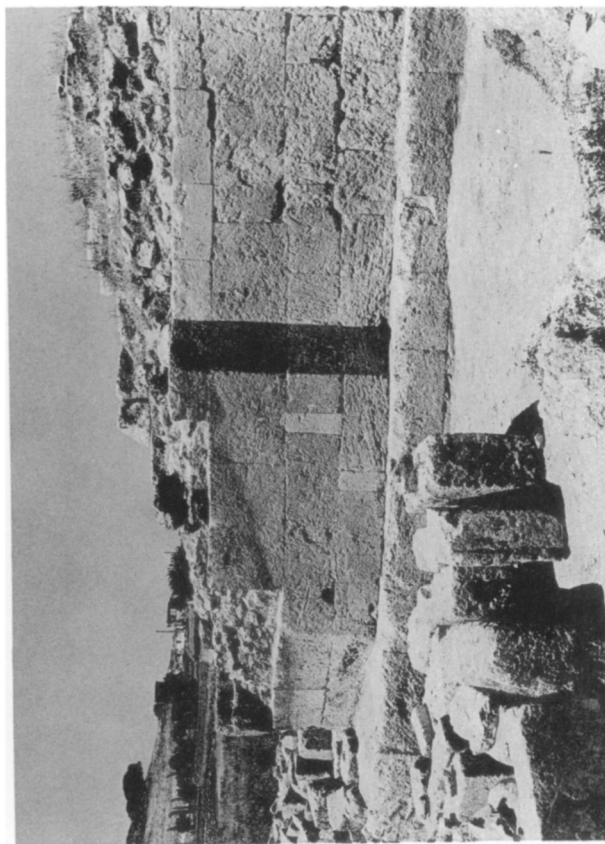
a. House with Bathtubs on Rachi



b. Large Wine-Press on Rachi



c. South Gate of Justinian Fortress

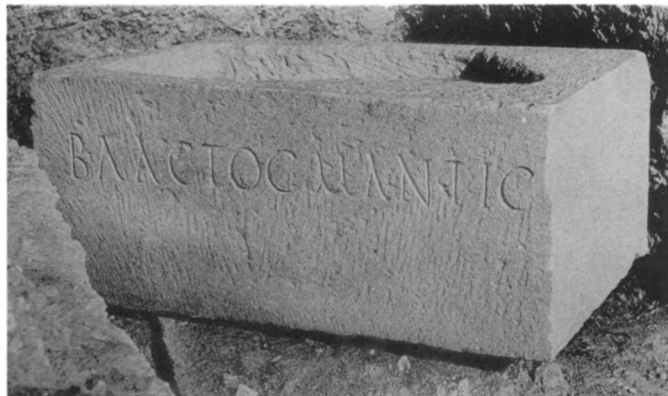


d. Wall and Tower at South Gate of Fortress

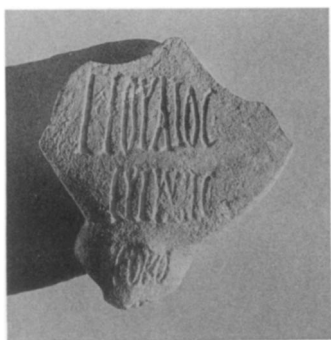
OSCAR BRONEER: EXCAVATIONS AT ISTHMA, THIRD CAMPAIGN, 1955-56



a. Seisiphos Base, Front



b. Blastos Base



c. Eutyches Inscription



d. Iuventianus Base



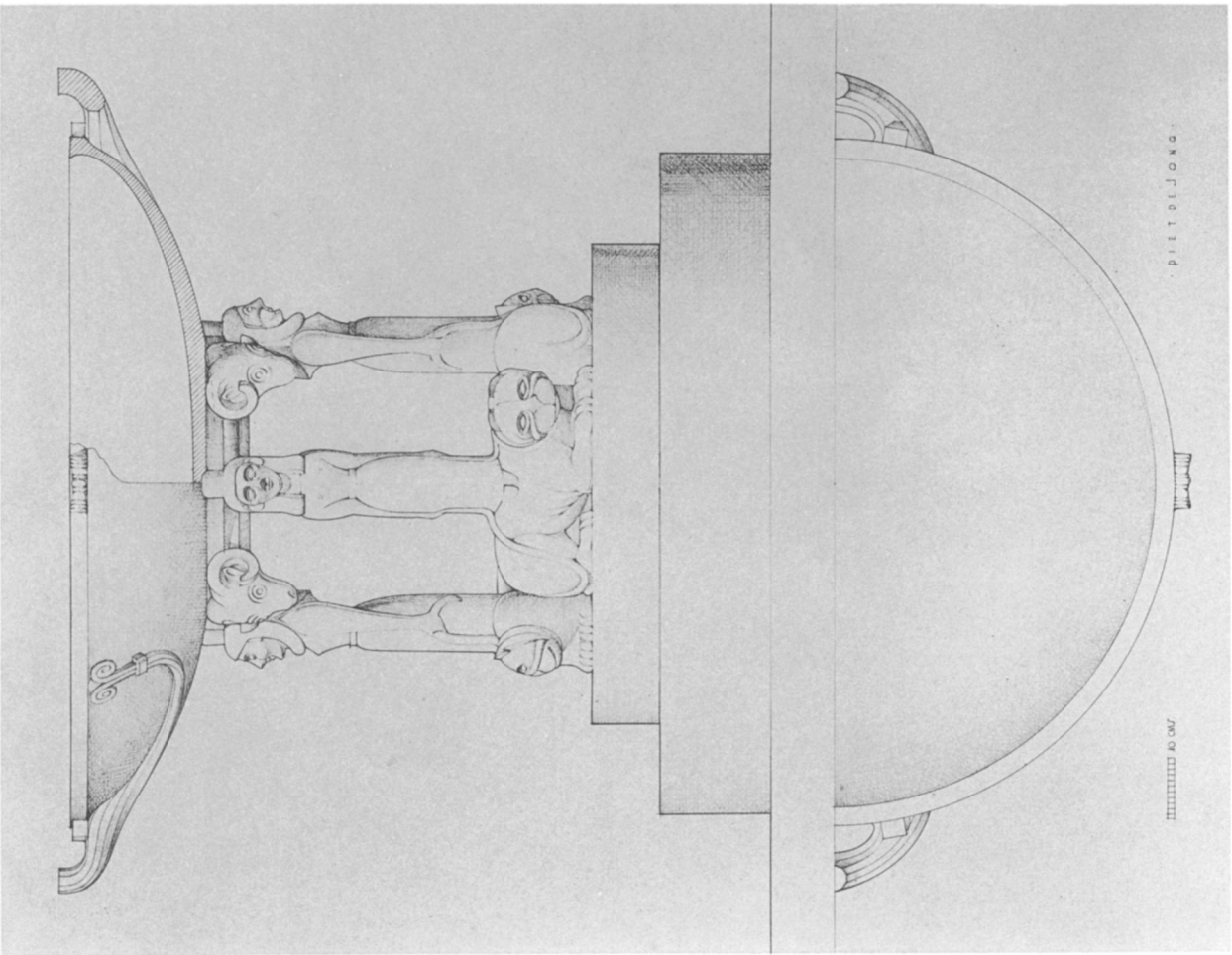
e. Altar Dedicated to Hercules



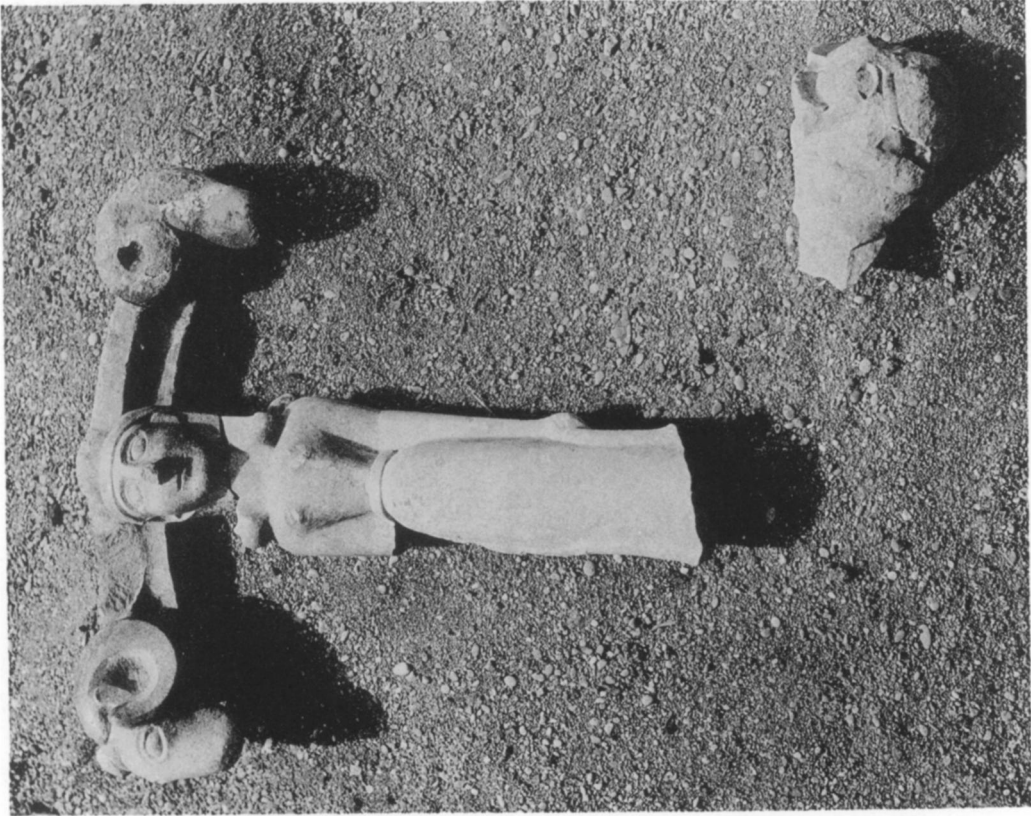
f. Fragments of Statue of Pan



g. Left Foot of Hermes Statue



b. *Perirrhanterion*, Restored

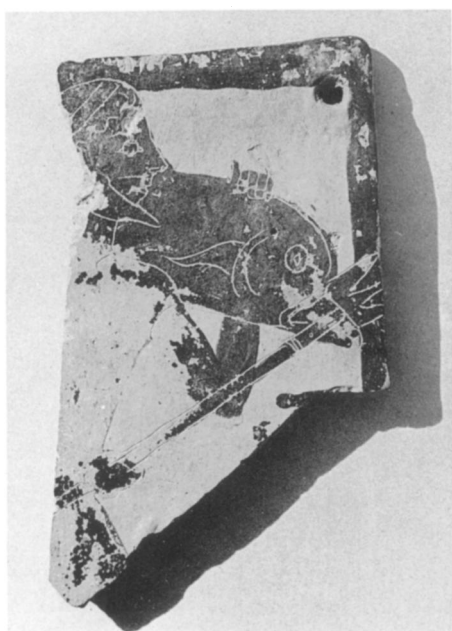


a. Fragments of *Perirrhanterion*

OSCAR BRONEER: EXCAVATIONS AT ISTHRIA, THIRD CAMPAIGN, 1955-56



a. *Perirrhanterion*, Reconstructed



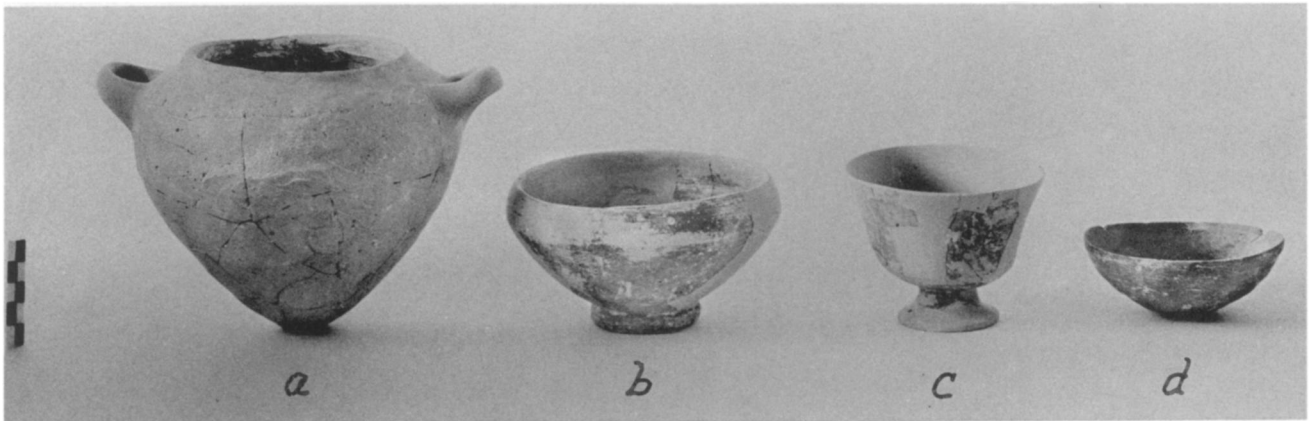
b. Fragment of Painted Pinax



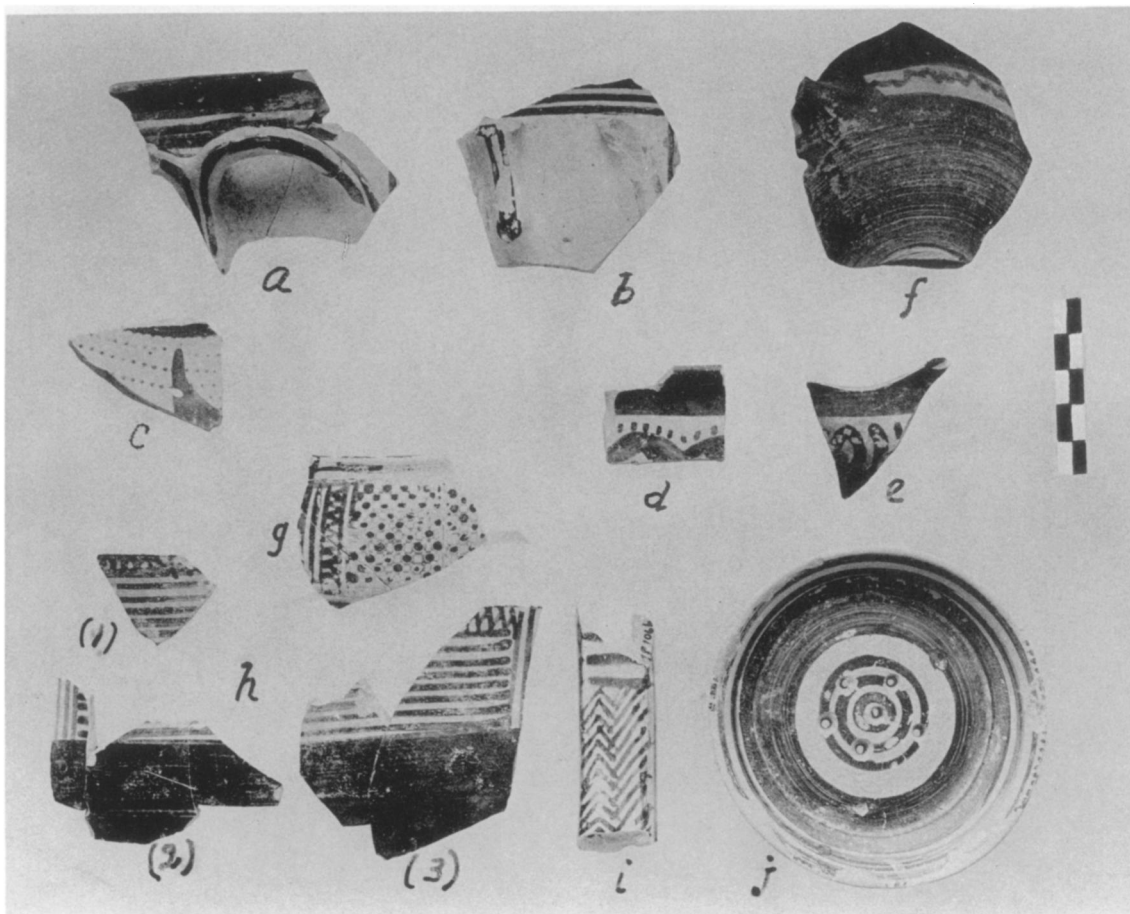
c. Piece of Decorated Shield Strap



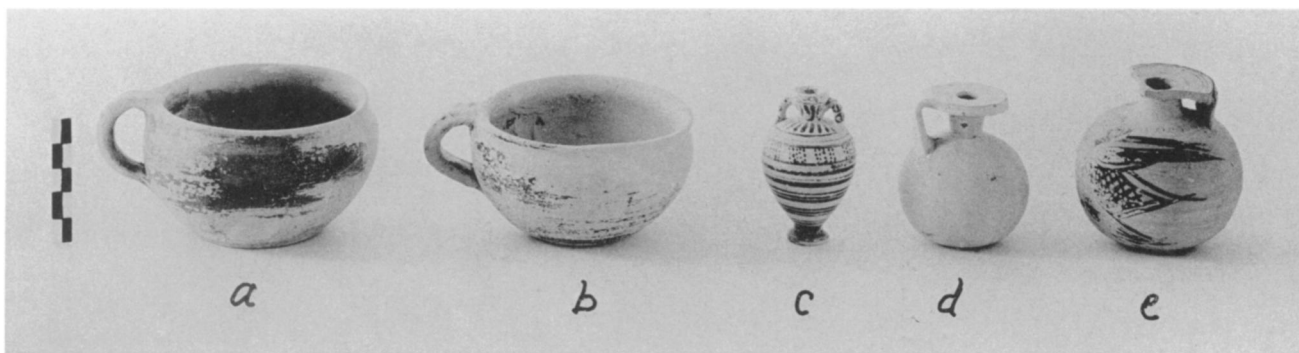
a. Four Early Helladic Vases



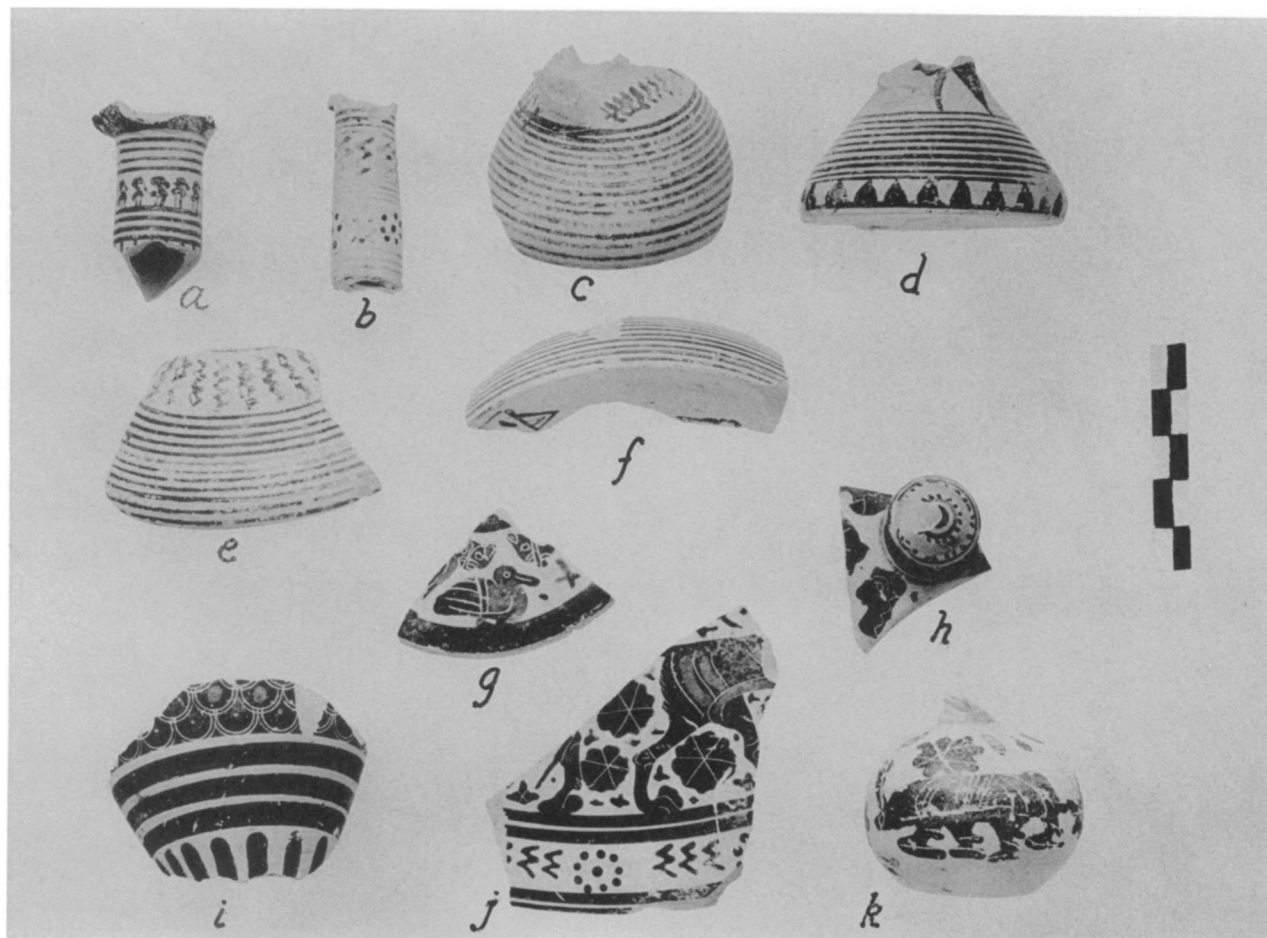
b. Four Early Helladic Vases



c. Mycenaean and Geometric Pottery



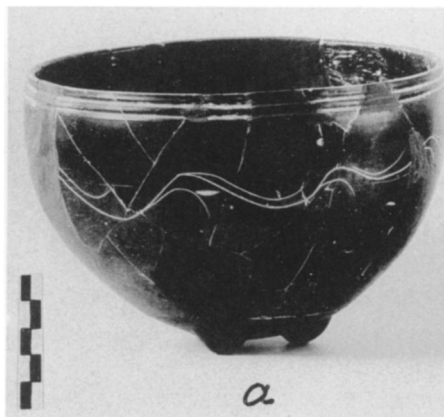
a. Subgeometric and Early Corinthian Vases



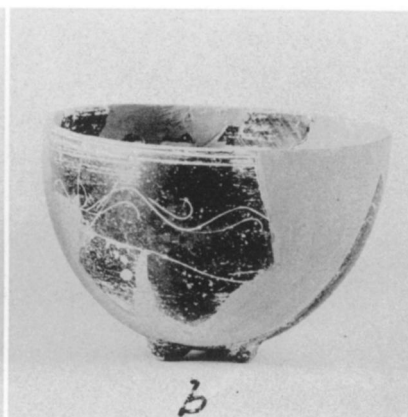
b. Protocorinthian and Early Corinthian Sherds



c. Hellenistic Kantharos from Rachi



a

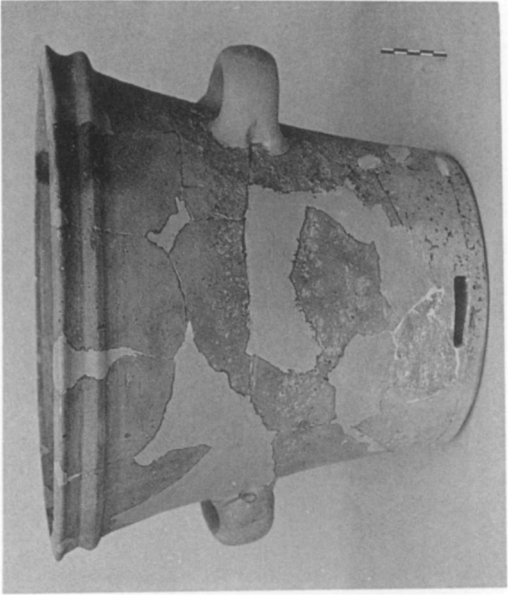


b

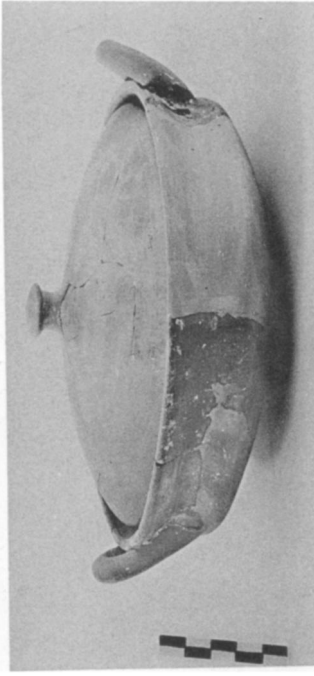
d. Two Bowls from Rachi



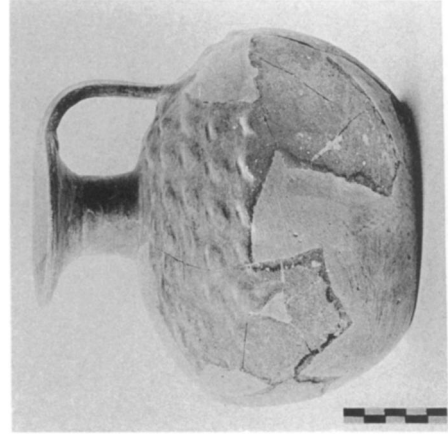
a. Panathenaic Amphora, Front Panel



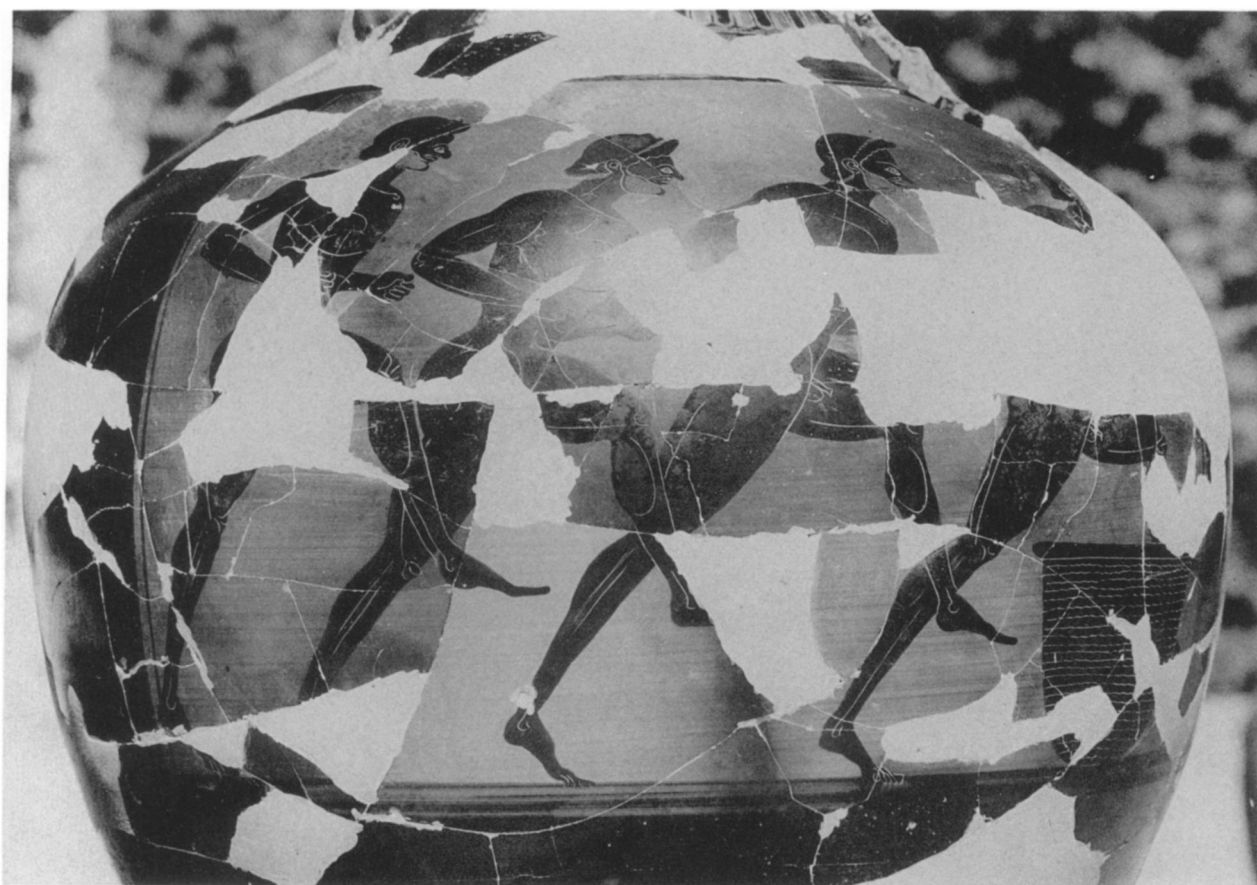
b. Vase for Squeezing Grapes,  
from Rachi



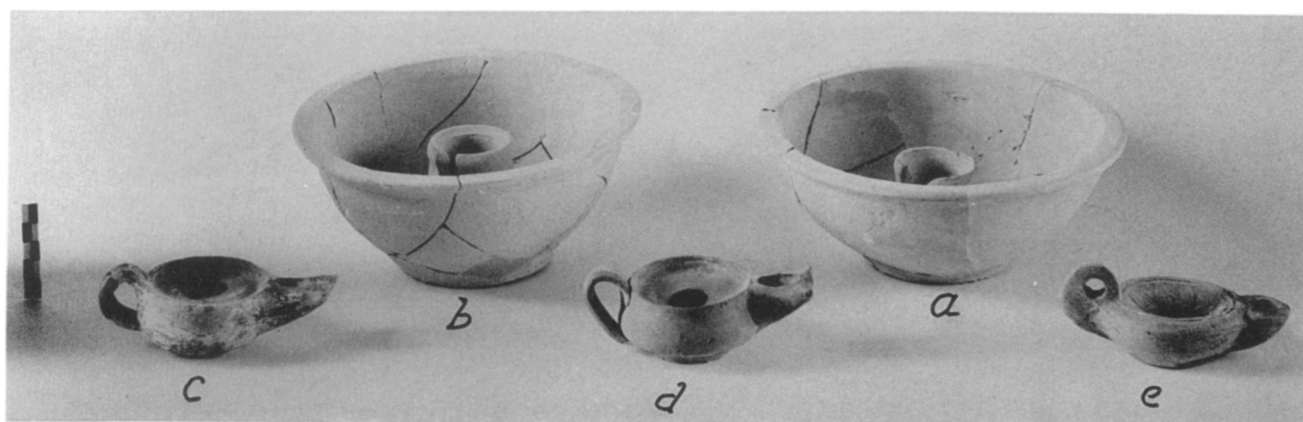
c. Casserole and Lid, from Rachi



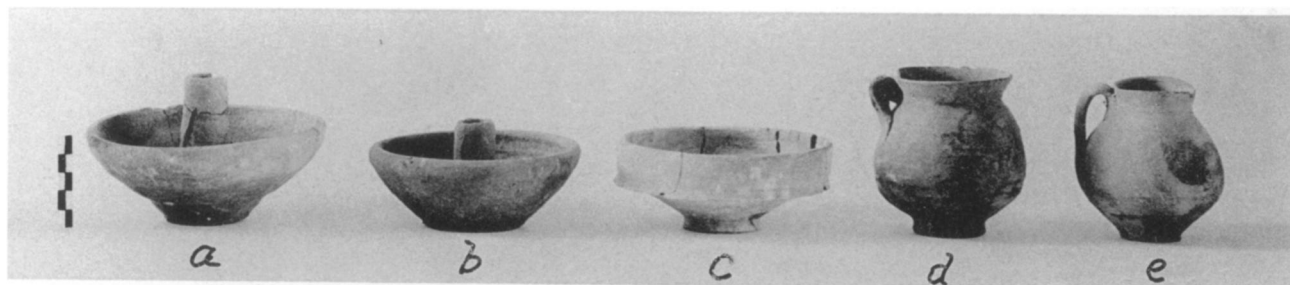
d. Pitcher of Blister Ware, from Rachi



a. Panathenaic Amphora, Rear Panel



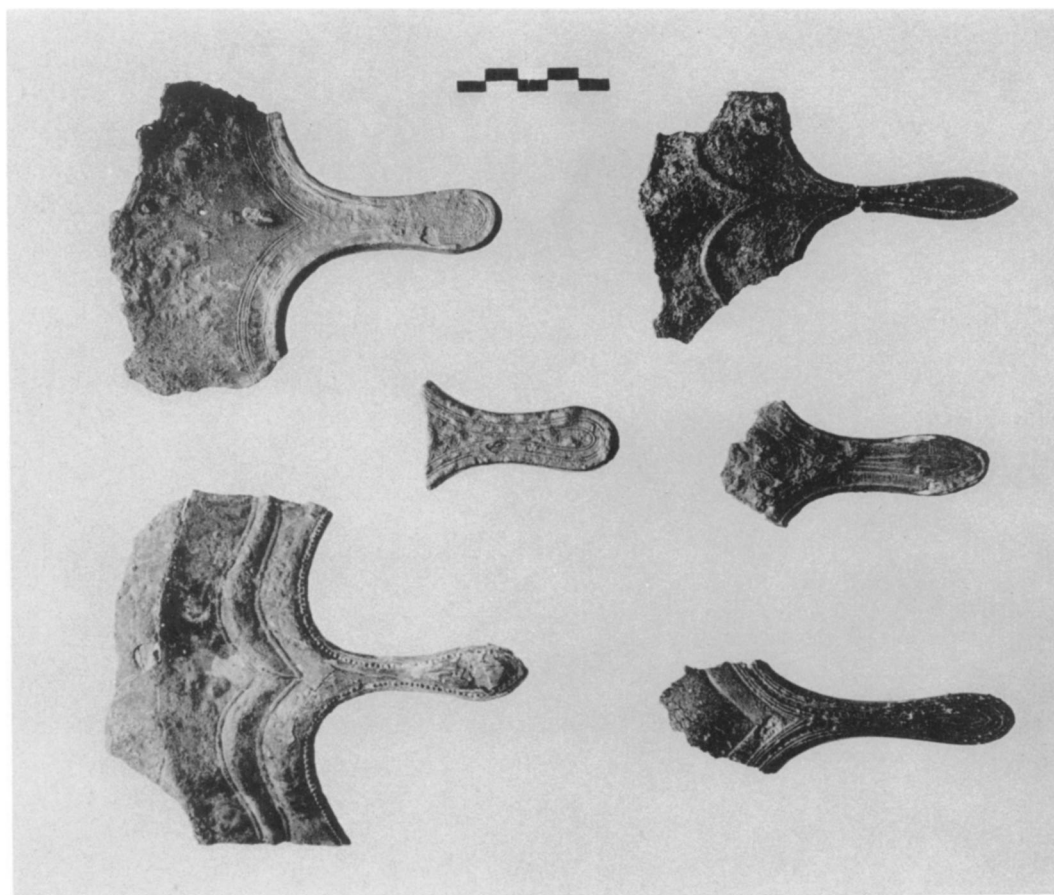
b. Five Lamps from Palaimonion Area



c. Lamps and Vases from Sacrificial Pit

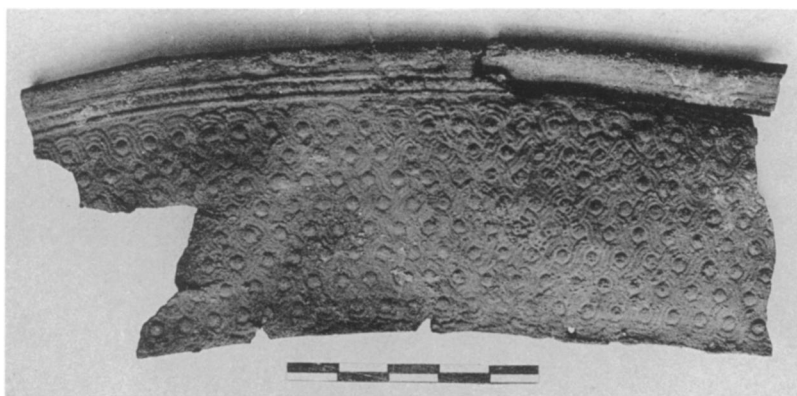


a. Kybele Lamp from Sacrificial Pit

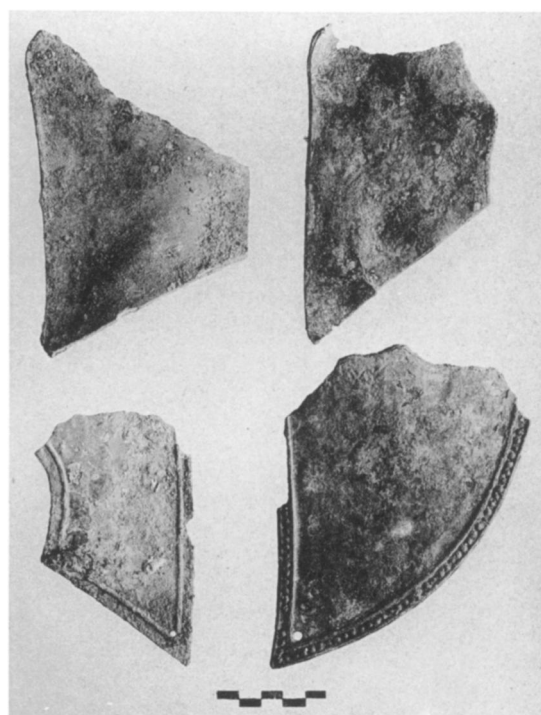


b. Nose Guards of Bronze Helmets

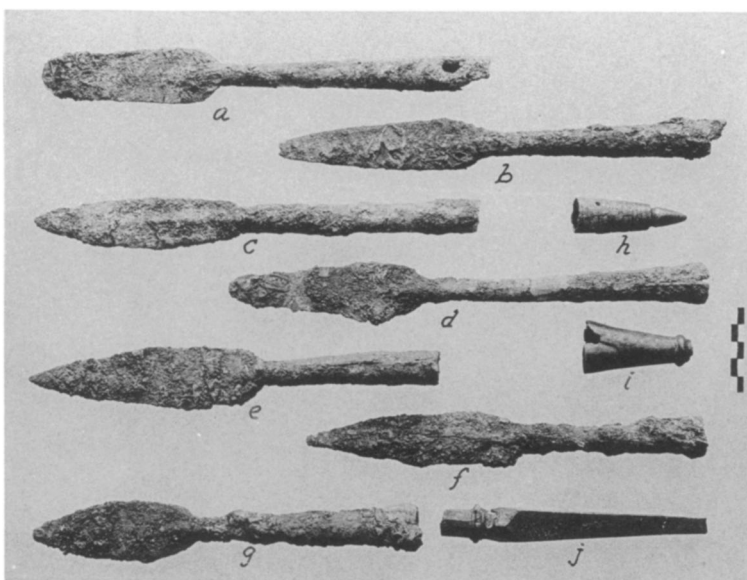
OSCAR BRONEER: EXCAVATIONS AT ISTHMA, THIRD CAMPAIGN, 1955-56



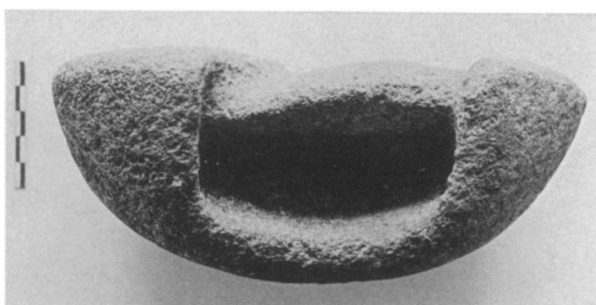
a. Rim Fragment of Bronze Shield



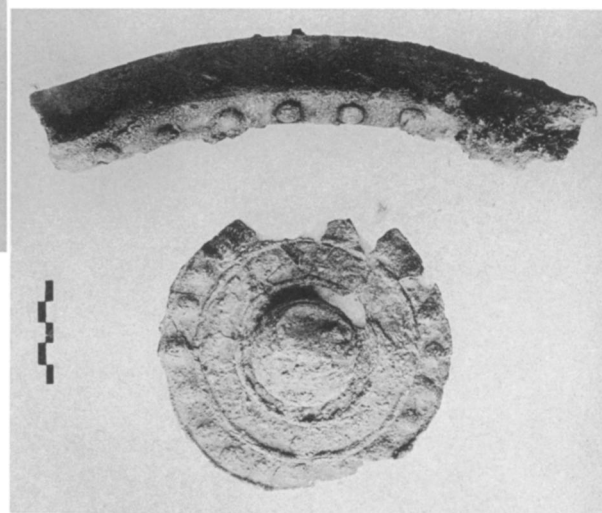
b. Cheek Pieces of Bronze Helmets



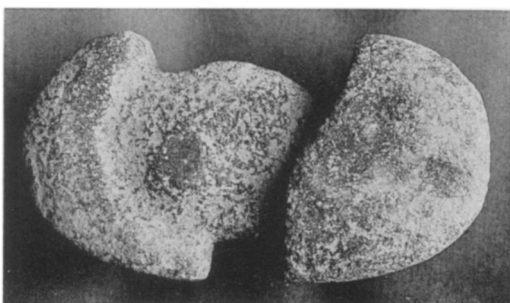
c. Seven Iron Spear Points and Three Bronze Spear Butts



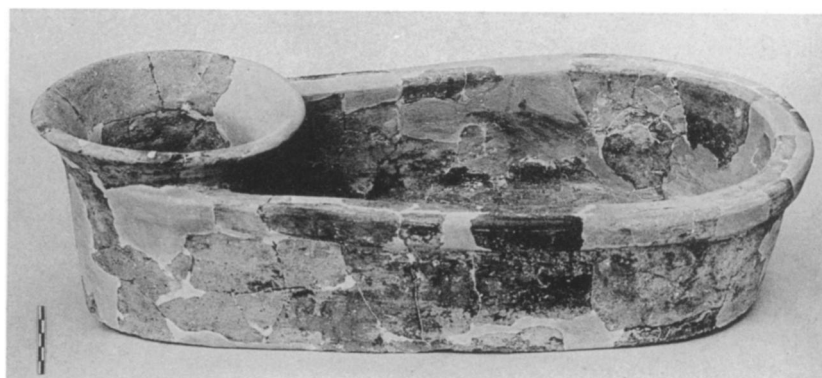
e. Stone Halter, Side View



d. Shield Boss and Rim Fragment of Bronze



f. Stone Halter, Top View



g. Trough-like Vessel, from Rachi