

INVESTIGATIONS IN KEOS

PART I: EXCAVATIONS AND EXPLORATIONS, 1966-1970

(PLATES 65-84)

PRELIMINARY reports of the work done in Keos (Fig. 1) in the campaigns of 1960-1965 have appeared in this journal.¹ Since then, there have been three annual seasons of excavation, 1966-1968, and two, 1969-1970, in which digging was subordinated to the study of buildings and objects found previously. The present report is divided into two parts: first (herewith), an account of the principal results of investigation at Ayia Irini and, in brief, of those at certain outlying sites; and second (to follow), descriptions of some significant groups of pottery and other objects, with preliminary observations on chronology and foreign contacts.

Information gained up to now has come from the collaborative effort of many colleagues and assistants, to whom I can offer only a general and inadequate acknowledgement of indebtedness and gratitude. We have had continuing support and assistance from members of the Greek Archaeological Service, under whose authority all our work has been conducted, and from the American School at Athens, the Michalinos Company, and many friends on the island. Financial means have been furnished by the Classics Fund, which was established for the University of Cincinnati by Louise Taft Semple in memory of her father. Trustees of the fund, officers of the university, and colleagues in its department of Classics have helped us generously.

Members of the staff during the five years were: Miss E. T. Blackburn ('69, '70), Miss K. L. Butt ('66), Mr. and Mrs. J. L. Caskey ('66-'70), A. J. Christopher-son ('68), J. E. Coleman ('66, '67, '69, '70), Mrs. Coleman ('66, '67, '70), L. E. Cotsen ('66-'68, '70), Jennie Coy ('67-'69), W. W. Cummer ('70), Mrs. C. W. J. Eliot ('68-'70), R. L. Holzen ('66-'69), J. H. Kaimowitz ('67), Mr. and Mrs. W. G. Kittredge ('66-'70), T. M. Mathews ('66), Miss E. V. Milburn ('68, '69),

¹ *Hesperia*, XXXI, 1962, pp. 263-283 (hereafter cited as *Keos* 60-61); XXXIII, 1964, pp. 314-335 (*Keos* 63); XXXV, 1966, pp. 363-376 (*Keos* 64-65), with references to other brief publications in note 2, p. 363. Subsequently notices and short reports have appeared in: "News Letter," *A. J. A.*, LXXI, 1967-LXXIV, 1970; "Archaeological Reports," *J.H.S.*, LXXXVII, 1967-XC, 1970; *Χρονικά Δελτ.*, XIX, 1964-XXIV, 1969; "Chronique des Fouilles," *B.C.H.*, LXXXIX, 1965-XCII, 1968; *Επετηρίς της Εταιρείας Κυκλαδικών Μελετών*, V, 1965, VI, 1968. See also: J. L. Caskey, "Recent Excavations in Keos," *Atti e Memorie del I° Congresso Internazionale di Micenologia, Roma, 1967* (*Incunabula Graeca*, XXV, 1), pp. 68-72; "Crises in the Minoan-Mycenaean World," *Proc. Amer. Philos. Soc.*, CXIII, 1969, pp. 433-449; "The Early Bronze Age at Ayia Irini in Keos," *Archaeology*, XXIII, 1970, pp. 339-342.

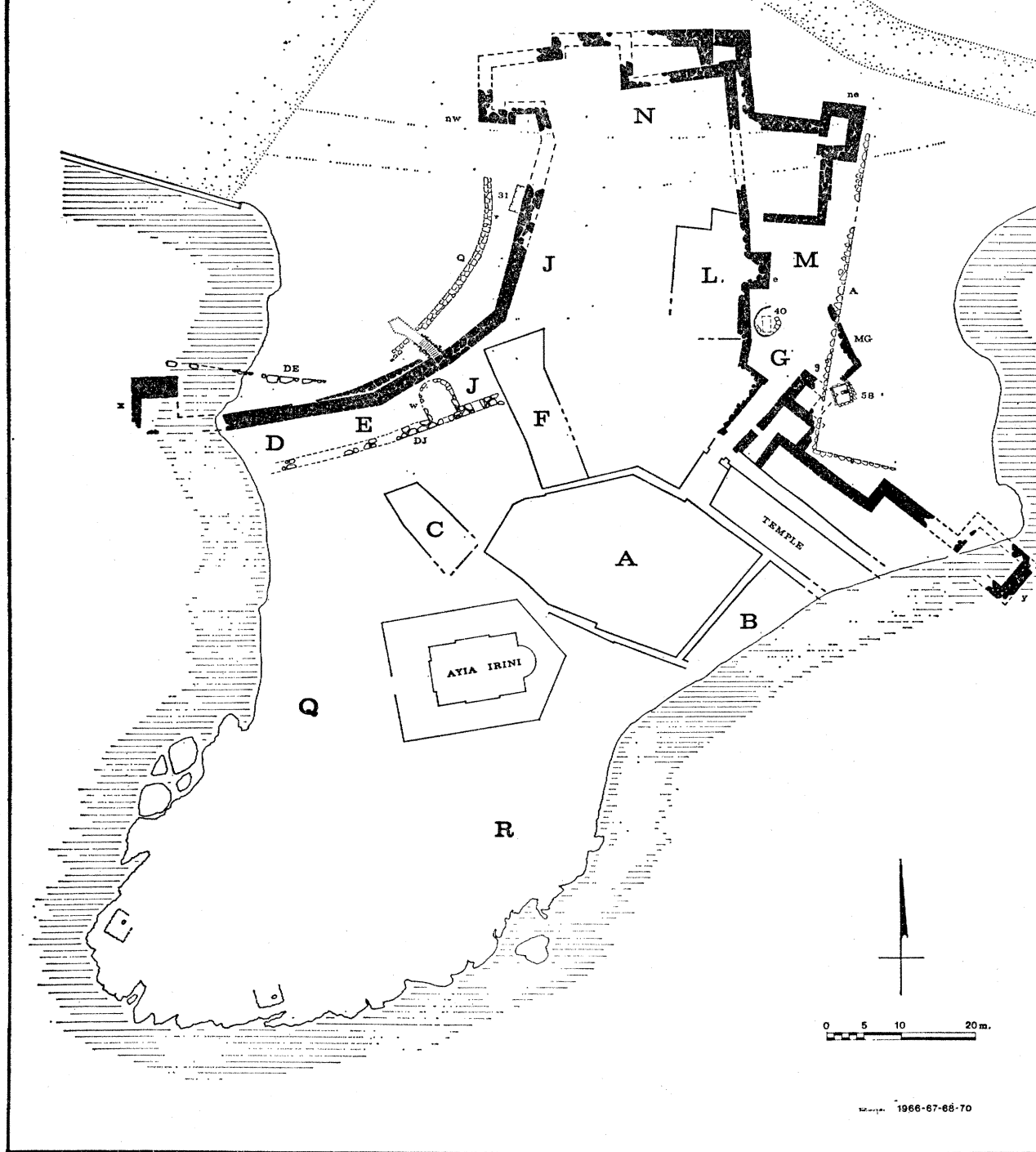


FIG. 2. Plan of the Site (R. L. Holzen).

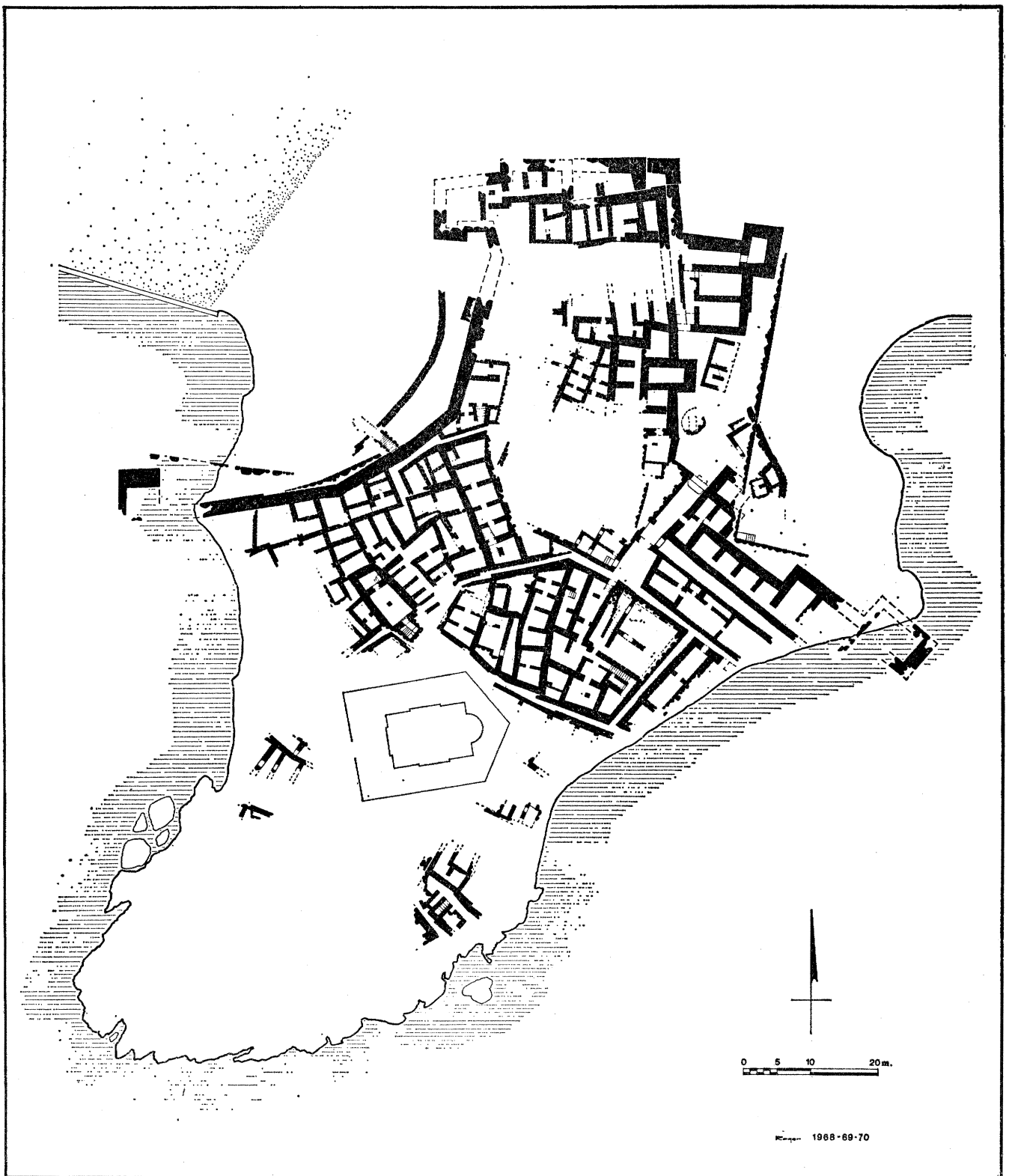


FIG. 3. Plan of the Town showing Walls of the Main Period (M. M. III to L. M. IB/L. H. II) (R. L. Holzen).

Mr. and Mrs. A. E. Osborne ('66-'69), M. R. Popham ('70), Miss L. E. Preston ('68-'70), Miss E. M. Stehle ('67), Mr. and Mrs. J. G. Younger ('70). Miss E. Lazaridou, representing the Ephor, has been with us each year and has given very valuable assistance in many ways. D. Papaioannou of Corinth was foreman and P. Kallios of Myloi was assistant foreman throughout. Skilled technical work in restoration and conservation has been given by Miss S. Bouzaki and Miss A. Voutsina ('68-'70). Mending and filling out of pottery was done by K. Chionatos ('68-'70) and I. Lavdas ('66, '67, '70).

AYIA IRINI

In the years 1966-1970 new ground was broken throughout the broad central and the narrower northern parts of the site, until the various areas excavated separately in earlier campaigns had coalesced into a single expanse, with only a little of the surface earth untouched in the middle (Figs. 2, 3). For convenience we retain the alphabetical designations of the former areas, although their borders have interlocked irregularly in the course of the digging and in most cases are no longer discernible.

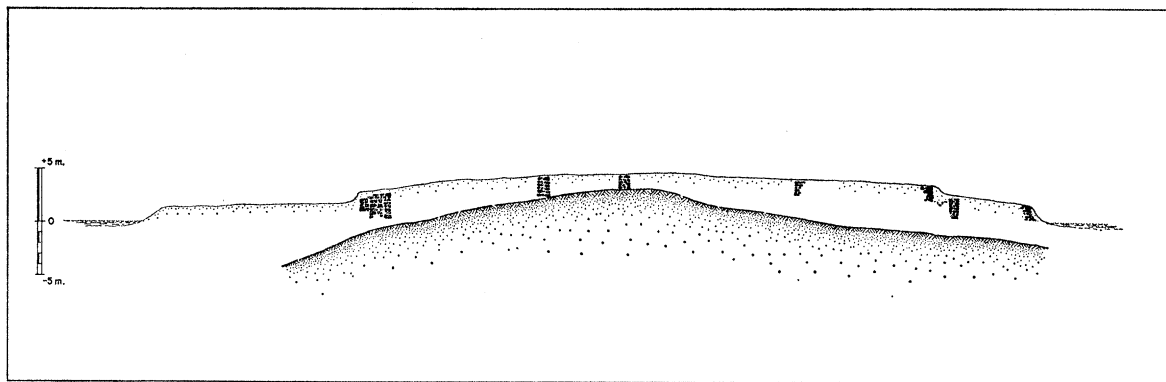


FIG. 4. Section across the Promontory showing Modern Surface and Contour of Bedrock (L. E. Cotsen).

Extension of the excavated areas and deep soundings in many parts of the site have made evident the general profile and contours of the underlying rock. A spine—rounded, not sharp-edged—runs southward from Area N, passes under the western part of Area A and the church, and curves westward between Areas Q and R to the tip of the promontory, where it is now almost wholly denuded. On either side of the spine the rock drops away irregularly and fairly steeply (Fig. 4).

The earliest settlers seem to have chosen the lower ground on the flanks. Strata of debris accumulated in the usual fashion as houses were built successively in steps on the sloping terrain, and in time these probably covered most of the peninsula.

Then in the period of greatest prosperity the central regions were cut down to make broader level spaces for new buildings, which undoubtedly occupied the whole site in the first part of the Late Bronze Age. Therefore evidence of habitation in the Early and Middle Bronze Ages is to be found today chiefly on the eastern and western sides, under the substructures of the later houses. Much of it still exists, but relatively little is accessible; the buildings which cover these strata are in many cases too valuable to be sacrificed and, on the edges where free space can be found, excavation is often made unprofitable by the presence of water, since sea-level is now much higher than it was in ancient times.

THE WESTERN SECTOR

Investigations have been carried on extensively in recent years in the western and west-central areas, D, E and J, C and F, and parts of House A.

THE GREAT FORTIFICATIONS

The main lines of the great fortification wall from Tower x inward and northward to the modern road cutting had been established (*Keos* 64-65, fig. 1). Now its whole course as preserved on land has been revealed and may be seen except in a narrow space between D and E, where the path to the church was quickly rebuilt after the ground had been examined in 1966.

The history of the wall is complex. Obviously, it was not all built in one operation. Stratigraphical evidence, some of which will be presented in the second part of this report, makes it seem clear that the oldest segments were constructed before the end of the Middle Bronze Age, probably within the time of M.M.III in Crete. Repairs, alterations, and additions followed in the Late Bronze Age.

In Area E, just eastward of the path to the church, the wall when first uncovered appeared to be abnormally thick, as may be seen on the older plan, but further excavation explained this anomaly. The inner face descends to a great depth, whereas the outer face is based much higher, resting in several places on fallen blocks. Clearly this outer part is a rebuilding. The wall at first had a fairly uniform thickness of about two meters; after a collapse, probably in the great earthquake of the fifteenth century, it was reconstructed with a new face farther out, as is indicated diagrammatically on the more recent plans (Figs. 2, 3, 8). The later builders did not bother to remove the fallen debris at the foot of the old wall or to sink their new foundations deep. Ultimately, perhaps as a result of this carelessness, another collapse left a second group of blocks strewn at a still higher level near the modern surface of the ground (Fig. 5). In most recent times, needless to say, any blocks that remained visible, fallen or in situ, were carried away to build the church and the boundary walls of fields.

Two walls, DE and Q, may be seen outside the line of the fortifications. The

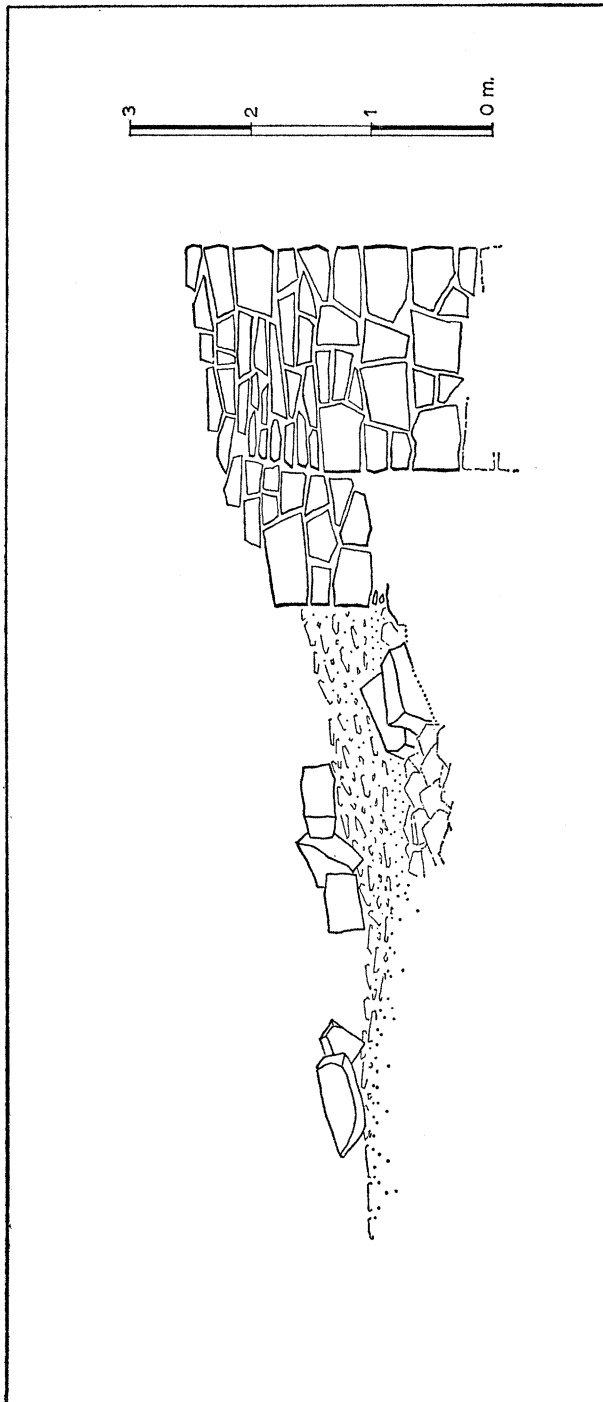


FIG. 5. Diagrammatic Section through Fortification Wall of Main Period in Area E, with Addition to Outer Face and Successive Strata of Fallen Blocks (L. E. Cotsen).

former, largely under water, has not been thoroughly investigated. It is heavy, containing many large blocks, and looks as if it may have been put there to prevent encroachment of the sea, presumably after the fortifications had ceased to be needed for defense against human enemies. In this it may prove to be comparable to Wall MG on the east, outside the main gate (see below). Wall Q, built of smaller stones, is of later date, having potsherds of classical Greek wares under and around it. It seems to have marked the edge of a great bank of stones which rose in rough steps to the face of the old fortifications (*Keos 63*, pl. 50, e).

THE WATER SUPPLY

Defensive walls are of little value unless an adequate supply of water is available to the defenders. In the first years of excavation at Ayia Irini fairly elaborate provision for drainage had been observed (*Keos 60-61*, p. 270), but no source of water

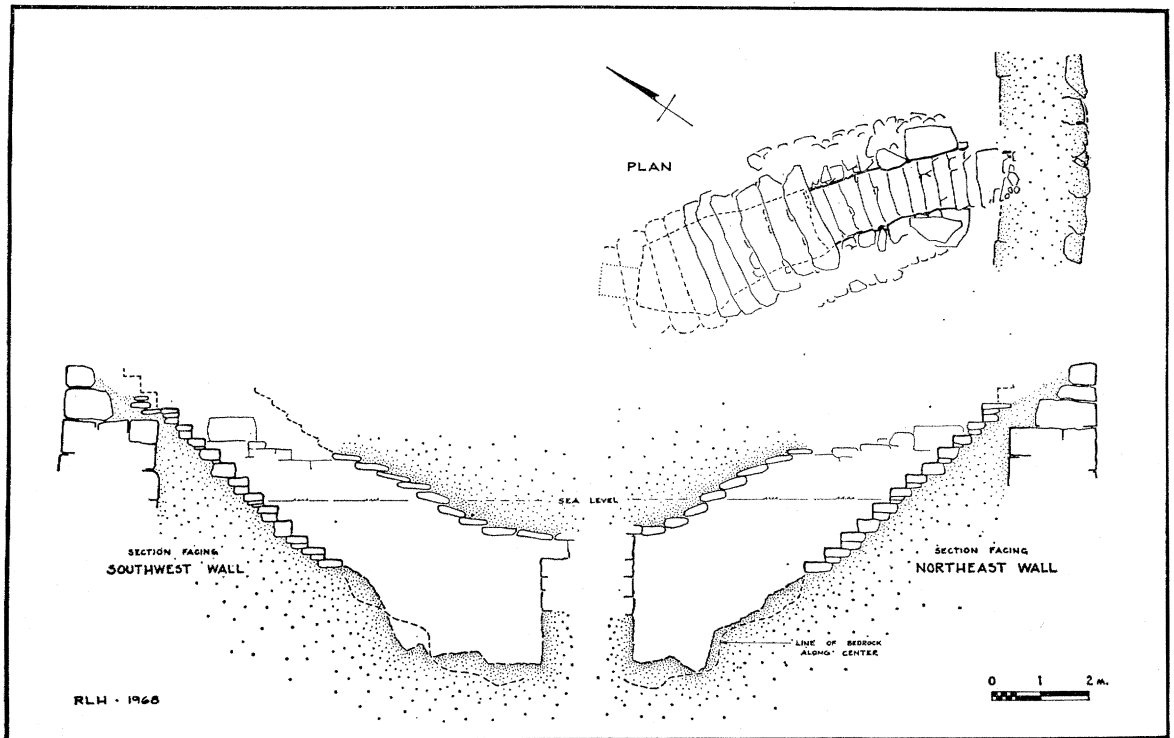


FIG. 6. Plan and Sections of the Spring Chamber (R. L. Holzen).

had been discovered. One could only guess that rain from the broad roofs of the town was collected and stored in the big pithoi which are known to have stood in many houses.

In 1966 an exploratory trench was dug across the great wall in Area J, just west

of the north end of House F. It led us to a flight of 13 stone steps (Pl. 78, a, b), about 1.20 m. wide, descending from the outer face of the wall to a chamber underground (Fig. 6; Pl. 78). The sides and end of the chamber are built of big stones; very long slabs, overlapping in series, form the roof (Pl. 78, f). The lowest step rests on bedrock, which from there slopes steeply and irregularly downward. At the bottom there are natural hollows and fissures. An opening about 0.40 m. high by 0.60 m. wide appears in the end wall, just under the ceiling of the chamber (Pl. 78, g), and there is a recess, spanned by a huge block, at the foot of the southwest wall. The chamber is irregular in plan, not rectangular. Several of the roof slabs are cracked; they all seem to be firmly in place but a shoring of heavy timbers was installed by us in 1966 after the structure had been investigated, in order to prevent possible damage. The chamber now remains full of salt water to sea-level.

Excavation was difficult. There was a little open space below the roof slabs, but from there downward earth and mud had to be removed and a pumping engine worked continuously. Fallen stones were found in the upper part of the filling beside the steps but not in the lower levels of the chamber itself. It would not have been possible to observe strata in the mud but for certain distinct changes in color: to a depth of *ca.* —1.90 m. the accumulations were brown, from there to *ca.* —3.05 m. black (Pl. 78, e), and below that, to the bottom of the deepest hollow at —3.78 m., there was a lighter gray-brown deposit with admixtures of sand, gravel, and small chips of stone.

Near the top of the filling lay fragments of a classical wine jar, probably of the first half of the fourth century B.C., according to a provisional dating by Miss Virginia Grace. A number of small pots and sherds from the brown stratum and the upper part of the black are of L.H.IIIA2 style. Lower in the black mud and in the gray-brown there were small sherds of L.M.IB/L.H.II wares, a few plain jugs, and pieces of local coarse wares, including conical cups.

Since there are other indications that a principal source of fresh water was present just here from much earlier times onward, we may assume that the underground structure was indeed a spring chamber, corresponding in its smaller way to those at Mycenae, Tiryns, and Athens. A logical parallel suggests that it was accessible under cover from the interior of the town, through a passageway in the wall, at a time when the defenses were in sound condition before the great earthquake. At the present stage of the investigation, however, the evidence cannot be taken as conclusive.

The side walls of the staircase are not in contact with the outer face of the fortification wall (Pl. 78, c, d), and the steps between them appear to have been set on earth which accumulated after the fortifications had been standing for some time. Therefore it is sure that the upper part of the structure, as we now have it, was built later than the great wall. As for the presumed passageway through the wall, not a

vestige of it is to be seen today, nor is there any trace of the hood which would have been needed in time of siege to protect the approach to the water. Pottery at the bottom of the chamber was not plentiful. The few sherds assignable without question to L.M.IB/L.H.II might have come in by accident at any time before it was filled with debris. More important are the jugs, nearly whole, which were probably taken there to carry water, then dropped and broken. They suggest a date in the time of M.M.III, but are not distinctive enough to make this quite certain (see Part II).

Tentatively one may guess that the lower part, that is the subterranean chamber itself, was built along with the major fortifications of the town in the sixteenth century, if not earlier still. It is preserved substantially in its original form. Of the contemporary upper part we know nothing except that it provided access, presumably by a flight of steps. This would have been damaged by the great earthquake of the fifteenth century. In the brief period of reoccupation, L.H.IIIA1, it was repaired and some of the steps were replaced. Then a second earthquake occurred, with geological changes which raised the sea-level and flooded the chamber. The black stratum was probably formed by sediment collected in a useless pool. How and why small vases of L.H.IIIA2 style (cups, juglets, stirrup jars, not vessels for drawing water) came to be placed within the remaining cavern thereafter cannot be explained with certainty. It has been suggested that they were votive offerings to an early Poseidon, god of seas and earthquakes, but of this obviously there is no proof. In classical times, when the stair-well was filled gradually, the space may have been used for cool storage.

THE EARLIER FORTIFICATIONS

In a search for information about the means of access to the spring chamber a trench was dug in 1967 on the inner side of the great wall. There was no sign of an opening in it (Pl. 68, b); but a curving piece of excellent masonry just behind it attracted attention. This was investigated further in 1968 and found to be the end of a tower, part of an earlier system of fortifications, the existence of which had been unknown and unsuspected up to then. The tower, labelled **w** on the plans, projects five meters outward from a long straight wall, DJ, beside a gateway (Figs. 7, 8; Pl. 69, c). There was a room inside the tower, most of it now lost since a house of the later period cut into it. Streets inside the town converged upon the gate, from the threshold of which a path ran sloping downward toward the area of the spring (Pl. 68, d).

Only a part of these fortifications could be exposed without unjustifiable sacrifice of Late Bronze Age buildings above them. The footing of Wall DJ rises rapidly, from far below present sea level on the west to +3.15 m. at the edge of House F. Construction of deep basements in the latter cut away any remaining parts of the wall, and its course farther eastward has not been discovered (Fig. 2). Along the inner

face there was an open passageway to a point about 11 m. west of the tower, where another wall, bonded with DJ, runs southward. We have seen only its eastern face and cannot tell what purpose it served, but obviously it blocked the passage and a pool of rain water would have collected here if the builders had not been careful to provide an adequate outlet northward through Wall DJ (Pl. 69, b).

Several phases of habitation are represented by house walls and other structures which succeeded one another while the early fortifications were in use (Pl. 68, f, g). In the lower strata gray Minyan and Matt-painted pottery of mainland types, fine Cycladic red burnished ware, and a few small pieces of imported Kamares ware (M.M.IIA) are notable. These appear, at the present stage of our study, to have been succeeded gradually in the upper strata by increasing percentages of coarser local fabrics and Minoan or Minoan-related wares of later and less elegant quality. It seems clear, therefore, that the period in question corresponds generally in date with the Early Palace Age in Crete. (This is a convenient synchronism but should not be taken as evidence for close relationships with, or dependence upon, the Minoan realm at that time.) What is quite certain is that the Keian town was already prosperous enough to feel the need of defenses against marauders.

BUILDINGS OF THE EARLY BRONZE AGE

The discovery of Wall DJ and contemporary houses of the Middle Bronze Age led to further exploration of the strata below them, which proved to be unexpectedly rewarding. It had indeed been known for some time that the site was inhabited in the Early Bronze Age, but up to now the finds had been relatively meager, consisting of a part of one room of moderate size (*Keos* 63, pp. 319-320), various bits of walls on bedrock, occasional sherds of sauceboats, a few scattered pieces of Cycladic figurines and the like. Clearly the height of the central ridge of rock and the intrusion of cellars in the Late Bronze Age must account for the loss of many early structures. In the western sector, however, it was disclosed that the most ancient remains had fared better.

By far the earliest of any materials yet found on the promontory came to light in 1968 through the digging of a small test-pit just east of Tower w. This sounding passed through a stratum containing E.H. wares and then reached a deposit, held within a depression in the rock, which produced sherds of rough primitive pottery. Brown to gray in color, with few traces of decoration, these pieces are reminiscent of the Neolithic wares of Kephala and Paoura, perhaps a little later in date (*Archaeology*, XXIII, 1970, p. 339; see Part II). They may represent only a brief encampment; it is to be noted that they lay near the place where fresh water was available. No walls were found at this depth in the restricted area where our tests could be made, nor have any other signs of occupation in this remote period been recognized elsewhere at Ayia Irini, though a sherd or two may have been overlooked.

Buildings of the Early Bronze Age in the western sector of the town, uncovered in the seasons of 1968-1970, have certain marked characteristics. They are laid out with notable consistency on axes NE-SW and NW-SE, in obvious contrast to those of the succeeding periods (Fig. 7). The style of masonry also is distinctive in most cases, walls being built with relatively small flat slabs, very neatly laid and fitted (Pls. 66, 67). It appears that three successive phases, if not more, are represented by the architectural remains. Evidence of continuity is to be seen throughout, but at least one important change is attested by the qualities of the pottery. Detailed study of the sequence has not been completed.

The chief remaining element of Building XI is a broad wall, based largely on the rock, running downward toward the northwest and turning at a right angle northeastward, to be lost where the footing of the later fortification wall cut through it. A drainage channel runs along its outer face, being joined by another from the southwest and then turning the corner (Pl. 65, d, e). Inside, there are remains of a wall at the north and two at the southeast, none of which are clearly related to Building XI. Parts of them have been lost to later construction. The filling of the room was excavated, yielding very large quantities of sherds. Sauceboat fragments are plentiful, and an engaging theriomorphic pot like one from Syros (C. Zervos, *L'Art des Cyclades*, figs. 238, 239) was found with them. Undoubtedly they belong to the time of E.H.II/E.C.II. When the filling had been removed it was seen that the room had been built over a deep irregular cavity in the native rock (Pl. 65, c). This is now below sea-level and fills with salt water, but, like the later spring chamber, it probably once received a flow of fresh water. The manner in which the walls are bedded makes it appear doubtful that they were built deliberately in their present form to surround the cavity in the rock, but the position of the building seems almost certainly to have been determined by the existence of the spring.

Above the remains of Building XI there were successive strata of earth and irregular patches of cobblestones, all sloping downward toward the northwest (Pl. 65, a, b). Undoubtedly they represent the surface of roads or pathways coming from the town and, again we suppose, leading to the watering place. Pottery from them reflects the later stages of the Early Bronze Age in which the sauceboat had been replaced by vessels of other shapes and fabrics.

The plan, Figure 7, shows a series of rooms numbered I to IV (Pls. 66, 67). Beyond Room IV there was once another, which may be labelled V, but very little of it was spared when the basements of House F were sunk into the ground just here. Limited excavations in 1970 showed furthermore that two additional rooms, VI immediately southeast of IV, and VII southeast of III, had belonged at one time to the complex (Pl. 67, e). It is probable, though not certain, that still other walls, encountered in deep soundings on the west, and remnants below the floors of House F on the northeast were directly related to this single large conglomeration of buildings, which would in that case cover an area of 15 m. by 30 m. at the very least.

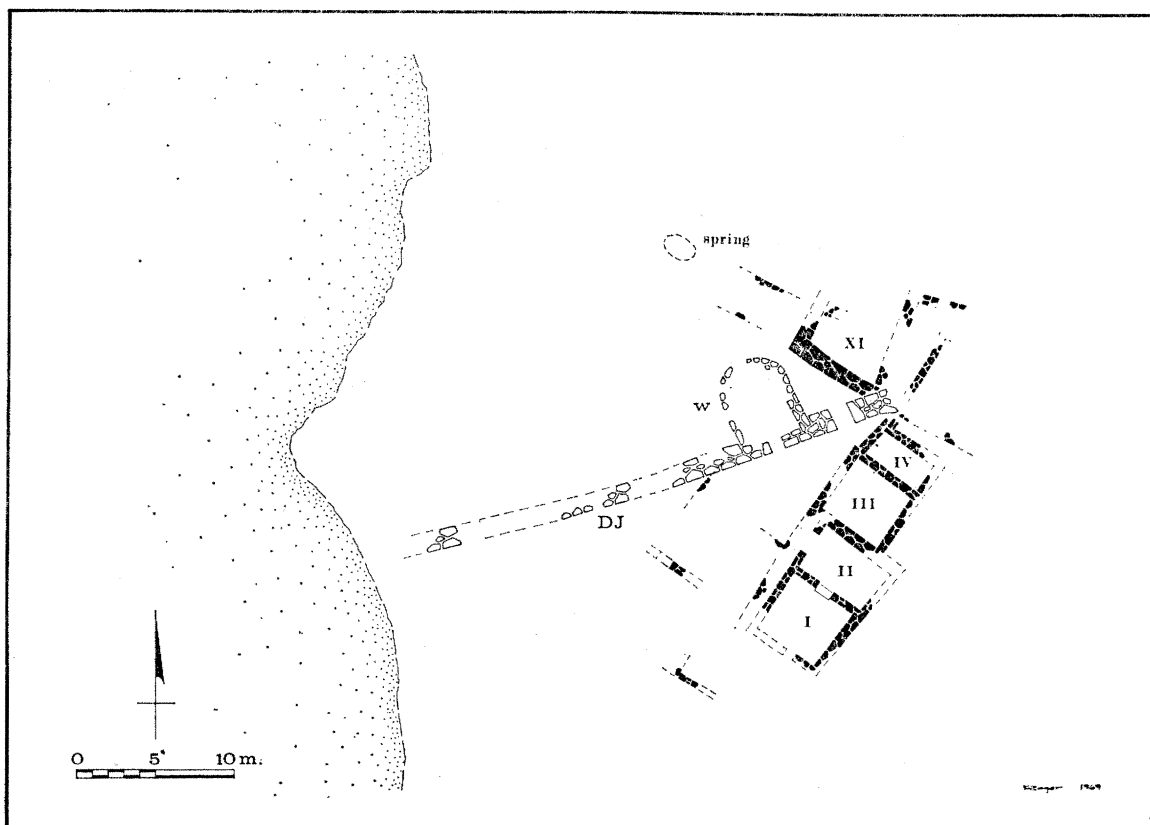


FIG. 7. Walls of the Early Bronze Age (in black) in relation to Middle Bronze Age Fortifications (in outline) (R. L. Holzen).

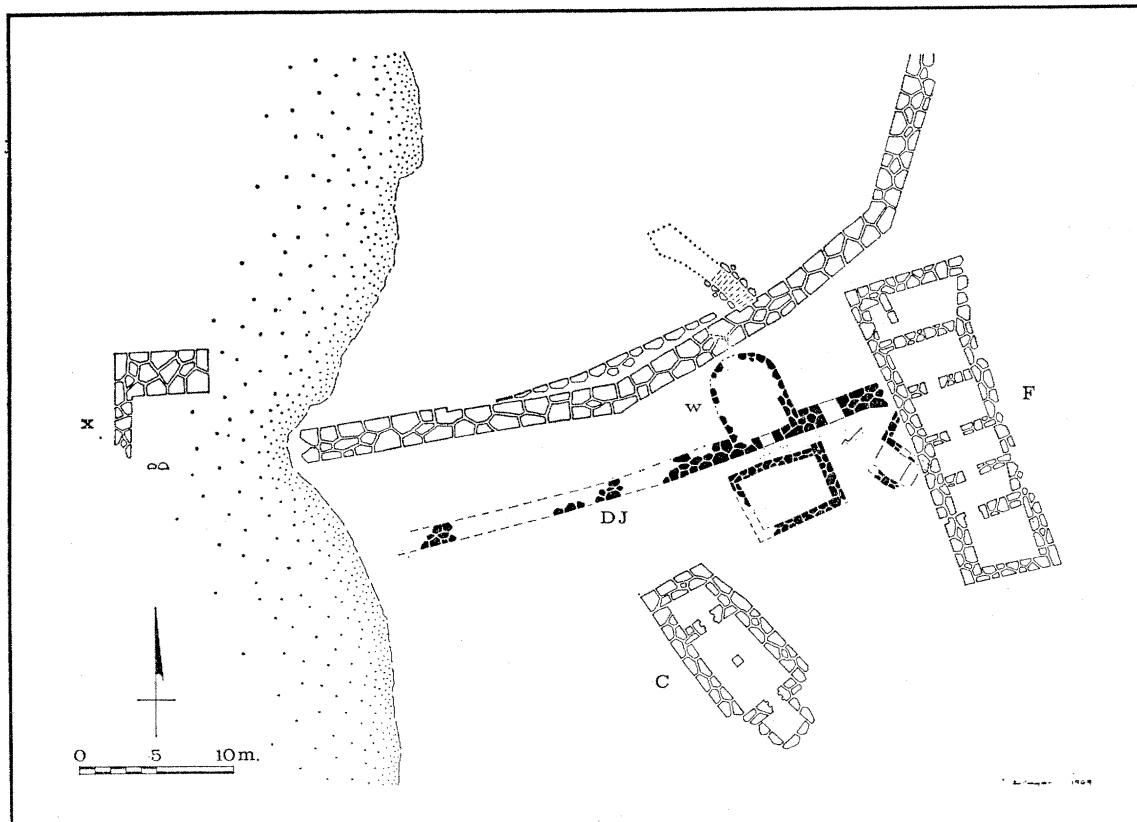


FIG. 8. Walls of the Middle Bronze Age (in black) in Relation to Buildings of the Main Period (in outline) (R. L. Holzen).

Room I (Pl. 66, a-c, e) was first touched by a trial trench in 1961 and partly exposed in 1963, then cleared as far as possible in the seasons of 1968 and 1969. From it a doorway once led out southwestward but was walled shut at one stage in the life of the building (Pl. 66, c). The space beyond was occupied in the Late Bronze Age by House C and is not now accessible. In the room there were two successive floors of firm yellow clay, each covered by a thin stratum of debris; pottery was not plentiful, but included fragments of sauceboats and saucers of Early Helladic types. Two large pan-hearths of terracotta, also of a type which is familiar on the mainland, were found one above the other just inside the blocked doorway.

Another doorway (Pl. 66, b, 67, b), with threshold slabs and a pivot stone for the doorpost, leads northeastward into Room II (Pl. 66, b, e), from which there is a broad opening, also with its pivot stone, toward the northwest. Most of this room was excavated in 1969; the eastern side and corner remain to be examined. Like Room I it had two distinct floor-levels, and traces of an earlier occupation were noted below them. In the southeastern part, out of the line of passage, there is a small fireplace ringed with stones (Pl. 66, b). The structure of the walls and quality of the floor-deposits show that Room II was contemporary with Room I. The earth above these habitation-levels, however, contains pottery of a different kind, notably red and black burnished wares, evidently later in date though still belonging to the Early Bronze Age (see Part II).

Room III (Pl. 66, a, b), continuing the alignment but slightly offset, appears to have been built in this later stage. It is nearly square, 3.90 m. by 4.20 m., and must be taken as a cellar since it has no doorways. Its neat masonry is like that of the preceding and is well preserved. Against the northeast wall was found a large bin, its floor and sides made of large slabs of schist. It was full of earth, in which were some rough stone implements and fragments of pithoi, and was covered with other slabs lying irregularly (Pl. 67, c, d, e). The floor of the room is of hard earth and clay, and it seems securely dated, in relative terms, by a black burnished tankard which lay in the north corner near a large fragment of a pithos. Most of the room was filled with chips of a schist-like stone, with scarcely any earth. The reason for the filling and source of the material are not evident; clearly the chips were brought in from elsewhere, since the pottery mixed with them, amounting to about 15 standard (five-gallon) tinfuls, was of the earlier kind, including sauceboats. Almost no joins could be made between the sherds in this large collection.

Another cellar room, IV (Pl. 66, d, f), extends the row. It is smaller than III and its northwestern wall jogs inward. The walls are of the same fine masonry. In the debris were many pieces of pottery of the later style and an unusual number of miscellaneous objects, among the latter being more than a score of clamps and other bits of lead, eight small stone pestles and one huge one (*Archaeology*, XXIII, 1970, p. 341), and an array of stone disks, probably lids, which we left in the room (Pl. 66, f).

Rooms V and VI (Pl. 67, e; not on the plan, Fig. 7) were largely obliterated by the building, long after their time, of House F. Room VII may prove to be in good condition and a little more excavation may make clear its relationship to Rooms III and II. From the evidence visible in 1970 it seems almost certain that the whole tight complex of apartments once covered a very much larger part of the western sector, both in the time of E.H.II/E.C.II and in the succeeding phase, than one had guessed previously.

The transition from the earlier stage to the later may have occurred quickly, but signs of violent destruction are lacking. Orientation of buildings and style of masonry were not changed radically if at all; nor, it appears, was the new stage to end with one occupation of the rebuilt rooms. After they were abandoned and covered over, another system of walls took their place. Above Rooms II and III were scanty remains of a house (Pl. 67, f, provisionally labelled D in our records), keeping about the same alignment but different in its divisions. When first observed in 1963 it was thought to belong to the Middle Bronze Age, but further study has shown that its floor-deposits, wherever undisturbed, contained nothing later than the red and black burnished sherds of cups and tankards which we have now learned to recognize in their proper context.

THE NORTHERN AND NORTHEASTERN SECTORS

In the following pages we describe discoveries along the border of the site from the northern part of Area J to Area N and the buildings in the northeastern region (Figs. 2, 3). Some of the remains are now meager, chiefly as a result of thoughtless behavior by local inhabitants in quite recent times, the cutting of a roadway through the mound and the stripping of the surface for building materials (*Keos* 63, p. 322).

POTTER'S KILN

Archaeological investigation in Area J near the modern road cutting, begun in 1964 and continued in 1966, revealed part of an early kiln, neatly built of small stones and clay, on the native rock below and just outside the line of the big fortification wall (Pl. 69, d). Its western side is missing. Restored symmetrically, the whole plan is heart-shaped, pointed at the southeast and opening toward the northwest. Within the chamber, which is roughly circular with a diameter of *ca.* 1.50 m., are three cylindrical pillars, presumably supports for a raised floor, but of the latter no trace is preserved. The inner face of the chamber was reddened but not fused. Fragments of large jars with plastic rope decoration, assignable to one of the phases of the Early Bronze Age, were found inside.

CEMETERY

Graves have been found both west and east of the narrow northern part of the

site (*Keos 64-65*, p. 367). From their position and from the types of objects found in some of them it is apparent that many, if not all, belong to the period of the Middle Bronze Age when the older fortifications were standing, before the greater system was built. Twenty-three have come to light in Area J, chiefly over and near the place of the kiln but also scattered southward to the region of Tower **w**. One was a plain inhumation, twelve were jar burials, eight consisted of small stone cists (Pl. 69, g), and two were built cists in which jars held the bones. The greater number were for infants or small children.

Tomb 31 was by far the largest in this group, having been built for an adult, apparently a person of some importance. The fortification wall ran across it, and several big blocks had to be removed before it could be opened (Figs. 2, 3; Pl. 69, e, f). The chamber, shaped like the letter D with straight side to the east, was partly cut into the rock and enclosed by a stone wall. On the west, where the terrain slopes naturally downward, the structure was built out to a nearly rectangular form and had a flat outer face which was probably designed to be visible. From the sixth course upward the masonry was corbelled toward the interior of the chamber and then capped with covering slabs. Inside there was a broken pithos and a disturbed skeleton, head to the north, pelvis to the southeast, knees to the southwest. Scattered throughout the filling were various small offerings, including pots, two gold beads, a bronze ring and pin, stone beads and seals, a fragment of a marble bowl, and a miniature terracotta head with comical features. These will be described in Part II of the present report. It seems probable that the contents of the tomb were hastily ransacked by builders of the fortifications and that some pieces were removed. The collection is of chronological interest, coming from a time shortly before the building of the great wall. Tentatively we may place it early in the period of Middle Minoan III imports.

THE FORTIFICATIONS

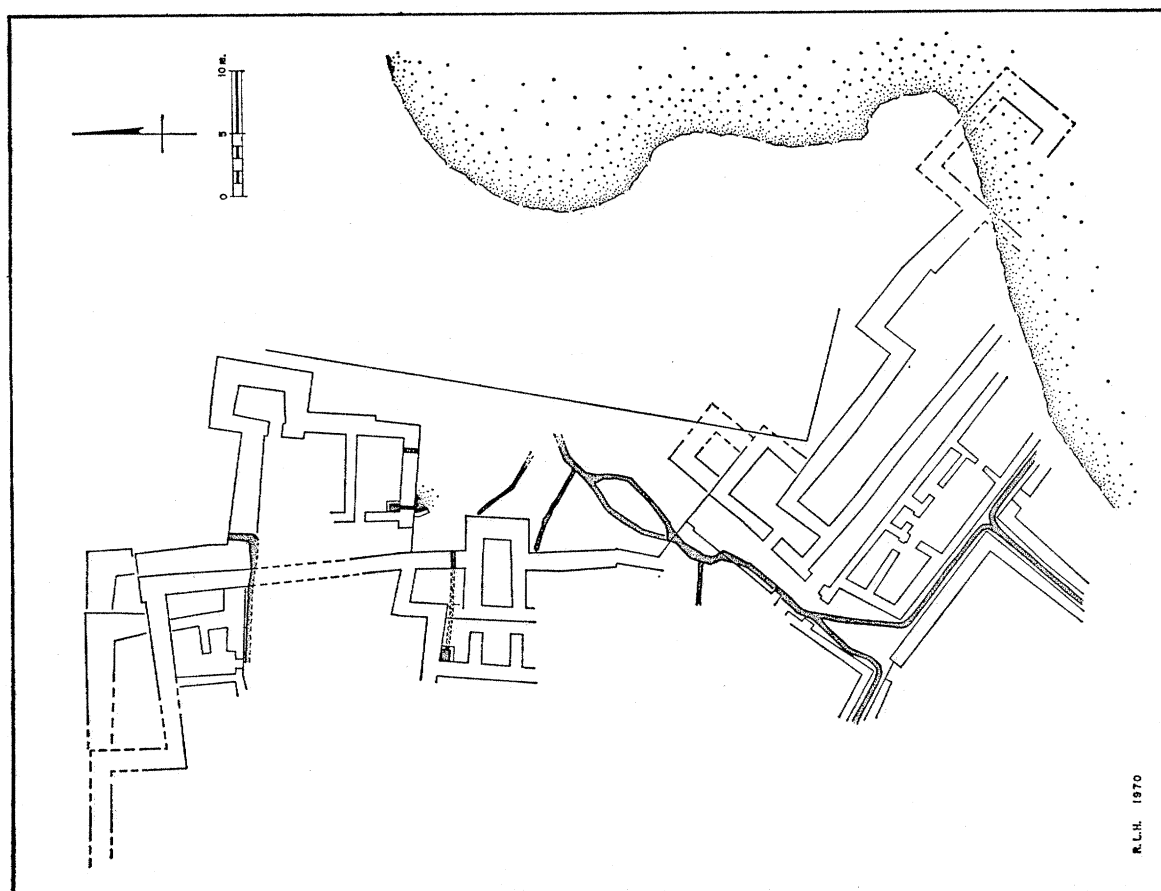
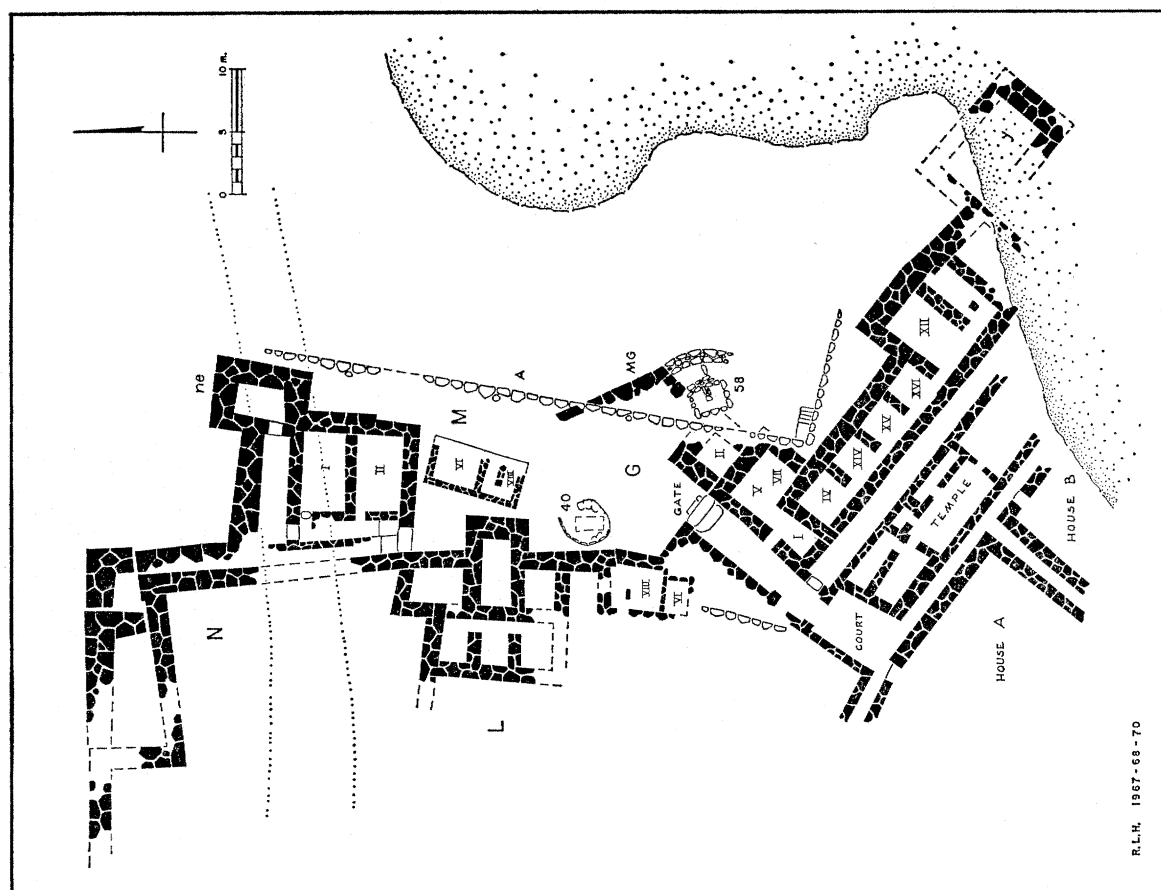
A section of the defensive wall (Fig. 2) about eight meters long, just north of Area J, was wholly removed by the modern road. Beyond this, parts of the circuit can be distinguished: first it turns westward to a place where a small jog suggests that there was a tower (**nw**); then after another space of total erosion it is seen again running eastward. Construction from here on took place in stages, not continuously, and the scheme was probably changed from time to time as the work progressed.

After repeated testing of the stratified ground outside and inside the wall the principal facts seem now to be established. Near the center of Area N the wall as first laid out turned south, then east again, then south in an almost straight line to a projecting tower, **e**, between our Areas L and M (Figs. 2, 3, 9). As shown by deposits against the inner faces, these parts must have been built at a time when pottery of early M.M.III styles was still being brought to Keos, not long after

the closing of Tomb 31. Thereupon, after another short interval, additions were made: the first inward jog was eliminated by running the wall straight eastward in two hooked steps, then south along the outer face of the first structure—thus doubling its thickness (Pl. 70, a)—and outward again to enclose a large space which gives access to a massive rectangular tower, **ne** (Pl. 70, b), at its northeastern extremity. Much usable room was gained by these extensions, but at considerable cost; originally the wall had run near the brow of the native rock which provided a strong footing, whereas the new parts were on much lower soft ground and needed heavy foundations. The walls of the tower run deep, far below modern sea-level. Tests have shown that the outer faces are of excellent rough ashlar masonry (Pl. 70, c); the interior, where there was a cellar room under the tower, is irregular and uneven (Pl. 70, d).

A Cycladic Matt-painted jug (inv. K.3817; H. 0.284; Pl. 70, d, e) was found at the earliest level of occupation within the tower. It is not surely datable by style, but suggests that this room was in use about the time of transition from the Middle to the Late Bronze Age. The tower was badly damaged at the end by earthquakes, as shown by cracks, displaced blocks, and a mass of fallen stones along the north side. It is not clear how much of the destruction was brought about by the great earthquake of L.M.IB/L.H.II which threw down many of the buildings within the town. Parts of the walls survived or were repaired soon thereafter, since most of the fallen stones rest on a stratum containing imported Mycenaean wares of L.H.IIIA style. The destruction just here was complete in any case by classical Greek times, when a great number of small pots, probably votives from a shrine, were discarded and scattered over the debris. Near by, the handsome curtain wall suffered again in late antiquity when a limekiln was built to reduce the many big blocks of hard gray marble-like stone which made up most of its outer face. The remains of the kiln were removed by us in 1970, to reveal four courses of the wall still in place and the opening of a large drain that once carried waste water from the Bronze Age town (Pl. 70, f, g).

The Northeast Bastion, as this extended part of the fortified site may properly be called, contained, besides the tower, three rooms aligned east-west and a corridor and staircase behind them running north-south (Fig. 9). The northern room was essentially a broad passageway to the tower. Quickly accessible to us below the modern road-cut, this had been excavated as part of Area N in 1964. In 1966 the two large rooms to the south of it were cleared in the investigation of Area M. They are provisionally referred to as M.I and M.II. Both had doorways opening onto the adjoining corridor, that in M.I, like the one leading to the tower passage, being fitted with threshold slabs. M.I was a storage basement, in which 12 or 13 large pithoi were set into the ground along the walls (Pl. 74, a). Excavation here was difficult since the associated floor was below today's water-level. We suspended the digging around —0.50 m., though noting that the walls continued downward.



Room M.II, with inner dimensions about 6.00 m. by 3.85 m., was full of fallen debris, a mass of which was removed in 1966. The walls now stand clear, in places fully two meters high but not in sound condition, and it seemed prudent to stop short of the soft mud and water. Parts of the walls, notably around the doorway at the northwest corner, show evidence of rebuilding, and it appears that this room, as well as others within the bastion generally, went through at least two stages of occupation. The final destruction happened very probably in the time of L.M.IB/L.H.II when the great earthquake struck. The pottery has not yet been thoroughly studied.

Two deep vertical slots in the inner face of the east wall of the room may have held timbers. In the southwestern corner a vertical shaft was closed in by light stone walls, and at the foot of it there is an opening through the south wall of the building, presumably for drainage. Around the shaft lay large flat slabs of stone with remains of red stucco on them, quite possibly the flooring of a bathroom fallen from the upper storey (Pl. 74, b).

West of the two rooms a staircase descended southward along the face of the older fortification wall to a landing and doorway opening outwards, then returned northward past the rooms themselves and led to the broad northeastern passage that gave access to the tower. Much of this complex has been lost, victim of the modern road builders.

Clearly all these apartments were for service and storage, whereas the main quarters were upstairs. These may have been an important and elegant part of the whole establishment, possibly rooms for the military staff, being near the chief defensive works. Everywhere in the debris, especially that of Room M.II, were fragments of fallen wall-plaster with patterns and figures in bright colored fresco.

THE EASTERN AND SOUTHEASTERN SECTORS

Thorough excavation of the areas south of the bastion began in 1964 and was continued in succeeding campaigns.

THE FORTIFICATIONS AND GATEWAY

The straight line of the old wall is broken about four meters south of the bastion by a rectangular eastward projection, **e** (Fig. 2), which is faced with good rough ashlar masonry. We take this to have been a tower in the earlier system of defenses. Inside of its thick walls there was a room, with coarse pottery lying on at least two successive floor-levels, and in the eastern part a heavy foundation which may have supported a staircase. The room appears to have been used for different purposes over a considerable period of time.

From Tower **e** the wall continues southward, with irregularities in construction which again give evidence of changes and rebuilding, and then turns southeastward to the main gateway.

To approach the peninsula of Ayia Irini by land from elsewhere on the island one comes from the east, around the inner end of the bay of Vourkari (Fig. 1). It is natural and practical therefore that the principal entrance of the ancient town should be in this position, guarded on the visitor's right by walls and towers, hemmed in on his left by the shore. Excavation of the region (chiefly in 1964, 1966 and 1967) has shown that there was a long history of architectural changes, not only in the great period which corresponds with M.M.III-L.M.IB but also before that in the Middle Bronze Age and afterwards from Mycenaean to Graeco-Roman times. For obvious reasons full and detailed knowledge of the many stages can no longer be recovered, since in each rebuilding some of the earlier remains were obliterated.

Visible today is the open passageway, nearly three meters wide, which leads inward from the big threshold blocks to a court behind the temple and thence to roads and alleys within the town (Fig. 9; Pl. 71, a-f). The threshold in its latest form was made up of one huge slab flanked by somewhat smaller ones, each a step down, on either side. Places for doorposts are free at the inner corners, but pivot-stones were not found. Below the outer step a corner of an earlier threshold stone can be seen (Pl. 71, b). There are no wheelmarks; indeed the blocks show few signs of wear and so suggest that they were not exposed for long. Inside, the passageway is irregularly paved with large and smaller stones. A bench is in place along the southeastern wall (Pl. 71, b-d, f), and a few other blocks, perhaps also used as seats, were found near the opposite wall, not carefully placed. A big drain, coming down from the alleys in the town, runs below the passageway but is deflected northward before reaching the threshold, to pass through the side wall and empty outward on that side of the gate (Fig. 10).

Southeast of the gate one finds a complex system of walls and rooms (Fig. 9) which were built in various phases of the settlement; their chronology has not yet been determined fully. A square tower, **g** (Pl. 71, d), projects northeastward, having been added relatively late in the main period. The somewhat larger rectangular structure to which it was attached may have held a tower in a preceding phase. This rectangle is divided into two rooms of unequal size, communicating through a third with the entrance passageway. From this group a regular series of small and large chambers runs southeastward along the inner face of the fortification wall as it proceeds in jogs to the present shoreline and, so far as can be observed, meets another massive tower, **y**, which is now under water. One must suppose that a line of walls turned sharply there to run along the seaward edge of the town (badly eroded since ancient times) and continue around the tip of the promontory, completing the circuit at or near Tower **x** (Fig. 2).

BUILDINGS OUTSIDE THE WALLS

A small building made up of two rooms, M.VI and M.VIII in our preliminary numbering, stood close to the edge of the Northeast Bastion and the old projecting

tower **e**, clearly later in date than either of them and differently aligned (Fig. 9; Pl. 74, c, d). Its dimensions are a little under eight meters by four and its walls are light, about half a meter in thickness. M.VI, the northern room, was made with great care: the floor is of irregular flagstones neatly laid and pointed with stucco, the walls stuccoed and once decorated with frescoes. The outer face of the west wall was also plastered and protected by flat stones set upright against its base, evidently to ward off water which issued from the drain in Room M.II and from another in Area L. M.VI was not closed on the east. The smaller room, M.VIII, was not so well finished. Its east wall—if it had one—is missing. A short stub of wall inside divides the space in a manner suggesting that it may have held a winding staircase, but no steps were found; there might have been a terrace on the roof, but scarcely a second storey, the whole unit being so lightly constructed.

This strange little building must be dated, on the evidence of the frescoes, in the time of the major settlement before the great earthquake of L.M.IB/L.H.II, but in a late phase when the fortifications no longer served an immediate military need; surely it was not placed there when it might be used as a shelter by enemies attacking the walls. Observing its orientation and the open front of the main room, one cannot doubt that it was laid out deliberately to flank the roadway to the entrance gate. Why it was so situated, and elaborately decorated, remains a puzzle. We have speculated whether it was related in some way to Tomb 40, a conspicuous monument near by.

TOMB 40

Graves have been found in Area M, on the eastern side of the promontory, like those in Area J on the west (*Keos* 64-65, p. 367). Most of them belong to the period before the building of the great wall. In 1967 another, of more imposing type, was uncovered close to the wall, between Tower **e** and the main gateway (Fig. 9).

Tomb 40 (Fig. 11) comprises a large chamber, fully 2.25 m. long and 1.10 m. wide, three big cover slabs set across it, and a roughly circular mound of earth and stones above, which was surrounded at least on one side by a curving row of small slabs set upright. The walls of the tomb chamber are well built but bedded at different depths; one assumes that the floor was near our datum zero (modern sea-level) since the north wall rests at -0.10 m. The cover slabs at either end were found in place but the middle one was broken and a fragment of it was in the south part of the chamber resting at -0.16 m. This tomb had been robbed, probably in ancient times but just possibly by the men who planted a eucalyptus tree over the center of it about a generation ago. As usual, a pit had been dug to receive the tree (one of many on the promontory) and its root had done further damage, finding its way through the broken slab into the grave below. Thus the earth of the mound had been disturbed. A single gray bowl of poor quality (K.3456) had escaped and was lying above the cover near the south end of the grave. All the mud removed by us from

the interior was dried, sifted, then washed and sifted again, but nothing of significance was recovered.

The shape of the mound, undoubtedly a visible tumulus, appears to have been slightly irregular. The bordering row of upright slabs diverges at the north from the line of a true circle, suggesting that there may have been an opening there and, just possibly, a spiral ramp to the top. In any case, the tomb in this much frequented place was clearly an object of attention, and it is not surprising that its valuable contents were stolen when no longer protected by authority. About its history one

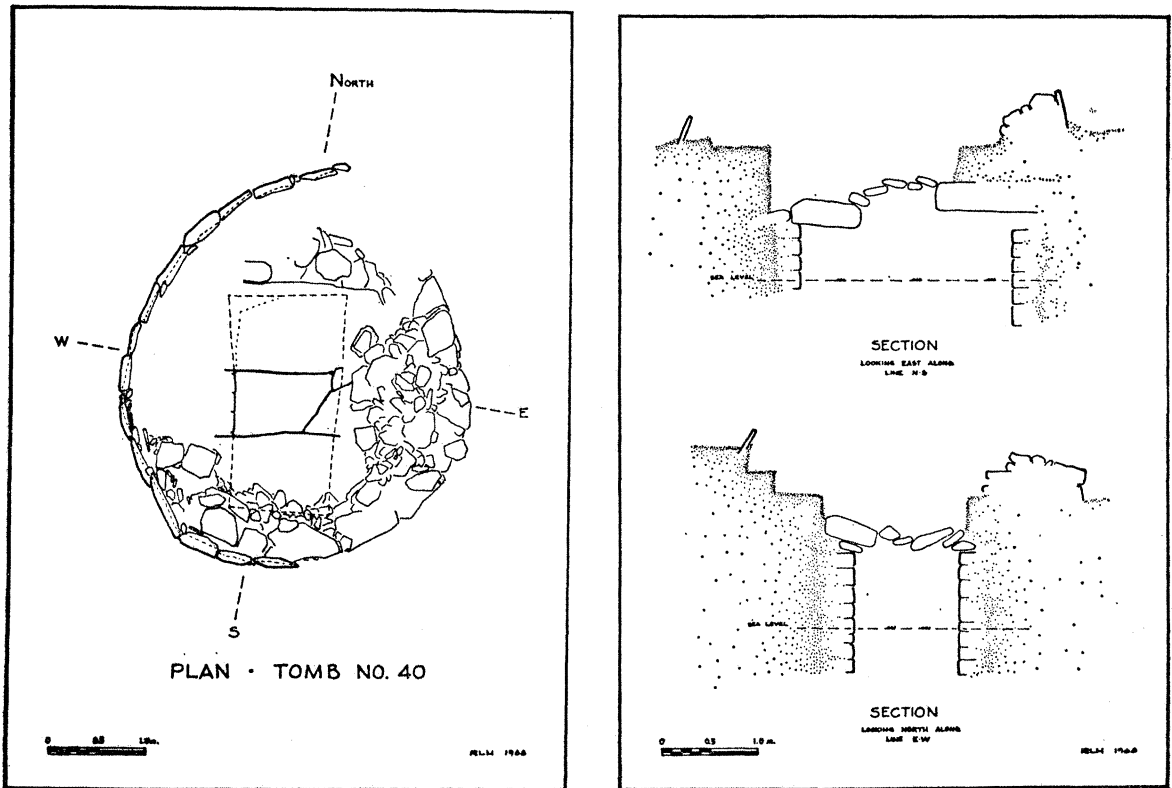


FIG. 11. Tomb 40 (R. L. Holzen).

can only guess. A great man may have been buried there at an early date (though certainly not before the Middle Bronze Age), and the tumulus may have been heaped up and embellished later in the prosperous days of the town when attacks by enemies were no longer to be feared.

LATER STRUCTURES

At least two successive architectural phases were observed in the excavations of 1966 above the remains of the finely paved room M.VI, and there was a similar

sequence of buildings over Room M.VIII and the adjoining spaces to south and east. Covered drains ran among these, descending eastward (Fig. 10; Pl. 74, e). The walls in general were very fragmentary and stratification of the debris was hard to distinguish. Pending definitive study of the material, we may say only that houses stood here on a terraced slope after the fortifications had been razed by the great earthquake but still within the Late Bronze Age. An isolated rubbish pit near the southeast corner of the bastion contained Mycenaean pottery of latest IIIB or early IIIC styles, that is, of a period scarcely represented elsewhere on the site except in the temple.

The long straight retaining wall, A, which was first seen in exploratory trenches (*Keos* 63, p. 318; cf. Figs. 2, 3, 9), has been uncovered along its whole outer, eastern, face and several stratigraphical tests have been made in recent seasons. It is now certain that the outer face was exposed down to its bottom in Roman times. Evidence from the irregular inner side has been elusive; of the few post-Mycenaean sherds found so far, not one was firmly lodged within the masonry or deeply buried behind the wall.

Soundings on the eastern side in 1968 showed the bottom of Wall A around —0.50 m., and below that level certain other much earlier walls, one of which reached bedrock at —2.53 m. (Pl. 76, d). Apparently resting on Wall A, but conspicuously askew, was a very large stone that had puzzled us (Pl. 76, a). The new investigations explained part of this anomaly, making it clear that the huge block was part of another early retaining wall, still in place, and that Wall A had been fitted around it (Pl. 76, a-c). This very heavy structure of cyclopean masonry is labelled MG (Figs. 2, 3). It runs southeastward and is bedded at depths of —0.85 m. to around —1.50 m. Immediately behind it (to the southwest), directly in line with the main gateway, there are remains of additional structures which were partly cut away when Wall A was built. Wall A appears also to have cut through the corners of Tower **g** and of the adjoining rectangular room, unless one supposes that these earlier elements had already collapsed before it was constructed. Just before reaching the line of the southeastern fortifications Wall A makes a sharp right-angled turn toward the east, and in the corner there is a heavy flight of steps downward.

Supplementary excavation was undertaken in 1970, with constant pumping, to uncover further parts of Wall MG, which had appeared to be running on toward Tower **y**. It was found, however, that the line of great cyclopean blocks turned obliquely inward toward Tower **g** and was interrupted by the presence of a large tomb.

The purpose served by Wall MG is not clear to us. Its position and orientation seem incongruous, being out of alignment with the other major walls and impeding access to the main gate. We have speculated, perhaps prematurely, that it was built in Mycenaean times to shore up the roadway when erosion took place after a sudden change in sea-level. Pottery of L.H.IIIA2 style was found down to its foot in one

of the soundings dug in 1968. Evidence seen in 1970, however, suggests that the wall may have been built earlier than that. The problem is of interest, being related to other questions of topography at this site and possibly with features of geological and climatological change in the Aegean area. Until all the evidence is better understood it seems prudent to refrain from further speculation.

TOMB 58

This is situated near the foot of Wall A (Figs. 2, 3, 9, 12; Pl. 77, a-e). The cover slabs were encountered just below modern sea-level and the side walls were followed down to their beddings around —1.20 m. to —1.40 m. It is made up of a northern and a southern compartment, each about 0.90 m. by 1.75 m., separated by a partition wall on the east but communicating by a doorway on the west. The masonry on the inner faces is of good quality (Pl. 77, b). The floor of the southern compartment (Pl. 77, a), which was the tomb-chamber proper, is composed of two big slabs held up partly by a supporting wall below and partly by insertion into the side walls. Another slab extends through the doorway into the northern compartment, which seems to have been a vertical shaft leading down into the tomb from the ground above. There were some signs of disturbance. No bones remained, but ten small pots of undistinguished quality were recovered from the inner chamber (Pl. 77, b). These will be described in Part II; they are probably to be dated early in the period of the great fortifications.

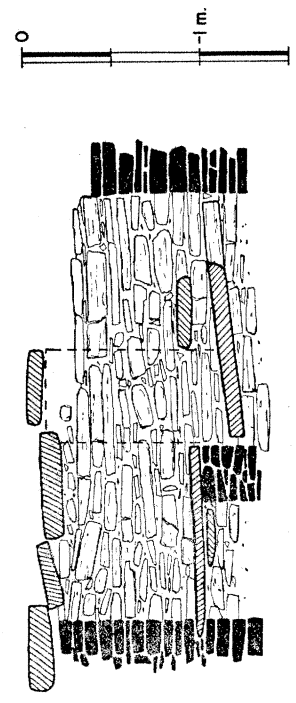
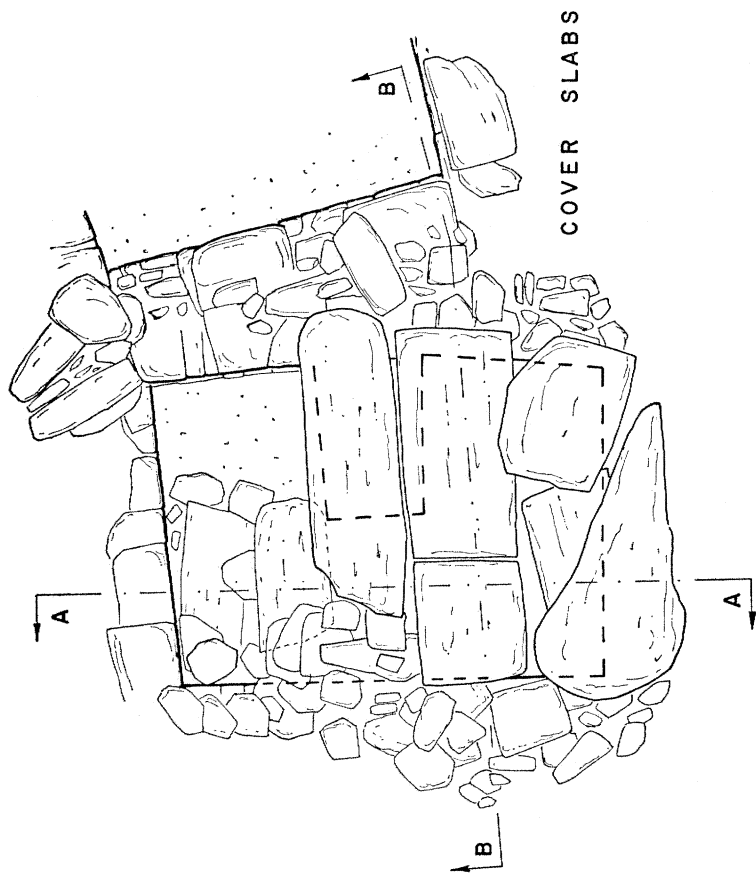
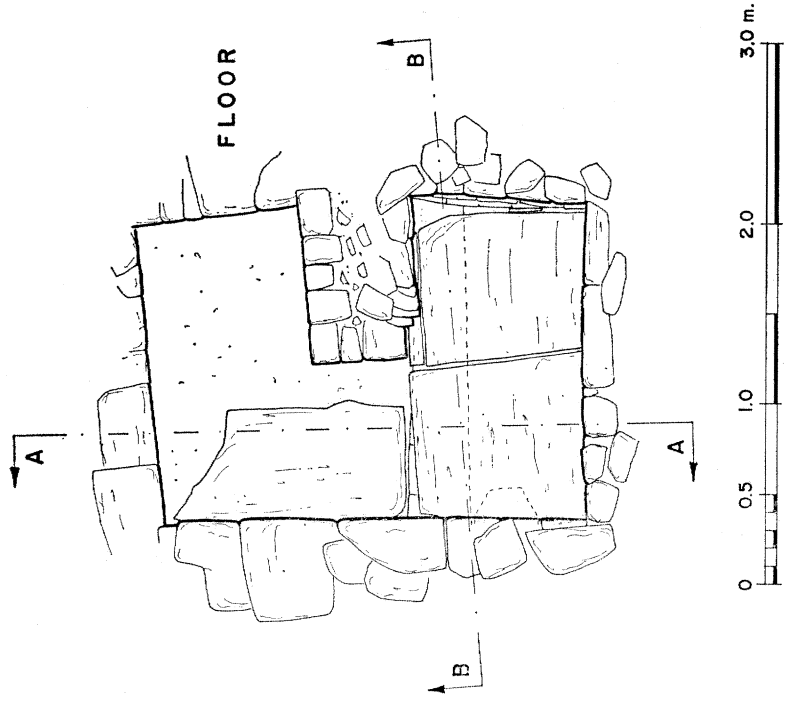
A walled enclosure, damaged on two sides, was found next to Tomb 58 on the northeast at a somewhat lower level. This we take to have been another tomb, slightly earlier, but none of its contents survived.

The southwesterly prong of Wall MG covers one end of the earlier structure but stops at the corner of Tomb 58. At first sight one might guess that it had continued originally to Tower **g** and had been cut through by the tomb builders, but the position of the stones and the relationships of such strata as could be observed in the soft mud seemed to show that the tomb was older than the wall.

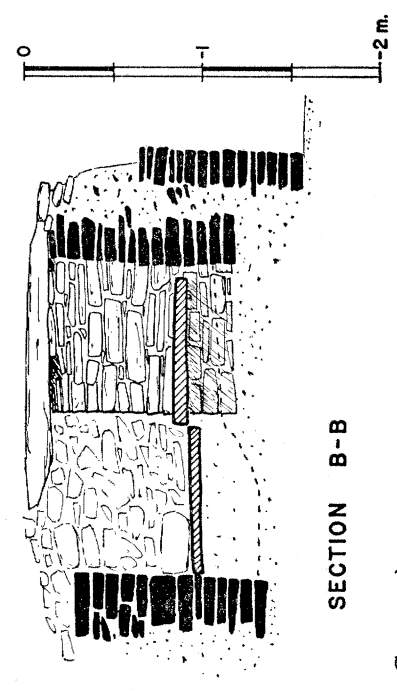
From the corner of MG another wall, temporarily named G.BZ, ran onward, its outer face curving as if to form an enclosure around Tomb 58 (Figs. 3, 9; Pl. 77, c, d).

Above these remains were other quite different systems of walls, mostly in poor state of preservation, associated with pottery and objects of classical and late Roman times. It appeared that the space east of Wall A had been divided in the late period by spurs, perhaps to mark off private landing-places for small boats.

At the end of the season of 1970 this area was refilled, the cover slabs of Tomb 58 were set on the new surface in their proper relative positions, and lines of small white stones were embedded in the ground to mark the angle of Wall MG (Pl. 77, e, f). The complex sequence of building phases here represented remains to be studied in detail.



SECTION A-A



SECTION B-B

FIG. 12. Tomb 58 (W. W. Cummer).

BUILDINGS WITHIN THE TOWN

AREA L

The space south of the modern road-cut and east of Area J, in the narrow northern extension of the town, is called Area L (Figs. 2, 3, 9). After the first soundings of 1960 and 1961 a large part of this was cleared in 1963, when a building with massive walls was exposed behind Tower **e**, along with a smaller, lighter building which had been joined to its west face (*Keos* 63, pp. 322-323). The remaining strip of ground to the north of these was excavated in 1966. In it were found fourteen other rooms and passages. It now seems evident that the big heavy building was designed and erected with the great fortifications in their earlier phase, contemporary with M.M.III. Unfinished ends of walls suggest that the original plan was not completely carried through but modified, possibly after damage by one of the earthquakes that afflicted the island in this period of its history. The smaller structures on the west and north appear to have been plain living and working quarters. Their floors were of trodden earth; in one room was a sunken jar, its stone lid flush with the floor, in another a hearth with ashes spread about. Remains of a staircase show that there was a second storey over some of these rooms, if not all.

AREA G

West of the main gate and adjoining the inner face of the fortifications are two rooms which were excavated in 1966 with the labels G.VIII and G.VI (not to be confused with M.VI and M.VIII near by; see Fig. 9). Both had undergone reconstruction more than once, probably in connection with changes in the gateway and defensive systems, and both were undoubtedly cellars under an upper storey. G.VI is small, *ca.* 1.50 m. by 2.50 m.; G.VIII, somewhat irregular, measures *ca.* 3.30 m. by 4.30 m. Soundings below them showed remnants of structures and deposits of the Middle Bronze Age. In Room VIII there were at least two stages of occupation in the Late Bronze Age, and the stratification is of special interest. At first a doorway near the northwest corner led out toward the west; then a pillar was built near it and the doorway was closed. Pottery from the earlier strata of floor-deposits is of L.M.IB/L.H.IIA styles, whereas that from the succeeding levels is characterized by imported Mycenaean wares of L.H.IIIA1 (to be described in Part II). This sequence has been observed also in Houses C, F, and J, where there was more confusion and less clear distinction of strata, as well as in certain deposits above and quite separate from the principal remains of House A. One concludes that Room G.VIII collapsed in the great earthquake and that it was one of the apartments which was partially cleared out and used again in the brief period of reoccupation.

STREETS BESIDE THE TEMPLE

A passageway about 1.75 m. wide runs along the northeastern side of the temple (Fig. 9); for identification it has been called Temple Road. It was entered at the

northwest through a portal with a big threshold block and led downward at a grade of nearly ten per cent toward the sea, giving access, one supposes, to a place where the temple was entered at that end. The position of the road had been determined in the early campaigns of excavation; most of it was cleared in 1966 (Pl. 79, c). A little more digging and much further study of the stratigraphical data will be required. At present we can say only that it went through at least three stages of use, being paved with successive strata of slabs and cobblestones, within the main period of the Late Bronze Age. Earlier, various structures had projected outward from the wall of the temple. This wall itself shows many signs of rebuilding.

The narrow alley on the other side, called Temple Lane, was examined further in 1967. The doorway to the well-preserved corner room of House B was shown to have been fitted with a stone threshold. Outside, a fine paving of cobblestones ran past it, some 40 cm. lower so that water would not flow in. Gradually the alleyway filled, the threshold was built up, and stepped walks with covered drains replaced the original pavement (Pl. 79, b).

A deep sounding was made in the lane at a place opposite the junction of temple walls A and L.² Wall A changes thickness very conspicuously just there and we hoped to discover a reason, but its outer face runs deep all along this stretch without any obvious break in the masonry (Pl. 67, g). Successive pavements and covered drains were found in the upper levels of the lane. The foundations of the great outer wall of House A rest at +1.30 m. Down to +0.70 m. our trench encountered many fallen stones and chips, but below that level soft reddish brown earth. Sherds were abundant in this earth down to +0.20 m., where we stopped at a rough flooring of stones. The pottery, quite different from that of the later deposits, comprised bowls and saucers in red and brown wares, plain or slipped, and a fine black burnished tankard of distinctive shape, obviously assignable to the Early Bronze Age.³ In the "Temple Lane group," which will be described in Part II, wares of these kinds became recognizable for the first time at Ayia Irini in an undisturbed deposit. They are of the same fabrics as the pottery isolated later in the second stage of occupation (over that of the sauceboat phase) in the buildings of the western sector described above. Here below the lane, although the space for testing was very restricted, we conclude that there was a ruined house and that its debris was cut through by the builders of the temple wall.

THE TEMPLE

Inside the building itself investigations were made in 1967 in the southeastern

² See plan and section, *Keos 64-65*, fig. 2, of the northwest end of the temple (not "north-east" as appears there in the legend).

³ *Proc. Amer. Philos. Soc.*, CXIII, 1969, p. 436, fig. 3. In the campaign of 1969 it became evident that pots of this kind were not possibly "contemporary or even earlier" than the E.H.II/E.C.II phase, as allowed in that lecture.

room, V, the central room, IV, and in the corridor, VII, which is entered from the middle of the latter (*Keos* 63, fig. 2). Most of the digging was carried on below water-level, with a pump running constantly. The history of the temple is long and exceedingly complex, as was observed in 1964 (*Keos* 64-65, pp. 367-369). Only a few features can be mentioned in the space of the present report. For reference it should be noted that the southwest wall of the building is called A and the northeast G; the partition wall between Rooms IV and V is B, that between IV and VII is U.

In the south corner of Room IV the bottom of Wall A was reached at -1.55 m., that of B at -1.65 m. As appears in the photograph, Plate 80, h, the alignment of the lowest courses is slightly different from that of the next stage, when the walls were rebuilt. The earliest destruction is marked by fallen stones in a stratum rising to -1.20 m. Above this, a floor with flagstones was recorded at -1.03 m. and with it the first observable evidence of a doorway to Room V, namely a white marble step or threshold slab at -0.84 m. and a white pivot stone (Pl. 80, f, g). Just over these a high narrow bench was built along the face of Wall U. Gradual accumulations above the step give evidence of subsequent minor periods of use and probably of one brief interval when the room was not occupied. The threshold of the doorway had of course to be built up as the floor-levels rose. Ultimately they covered the bench beside Wall U. All this activity took place in the Middle Bronze Age; up to a level of -0.40 m. the datable potsherds are all of standard gray Minyan and Matt-painted wares.

In Room V a comparable sequence was observed. A trench showed the inner face of Wall A going down below -1.90 m., where the flow of water made further digging impractical. Fallen stones in the room marked a time of destruction like that seen in Room IV. A stepped bench against Wall G (Pl. 80, e) was contemporary with a floor-level around -1.10 m. Patches of burnt matter, suggesting fireplaces rather than a conflagration, were found on this floor in the middle of the room, the forerunners of a long series which may well mark continuing religious practices. In Room V the pottery up to -0.60 m. was Middle Helladic.

Above these levels there is a conspicuous change, the sherds being of L.H.IIIA and IIIB types. Neither in Room IV nor in Room V was there any pure deposit that would represent the prosperous period M.M.III—L.M.IB, such as was found in Room XI. As observed in the report of 1964-65, all the accumulations of that long period seem to have been removed from Rooms IV and V in Mycenaean times after the great earthquake. Telling evidence is added by the fact that fragments of the terracotta statues, which were found massed as they had fallen in Room XI, were scattered widely in the later deposits of the other rooms and not infrequently built into the masonry of reconstructed walls. Two small features may be assigned to the period of hiatus: a series of blocks fallen from a steep staircase at the northwest

end of Corridor VII, and a patch of plaster in two layers, the outer one of which was decorated with a white sponge-pattern on a black ground, found in place on Wall G near its corner with Wall B in Room V.

A thick flooring of white lime-plaster was installed throughout Room V at a level around $-0.60/-0.55$ m. (Pl. 80, d). From this, at one stage, there was access by a step at -0.32 m. to a new threshold at -0.08 m. in the doorway to Room IV (Pl. 80, c, where the topmost threshold, $+0.37$ m., between upright jambs, is of a still later period). On either side of the doorway pi-shaped structures were built in the corners, and a bench ran along Wall A (Pl. 80, a, b). Near the central axis in the southeastern part of the room a rough stone base, its upper surface at -0.45 m., seemed designed to hold a wooden column.

Another collapse threw stones from Walls A and B into Room V, making necessary still further repairs in the time of L.H.IIIC. New benches were built along both sides and along Wall B over the remains of the pi-shaped structures. A big rectangular podium, possibly an altar, now occupied the center of the room where signs of burning had been observed in the preceding strata. Built of stones and clay, it measures roughly 1.15 m. by 2.10 m. and is preserved from its uneven base a little above sea-level to a height around $+0.55$ m. (Pl. 79, a). The large IIIC krater K.1315 which is illustrated in *Keos 60-61*, pl. 102, a, was found on a floor at $+0.35$ m. near the west corner of the podium.

This phase ended with another destruction, when Wall G collapsed into the room from the northeast, covering the benches and the podium. By that time the whole structure of Room V may have been in such ruinous condition that people were discouraged, for they chose to erect only a very small enclosure in one corner, Room BB (*Keos 60-61*, fig. 4), with a floor at $+0.90$ m. Even this did not last long. What was left of Wall G fell in, obliterating BB and, probably, accounting for the shattered group of late IIIC pots which we found at a corresponding level in Corridor VII during the campaign of 1961.

The photograph on Plate 79, a, shows Room V as it was left, refilled, after the excavations of 1967 (cf. *Keos 63*, pl. 54, b).

HOUSE F

The long narrow building (*ca.* 21 m. by 6 m., irregular), partly excavated in 1964, was wholly exposed and cleared in 1968 (Figs. 2, 3). It comprises six rooms, which are numbered I through VI in sequence from the north. The first five are cellars but the floor of Room VI is about 1.80 m. higher, its level corresponding approximately with the main floor of the house and, we suppose, with the ground outside. It is not clear where one entered. In Room VI are found the first steps of a flight leading upward toward the south, presumably to turn eastward and rise to the second storey, but from a landing at the bend there may have been a doorway

opening out onto the narrow alley which runs between House F and House A. From Room VI there is also a stone staircase descending to Room V, whence one had access to Rooms IV, III, and II (Pl. 74, g). Room I is a separate unit with its own staircase.

The levels of the basement floors were determined largely by the underlying natural rock, which rises toward the southeast. In some places this was cut down slightly by the builders, but under the east wall of Room V it was left visible (Pl. 72, e) and one may guess that its rise, correctly estimated, had discouraged any thought of making a cellar under Room VI.

Rooms attached to the west side of the main building at its north and south ends may prove to have been integral parts of the establishment.

House F is to be the subject of a special study which has been pursued as occasion permitted in the seasons of 1968-1970. Although its lower parts are well preserved, with some walls standing over two meters high, its history is not easy to reconstruct. We know that Room I was built first, probably soon after the main wall of the town had been completed; then Room VI, again as a separate entity; and finally Rooms II-V which filled the space between. All were used down to the time of L.M.IB/L.H.II and were damaged variously by the great earthquake. Evidently the basements were dug out and occupied again thereafter, for the debris as found by us contained L.H.IIIA1 pottery almost everywhere, down to levels near the original floors. Joins have been made between sherds from different rooms (in one case as far apart as I and IV), a fact indicating that the pots fell from upstairs and from a larger free space, not so closely partitioned as the cellars below.

The debris, as reported earlier, held masses of fallen stones, suggesting strongly that the rebuilt house was destroyed again by earthquake and left in ruins. No objects later than L.H.IIIA1 have been found here.

WESTERN ROOMS OF HOUSE A

House A (Figs. 2, 3), almost surely the largest and probably the most important single establishment in the town of the Late Bronze Age, was probed in the first trial trenches of 1960 and further parts were excavated successively in the seasons of 1961, 1963, and 1964. By that time the greater number of rooms had been exposed (*Keos* 64-65, pp. 371-373 with a plan), but the western side still lay buried. In 1968 the principal task was completed with the uncovering of some ten more rooms (Fig. 3; Pl. 75). The whole great complex, irregular in shape, is now seen to measure about 37 m. from western to eastern corner. It is surrounded by narrow alleyways which are clearly distinguishable on all sides except the west, where deposits are not deep and digging was stopped near the grounds of the church.

The new rooms (Pl. 75, b, c) are without basements, being in a region over the main spine of native rock. A sounding through the floor of one revealed part of an earlier structure with pottery going back to the older phase of the Middle Bronze

Age (Pl. 75, f). It may be guessed that these rooms formed the domestic quarters. In some there were pithoi (Pl. 75, d, e), as well as examples of finer small vessels, and from the largest room came a big fragment of a copper ingot⁴ on which a quadrangular sign had been punched with strokes of a chisel near one corner (Pl. 75, a). All datable objects found in floor-deposits of the western rooms belong to the period of L.M.IB/L.H.II, shortly before the earthquake.

AREAS Q AND R

Limited excavations were made in 1967 in Area R, south and southeast of the church, and in Area Q on the crest of the scarp to the west (Figs. 2, 3). Between these two the bedrock is high and in places wholly denuded, but at the outer edges of the promontory the deposits are deep. In both areas the remains of buildings proved to be like those found in other parts of the site, including well constructed walls and much evidence of the earthquake of L.M.IB/L.H.II above strata of the preceding settlement and a scattering of Early Bronze Age sherds on the rock.

Principal axes of the houses appear to have run NW-SE, the partition walls between rooms being set approximately at right angles to them. The rooms are small and some undoubtedly had an upper storey above them, as is indicated by a good flight of steps in Area R (Fig. 3; Pl. 74, f). Excellent pots of Minoan, Helladic, and Cycladic origin were found in this region, along with local wares and a two-handled gray Minyan bowl that is reminiscent of the wares of Troy VI. These vessels are contemporary, from the time of the earthquake, and a selection of them will be presented in Part II. No deposits of L.H.IIIA date were discovered here.

Eight graves were found in Area R, most being of late antique or modern times. In one there was a rosary with a crucifix. Another, No. 46, was relatively deep, being cut down into the rock, and had cover slabs. Offerings in it included two clasps and a buckle of bronze, an iron dagger blade with recognizable remains of a wooden sheath, and a small piece of gold leaf. This unusual group will be the subject of a separate study.

STYLES OF MASONRY

Two kinds of stone, readily available in the hillsides near Ayia Irini, were used in the buildings of the town, a gray or greenish schist which splits easily into flat slabs and a blue-gray limestone of fine grain resembling marble. In some places the masons' deliberate choice of one or the other is obvious but more often there is a mixture, the blocks having been taken as they came to hand and selected only by size and shape. It requires little imagination to picture helpers bringing up the stones and the masters setting them, occasionally breaking or trimming a piece with a metal

⁴ Inv. K8.422. 0.23 by 0.15; 0.04 thick; probably about one-quarter of the whole ingot, with pointed tip at upper left in our photograph, the lower and right edges broken roughly. Another smaller piece, K4.135, also from House A, may also be from an ingot.

tool, in precisely the manner that has been customary on the island until now (Pls. 72, f, 73, a-b). Today the traditional craft is being replaced by quicker construction in reinforced concrete, cement block, and fired brick.

Mud was used sometimes as mortar between the stones, but the best of the masonry was dry. Sawn blocks are very rare but not unknown in structures of the Late Bronze Age. The big stone in the northwest jamb of the main gateway (Pl. 71, b, e, f) shows a saw-cut upward from the lower surface. We guess that the builders started the sawing, and became impatient (did the blade break?), and heaved the great block over into place as it was.

Characteristics of the masonry have been mentioned in the foregoing account of the remains, and our photographs have been chosen to illustrate various styles. Fine neat workmanship appears often in the Early Bronze Age (Pls. 66, 67) and seems to have been carried over into the first phase of the next period, notably in Wall DJ at the early gateway and Tower **w** (Pls. 68, a-c; 69, c). With the building of the greater fortifications a more massive style was adopted, sometimes producing the handsome near-ashlar faces of the fortress (Pl. 72, a, b) and of important houses, sometimes only an irregular, though imposing, pile of huge stones weighing several tons each. Close to each other in the outer face of the circuit in Area N are two big boulders, one white, one dark reddish gray, which may have been placed there deliberately as symbols.

House walls of the late period vary widely in style. Among the best and strongest are those of House C (Pl. 72, c), carefully composed of large and small stones; generally the workmanship is good but not specifically distinguished (Pl. 72, d); one wall in House F, perhaps a hasty rebuilding (Pl. 72, e), looks casual and careless and out of place at Ayia Irini.

Construction in crude brick is not positively attested by remains in place, but large quantities of earth and clay fell into the basements, presumably from upper parts of walls, second storeys, and roofs.

Benches along walls, a feature of island architecture today, are not uncommon. Rectangular piers which supported upper storeys are reminiscent of Crete but here are built of moderate-sized stones, not squared blocks. Thresholds and staircases are neatly constructed. In a few doorways wooden frames were let into chases; timbers must have supported the steps leading upward and some of those going down to basements; and one assumes that wooden beams were used in ceilings and roofs, although many of the narrow rooms may well have been covered by long slabs of stone resting on walls that were corbelled inward at the top to reduce the span (cf. recent examples, Pl. 73, b).

STREETS AND DRAINAGE

From the Early Bronze Age onward the site seems to have been crowded with

buildings. One can gain only an impression from glimpses of the older settlements: contiguous rooms in the western sector, an open passage for a limited distance along Wall DJ and one or two small streets running down to the gateway beside Tower W, and necessarily a system of approaches to the main entrance on the east, although later building in that region has obliterated most of the earlier plan. Of the final great period, however, enough is preserved to give a more detailed picture.

A person entered the town through the main gate and proceeded inward through the broad passageway. He might turn to the left along Temple Road or go on to the small open court. From this one could enter House A by the doorway and the short flight of steps down to the basement level, or walk along the very narrow alleys westward or southeastward. The latter gave access to other alleys around House A and to doors into House B, probably also to the far end of the temple (Figs. 2, 3, 9).

Passage around House A would bring the visitor to the south end of House F and the southeast end of House C. Another alley separates the north end of House F from House J and passes along the inner face of the fortifications to a place where open spaces between houses may once have led southward to an inner courtyard. In this whole region west of House F and around House C much must remain uncertain, since the walls are not all preserved to the corresponding ancient ground levels and the main doorways have been lost. What remains is a complex of cellars and semibasements which were entered from above. Our plan, furthermore, although showing walls of one main period, may include some elements that were successive rather than precisely contemporary. Even with allowance for these uncertainties, however, it is obvious that the area was full of buildings and that people must have moved from one to another directly through internal doorways or by way of balconies and verandas above street level. In Areas N and L, also, arrangements of this sort would seem to have been necessary.

Provision for drainage is seen in various parts of the town. Mention has been made of channels and passages associated with buildings of the early settlements. In the later period the system was fairly elaborate. Big openings in the circuit wall, found in Area D and in the north wall of the Northeast Bastion, mark the mouths of two principal drainage networks. These carried off water from their respective areas. Some of it was waste from installations within the houses, even in the upper storeys, as indicated by vertical shafts from upstairs in a room of Area L and in Room II of Area M. Two rooms in House A had sluices leading out into covered drains in the alleys (*Keos 60-61*, p. 269, Rooms III and XIV, pl. 94, b), which emptied ultimately into the sea. Part of one system is illustrated in Figure 10: drains come from alleys around House A and the temple and, meeting under the small court, flow under the passage toward the gate, curve to the left, and pass out through another big opening like those of D and N. Outside the wall, this channel was changed more than once, finally taking the eastern of the two courses which are

shown on the plan (probably to be clear of Tomb 40) and reaching a covered manhole where another drain came down to join it from the west. Here the system drops below modern sea-level and cannot be followed further.

The care and effort expended on drainage was considerable. Indoor plumbing was, no doubt, a convenience which appealed to the inhabitants, but there was a more compelling motive. One must picture the crowded roofs of the buildings covering most of the area of the town. A heavy rainstorm would quickly produce a great deal of water which, if not promptly disposed of, would flood the many cellars and spoil the valuable goods that were stored there.

OUTLYING SITES

KEPHALA

A high rocky headland on the north coast (Fig. 1) drew our attention in 1960. By 1964 it was established that an early settlement had occupied much of this promontory and that graves of the inhabitants were grouped in a cemetery near the foot of the slope on the landward side.

The village had been poor, and remains on the steep slopes were badly eroded, but after preliminary study the material seemed important enough to demand farther investigation. This was carried through in 1966. A second group of graves was found adjacent to the first, just above it on the slope, and remains of several more houses were cleared, especially in Areas K and L near the crest of the promontory, west of its peak (Pl. 81, a).

A definitive report on the results of this excavation is being prepared. At meetings of the Archaeological Institute of America in December 1966 we were able to announce two items of special interest: a C-14 date of 3021 ± 58 B.C. (based on half-life of 5730 years), which was obtained by analysis of a large quantity of carbonized seeds from one of the houses; and the discovery of materials, including the shaft of a worked pin and other bits of metal (presumably copper), fragments of small crucibles, and pieces of a substance resembling slag, which point to the presence of a metal-working industry.

In all, about 40 graves have been recorded, some containing multiple burials, some single, and a few so damaged that they were scarcely to be recognized.

The pottery from the settlement and the cemetery, generally red-brown in color, was not well fired and is hard to mend, but a number of whole shapes have been restored. These and the fragments of terracotta figurines, the stone implements, and the rough tools and abundant chips of obsidian are indicative of a late stage of Neolithic culture, perhaps looking forward in some of its elements to the opening of the Bronze Age in the Cyclades.

PAOURA

On information from our foreman and one of the local workmen in 1968 we explored the surface of a lofty perch on a great outcropping of rock about two kilometers due east of Kephala, beyond the bay of Otzias. Locally it goes by the name of Paoura (Πάουρα = Πάγουρα?). A conspicuous ridge of rock descends gradually to it from still higher ground on the south; to the north the descent is steep to the sea and on the east there is a sheer drop to a modern quarry half the way down. Otzias provides a sandy beach and a partly protected cove where small craft can lie (Pl. 81, b-e). Closer to Paoura is a tiny indentation at the foot of a ravine, approachable from the sea in fair weather. The climb from either landing place is a weary one. We were told that water flows in winter from a spring below the ridge, not far from the site; in summer it is now dry.

People settled at this picturesque, remote and unsheltered spot in very early times. Potsherds and obsidian on the surface are like those found at Kephala. Here and there one can make out the lines of walls, some straight, some curving. On the western side of the northern extremity a large expanse of native rock is nearly level; perhaps once occupied, it is now bare. In it there are a few small cavities which may have held the ends of upright timbers.

The setting is magnificent, and it offers near-perfect security from pirates, if it can be imagined that marauders might be attracted by so humble a village. One wonders whether there were other reasons why people chose to live there.

TROULLOS

A rounded hilltop some 500 m. northwest of Ayia Irini, called Troullos (Fig. 1), was investigated in 1966. Remains of ancient construction had been observed there previously, and its commanding position had suggested that it would serve well as a station from which ships could be watched and signals be given by semaphore to the town on the harbor (Pl. 82).

On the summit, some 65 m. above sea-level, there appears to have been a nearly rectangular enclosure measuring *ca.* 11.50 m. on the north end and 15 m. on the west side (Fig. 13; Pl. 83). Projections are seen at the southwest corner and on the east side, where there may have been doorways. The southeastern corner is wholly lost and the rock is exposed. The northern part of the enclosure is paved with large irregular slabs of local marble; elsewhere there are remains of coarse plaster flooring. From this floor rises a drum-shaped structure, *ca.* 5 m. in diameter, of rough stone masonry with a filling of earth and rubble. It is preserved to a height of 0.80 m. Outside the building and tangent to its west wall is another drum, 6 m. in diameter, of similar construction. Off the northeast corner of the enclosure run walls that make up a separate building with one room (2.25 m. by 4.75 m.) and quite possibly a second room, or porch, adjoining. There were accumulations of potsherds on the floors.

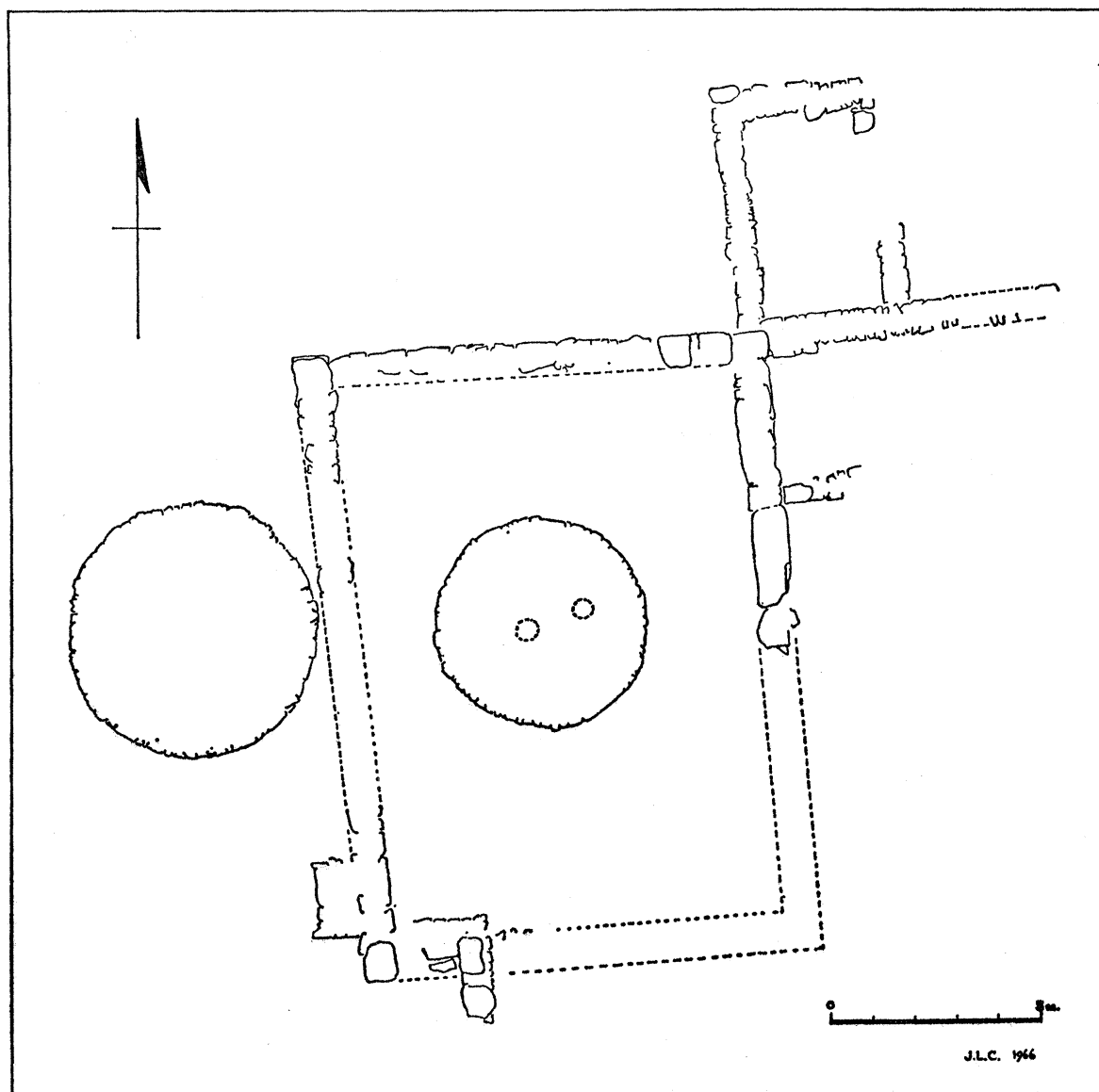


FIG. 13. Buildings at Summit of the Troullos (after the survey by L. E. Cotsen).

A trench excavated across the inner drum, roughly east and west, exposed bed-rock around 63.85 m. above sea-level. Debris seen in the trench consisted of earth and dense masses of small stone chips. Among them were found two large slabs of white marble, nearly round, 0.45 m. to 0.50 m. in diameter and about 0.10 m. thick. They lay aslant and were almost certainly not in place (Pl. 83, c).

Objects found in and around the buildings on the Troullos include the following:

POTTERY

Total, 3.5 tinfuls; 95% local coarse wares. Pl. 84, f. Spout of a plain sauceboat of E. H. type, heavy, undecorated. Two handfuls of sherds of Matt-painted wares and bits of a black burnished one-handled Cycladic cup, probably all of the Middle Bronze Age. Twenty sherds of a jug or jar in hard buff fabric with decoration in brown lustrous paint: horizontal bands at base, small dots on body, neck coated; probably L.H.I. In coarse ware: 149 conical cups represented, one deep with rim turned out, the rest of plain shapes common at Ayia Irini in the period of L.M.IB/L.H.II; fragments of jars and pithoi; 12 legs of tripod pots; pieces of two crucibles with traces of copper.

BRONZE

Thin strips, probably blades (of razors?): Inv. K6.248, 252, 255, 256 (Pl. 84, e); the first and third apparently complete, 0.068 m. and 0.075 m. long, tapering from width of *ca.* 0.01; Inv. K6.371 in fragments with total length of 0.11, maximum width 0.018. All with thickness of 0.0004-0.0007.

U-shaped object: Inv. K6.372; 0.037 by 0.048, 0.003 thick at middle of curve, tapering to ends, one of which is looped, the other missing. A carpet needle?

STONE

Head of marble figurine of Early Cycladic type: Inv. K6.100, described in *Hesperia*, XL, 1971, pp. 118-119, no. 20.

Ladle: Inv. K6.93 (Fig. 14; Pl. 84, a, b); blue-green, heart-shaped, most of rim missing; length 0.144.

Libation tables: Inv. K6.98 (Fig. 14; Pl. 84, c); blue-green, fragment; diameter of round depression *ca.* 0.16. Inv. K6.378 (Fig. 14; Pl. 84, d); dark gray, chipped; a miniature, 0.033 by 0.037, 0.02 high.

OBSIDIAN

Five chips.

This collection of objects indicates that people frequented the place from the Early Bronze Age onward but that the chief period of building and occupation was that seen also in the *floruit* of the town at Ayia Irini. The conjecture that the

Troullos was used as a watch tower is neither confirmed nor denied by the form of the buildings. One may observe that the stone vessels suggest religious practices and that the central structure may well have been a shrine (perhaps to a god of storms?). If that were the case, however, it would still not preclude the posting of watchmen who signalled the passage of ships. Such a combination of activities would be reasonable enough; one thinks of the scout who was posted on the tomb—presumably a high tumulus—of Aisyetes at Troy (*Iliad*, B, 793).

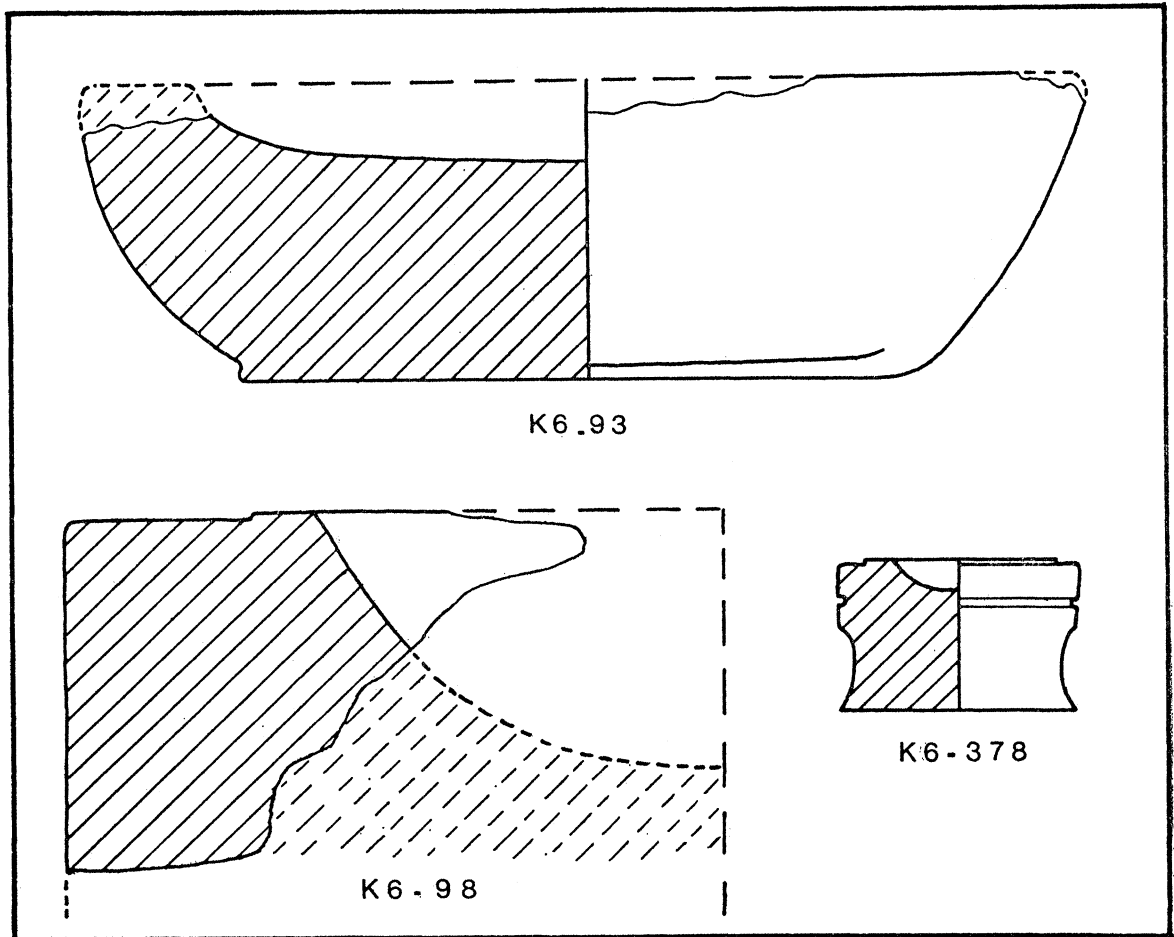


FIG. 14. Stone Vessels from the Troullos (M. R. Popham).

OTHER EXPLORATIONS

It seems quite possible that Ayia Irini, with its favorable position on the principal harbor, was the site of the chief settlement of the island in the Bronze Age. Almost surely, however, there were others. On numerous excursions members of

the staff have looked for signs of early habitation, but whereas archaic Greek pithos fragments, black-glazed sherds, and Roman pottery have been seen at many places, pre-classical remains are rare. J. E. Coleman records bits of obsidian at Perlevos and another hilltop west of the bay of Otzias, on a "tourlos" near Ormos Orkos, at Ovraiokastro on the coast below Karthaia, on the mountain Ayios Theodoros in the south, and at a place a short distance inland from Mavrambeli on the northwestern shore. Since natural sources of obsidian have not been found on the island, one concludes that the substance was imported, probably from Melos and presumably in pre-classical times, though it may well have been used here in later periods also.

In the summer of 1966 T. M. Mathews, attached to our expedition, spent more than a month on the island, visiting the sites of the Greek cities and reviewing the historical and epigraphical evidence of the classical period. He too looked for signs of earlier occupation, but without further success.

JOHN L. CASKEY

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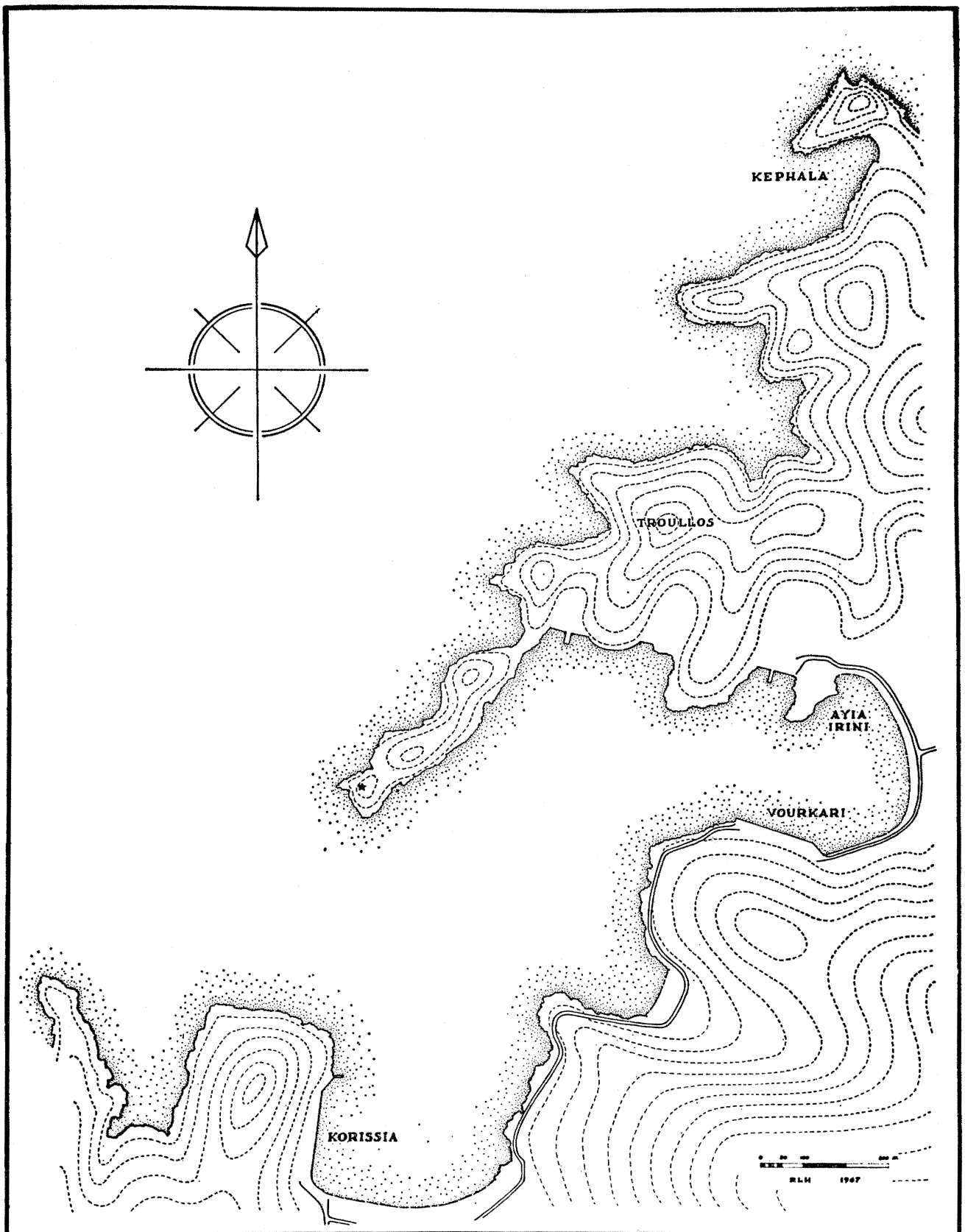


FIG. 1. Part of Northwest Coast of Keos. (Adapted by R. L. Holzen from British and Greek maps).
Contours approximate. Interval 10 m.



a. Pavements over E.B.A. Room XI.



b. Earliest Pavement over E.B.A. Room XI.



c. Cavity in Rock under E.B.A. Room XI.



d. SW. Wall of E.B.A. Room XI.



e. Wall and W. Corner of E.B.A. Room XI.

Buildings of Early Bronze Age

JOHN L. CASKEY: INVESTIGATIONS IN KEOS. PART I: EXCAVATIONS AND EXPLORATIONS, 1966-1970



a. E.B.A. Rooms from NE.



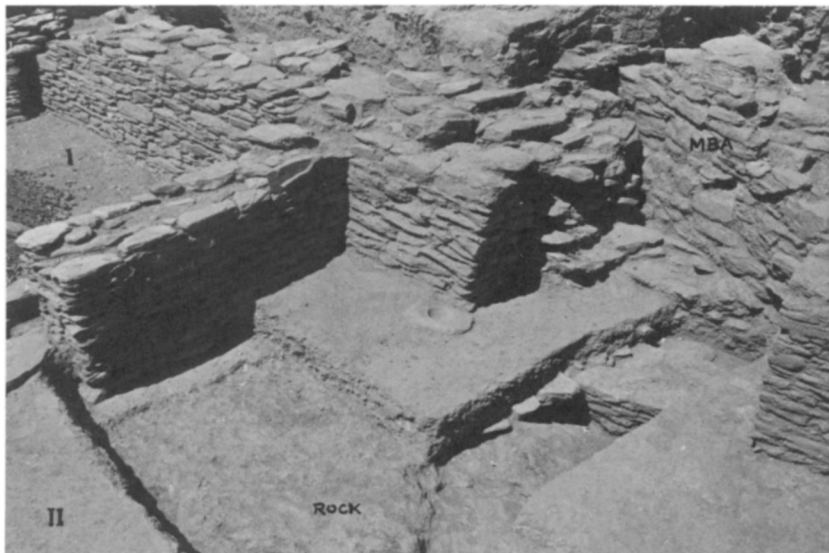
b. E.B.A. Rooms from SW.



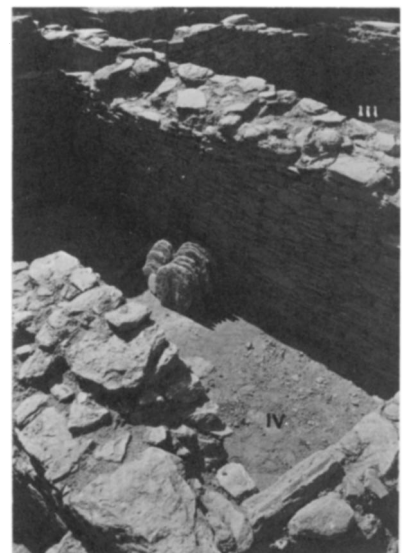
c. S. Corner of E.B.A. Room I.



d. Interior of E.B.A. Room IV, from SE.



e. Parts of E.B.A. Rooms I and II, from E.



f. E.B.A. Rooms from N.

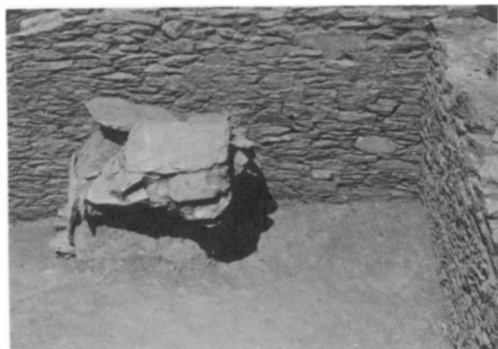
Buildings of Early Bronze Age



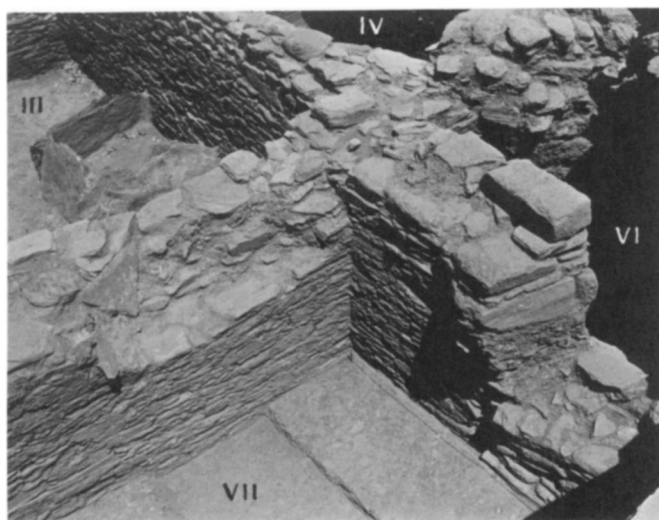
a. M.B.A. Walls over E.B.A. Rooms.



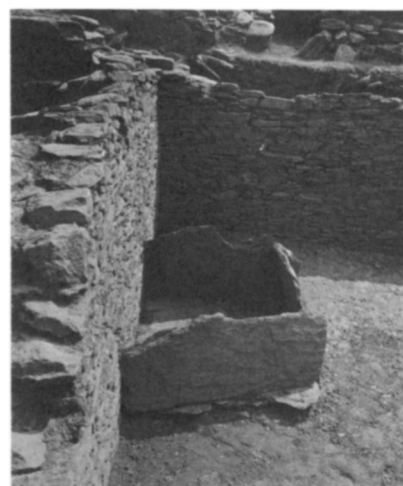
b. Doorway between E.B.A. Rooms I and II, from SW.



c. Bin in E.B.A. Room III, from SW.



e. Parts of E.B.A. Rooms, from S.



d. E.B.A. Room III and Bin, from NW.



f. Wall of House D above E.B.A. Room II.



g. Sounding in Temple Lane, from SE.

Buildings of Early Bronze Age



a. M.B.A. Houses, Lane, Wall DJ and Gateway, from E. L.B.A. Walls above.



b. Tower w, left; Inner Face of Later Fortifications; and Wall of E.B.A. Room XI, lower right. From ESE.



c. Gateway in M.B.A. Wall DJ.



d. Path outside Gate, from NNW.



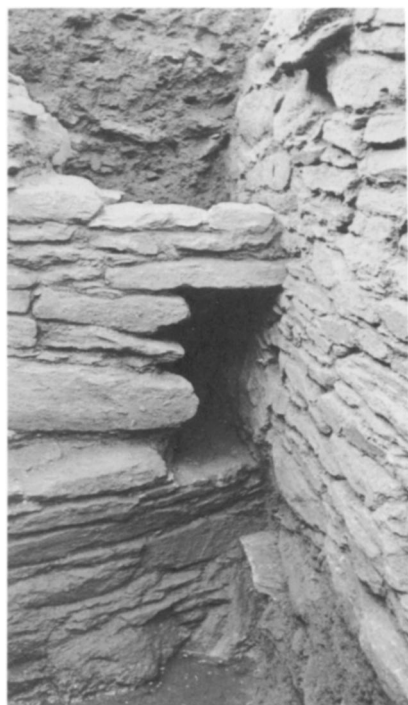
e. Early Pavements below the M.B.A. Path.



f. M.B.A. Room behind Tower w.



g. M.B.A. Kiln or Oven.



a. Drain through M.B.A. Wall over E.B.A. Wall.



b. Drain through Wall DJ.



c. Jamb of Gateway in Wall DJ.



d. E.B.A. Potter's Kiln near Tomb 31.



e. Tomb 31, lower right, under Fortification Wall in Area J, from N.



f. Tomb 31.



g. M.B.A. Cist Grave and Jar Burial.

PLATE 70



a. Fortification Wall in Area N with Addition, right, from S.



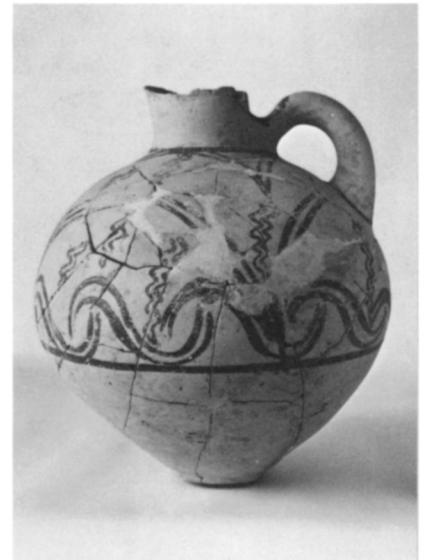
b. Tower ne from W.



c. Exterior Masonry of Tower ne.



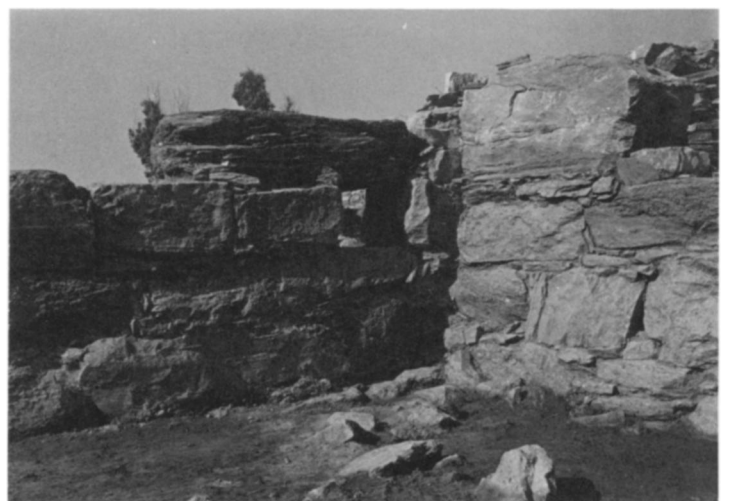
d. Interior of Tower ne; Jug as found.



e. Matt-painted Jug K.3817 from Tower ne. H. 0.284.



f. Limekiln outside Fortification Walls.



g. Fortification Walls after removal of Kiln.



a. Excavation, 1964.



b. From NNE.



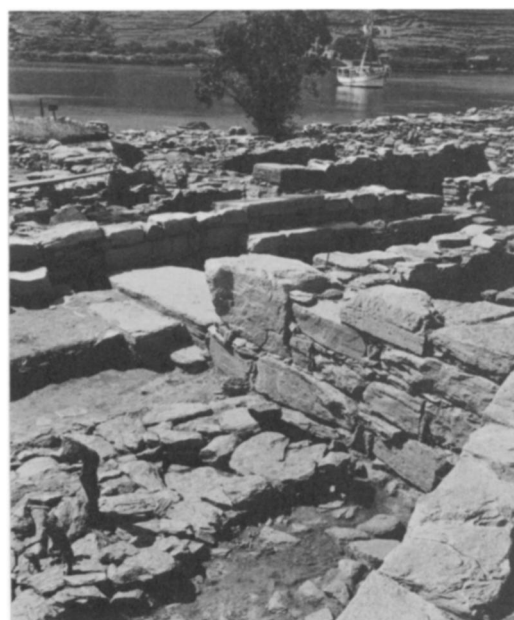
c. Threshold from SW.



d. Tower g, left, and Gateway, from NE.



e. Part of NW Passage Wall and Gateway, from S.



f. Fortifications and Gateway, from N.

Main Gateway



a. and b. Outer Face of Fortifications in Area J.



c. Masonry in Main Basement Room of House C.



d. Masonry in Rooms of House F.



e. House F, E. Wall of Room V, from within.



f. Modern Wall at Ayia Irini.



a. Modern Barns and Threshing Floor near Ayia Irini.



b. Interior of Modern Barn near Kephala.



a. Pithoi in Room M.I.



b. Fallen Slabs in Room M.II.



c. Covered Drain and Manhole in Area M.



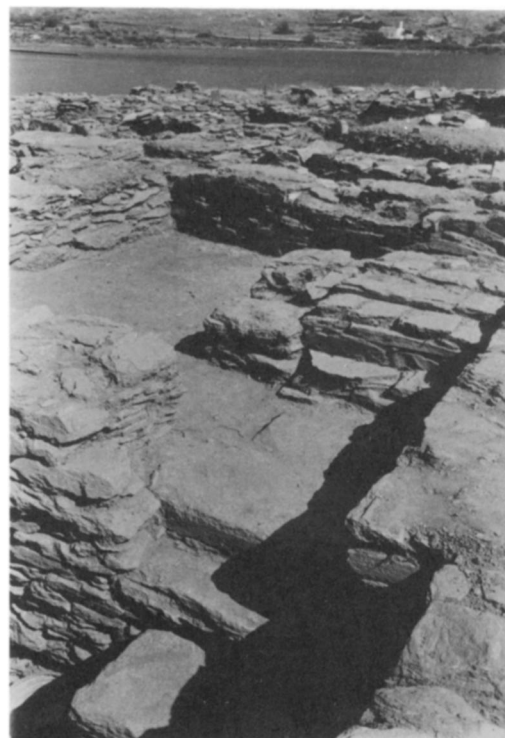
d. Walls and Staircase in Area R.



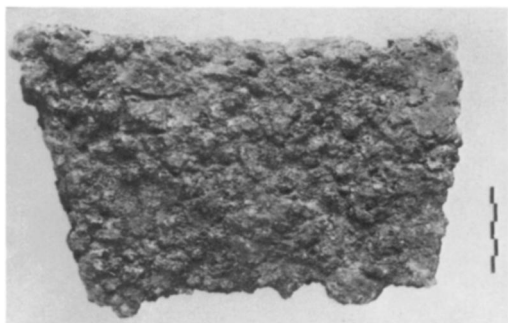
e. Tower e, left, and Rooms M.VI and M.VIII, from SSW.



f. Part of Room M.VI with Pavement; Walls of Room M.V above.



g. House F, Room VI with Staircases, from NW.



a. Part of Copper Ingot K8.422, from a Room in House A.



b. Part of House A, from SW.



c. Rooms in W. part of House A.



d. Broken Pithoi in House A.



e. Pithos in House A.



f. M.B.A. Walls under a Floor of House A.

House A



a. Wall A and Area of Main Gate from NE, 1968.



b. Wall MG from SE.



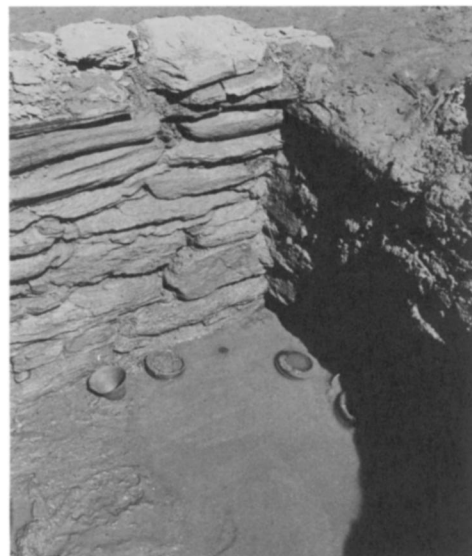
c. Wall MG from NNW. Wall A at right.



d. M.B.A. Wall under Wall A.



a. Tomb 58.



b. Inner Chamber of Tomb 58.



c. Walls MG, G.BZ and A.
Tomb 58, upper right.



d. Curving Wall G.BZ and Tomb 58, from ENE.



e. Eastern Region refilled, 1970. Angle of Wall MG marked. Cover
Slabs of Tomb 58 in Relative Position. From NE.



f. Angle of Wall MG marked. From E.



a. Entrance, from NW.



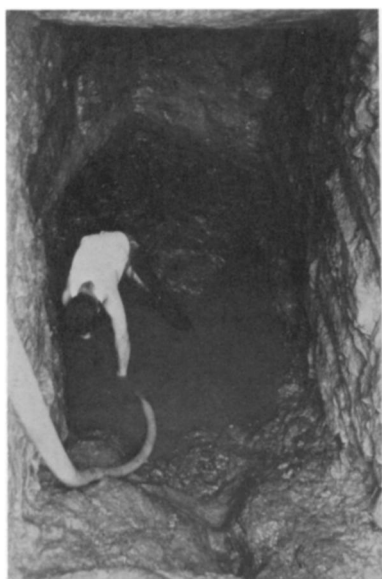
b. Entrance, from S.



c. Fortification Wall, left; Chamber Wall, right.



d. Chamber Wall, left; Fortification Wall, right.



e. Excavation of Black Stratum in Chamber.



f. Roofing Slabs of Chamber.



g. Interior of Chamber.

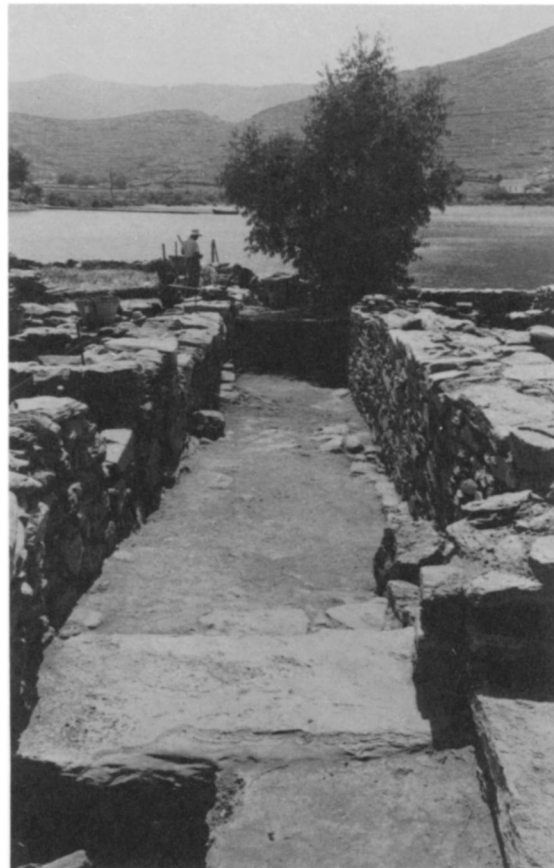
The Spring Chamber



a. The Temple from SE, 1967. Room V in foreground, refilled.



b. Drains and Pavements in Temple Lane, from SE.



c. Temple Road from NW.



a. W. Corner of Room V.



b. Structures against Wall B, from E.



c. Doorway from Room V to Room IV, from SE.



d. White Plaster Floor against Wall G in Room V.



e. Early Bench at foot of Wall G in Room V.



f. Walls U and B, Bench, and Step or Threshold in Room IV, from WSW.



g. Details of Bench, Step, and Pivot-stone in Room IV.

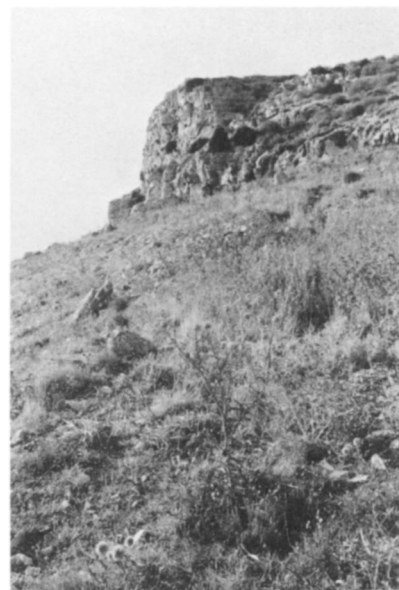


h. Bottom of Walls B (left) and A in Room IV, from N.

Excavations in the Temple, 1967



a. House at Kephala and View toward the East.



b. The Cliff at Paoura.



c. Northwest Coast of Keos. Paoura on Skyline, center. From W.



d. Paoura. Chora (Ioulis), upper left. Bay of Otzias, right.



e. View Northeast from Paoura.



a. Top of the Troullos, center, as seen from Ayia Irini.



b. View from the Troullos, toward Korissia. Compare map, Fig. 1.



c. View from the Troullos toward Ayia Irini, Vourkari, and Chora (Ioulis).



a. Drum within the Enclosure.



c. Marble Slabs buried in the Drum.



b. Paving North of the Drum.

The Troullos



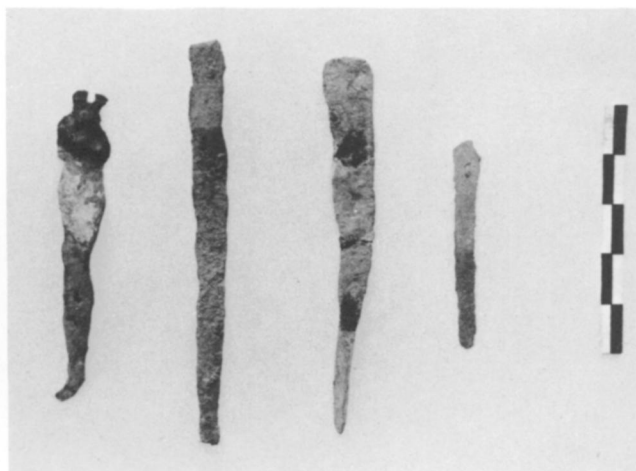
d. Room Northeast of the Enclosure. Kephala in the Distance.



d. Miniature Table of Offerings
K6.378.



a. and b. Ladle K6.93.



e. Bronze Blades K6.248, 252, 255, 256.



c. Table of Offerings K6.98.

Objects from the Troullos



f. Potsherds.