

EXCAVATIONS AT ISTHMIA

1959-1961

(PLATES 1-12)

THE present report covers the autumn campaign of 1959 and the spring campaigns of 1960 and 1961.¹ The principal objective was to complete the excavations in the sanctuary of Poseidon and the Theater, and in addition some other areas were tested and partly excavated.

THE LARGE CIRCULAR PIT

In the autumn of 1959 we completed excavation in the large pit (Pl. 1, a) partly excavated during two preceding campaigns.² In the spring of 1958, when we reached a depth of nearly 16 m., an abundance of water made further progress difficult and even dangerous. After the dry summer of 1959, we were able to continue until bottom was reached at the depth of 19.75 m. The last part of the digging was carried on

¹ A brief account of the excavation of the autumn of 1959 appeared in *Archaeology*, XIII, 1960, pp. 105-109. The excavation staff during the autumn campaign consisted of Professor John G. Hawthorne, Ann Konrad Knudsen, and Elizabeth R. Gebhard, with Alan Shapiro as architect. In the more extensive spring campaign of 1960 the work in the various areas was supervised by John G. Hawthorne, Elizabeth R. Gebhard, James R. Wiseman, David G. Mitten, and Ione M. Shear. Joseph W. Shaw served as draftsman and surveyor; the late Eunice Work and David MacDowall worked on the coins from the excavations. In the limited spring campaign of 1961 David G. Mitten and Katherine Abramovitch supervised operations in the trenches. Architectural work has also been rendered by John Travlos. The foremen were Evangelos Lekkas (autumn 1959) and Demetrios Pappaioannou. Charlotte Brodkey, Ferry Marquand, Connie Mitchell, and, for a shorter period, Sally Cook assisted with inventories and clerical work.

The funds for these campaigns came from grants by the Bollingen Foundation, from contributions by the Greek Cultural Foundation for the University of Chicago (President, Philip Constantinides), and from donations from many friends throughout the United States. Generous support was given by John Mantas and by the late Andrew Kanellos. To all the contributors the expedition and the undersigned extend their sincere thanks. The author further wishes to acknowledge his indebtedness to the Administration of the University of Chicago, especially to the former Chancellor Lawrence A. Kimpton, the Dean of the Division of Humanities, Napier Wilt, and the former Chairman of the Department of Classics, Gertrude Smith, for loyal support and for granting extended leave from teaching duties. The expedition has enjoyed the cooperation and active assistance of the Greek Archaeological Service, through its Director Ioannes Papademetriou, its Ephor of Antiquities Nikolaos Verdelis, and the Epimelites Olga Alexandri. The excavations have greatly benefited from close association with The American School of Classical Studies at Athens, whose Director Henry S. Robinson has offered the use of equipment and housing facilities for the staff.

² *Hesperia*, XXVIII, 1959, pp. 301-303.

below the water level, but the inflow was so gradual that we were able to remove the water by bailing. The nature of the fill continued with little change to the very bottom. A few well preserved bronze objects and several fragments of black-figured lekythoi (see below, pp. 22-23, Nos. 1 and 2) came from the last two meters. From a cursory examination of the pottery it would appear that the shaft was filled up at about 480-470 B.C. (see below, pp. 22-23, Nos. 1-2).

The bottom is not level. A trench 1.00 m. wide and 0.45 m. deep, with two dikes across, surrounds the central part. From our experience with the clearing of the well, we came to the conclusion that the circular trench at the outer edge of the shaft had resulted from the method of digging. Since the two dikes divide the circular trench into two equal halves, we were able to bail out the water in one half while digging continued elsewhere. By alternating operations in the two halves of the trench, we had no serious difficulty in coping with the inflow. The original well diggers would have been confronted with the same difficulty, which they solved in this ingenious way. After they had dug the trench to a depth beyond which it was no longer easy to shovel up the earth onto the central platform, they would dig in the center until they reached the water level. By dividing the trench into two halves, bailing and digging could be carried on simultaneously. Presumably it had been their intention to remove the central part at the end of the operations; the fact that they stopped digging before this was accomplished indicates that the pit was left unfinished. It now seems likely that the immense shaft was intended to serve no other purpose than as a gigantic well. Presumably they had hoped to reach a gravelly, water-bearing stratum with a copious flow of water, but the hard, impervious layer of marl extends to the very bottom. The present inflow, a mere trickle, would have proved insufficient, and thus the shaft was filled up with available debris from the sanctuary. Although it seems never to have been finished, it is likely that the shaft was left open and used for some time before it was filled up. This is shown by the fact that the rock at the rim has been worked off to a definite level, and in some places imperfections in the rock have been patched with stones. This rim must have been intended to hold a stone curb, and among the masses of stones removed from the shaft there is one curved block that would fit the curvature of the well. No other pieces were discovered.

THE SANCTUARY OF POSEIDON

North of the Temple of Poseidon we cleared the temenos (Fig. 1) as far as the north wall. Here we encountered a number of Roman roads³ running parallel to the temple. Several foundations for monuments appeared, their tops flush with the road levels, and in some cases wheel ruts cross over the foundations. The largest measures 9.00 m. from east to west and *ca.* 4.15 m. from north to south. It is made of large

³ *Hesperia*, XXVII, 1958, pp. 6 ff.; XXVIII, 1959, pp. 302 ff.

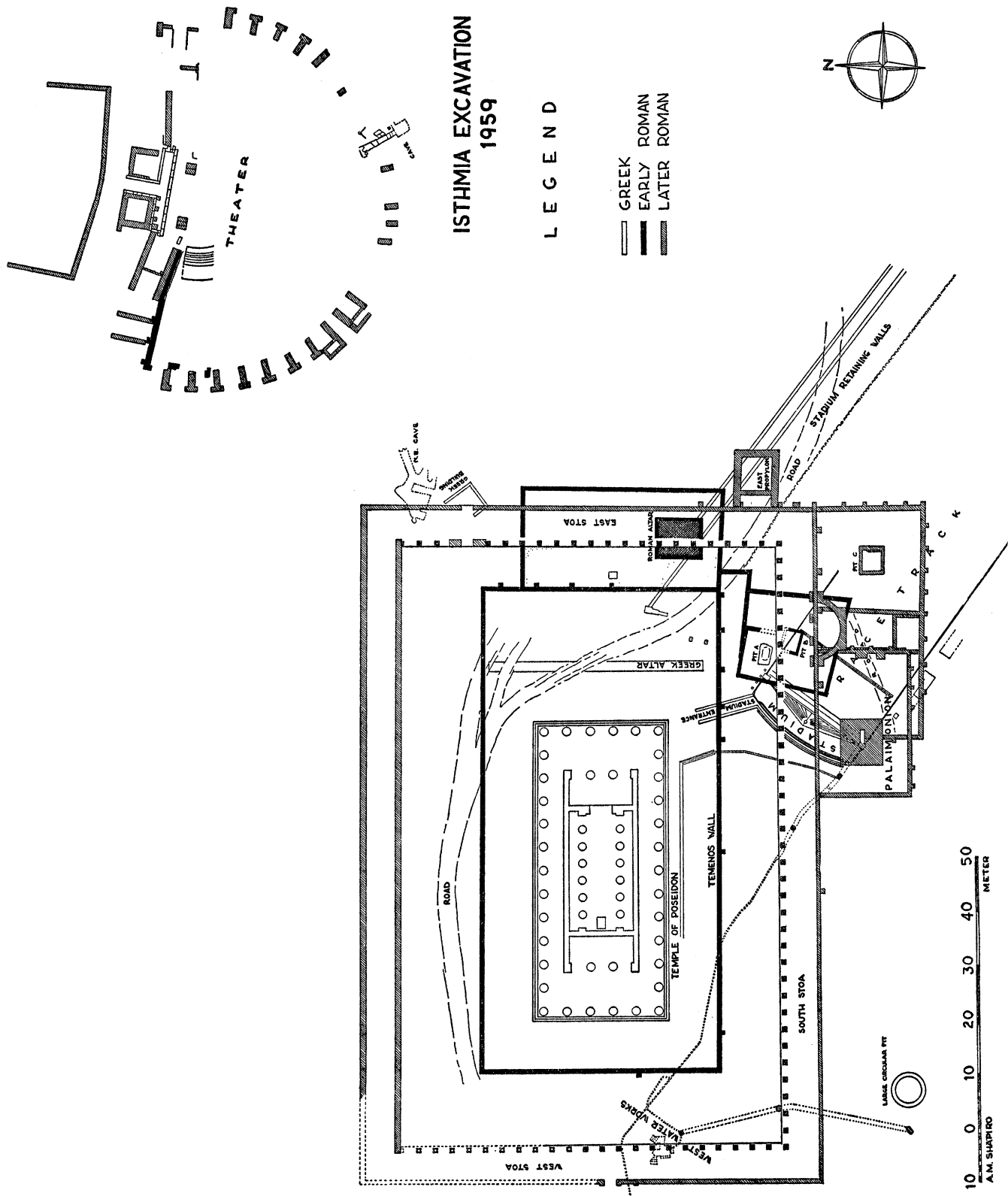


Fig. 1. Plan of Sanctuary and Theater.

blocks, *ca.* 1.10 x 0.60 m., of a soft variety of poros. This and all but one of the smaller foundations deviate slightly in orientation from that of the Temple of Poseidon and are probably all to be dated in pre-Roman times. There is nothing beyond the shape and dimensions to help indicate the nature of the monuments that they supported. The early Roman temenos wall (Pl. 1, b, right) at a distance of 9.00 m. from the north flank of the temple, has been removed down to its rubble foundation. The wall itself had probably been built out of large blocks which could be re-used elsewhere. There are traces of buttresses at intervals of *ca.* 6.00 m. The later temenos wall (Pl. 1, b, left), preserved to a height of *ca.* 1.00 m. above the road pavement, is made of rubble masonry but faced on the south side with small rectangular stones, laid in hard lime mortar. It runs parallel to the temple at a distance of 24.30 m., and is partly supported on the south foundation, nearly 2.00 m. broad, of the projected North Stoa. The north edge of the wall rests on a loose rubble foundation.

THE CULT CAVES

In the autumn campaign of 1959 we discovered a cave at the northeast corner of the Precinct of Poseidon (Pl. 1, c). It had been repeatedly entered and used in Roman times, and a series of walls and supporting piers had then been constructed. Through further investigation in 1960 and 1961 it was revealed that the cave during its first period of use had been divided into two chambers (Fig. 2), each entered by its own stairway descending from the southeast. The steps are cut out of the niche with a throne-like seat on one side. Five couches, each with a headrest likewise cut in the hard clay, lined the corridor on both sides. The eastern chamber had six couches, but some were partly destroyed during the Roman occupation; others were covered over with retaining walls.

The area from which the two chambers were entered was fully excavated in the spring of 1961. It extends about 9.00 m. toward the south and *ca.* 7.50 m. from east to west. The floor has been tamped down with clay but not very evenly. This entrance area was originally larger; its south half was removed to make room for a Roman cistern, the floor of which is 2.70 m. below that of the court. Toward the southwest end the court terminates against a well-built structure encountered in one of the earlier campaigns (Pl. 1, d).⁴ It consists of three walls with the northwest end left open. It is probably a terrace that supported an altar at a height above the preserved ground level. In the spring of 1961 the northeast face of this structure was exposed. The wall is 1.75 m. high and 6.23 m. long, built in three courses, two high ones separated by a low course. On the outer face of the wall is incised the name **ONYMANTIOY** in letters 0.12 m. high. The area to the northeast was filled up at one time after the

⁴ *Hesperia*, XXVIII, 1959, p. 304.

construction of the wall. The pottery from this fill is all pre-Roman. At the northwest end of the wall, under a slightly overhanging ledge of native rock, the bronze ring described below (p. 20, No. 3) was discovered at a depth of 0.60 m. below the top of the wall (Pl. 2, a). From the same area, but at a lower level close to the clay floor, came three gold Darics (Pl. 2, b, and see below p. 21, Nos. 9-11).

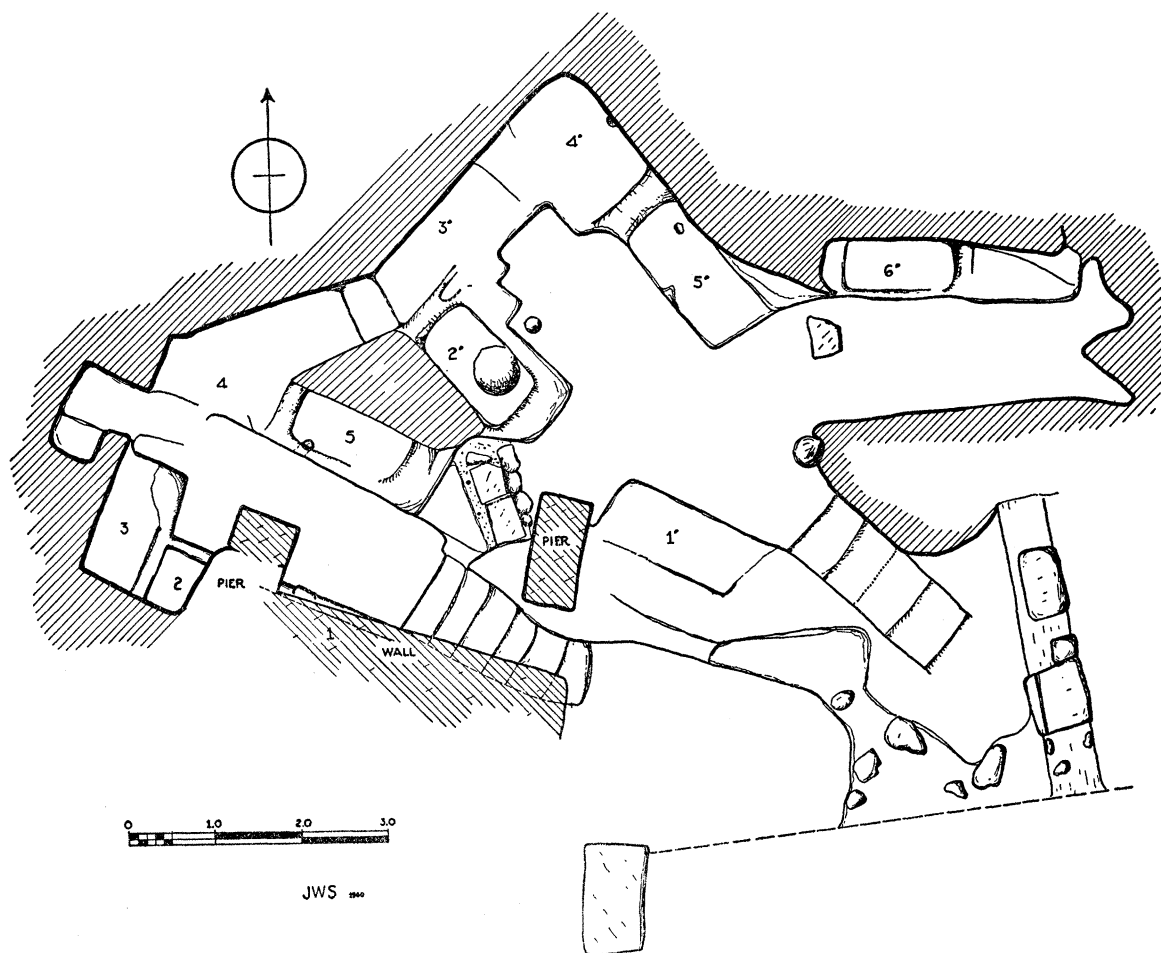


FIG. 2. Plan of Northeast Cave.

A second cave is located some 60.00 m. farther to the east at the upper edge of the Theater. It is likewise divided into two compartments (Fig. 3), each with a small room on the side, entered from the principal chamber. The west chamber (I) had originally five couches, arranged along the walls, the east chamber (II) had six. Like the couches in the Northeast Cave, they are cut out of native rock and provided with a raised "cushion" at one end. At some later time, the couches have been cut away

leaving only traces below the plaster on the walls (Pl. 3, a, lower left). In each of the two chambers, close to the entrance, there is a niche (Pl. 3, a, center) at a height of 1.00 m. above the floor, and underneath it a circular cutting which seems to have been intended to hold a jar of some kind. The walls in the western chamber still retain much of the original Greek plaster; the east chamber does not appear to have been plastered (Pl. 3, c).

The chambers were provided with separate entrance courts containing provisions for preparing meals (Pl. 2, c). In each court there is a table (Pl. 2, d, left), plastered on top, a kitchen stove (Pl. 2, d, center) with two and three burners, in front of

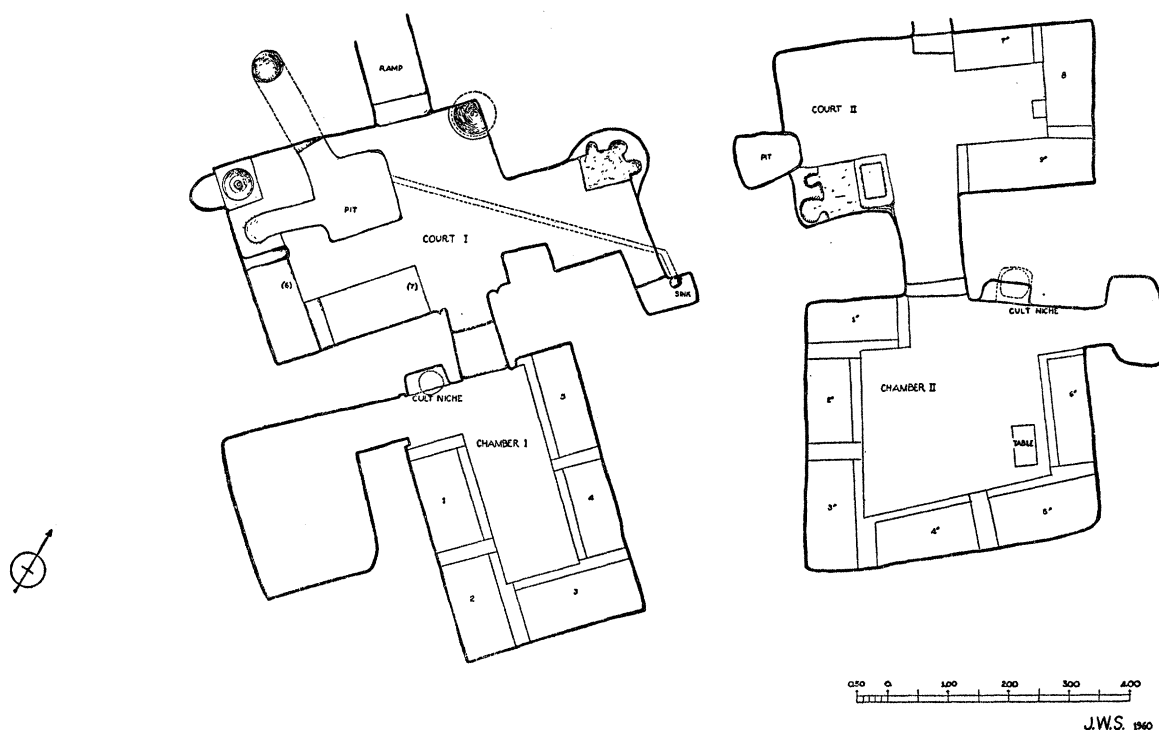


FIG. 3. Plan of Theater Cave.

which ash lay scattered on the floor, and a disposal pit (Pl. 2, d, lower right) dug below the floor of the court. In one corner of the western court a pithos had been dug into the native clay and lined with hard stucco. It was found filled to the top with pottery vessels (Pl. 3, b), plain kitchen utensils, stacked upside down, the smaller at the bottom and the larger vessels near the top. These (Pl. 12, a-f) and some potsherds and tiles found in the courts (Pl. 3, d) and in the disposal pits indicate that the caves had been in use in the second half of the fourth century B.C. and were probably abandoned near the end of the century. It is not entirely clear whether they were

in any way connected with the Theater, but they seem to have been used after the Theater had been built.

Although nothing was discovered in the caves that could indicate the nature of the cult, it seems highly probable that they served some religious purpose. These underground chambers, located close to the buildings of the Isthmian Sanctuary, would hardly have been used as public or private dining rooms; the meals served in them would have had some religious significance. Possibly the caves served the members of some association, like the Artists of Dionysos who were active in Hellenistic times in many parts of Greece, including the Isthmos and Nemea.⁵ It is probably not accidental that the two caves had the same number of couches, each having one chamber with five couches, another with six.⁶ Later intrusions have caused the removal of dedications or other cult objects that might have thrown further light on the use of the caves.

THE THEATER

Although the Theater was separated physically from the Precinct of Poseidon (Fig. 1), it was functionally a part of it. It shows evidence of several periods, two of which fall within Roman imperial times. The building has the Greek form, with the two paradoi coming in at an obtuse angle in relation to the skene, and it retained this form throughout its period of use. The skene (Pl. 4, a) was divided into two quadrangles by means of a central passage which may have been vaulted over. A drainage canal, entered through a pit at the east edge of the orchestra (note 7), extends from there to a point 51.90 m. farther to the north. Near its north end the drain slopes steeply toward an east-west channel into which it poured its contents. Some pottery which came from the fill of the manholes and from the channel itself indicates that the whole drainage system went out of use not long after the middle of the fourth century B.C. It seems to have served no other purpose than to carry off the rainwater accumulating in the orchestra, and probably it belongs to the original construction of the Theater. On this evidence the building is to be dated in the first half of the fourth century B.C. or earlier.

⁵ On the Artists of Dionysos see Pickard-Cambridge, *Dramatic Festivals of Athens*, pp. 286-315, especially the inscription from Thespiai quoted on p. 293, in which there is a reference to *τεχνίταις τοῖς ἐξ Ἰσθμοῦ καὶ Νεμέας*, and cf. Margarete Bieber, *The History of the Greek and Roman Theater*, 1961 Edition, p. 84, and note 30.

⁶ The prime number eleven may have carried some special significance. In a fragment of the Comic poet Telekleides the term *ἐνδεκάκλινος* is used to describe the head of Perikles, which was large and full of worries, T. Kock, *Comicorum Atticorum Fragmenta*, Tel. 44. Kock has no explanation for the number eleven: quod cur *ἐνδεκάκλινος* dicat non magis possum explicare quam, *ἐνδεκα κόπας*, Arist. Eq. 546. I would suggest that eleven, being one more than the number one can count on the fingers of two hands, came to be used to denote a rather large number. J. M. Edmonds' translation "from a head that would seat four and twenty" probably gives the flavor if not the actual meaning of this puzzling line (*Fragments of Attic Comedy*, I, pp. 194-195).

There was at least one reconstruction before the Roman period. To the original construction belongs the drainage canal and probably the wall of the skene, the lowest course of which is preserved in the west half of the building. It turns the corner at the central passage, where part of the second course also remains in place. On the proskenion sill (Pl. 4, b), which belongs to a later period, rested twelve rectangular piers of wood supporting the logeion. The intercolumnar spaces could be closed by means of pinakes, and cuttings in the sill indicate how these were fastened to the piers. In the easternmost space is preserved a low curb which also may have served to keep the panel in place. The sill shows evidence of heavy wear.

To the first Roman period belong parts of the retaining walls (Pl. 4, c, right) on the south side of the paradoi. Two rooms on either side of the skene were probably added at this time. These changes are to be dated in the first half of the first century after Christ, perhaps to the reign of Claudius. A second reconstruction (Pl. 4, c, left) on a more elaborate scale entailed the rebuilding of the auditorium and reconstruction of the scene building. Along the outer edge of the cavea were laid down T-shaped piers (Fig. 4) of *opus incertum*, intended as foundations for radiating walls to support arches and vaults, which were never constructed. No stone seats are preserved in place, and the slope of the koilon indicates that only eight rows of seats were finished. A single block, preserving the end of one seat and a step of an aisle, was found in the west parados, and has been replaced in the auditorium. In the skene heavy concrete foundations were inserted behind the Greek walls inside the two rectangles (Fig. 4, Pl. 4, b). The central passage and the two paradoi seem to have been vaulted over at that time with brick and rubble construction. The paradoi were now entered from the north along two roads lined with walls, and turning at right angles at the upper ends of the paradoi proper.⁷ Rooms were constructed along the east flank of the building, possibly to be used as storerooms, and a new elaborate system of drainage was devised (Pl. 4, d). In the orchestra are two stone foundations, probably dating from the second Roman reconstruction. They are too heavy to have supported altars, and it seems likely that they held colossal statues which must have obstructed the view for many spectators. We may conjecture that one of the statues represented Dionysos, the other perhaps the emperor Nero. North of the theater complex there was an open court, which may have been intended chiefly for the convenience of visiting merchants who wished to set up their booths in close proximity to the Theater. In the rear of the court are two parallel foundations, probably of a long colonnade opening toward the north.

⁷ It is not clear how these roads were entered from the north. There may have been gateways, which have completely disappeared. In the tentative restoration, Figure 4, no such gates are shown. Some other details are omitted, e. g. the early drain under the east side of the orchestra, which was discovered after the plan had been made.

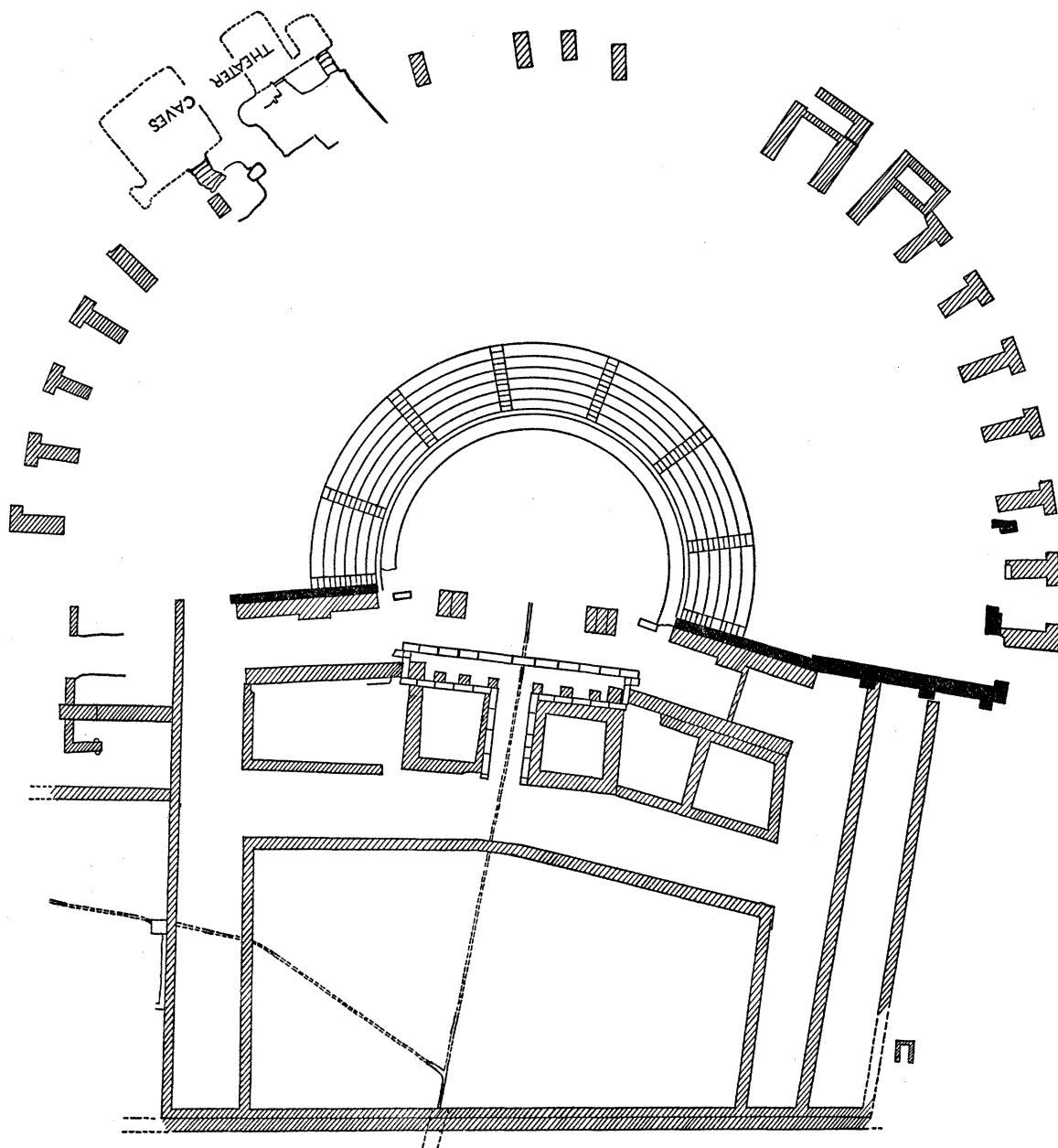


FIG. 4. Plan of Theater, Tentatively Restored.

The evidence for dating the second Roman reconstruction is weak; what little there is would support the supposition that it was undertaken in expectation of Nero's arrival in the autumn of A.D. 66. Perhaps the Theater remained half finished because the emperor reached Corinth earlier than had been expected. It was in this theater that he delivered his famous speech of liberation, preserved on an inscription in the Boeotian town of Akraiphnion.⁸ The location of the Theater may have been determined by the configuration of the terrain, but its nearness to the Precinct of Poseidon was not accidental. In the last reconstruction foundations were laid for outside stairs off axis, directly opposite an entrance into the precinct (see plan, Fig. 1). The close relation with the cult of Poseidon is further indicated by a large number of stamped roof tiles (Pl. 5, a) found in the Theater. Common among the stamps are the names of Poseidon in the genitive case and the emblem, dolphin-and-trident, of the same god.

THE LATER STADIUM

The Later Stadium, occupying a conspicuous gully southeast of the Sanctuary of Poseidon, was one of the buildings most readily recognized before our excavation began (Pl. 5, b). In 1960 we dug a trench 12.00 m. long in the northeast corner, hoping to discover the edge of the race course and the water channel that would have lined its side. At a depth of 3.00 m. we encountered several large building blocks in no regular order, and finally at 6.70 m. we reached hardpan without finding the water channel or any other recognizable part of the stadium. The whole area of the trench had been converted in post-classical times into a stream bed, the water of which had washed away the race course at this point and had then deposited silt and gravel to a height far above that of the ancient level. At the other, curved end we investigated a large tunnel cut through rock and virgin soil. It may have had something to do with the drainage of the area, for several small streams pour down the slopes at this point into the stadium hollow. The tunnel had functioned in Roman imperial times, but little was found on which to fix the date of its beginning.

These inauspicious results discouraged for a time further efforts to clear the stadium. But in the spring of 1961 we opened a series of trenches on both sides of the race course and found to our surprise that the stadium is exceptionally well preserved, except at one point—where the first trial trench was dug. The Later Stadium is oriented southwest to northeast, but not quite at right angles to the earlier stadium excavated in 1955-1956.⁹ Our trenches have revealed a well-preserved stone curb at the foot of the sloping area provided for the spectators (Pl. 5, c). This area,

⁸ *I.G.*, VII, 2713.

⁹ *Hesperia*, XXVII, 1958, pp. 10 ff. For the location of the Later Stadium and its relation to the Sanctuary see map, *Hesperia*, XXVIII, 1959, p. 299, fig. 1.

the spectatory, which seems never to have been provided with stone seats, rose in a series of broad steps, to a height of *ca.* 12.00 m. above the level of the race course.¹⁰ The stone curb, 0.38 m. broad at the top and 0.44 m. high, is made of well-fitted blocks smoothly finished on the exposed edges. At a distance from the curb, varying between 1.815 m. at the middle of the stadium and 1.148 m. at the open end, a stuccoed water channel lines the race course on either side. The channel, 0.11 m. wide and 0.06 m. deep, is cut in stones measuring 0.29 m. in width at the top, and rising *ca.* 0.28 m. above the floor of the passage that occupies the space between the curb and the channel. Both sides of these stones, as well as the top and the channel itself, are covered with a fine smooth stucco of natural cement. A series of basins (Pls. 5, c; 6, c), *ca.* 1.04 m. long, 0.41 m. wide, and 0.34 m. deep, extend at intervals toward the race course. From each basin a narrow walk paved with stones leads across the passage to the curb, thus connecting the basins with the spectatory. This shows conclusively that the water carried through the channel to the basins was intended for the spectators as well as for the athletes. Moreover, the passage between the curb and the channel was designed to carry off the rainwater that washed down from the embankments on either side. The passage is floored with pebbles, except at the basins where the paved walks existed for the convenience of the spectators.¹¹

The varying width of the passage shows that the sides of the stadium curve slightly, as in the stadia at Athens and Olympia. The race course proper has a width of 28.33 m. at the point near the middle of the stadium and 27.63 m. at a point 43.00 m. farther toward the open end, a difference of 0.70 m. The sides of the race course, however, do not converge in a straight line. Both the curb and the water channel curve gently, this deviation from a straight line becoming more pronounced toward the open end of the stadium; but the channel curves less sharply than the curb.

At the northeast i. e. open end of the stadium the channel ends in a basin. Close to it is set a stone block, 1.065 x 0.81 m. in area (Pl. 5, d). In the top is a sinkage measuring 0.41 x 0.37 m. and 0.04 m. in depth, at the bottom of which there are two smaller cuttings of irregular shape. The cuttings indicate that a statue stood on the base, probably a male figure with the left foot advanced and facing the race course. Lead for fastening the statue to the base still adheres to two corners of the cutting. A plain curb, stuccoed on the top and sides, continues the line of the water channel

¹⁰ Pausanias speaks of a stadium of marble, and early travelers (see Frazer's Commentary, III, p. 9), probably seeing through the eyes of Pausanias, relay the same information. There may well have been some seats of honor of marble, but they are not likely to have been seen by Leake or any other of the travelers of modern times.

¹¹ The ingenuous explanation that the channels in the stadium were used for drainage (E. Norman Gardner, *Olympia*, p. 285) is clearly erroneous. The channel is far too small for such a purpose, and at Isthmia the water would have had to rise to a height of 0.25 m. before reaching the lip of the channel.

for a distance of 1.63 m. and forms one side of the passage between the spectator and the race course. This passage is here paved with large poros slabs, the top of which is considerably higher than the floor of the passage elsewhere (0.123 m. as compared with *ca.* 0.44 m., below the top of the curb). There is a hollow space underneath, indicating that the slabs served as cover of a broad drain that took the water from the passage. The opening into the drain presumably lies in the unexcavated area, where a much used field road made it impossible to extend our excavations for the present. That the passage between the curb and the water channel was intended as a gutter to take the rain water from the slopes is further shown by its downward slope, *ca.* 1:200, toward the open end of the stadium. The stone curb on the other side of this passage continues 0.70 m. beyond the end of the race course, and then turns obliquely toward the north. Thus the ends of the spectator, like the *analemmata* of a Greek theater, apparently came in at an angle to the race course.

From the square stone with the cuttings in the top the starting line (Pl. 6, a) extended across the end of the race course. It is 0.46 m. wide, and in the top are two parallel grooves, triangular in section and 0.130 m. apart, interrupted at regular intervals of 1.51 m. by post holes lined with lead. These mark the width of the single lanes fixed for the individual runners.¹² The southeast end of the starting line is missing, where the stream had done damage to the corner of the stadium. It is possible, however, that the missing blocks had been purposely removed before the floor of the race course was washed away. At the preserved southeast end of the starting line there is a cutting on the side toward the race course, and a block 1.26 x 0.55 m., has been inserted (Pl. 6, b). It has a complicated series of cuttings, and in the top is a carefully incised A. The purpose of this stone, which does not seem to belong to the original construction, is not apparent. Another addition of late date is found near the middle of the northwest side. Here a row of large poros blocks have been set down on the original stone curb (Pl. 6, c). The joints are pointed up with lime mortar indicating Roman date. It is probable that we have here a *proedria* of Roman times. There is no corresponding wall on the other side of the race course. A tunnel dug in the trench farthest from the starting line exposed the east edge of what appears to be a monument base, 1.82 m. long, resting on a layer of earth, 0.25 m. deep, above the original race track level. It encroaches upon the area of the race course proper.

These late additions stand out in sharp contrast to the original construction, whose careful jointing, smooth finish, and quality of stucco point unmistakably to Greek workmanship at its best. We must thus revise our tentative conclusion regarding the relative dates of the two Isthmian stadia.¹³ It is likely that the Early Stadium

¹² The space allotted to each runner in the *balbides* of the Early Stadium is *ca.* 1.05 m., but in the later starting line of the same race course the post holes were set 1.59 m. apart. See *Hesperia*, XXVII, 1958, pp. 12 ff.

¹³ *Archaeology*, IX, 1956, p. 271.

was discarded in the fourth century, perhaps as a part of the reorganization after the fire of 390 B.C. The area which it had occupied then lay unused for a long time and was buried in a thick layer of earth before it became the site of the Palaimonion. The Later Stadium would have been built shortly after its predecessor had been abandoned, probably as early as the fourth century B.C., and it continued in use unaltered until the destruction of Corinth in 146 B.C. Whether it was also used during the time that the Isthmian Games were under Sikyonian management is by no means certain.¹⁴ In any case it was restored during Roman times and provided with a proedria. By the time of St. Paul's visit it was functioning again and probably continued to be used as long as the Isthmian Games were celebrated. It is mentioned in the Iuventianus inscription found at Isthmia, and again by Pausanias.¹⁵ The passage along the sides may have become silted up and the ground level raised in the late period as indicated by the Roman base which rests on earth fill at the edge of the race course. This would account for the excellent state of preservation of the water channel and the basins as compared with the starting line which shows greater wear. It would also explain the fact that the sherds, very few to be sure, from the fill of the passage and in the basins appear to be pre-Roman.

It has been possible to investigate only the northeast half of the stadium and the starting line at the open end. The curved end (sphendone) and half of the stadium now lie deeply buried under a flourishing grove of citrus fruit trees. A small pit dug with permission of the owners among the trees shows that the fill is nearly 4.00 m. deep, and that the curb and channel are well preserved. At some later time, during the rainy season of the year, it may become possible to probe further in the orchard in an effort to find the finishing line at the curved end.

Although the exact length of the race course cannot be determined for certain until both ends have been exposed, a tentative estimate may be made on the basis of the data now available. The distance between the two basins near the end of the stadium is 29.15 m., and the distance between the next two basins measures 45.12 m. There were probably six basins on the side, arranged with three long intervals in the middle and one short interval at either end. The measurements are taken from middle

¹⁴ Pausanias (II, 2, 2), who provides the information that the management at the Isthmian Games was entrusted to the Sikyonians, does not say that they continued to be held at Isthmia. The Sikyonians may well have taken advantage of the situation to transfer the games to Sikyon, just as the Argives for a time transferred the Nemean Games to Argos. Cf. George Roux, *Pausanias en Corinthie*, p. 177, and K. Hanell, Pauly-Wissowa, *R.-E. s.v. Nemea*. This would explain why Strabo, VIII, 378, could speak of the Isthmian Games in the past tense, as if they had ceased to exist at Isthmia before his time. The restoration of the sanctuary, so far as the excavations show, was postponed for nearly a century after the founding of the colony by Caesar. In Sikyon there was an altar of Isthmian Poseidon (Pausanias, II, 9, 6). Was this set up after the games had been turned over to the Sikyonians to function in place of the demolished altar at the Isthmia?

¹⁵ *I.G.*, IV, 203, line 24; Pausanias II, 1, 7; I Cor. 9, 24.

to middle of the basins, hence to the total distance must be added 1.05 m. at either end to account for the length of one basin and the distance from the basin to post holes. By this calculation the entire distance from the post holes of the starting line to those of the finishing line will amount to $(45.12 \times 3) + (29.15 \times 2) + (1.05 \times 2) = 195.76$ m. This is very nearly the equivalent to 600 Doric feet of 0.326 m. ($0.326 \times 600 = 195.60$ m.).

THE NORTHWEST RESERVOIR

Water was always at a premium in the Isthmian Sanctuary, and various measures were taken to fill the need. An elaborate reservoir has been excavated some 80.00 m. to the northwest of the Temple of Poseidon. The water entered the reservoir over a broad stairway with nineteen preserved steps (Pl. 7, a)¹⁶ leading down into a chamber, 2.23 x 3.00 m. in area, which served as a clearing basin. The floor of the basin is nearly 2.00 m. above the floor of the reservoir, and the water flowed over a lip in the southwest corner of the basin. From this point the reservoir, which is over 2.00 m. high and nearly 1.00 m. wide at the bottom, extends toward the southwest for a distance of 23.44 m.; then a second branch runs southeastward for a distance of over 40.00 m. The water must have been drawn through four wells or manholes leading down into the reservoir, the bottom of which is nearly 8.00 m. below the present ground level. All the surfaces of the stairway, clearing basin, reservoir and manholes are covered with a hard, watertight stucco. The source of the water has not been discovered. It may have been rain water collected from some of the buildings in the vicinity. The reservoir probably goes back to Hellenistic times or earlier; it was finally abandoned and filled up in Roman imperial times.

THE SACRED GLEN

In the inscription from Isthmia, now in the Verona museum,¹⁷ reference is made to the HIEPA NATH which contained several sanctuaries, including one of Demeter and Kore. The approximate location of the area has been established by two chance discoveries, both dedications to Demeter. One is a large relief krater, the fragments of which were found in a well by Nikolaos Papatheodorou, some 300.00 m. to the west of the Sanctuary of Poseidon¹⁸; the second is a statue of a girl with an inscribed statue base¹⁹ found in a field *ca.* 50.00 m. farther westward. In the area where the second dedication was found, we dug a series of trial trenches; but the whole field has been planted with citrus fruit trees, making extensive excavations difficult and costly. At

¹⁶ Since there is no inlet in the well-preserved walls or ceiling, we must conclude that the water came in over the steps.

¹⁷ See note 15.

¹⁸ Published by John L. Caskey, *Hesperia*, XXIX, 1960, pp. 168-169.

¹⁹ *Hesperia*, XXVIII, 1959, p. 323, No. 3, and p. 326, No. 1.

the west edge of the area, we discovered what looks like a reservoir (Pl. 7, b), 11.00 m. long, 0.60 m. wide, and 0.75-1.30 m. deep, covered at the top with stone slabs, at the east edge of which was a series of twenty large chutes. Steps leading down into the cistern at the south end indicate that the cover slabs were omitted at that point. The cistern was partly cut out of native rock, but the upper parts of the walls were built

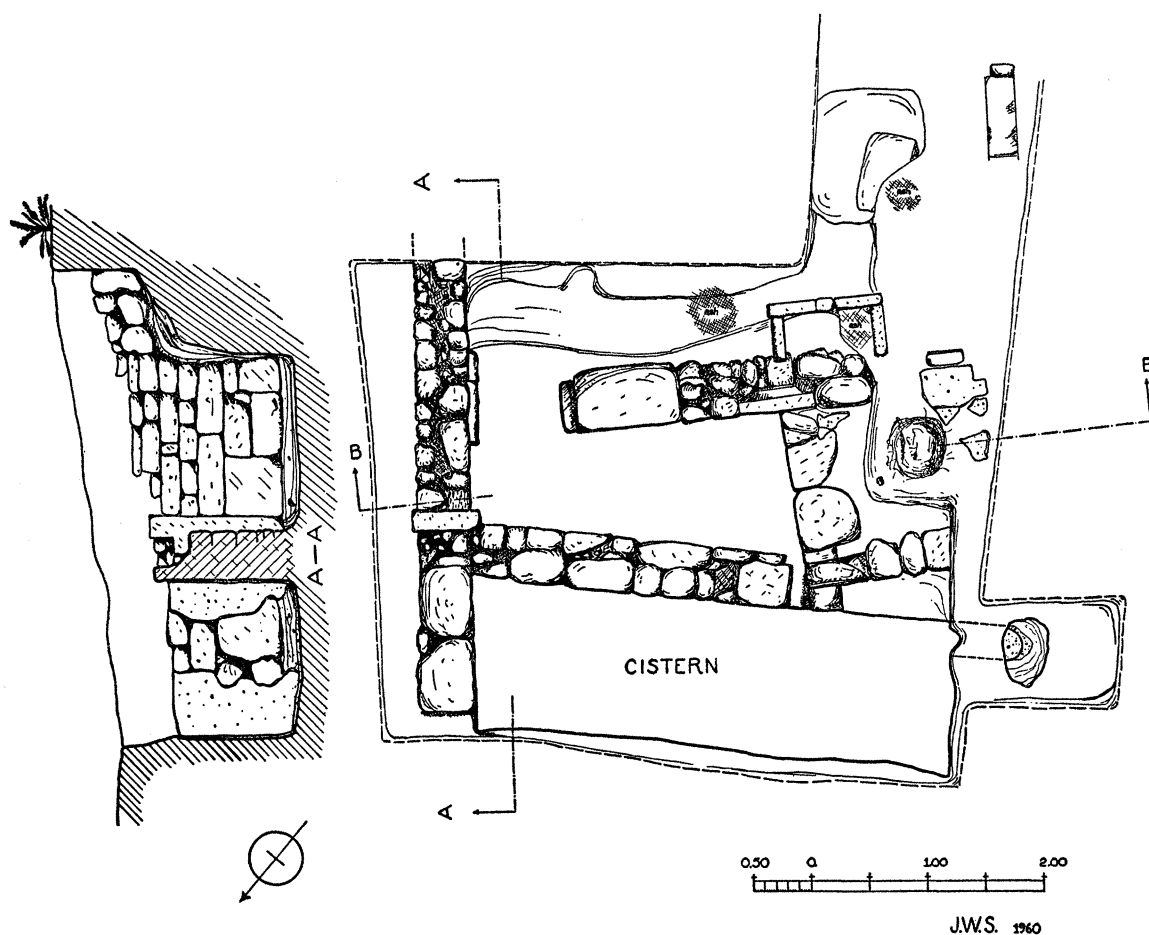


FIG. 5. Plan of "Industrial Area" in Sacred Glen.

with stones. The interior and the chutes are covered with good watertight stucco. For so small a capacity the inlets seems unnecessarily large and numerous. Possibly the "cistern" was the granary (*σιροί*²⁰), for the collection of the sacred grain, but even for such a purpose the number of inlets seems excessively large.

²⁰ Cf. the *siroi* at Eleusis, F. Noack, *Eleusis*, pp. 189 ff.; K. Kourouniotis, *Eleusis, A guide to the Excavations and the Museum*, p. 53; George E. Mylonas, *Eleusis and the Eleusinian Mysteries*, Princeton, 1961, pp. 97, 125-127.

The explanation of this puzzling structure is further complicated by the discovery of several stones (Pl. 7, c) shaped as if they had been part of a parapet. They measure 0.37-0.45 m. in height, *ca.* 0.37 m. in length, and 0.37 m. in width. They cannot have been placed end to end to form a continuous parapet, since the top, the two sides, and one end of each stone are covered with stucco. Some of the stones were found within the reservoir, others near by. It has not yet been possible to find a plausible explanation for this structure.

Near the south end of the reservoir, we excavated an ancient well with a moulded well curb. The well shaft had been filled up in Roman imperial times. Few objects of interest came from the fill, among them two lead curses (*defixiones*) of the kind frequently deposited in wells and sanctuaries of Demeter. One preserves no writing, the other has been inscribed with letters so fine that it has not yet been possible to decipher it completely.

A little farther to the east we discovered a second reservoir, measuring 4.10 m. in length, 1.40 m. in width, and *ca.* 1.20 m. in depth, with a single inlet at the west end (Fig. 5). At a higher area on the south were traces of cement flooring, and round about were piles of ash. It is likely that this small building housed some modest industrial establishment, perhaps a fuller's and dyer's shop, since ash is one of the commodities used in such industry. A number of loomweights found in the area would fit well into such an interpretation.²¹ Close to the reservoir and a little to the east, a second, smaller reservoir (Pl. 7, d) with steps leading down to one end was excavated. One of the slabs of the roof was found in place but broken. Although there is no physical connection between the two, the smaller reservoir may also be part of the same establishment. From the pottery and other objects found in the fill, the buildings appear to have been in use in the fourth century B.C.

THE WEST FOUNDATION

During the campaign of 1960 it was reported to the guard of the Isthmia Excavation that some illicit digging had been carried on in a field about one kilometer west of the village Kyras Vrysi. The owner of the field, Alekos Goumas, stated that persons unknown to him had dug holes at night which he kept filling during the day. Acting on this information we carried out an investigation at the site in May and June of 1961. Even before excavations began the south edge of a monument of good classical construction appeared at the foot of a low mound. After the whole wall had been cleared, it became evident that we had a foundation of considerable proportions. It consists of a course of headers at the outer edge with a line of stretchers behind (Pl. 8, a), with a total width of 1.80 m. The length of the foundation is 25.75 m.,

²¹ For the type of such industrial establishments at Isthmia see Chrysoula Kardara, *A.J.A.*, LXV, 1961, pp. 261-266.

and walls of the same width and construction form the east and west ends of the building. Since it is oriented almost due east to west, it seemed obvious that we had stumbled upon a hitherto unknown temple of the Corinthia.

Beginning at the southeast corner we laid out a diagonal trench for the purpose of exposing the foundations of the interior walls. It was then discovered that there were no interior foundations, and no north wall. Clearly this could not be a temple. The east and west foundations, covered with a thin layer of plowed earth, were then exposed. In both cases they extend northward for a distance of *ca.* 16.35 m., then stop abruptly. Our monument had now been reduced to a II-shaped foundation. Two courses remain in most places. Further probing in front of the east-west foundation revealed rectangular structures, measuring 3.00 x 1.55 m., projecting toward the south from the two ends of the building, and structurally tied in with the east-west foundation (Pl. 8, a, left). The exposed course of the foundations must have been the euthynteria, as indicated by a setting line set back 0.17 m. from the front edge. Among the debris from the building are many fragments of a small Doric cornice and of base mouldings consisting of a heavy toros surmounted by a cyma reversa. Not a single fragment of columns was found. The architectural pieces point to a date in the second half of the fourth century B.C. Directly behind the south foundation there is a wall of much smaller stones, preserved for a length of *ca.* 7.00 m., to a height of *ca.* 0.60 m., built in polygonal style and having slightly different orientation. It seems to have been constructed as a retaining wall for the loose fill to the north. An area, *ca.* 1.80 m. wide, behind the polygonal wall, was filled with the stones thrown in without order, probably from the demolished upper part of the wall. Among this rubble were found iron spear points, two in good state of preservation (see below, p. 20, Nos. 4-7), a spear butt, fragments of iron strigils, what seems to be a set of iron hoops for a wooden table (Pl. 8, b), the gold knob of a small pin, and a few vases, all but one in fragments (below, p. 25, Nos. 22, 23). Most of the pottery is from the fourth century B.C. or later, but a very few earlier sherds appeared among them.

No definite clue to the identification of the monument has appeared. Since the terrain directly in front of it is a large flat area, it is conceivable that we have the foundation of an altar terrace at the west end of the hippodrome. Pausanias refers to an altar of Taraxippos,²² who at Isthmia was identified with Sisyphos' son Glaukos. None of the objects found in the excavation appears to have any direct connection with horse races; spears and strigils would be more suitable in a cult place associated with the stadium. But it is by no means impossible that certain events like spear throwing were held in the larger space afforded by the hippodrome, where spectators would be less exposed to danger from stray throws. Unless some inscribed object should be found, giving the name of the deity, any suggestion as to the identity of the

²² Book VI, 20, 19.

monument can be no more than guess work. Most of the mound still remains to be excavated.

THE CLASSICAL FORTIFICATION WALL

In the spring of 1960 our attention was called to an area between the Isthmia and Hexamilia, where a large number of ancient blocks had been turned up by tractor-drawn plows. At the suggestion of the Ephor of Antiquities, Nikolaos Verdelis, we investigated the site and discovered that the blocks in question came from a fortification wall connecting with another stretch of wall on the Hagios Demetrios ridge, which we had already observed and entered in our map of the Corinthia. In the course of our investigation it became obvious that this was a trans-Isthmian line of fortification to be dated in Hellenistic times. James R. Wiseman, who supervised the excavations along the line of the wall, is preparing a full description to be published separately in a forthcoming number of *Hesperia*; cf. *A.J.A.*, LXV, 1961, p. 193.

SCULPTURE

1. IA 734. Pl. 8, c. Part of a lion's head spout from the Classical Temple of Poseidon, found in the east chamber of the Northeast Cave.

Pres. W. 0.20 m. White marble. Only part of the upper jaw and the nose are preserved.

Whiskers and four wrinkles on the nose are indicated by incised lines. The work is exceptionally fine, better than in most of the preserved fragments of the sima. On the inside of the mouth are clear traces of drills of two calibers, one eleven millimeters, the other six. The teeth are blocked out, only the corner tooth is completely separated all around. It is broken off in such a way as to indicate that it was cut in one piece with the corresponding tooth of the lower jaw. From the style of the carving and nature of the marble it seems likely that this head belongs to the roof of the fifth century temple.

2. IS 405. Pl. 9, a. Statuette of Herakles strangling the Nemean lion, found in a plowed field south of the Theater.

Pres. H. 0.365 m., about one-third life size. White marble, probably Pentelic.

The hero is standing with his left leg ad-

vanced, grasping the lion by the head. His hands are not visible, in fact, if extended they would meet inside the lion's head. The lion, whose death agony is realistically portrayed, grasps Herakles' right arm and left leg in a lame attempt to extricate himself. The forefeet of the lion are disproportionately small. A hole, 0.035 m. in diameter, has been drilled through the body of the lion connecting with a metal pipe still preserved in his mouth. This shows that the group was used as a fountain figure. The hero's body is well rendered, probably copied from an earlier statue; but the lion, for all the pathos expressed in its face, is very faulty in its proportions. One has the impression that the sculptor was a good copyist following an original faithfully in his rendering of the hero but being unequal to the task of combining the two figures in a naturalistic way.

A Hellenistic group preserved in copies of marble (S. Reinach, *Repertoire de la Statuaire* I, pl. 785, no. 1977, and pl. 792, no. 1977 A) and frequently used as discus decoration on lamps (Margarete Bieber, *The Sculpture of the Hellenistic Age*, p. 99, fig. 399; Judith Perle, *The Athenian Agora*, VII, *Lamps of the*

Roman Period, nos. 773-775, pl. 17, 773; O. Broneer, *Corinth*, IV, ii, nos. 1169-1171, pl. XXIX, 1171) represents Herakles throttling the lion, but here the lion's head is turned toward the rear. The sculptor of the Isthmia fountain figure seems to have followed this group, but in order to make the water come through the lion's mouth toward the front he turned the lion about and in so doing showed his inability to render the complicated group realistically.

3. IS 408. Pl. 9, c. Flame of a marble torch found in the Later Stadium.

H. 0.18 m., gr. diam. 0.07 m. White marble.

The flame, rising out of the top of the torch, is rendered with spiral grooves. Between the flame and the upper part of the circular shaft is a double raised ring. At the bottom is a dowel hole, which when found contained an iron dowel. This would indicate that the shaft of the torch was of a different material, or, possibly, that the preserved top part of the torch had been attached to a relief with only the flame carved in the round. The torch presumably portrays the actual torch carried by the participants in the torch races that constituted one of the events of the Isthmian Games.²³

METAL OBJECTS

1. IM 3227. Pl. 8, d. Bronze bull found in the Large Circular Pit at a depth of *ca.* 19 m.

L. 0.124 m., H. 0.075 m.

The left horn and ear and the left forefoot are broken away; the rest is in perfect state of preservation. It is cast solid and is represented in a walking position with left foreleg and right hind leg advanced. The mane is rendered with double incised lines, and single lines fan out on the cheeks like leaves in a palmette. There are also V-shaped incisions on the nose. The tail, which is attached to the left hind leg, reaches nearly to the ground.

2. IM 2807. Pl. 8, e. Bronze pail found near the bottom of the Large Circular Pit at the depth of 19.30 m.

H. (including base) *ca.* 0.245 m., diam. at top 0.215-0.252 m.

It is shaped much like a helmet turned upside down, with the lower part describing a uniform curve up to the height of 0.22 m.; then the sides curve in and again flare out slightly at the top. The fabric is very heavy, *ca.* 0.002-0.004 m. in thickness. It seems to have been hammered out of a single piece of bronze with the exception of a circular area at the very bottom, 0.10 m. in diameter. This piece has been soldered on with what appears to be silver solder. The bronze cracked in other places while it was being hammered out, and in two such places the cracks go right through the bronze. These were patched on the outside, but the patches have fallen away. A small piece of bronze found with the pail seems to have been part of such a patch. On the inside are smaller patches made with melted bronze.

On one side is preserved in place a three-lobed handle attachment of heavy fabric fastened by three bronze rivets to the side of the pail (Pl. 8, e, back). On either side of the loop of the handle is a circular projection which seems to be mere decoration. On the inside there is a large knob projecting from the handle attachment. The second attachment (Pl. 8, e, front), found with the pail but detached, is obviously a replacement for one similar to that described above. This is shown by the fact that there are two sets of holes, one of which would fit the type of handle attachment still existing on the other side. The second attachment is narrower; and when added, two new holes had to be made through the side of the pail. It is made with three lobes and decorated with a carelessly incised palmette upside down with very large spirals at the top. It has a knob on the inside, but on the opposite side of the ring so that the handle, which seems to have been

²³ The torch is pictured on coins of Corinth; see Katherine M. Edwards, *Corinth*, VI, *Coins*, p. 18, no. 31, pl. II.

of iron, would not fall down on the rim of the vessel. The pail has a dedicatory inscription, ΠΟΤΕΔΑΛΛΟΝΟΜ, incised retrograde on the rim. Although dedicated to Poseidon, it had been in practical use over a long period of time, as indicated by wear and by the replacement of the handle attachment.

When discovered the pail was found standing on a bronze base with an outer diameter of 0.127 m. The top of the base is curved to fit the bottom of the pail, and the surface is here roughened, showing that it had been permanently attached. The ring made by the attached base was clearly marked on the bottom of the pail, but after cleaning the mark left by the attachment became less obvious. A base of some kind would have been necessary at all times, since the pail cannot stand by itself. A similar detached base (IM 2734) was found in 1959 in a manhole of the Northwest Reservoir.

This pail, which is of rather uncommon shape, is very similar to the pail from Mantinea recently published by the late Professor Karl Lehmann (*Hesperia*, XXVIII, 1959, pp. 153-161), a dedication to Athena Alalkomenia. The two vessels are probably not far apart in date, but the Isthmia pail seems to be somewhat earlier. Lehmann dated the Mantinea pail to about 520 B.C. For references to the literature on the subject, see Lehmann's excellent article. The *κάδος* which plays an important role in Menander's *Diskolos*, line 190 etc., though more than two centuries later, would have been a somewhat similar receptacle.

3. IM 3146. Pl. 9, e. Bronze ring, found to the west of the stairway leading down to the west chamber of the Northeast Cave.

Diam. 0.355 m., Th. 0.025 m.

The ring is solid and heavy (4.220 kg.). The outer half is grooved, the back and the inside are plain. Where the ring was attached it has been cut back to a thickness of only 0.02 m.; and fastened at this point is a bronze loop with a tang for attachment.

It is unlikely that a ring as heavy and large

as this can have come from an archaic tripod. At Olympia the tripod rings, found in large numbers, measure from six to forty centimeters in diameter (see Emil Kunze, *Olympische Forschungen*, II, pp. 28 ff.), but they are less massive and never circular in section.

The ring may have been used as a door handle, if so on a very large door, possibly that in the Temple of Poseidon. It is very similar to a door knocker from Olynthos (*Olynthus*, X, p. 249, no. 989, pls. LXVI, LXVII), which is less than one-third as large, 0.107 m. in diameter, and had apparently been used in a private house. Cf. *Olynthus*, XII, p. 127.

4. IM 3126. Pl. 9, b, top. Spear point of iron from the West Foundation.

L. 0.42 m., gr. W. 0.035 m.

The blade has been slightly bent but is otherwise in excellent state of preservation. The delicate modeling at the tip is clearly visible.

5. IM 3157. Pl. 9, b, third from top. Iron spear point found at the West Foundation.

L. 0.258 m., gr. W. 0.026 m.

This too is in remarkably good state of preservation, still showing the midrib of the blade and the decorative rings at the base of the shaft-socket.

6. IM 3150. Pl. 9, b, bottom. Iron spear head found in West Foundation.

L. 0.483 m., W. of blade, 0.035 m.

Though less well preserved than the two preceding, it is still in fairly good condition, showing details of the midrib and a small hole on either side of the socket for fastening the wooden shaft.

7. IM 3153. Pl. 9, b, second from top. Spear butt, from the same area as the preceding.

L. 0.34 m., diam. of socket at end 0.026 m.

The end of the spear butt is deeply corroded, but the shaft-socket is quite well preserved.

In the same area were found other fragmentary spear points and many pieces of iron stri-

gils. It is unlikely that the spears had been designed for use in battle, since the blades are very thin. Both the strigils and the spears are probably dedications by athletes who had used them in the Isthmian Games. At Olympia iron spear heads far outnumber those of bronze (H. Weber, *Olympische Forschungen*, I, p. 152). Here too we find many thin points with small sockets for the shaft (*ibid.*, pls. 62, 63), very similar to the points from Isthmia but less well preserved. Others of sturdier construction (pl. 59) seem more suitable for use in battle. At Olynthos, where many spear heads and butts of iron were found (*Olynthus*, X, pp. 411 ff.), the heads are short and broad. Cf. spear point from the North Slope of the Acropolis (*Hesperia*, IV, 1935, p. 116, fig. 5), probably from 480 B.C. A comprehensive study of the subject is given by H. Weber, *op. cit.*, pp. 146-160. For a conjectural identification of the monument in which they were found, see above, page 17.

8. IM 3131. Pl. 8, b. Iron hoop found in the West Foundation.

W. across 0.10 m.-0.17 m., H. 0.07 m.

It is riveted together on one side with two nails that went through the two ends of the iron strip and extended into the wood. A solid bolt, 0.008 m. in diameter, runs through the loop at the center and is fastened with large circular heads on the outside.

This may have been one of four hoops used as trimmings on the legs of a wooden table.²⁴ Two more similar hoops (IM 3132 and IM 3133) of approximately the same dimensions were found in the same area. They seem to have been left in the earth in approximately the position that they would have had when the table was intact. Of the fourth hoop, only the large bolt (IM 3147) was found. Since many dedications, spears, and strigils were found in the vicinity, it is not unlikely that the metal

trimmings were part of a table on which prizes were laid out at the conclusion of the games. There may have been an altar in the area, but it is likely that the hoops belong to a sacrificial table.

9-11. Pl. 2, b. Three Persian Darics, found on the floor of the entrance court in front of the Northeast Cave.

Obverse: Persian archer.

Reverse: Incuse.

They are all oblong but vary considerably in shape, as follows:

a) 14.5 x 13.2 mm.; 8.32 grams

b) 15.9 x 11.5 mm.; 8.33 grams

c) 14.9 x 12.9 mm.; 8.31 grams

They are less than the standard weight, 8.42 grams, as given by Charles Seltman, *Greek Coins*, p. 63, note 5; and Barclay V. Head, *Historia Numorum*, pp. 825 f. who gives 130 grains (8.424 grams) as the weight of the Daric. The variation in weight is insignificant. The coins were weighed on a scale in the pharmacy of Zotirios Siamkaras in Corinth; other scales were used with slightly different results.

TERRACOTTA OBJECTS

1. IT 310. Pl. 9, d. Combined pan and cover tile, found in area east of the Temple of Poseidon.

Total L. 0.652 m., overlap 0.092 m., hence exposed L. 0.56 m. Total W. 0.68 m., W. of pan tile 0.54 m., of cover tile 0.24 m., overlap 0.07 m.; the discrepancy, 0.03 m. ($0.54 + 0.24 - 0.07 = 0.71$ m.), is due to the fact that the edges, being vertical, are not perpendicular to the plane of the pan tile or of the cover tile, both of which are curved. Thickness of pan tile *ca.* 0.045 m., of cover tile *ca.* 0.03 m.

The lower (as you look up the roof) left corner of the pan tile and the upper right corner of the cover tile are cut away diagonally, and in the upper left edge of the cover tile there is

²⁴ Such a table, though with square legs, is pictured on a marble chair from Athens. See Norman Gardner, *Greek Athletic Sports and Festivals*, p. 246, fig. 40; and cf. *ibid.*, p. 208, fig. 27, and Imhoof-Blumer and Gardner, *Numismatic Commentary on Pausanias*, pl. B VII.

a rectangular cutout where the lower right corner of the pan tile in the next row above fitted in.²⁵ The material is a grayish brown, very gritty mixture, showing on the under side, but the top surface is covered with a smooth wash in variegated color.

2. IP 2541. Pl. 10, a, d. Terracotta perirrhanterion put together out of numerous fragments found in the Large Circular Pit.

Total H. 0.875 m.; diam. of bowl *ca.* 0.96 m.; size of plinth at bottom, 0.65 x 0.65 m., H. 0.098 m.; diam. of stem at the lowest plain band, 0.405 m., at the topmost band, 0.378 m.

Above the square plinth is a moulded base with tori in alternating beige and purple colors, and a broad band decorated with stamped triangular designs. The topmost torus on the base has rows of dots in purple color. Above that is a Doric hawksbeak, the leaves of which alternate between beige and purple. Above the base is a stem, divided into four zones by five tori, each between smaller astragals. They are so arranged that a beige torus comes between two purple astragals, and the purple torus between two beige ones. These series alternate from the bottom to the top. The plain bands between the tori measure *ca.* 0.055 m. in height. In each band are ten vertical slits staggered in such a way that the slits in the first and third bands and those in the second and fourth bands come directly above each other.

At the very top is another Doric hawksbeak with leaves in two colors. On the underside of the basin there are two bands of three astragals each; these do not appear to have been differentiated by colors. The outer edge of the basin has astragals, three at the bottom and three at the top, in alternating purple and beige colors, the two groups being separated by a flat band with a checker pattern.

There are four pairs of lugs, in imitation of metal hinges (Pl. 10, d). Delicate palmettes with leaves in alternating purple and beige flank

the lugs. The bowl is surrounded with a flat rim, 0.062 m. in width; at one point are scratched the letters AEMT.

3. IP 2842. Pl. 10, b. Fragment from the top of the stem of a terracotta perirrhanterion, found in the Large Circular Pit.

Diam. at top of moulding, *ca.* 0.32 m.

The shaft had spiral fluting, probably with twenty flutes. At the top of the shaft just below the basin is a rudimentary Doric hawksbeak moulding with alternating red and brown leaves. At one point in the lower section one leaf is painted half red and half brown. This was done in order to prevent two contiguous red leaves from coming together. In the upper section, however, this precaution was not taken; here the two corresponding leaves, broader than the rest, are both painted brown. In dividing the space into leaves the decorator did not calculate correctly. If he had divided the last two units into three leaves by making them slightly narrower than the rest, the colors would have alternated perfectly. In the center of each is a deep groove incised after the leaf pattern had been painted.

4. IP 2842. Pl. 10, e. Fragment from top of the stem of a terracotta perirrhanterion, from the Large Circular Pit.

At the top below the basin was a Lesbian leaf designed in two colors on a cyma reversa, with three-leaved palmettes in the triangular space between the points of the Lesbian leaves. Below is a band, 0.053 m. wide, decorated with a slanting meander pattern. The lower part of the stem seems to have been divided into bands by means of a series of tori between astragals, as on No. 2 above. Red clay, reddish brown and pinkish buff glaze.

POTTERY AND LAMPS

1. IP 2441. Pl. 10, c, left. Lekythos, with mouth and handle missing, from Large Circular Pit; depth 15.65-19.75 m.

²⁵ Discoloration on the top surface, visible in the photograph, Pl. 9, d, shows the extent of the overlap along the left edge and at the top.

Pres. H. 0.148 m., diam. at shoulder 0.053 m.

Red clay, black glaze on one side, red on the other. Surface worn and mealy. The main decoration consists of two horsemen facing each other and two standing figures, all very poorly drawn. For the shape cf. Haspels, *Attic Black-Figured Lekythoi*, pl. 48, 4a, b, by the Emporion Painter, whose work is "more or less contemporary with the latest work of the Haimon Painter, round about 470."

2. IP 2351. Pl. 10, c, right. Lekythos, from Large Circular Pit; depth 19.30 m. Handle, mouth and foot missing.

Pres. H. 0.108 m., diam. at shoulder 0.055 m.

Red clay, black glaze over white. In the main zone, Dionysos in chariot, accompanied by maenad and satyr, with vines in the background. The drawing is poor, as in all the Attic lekythoi from the pit. The shape is rather like Haspels pl. 41, 2a, b, by the Haimon Painter, whose date is a little earlier than that of the Emporion Painter. Cf. two lekythoi from Olynthos (*Olynthus*, V, pp. 75-76, Nos. 29, 30, pl. 50), dated by the excavator at the "end of the sixth century." They are certainly a great deal later than that.

The two Attic lekythoi from the pit probably constitute the latest dateable objects from the fill. See above, p. 2.

3. IP 2313. Pl. 11, a, left. Black glazed mug, with handle partly restored, from Large Circular Pit; depth 19 m.

H. 0.089 m., gr. diam. 0.095 m.

Red Attic clay, black and brown glaze covering the whole vase except the bottom.

4. IP 2350. Pl. 11, a, right. Squat pitcher, with handle and part of mouth restored, from Large Circular Pit; depth 15.65-19.75 m.

H. 0.095 m., gr. diam. 0.085 m.

On the shoulder is a raised band. Grayish brown clay, probably Attic, black and brown glaze.

5. IP 2304. Pl. 11, c, left. Black glazed lekythos, mouth partly missing, from Large Circular Pit; depth 18.60 m.

H. 0.098 m., gr. diam. 0.04 m.

Buff clay, black glaze.

6. IP 2303. Pl. 11, c, center. Oinochoe, handle and part of mouth missing, from Large Circular Pit; depth 18.90 m.

H. 0.12 m., gr. diam. 0.074 m.

Pale yellow clay, reddish brown glaze.

7. IP 2352. Pl. 11, c, right. Oinochoe, with handle and mouth missing, from Large Circular Pit; depth 18.70 m.

Preserved H. 0.12 m., gr. diam. 0.075 m.

Pale yellow clay, dull black glaze.

8. IP 2448. Pl. 11, e, top left. Attic lamp, from Large Circular Pit; depth 15.65-19.75 m.

L. 0.103 m., diam. 0.08 m.

Raised rim, no raised base. Red clay, black glaze on rim, nozzle and interior. No handle. This is very similar to a lamp from Athens (Richard H. Howland, *Athenian Agora*, IV, *Greek Lamps and Their Survivals*, p. 44, no. 149, pl. 34), found in a well shaft containing fill from ca. 500-480 B.C.

9. IP 2318. Pl. 11, e, top center. Lamp from Large Circular Pit; depth 18 m.

L. 0.099 m., diam. 0.082 m., H. on rim 0.02 m.

Open socket in the center, projecting slightly above the rim; no handle. The nozzle is short and does not encroach appreciably on the rim. Red clay, probably Attic; dull black glaze applied on inside, rim, and nozzle. On the rim is a reserved band.

This lamp belongs to Richard Howland's Type 22 A (cf. especially, *op. cit.*, p. 53, no. 193, pl. 35) which he dates to ca. 500-460 B.C.

10. IP 2376. Pl. 11, e, top right. Attic lamp, from Large Circular Pit; depth 18.75 m.

L. 0.102 m., diam. 0.084 m.

Broad, flat rim projecting on the outside, small nozzle with wickhole encroaching upon the rim. Red clay, black glaze on rim, nozzle

and inside. Cf. Howland, *op. cit.*, p. 33, No. 104, pl. 32, Type 16 B, from the "last quarter of the sixth century B.C. and down to ca. 480" (p. 31).

11. IP 2374. Pl. 11, e, bottom left. Lamp with handle and nozzle partly restored, found in Large Circular pit; depth 19.50 m.

Restored L. 0.093 m., diam. 0.065 m.

There is a raised edge, set off by a reserved band, round the opening; horizontal handle; and small nozzle, with the wickhole encroaching upon the rim. Red clay, probably Attic, dull black and brown glaze on rim, interior, and probably nozzle. For the type compare *Corinth*, IV, ii, *Terracotta Lamps*, pl. II, no. 93; and Howland, *op. cit.*, Type 20, p. 44, nos. 154, 155 ("end of first quarter of fifth century B.C."), pl. 34.

12. IP 2375. Pl. 11, e, bottom right. Small lamp of local manufacture, handle and nozzle restored, from Large Circular Pit; depth 19.35 m.

Restored L. 0.098 m., diam. 0.066 m.

Buff clay, dull black glaze of poor quality. There is no close parallel from Athens, but cf. Howland, *op. cit.*, p. 51, no. 187, pl. 35, which "had no handle, unless it were an extremely narrow one." The vertical handle occurs on other similar lamps of local Corinthian make; cf. Mary T. Campbell, *Hesperia*, VII, 1938, pp. 609-610, nos. 227, 228, figs. 30, 31.

13. IP 2229. Pl. 12, a. Mixing bowl found in pottery pit in front of the west chamber of the Theater Cave.

H. 0.215 m., diam. at rim 0.34 m.

The broad rim is decorated with painted triangles in brown color (see Pl. 2, c) and on the body are three horizontal lines, red between brown. There is a hole through the rim which could have been used for suspension. Underneath the projecting edge of the rim are traces of a hard cement, which presumably was used for sealing a lid to the top. Sometimes ordinary clay was used for this purpose (cf. *A.J.A.*, XXXVII, 1933, p. 569, fig. 13). Light red clay.

14. IP 2228. Pl. 12, c. Large bowl with two sturdy handles below the rim, found with the preceding.

H. 0.26 m., diam. at rim 0.44 m.

Heavy fabric, ca. 0.008 m. thick. Buff clay, probably of local manufacture.

15. IP 2243. Pl. 12, b. Large cooking pot with two long handles set parallel to each other on the shoulder, found with the preceding.

H. 0.236 m., gr. diam. 0.288 m.

On the rim is a flange for a lid, but the lid was not found with it. The bottom is blackened from use over the fire. Coarse brick red clay turning to brown in spots.

16. IP 2238. Pl. 12, d. Terracotta bowl found with the preceding.

H. 0.08 m., diam. on rim 0.16 m.

Flat rim and raised base. On the body a little above the base is an incised A upside down. Reddish buff clay, no glaze.

17. IP 2239 A. Pl. 12, e. Casserole with two large handles, found with the preceding.

Diam. at rim 0.204-0.213 m.

At the top is a flange for the lid. The bottom has been blackened from use over the fire. Coarse brick red clay.

18. IP 2239 B. Pl. 12, e. Casserole lid for the above. Diam. 0.184 m.

19. IP 2237. Pl. 12, f, left. Oinochoe, found with the preceding at the very bottom of the pottery pit.

H. 0.135 m., diam. 0.06 m.

The handle is missing. The upper three-fourths of the vase has been dipped in black glaze, the lower part left in the color of the clay. Buff clay, probably local, dull black glaze.

20. IP 2230. Pl. 12, f, center. Squat lekythos, found with the preceding.

H. 0.07 m., diam. 0.086 m.

The top is decorated with vertical striations. Hard ash-gray surface, but brick-red biscuit.

21. IP 2231. Pl. 12, f, right. Squat lekythos, nearly identical with the preceding, and found with it.

H. 0.072 m., diam. 0.088 m.

22. IP 2822. Pl. 11, b, left. Small ovoid jug without handle, found at the West Foundation.

H. 0.163 m., gr. diam. 0.103 m.

Brick red clay, quite unlike the clay of Corinthian pottery. The decoration consists of bands of black and red glaze on neck, shoulder, and body. Four floral sprays in red paint have been applied over the painted bands. Pottery of this general class, though not of the same shape, has turned up both in Corinth²⁶ and in the Athenian Agora,²⁷ in fourth century contexts. Others of somewhat similar ware and decoration have been found in Cyprus. See Vessberg and Westholm, *Swedish Cyprus Expedition*, IV, 3, p. 57 (Type VII). A two-handled jug with the same kind of decoration and type of clay was found at Olynthos, and published among the pre-Persian ware, *Olynthus*, V, pp. 34-35, no. P 52, pls. 52, XXXIII.

23. IP 2828. Pl. 11, b, right. Red-figured lekythos from the West Foundation.

H. 0.14 m., gr. diam. 0.06 m.

Tall neck, broad, almost flat rim. On the front is a reserved panel, on which is a carelessly drawn palmette with two uncertain brush lines on either side. Reddish gray clay, black glaze. Large quantities of this type of lekythoi were found at Olynthos. See especially *Olynthus*, V, pl. 141; and XIII, pls. 101-106. On the analogy of this pottery our vase is to be dated about the middle of the fourth century.

24. IP 2823. Pl. 11, d. Bowl with inturned rim found in the Theater.

H. 0.059 m., diam. 0.12 m.

Red clay with polished red slip. The fabric and the surface resemble those of Arretine pottery, but it is probably some Greek imitation,²⁸ not Corinthian. It was found in a hollow north of the west parodos, in a room which seems to have been added during the first Roman reconstruction. The vase is to be dated in the first century after Christ.

The campaigns covered by this report have advanced our knowledge of the Isthmian Sanctuary considerably. Two new buildings, the Theater and the Later Stadium, both intimately connected with the Isthmian Games, have been added to those already excavated. The Isthmian Games, though second in importance to the Olympic Games, because of the accessibility of the Isthmus and the attractions offered by Corinth drew larger crowds than any of the panhellenic festivals of Greece. The site of these games—with its temples, cult caves, monuments and athletic buildings—all but unknown ten years ago, has been revealed in the excavations in which the University of Chicago is now engaged. Work has begun on the final publication of the main area which includes the Temples of Poseidon and Palaimon, the cult caves, the Early Stadium, and the Theater. During the next two years the members of the excavation staff will devote their efforts mainly to this work; in the meantime they will explore further the possibilities for excavation in the surrounding area.

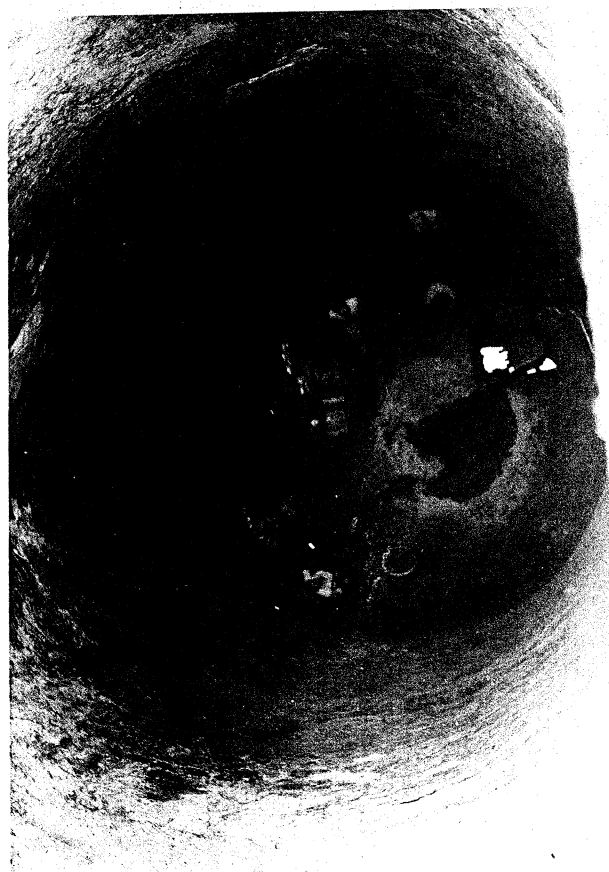
OSCAR BRONEER

ANCIENT CORINTH

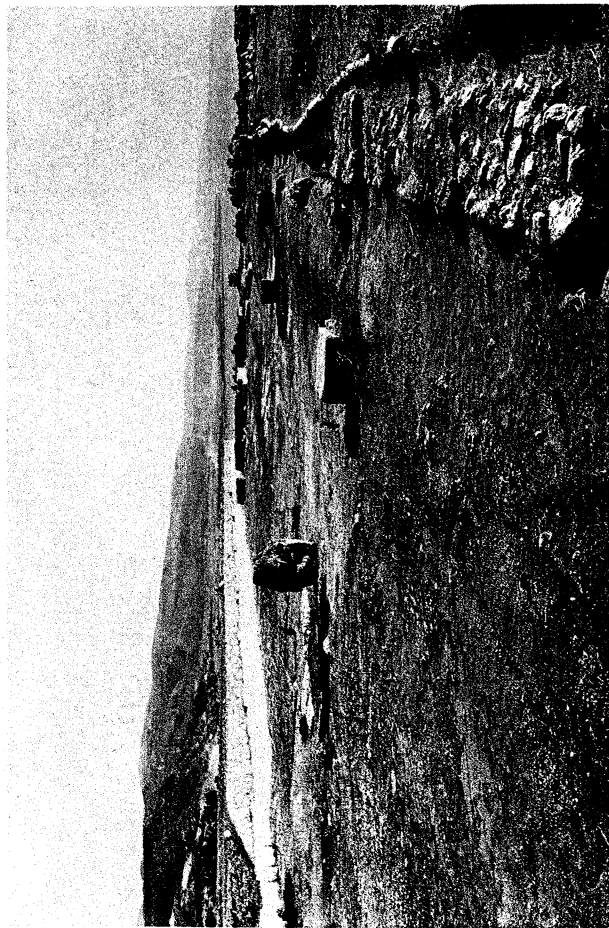
²⁶ One vase, No. C-53-251, with similar decoration but of a dark gray fabric, came from an area west of the Shear House, excavated in 1953 by William B. Dinsmoor. Much pottery of the fourth century B.C. came from the same place.

²⁷ I am indebted to Lucy Talcott for showing me these vases, which are still unpublished.

²⁸ Henry S. Robinson has kindly examined this bowl and some other Roman pottery from Isthmia and given me his opinion of their date.



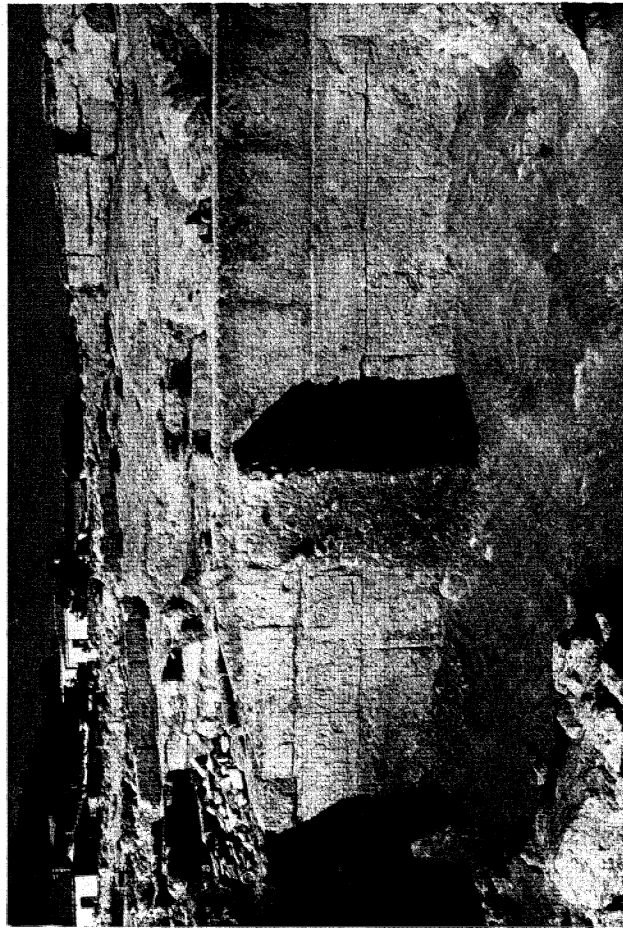
a. Large Circular Pit, from above



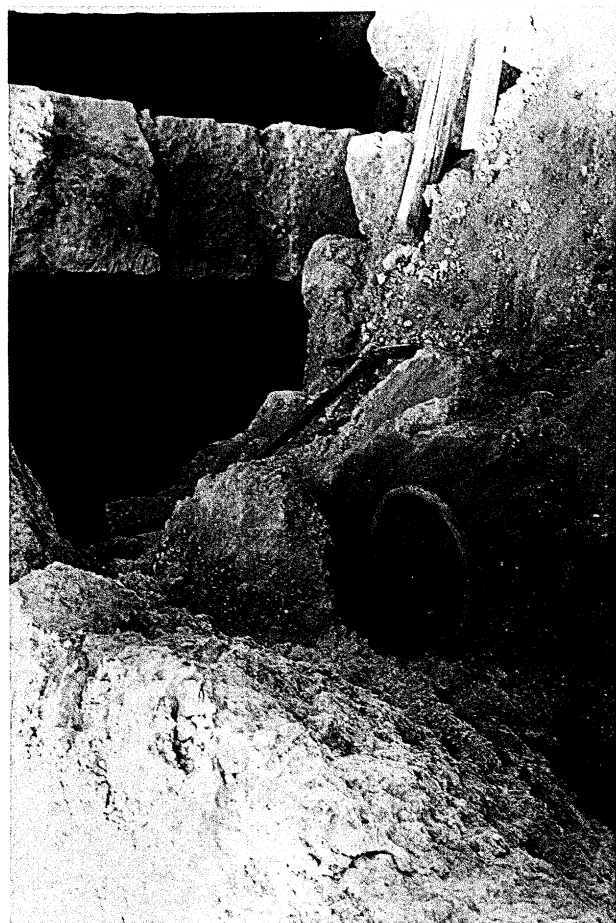
b. Precinct of Poseidon, North Side from the West



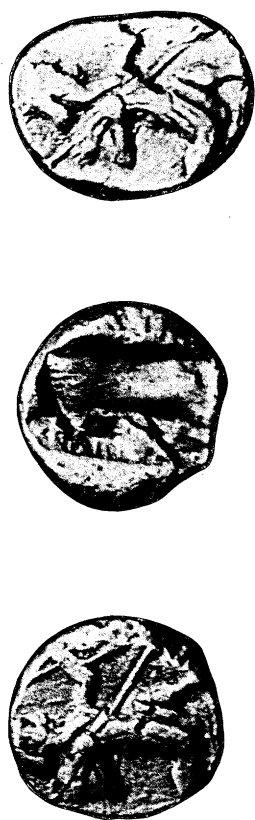
c. Northeast Cave, Stairway to West Chamber and Couch 5



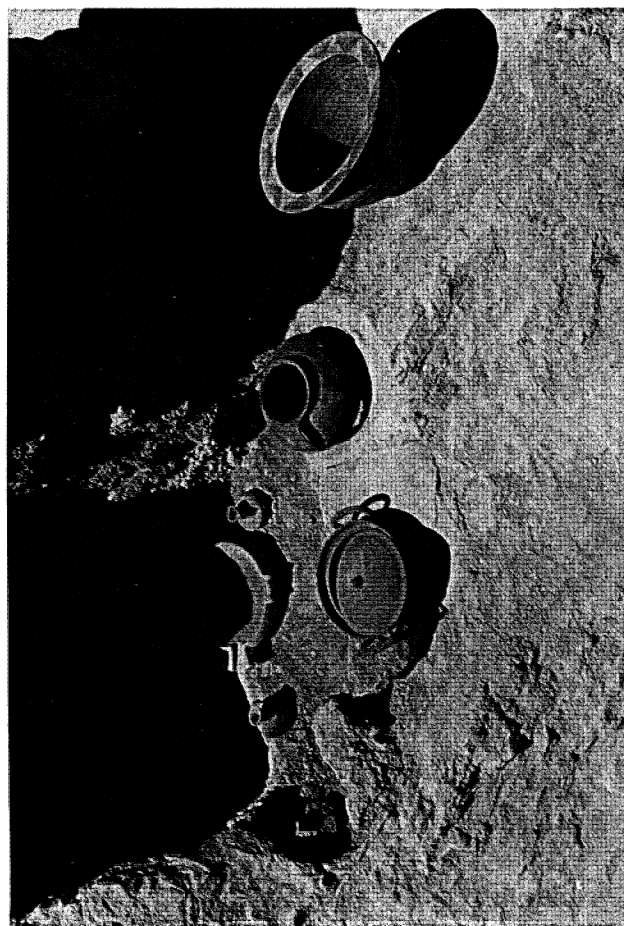
d. Northeast Wall of Altar Terrace



a. Bronze Ring as Found by Entrance to Northeast Cave



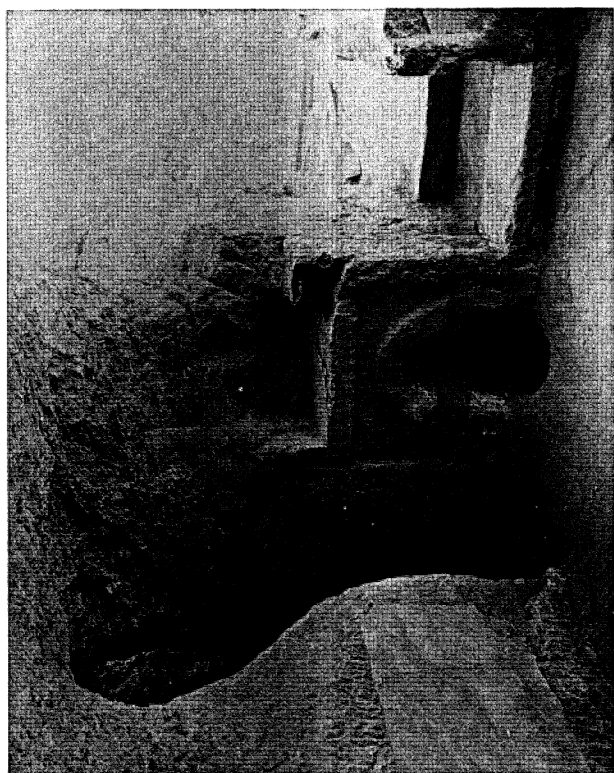
b. Three Gold Darics, Enlarged (2:1)



c. Theater Cave, Kitchen Stove and Vessels from Pottery Pit



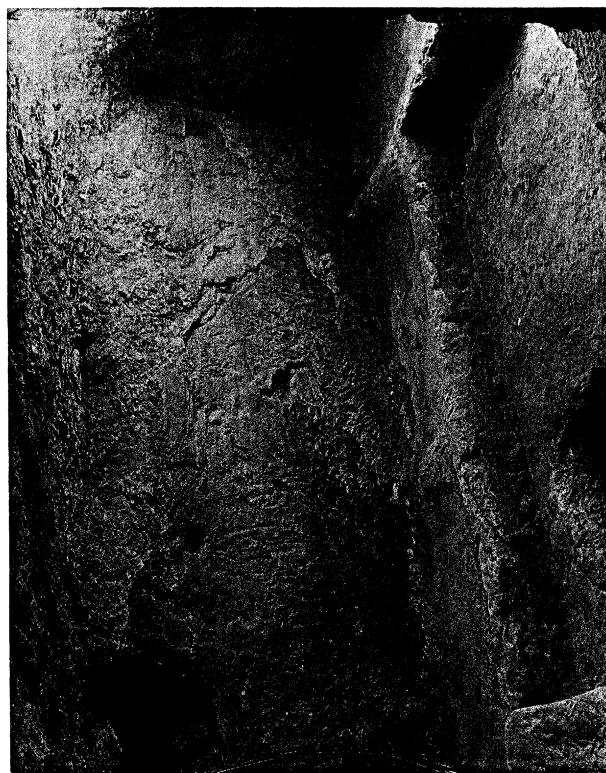
d. Theater Cave, East Chamber, Stone Table and Kitchen Stove



a. Theater Cave, West Chamber, Entrance and Cult Niche



b. Theater Cave, Pottery Pit with Vases as Found in West Court



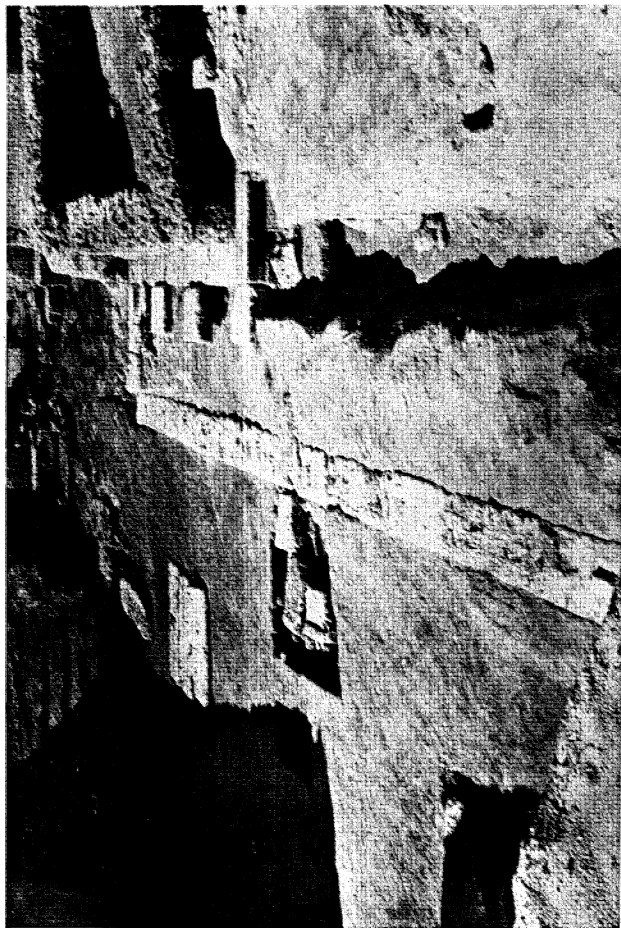
c. Theater Cave, East Chamber, Couches 1 and 2



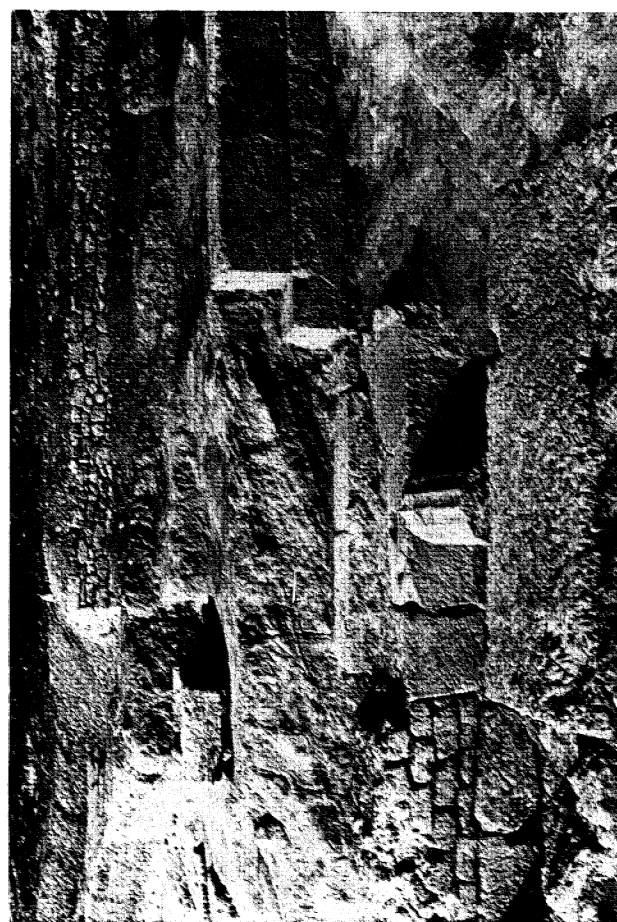
d. Theater Cave, Pottery and Tiles in West Court



a. Theater, from the South



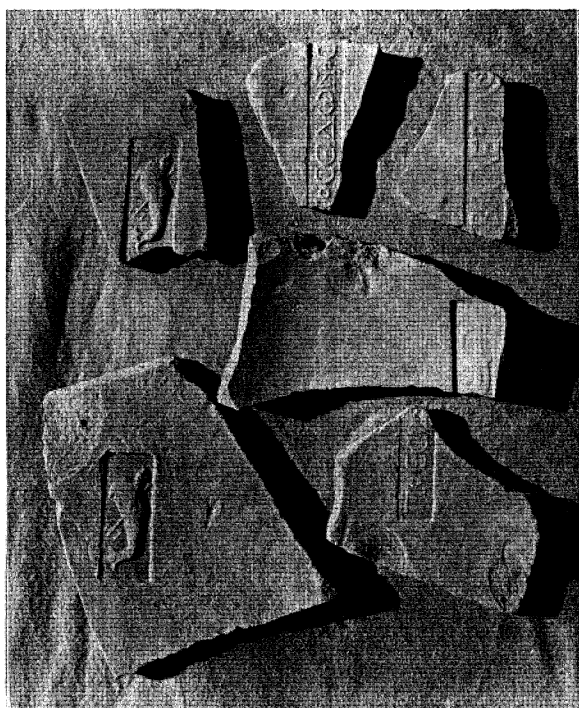
b. Theater, Proskenion from the East



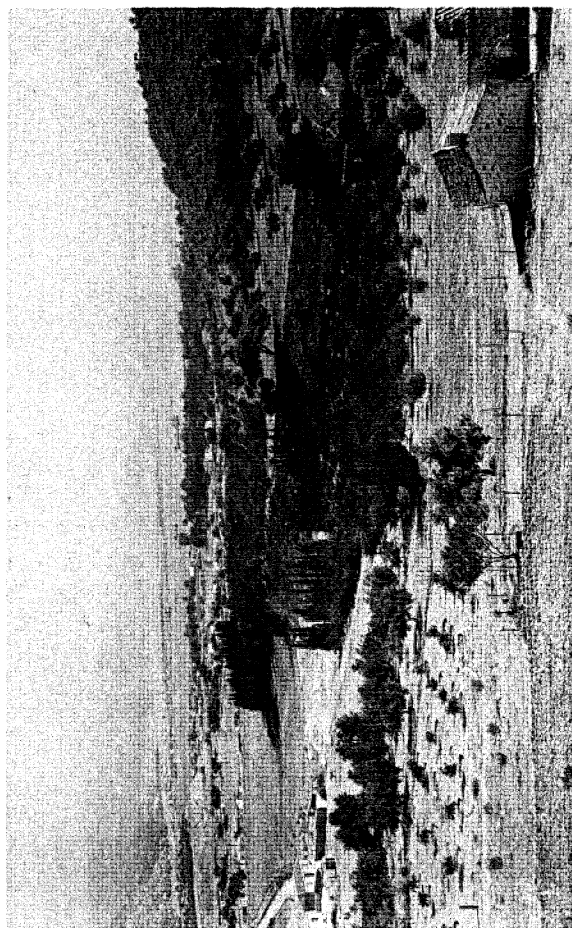
c. Theater, Walls in West Parados



d. Theater, Mouth of Roman Drainage Canal



a. Theater, Stamped Tiles



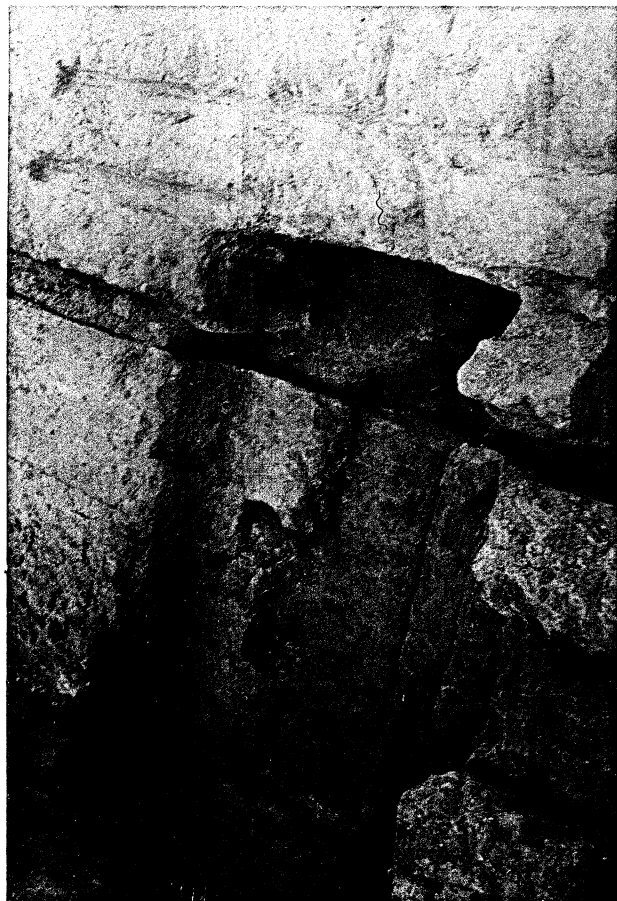
b. Later Stadium, View from the Rachi



c. Later Stadium, Basin and Paved Walk to Spectatory



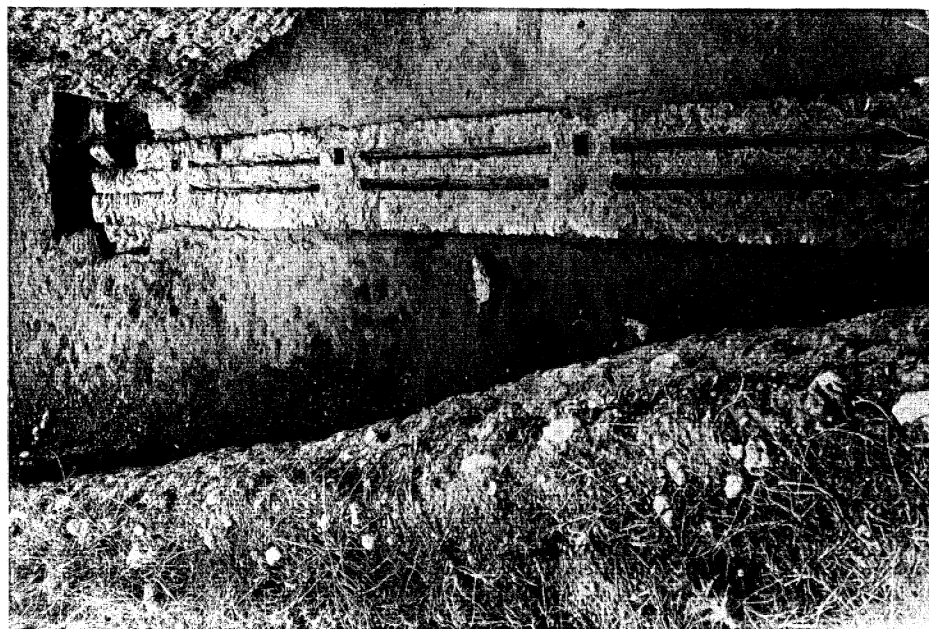
d. Later Stadium, Statue Base at East Corner



b. Later Stadium, Stone with Cuttings Close to Starting Line



c. Later Stadium, Water Channel and Roman Wall Resting on Curb



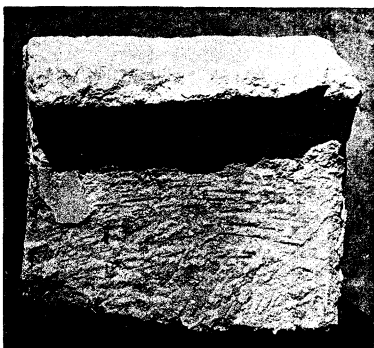
a. Later Stadium, Starting Line



a. Stairway in Northwest Water Works



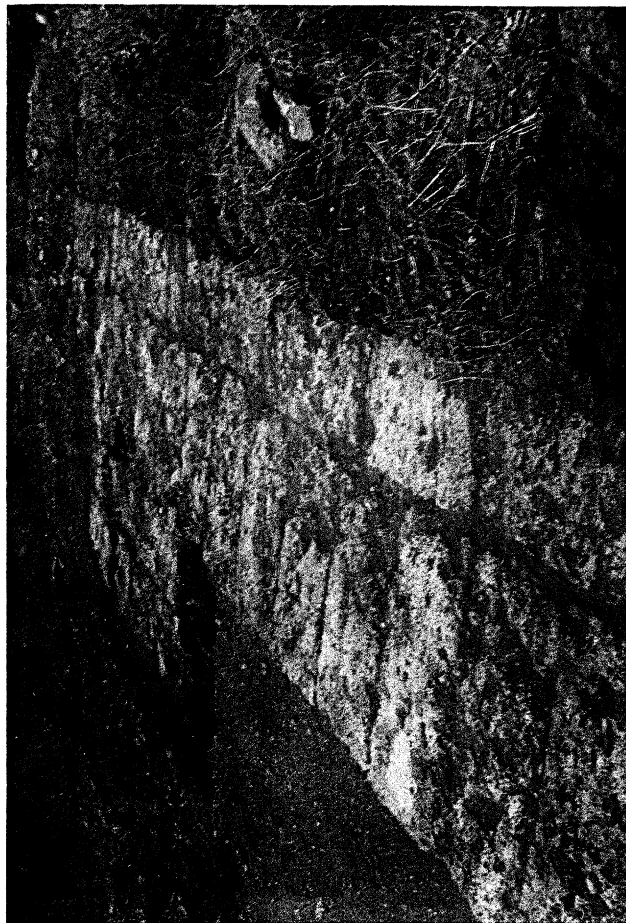
b. Sacred Glen, Long "Reservoir"



c. Sacred Glen, Coping Stones
from Area of Long "Reser-
voir"



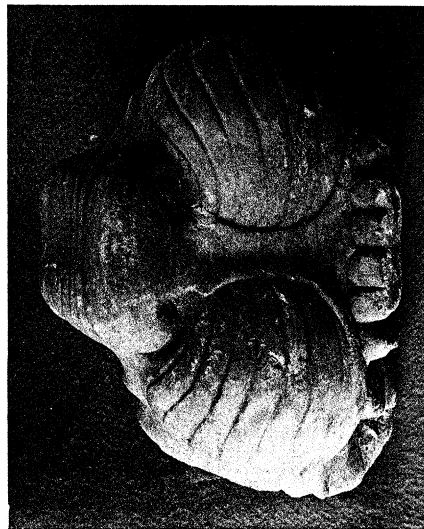
d. Sacred Glen, Entrance to Small Reservoir



a. West Foundation, Southwest Corner



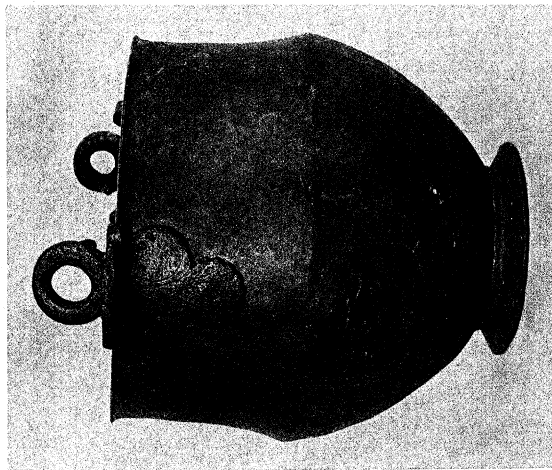
b. West Foundation, Table Trimmings as Found



c. Fragment of Lion's Head Spout

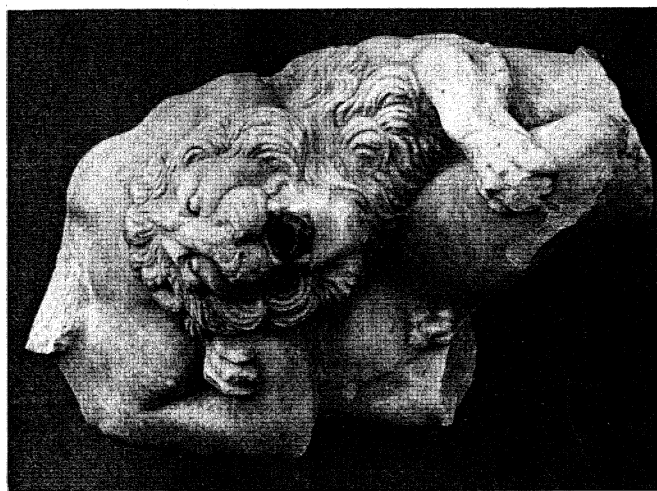


d. Bronze Bull, from Large Circular Pit

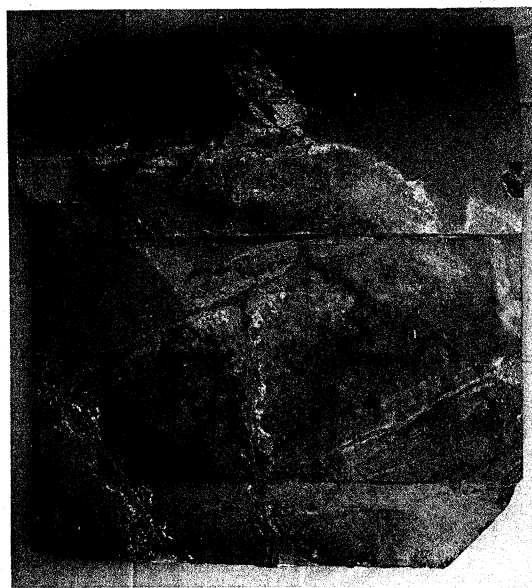


e. Bronze Pail, from Large Circular Pit

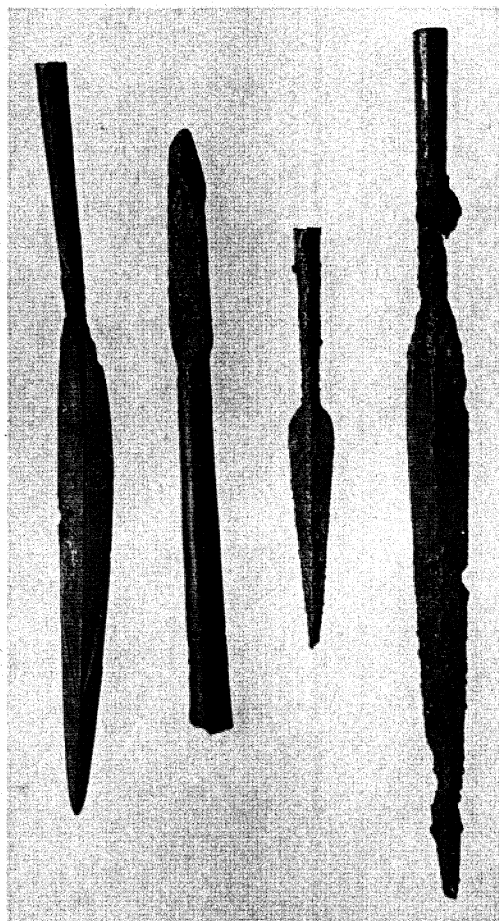
OSCAR BRONEER: EXCAVATIONS AT ISTHMA 1959-1961



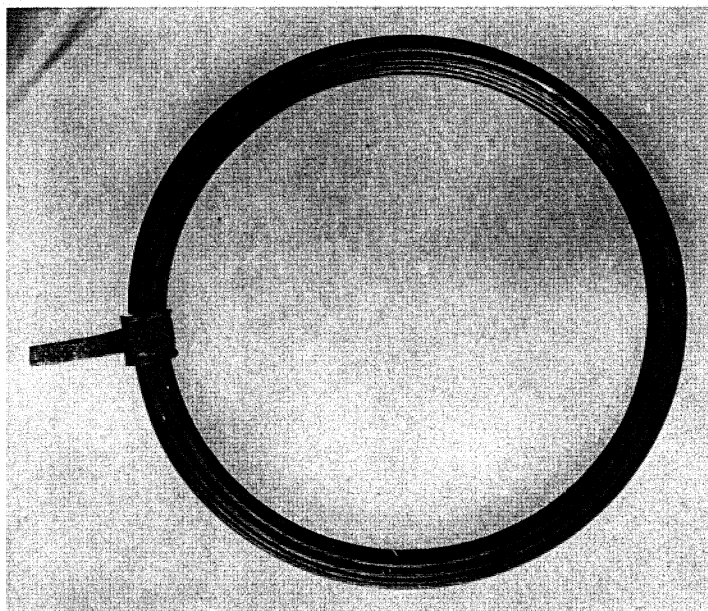
a. Fountain Figure, Herakles Strangling the Nemean Lion



d. Combined Pan- and Cover-Tile, from Archaic Temple of Poseidon



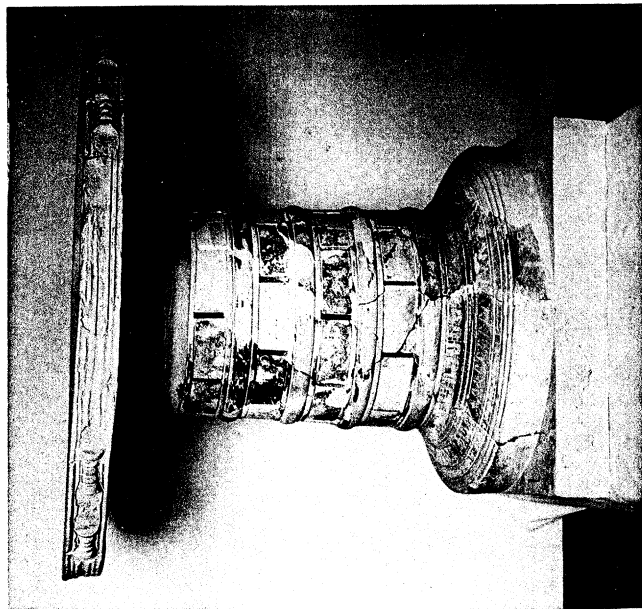
b. Spear Heads and Spear Butt, from West Foundation



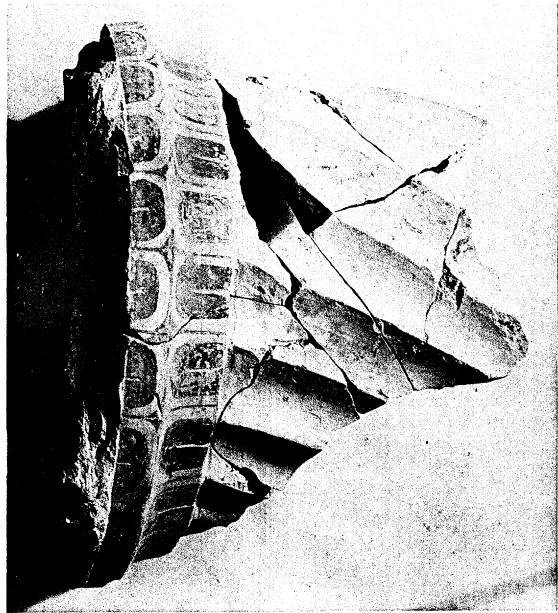
e. Bronze Ring, from Entrance to Northeast Cave



c. Marble Torch, from Later Stadium



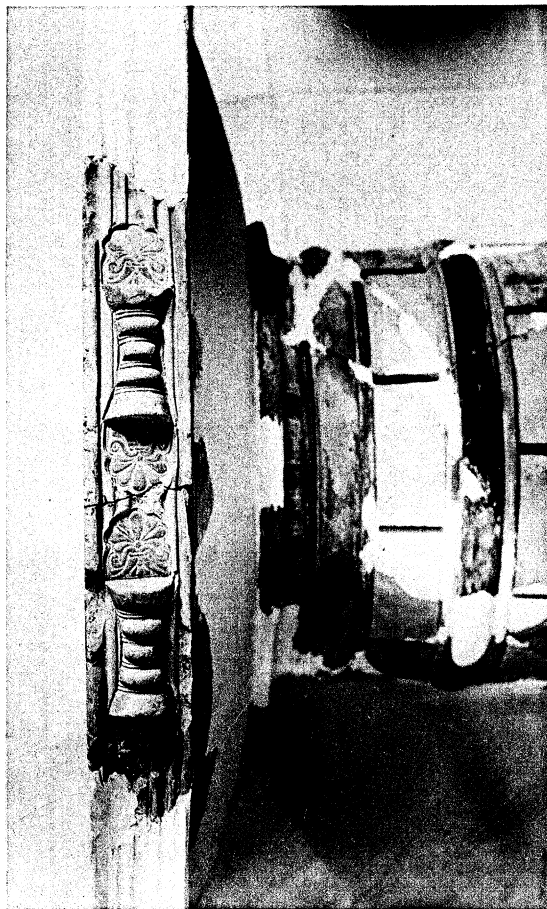
a. Terracotta Perirhanterion, from Large Circular Pit



b. Fragment of Terracotta Perirhanterion, from Large Circular Pit



c. Two Attic Lekythoi, from Large Circular Pit



d. Terracotta Perirhanterion, Details of Handle Lugs



e. Fragment of Terracotta Perirhanterion, from Large Circular Pit



a. Black Painted Vases, from Large Circular Pit



b. Two Vases, from West Foundation



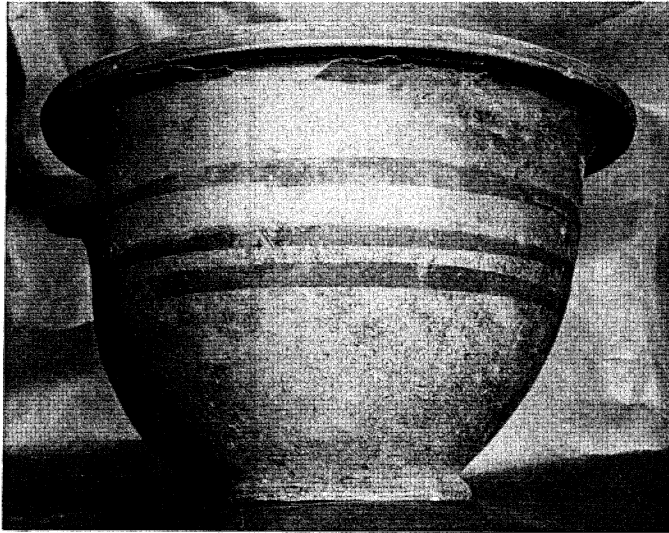
c. Three Vases, from Large Circular Pit



d. Roman Bowl, from the Theater



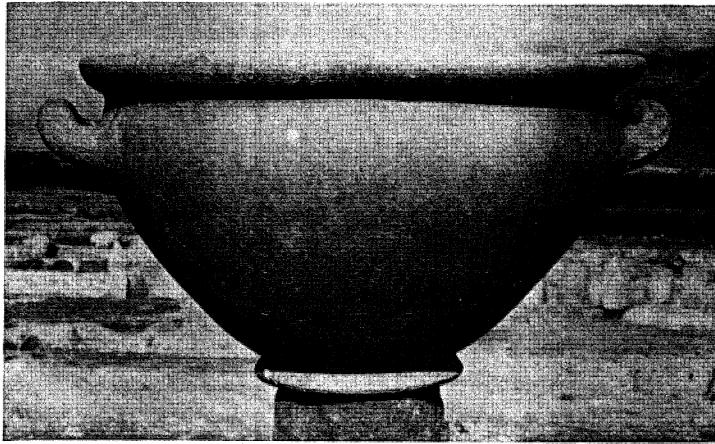
e. Five Lamps, from Large Circular Pit



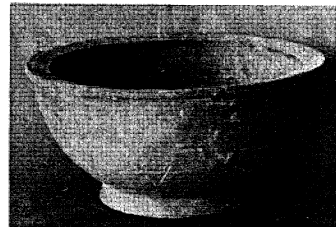
a. Mixing Bowl, from Pottery Pit



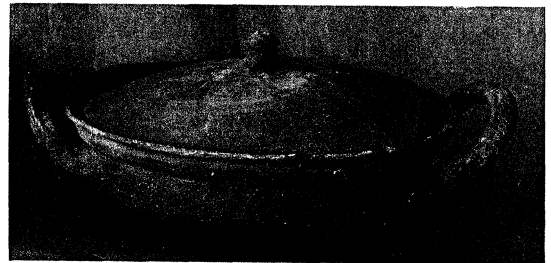
b. Large Cooking Pot, from Pottery Pit



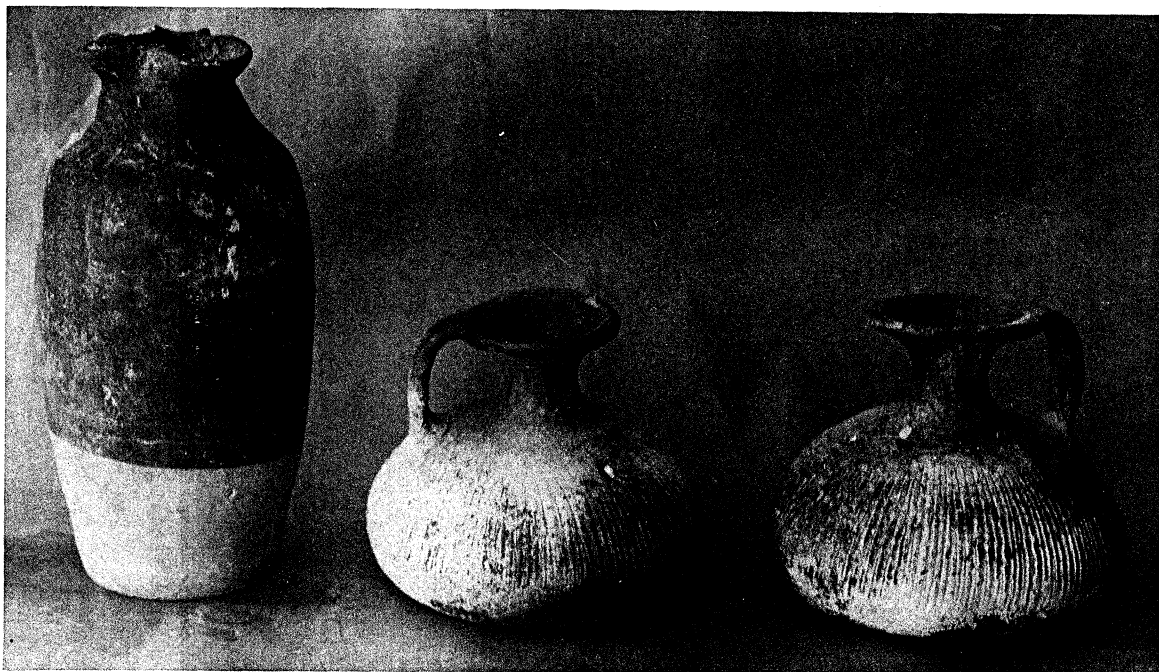
c. Large Bowl, from Pottery Pit



d. Bowl, from Pottery Pit



e. Casserole, from Pottery Pit



f. Three Small Vases, from Bottom of Pottery Pit