THE AMERICAN EXCAVATIONS IN THE ATHENIAN AGORA
HESPERIA: SUPPLEMENT IV

THE THOLOS OF ATHENS AND ITS PREDECESSORS

BY
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ADDENDA

Page 53. The close similarity between the stringcourse in the Tholos wall and those employed in both the old Propylon on the Acropolis and the Pinakotheke of the Mnesiclean Propylaia suggests that the stringcourse of the Tholos wall served the same purpose as the others, viz., a base-line for wall paintings. See Dörpfeld, *Ath. Mitt.*, XXXVI, 1911, pp. 52-53; Dinsmoor *apud* Swindler, *Ancient Painting*, p. 424, note 14[a]. If paintings actually were applied to the Tholos walls, they undoubtedly perished in 86 B.C. and so failed to appear in Pausanias or the lexicographers. Pausanias, it will be recalled, refers to paintings in the Tholos at Epidauros (II, 27, 3).

Page 71, note 48. Since this paper went to press, I have learned from Miss S. Atherton that fragments of pointed tiles, apparently similar to the diamond-shaped tiles of the Tholos, have been recognized at Corinth. Professor Karl Lehmann-Hartleben informs me also that the excavations now being conducted under his direction at Samothrake have brought to light terracotta tiles from the Arsinoeion. Since their weather surfaces have rounded lower edges, they must have formed an imbricate rather than a reticulate pattern.

Page 83, Fig. 63. The second room from the south in the Hellenistic Metroon should possibly be restored with a solid back wall, hence with a temple-like scheme. In this connection note in front of the room, on its axis and close by the Great Drain, the foundations apparently of an altar, in which two periods may be distinguished. See Dörpfeld, *Alt-Athen*, II, pp. 223 f.

Page 107. The excavations of 1939 have exposed the southward continuation of the two roads which diverge at the boundary stone, the one in the valley between the Areopagus and the Hill of the Nymphs, the other well up on the west slope of the Areopagus. An old cemetery between these two roads on the shoulder of the Areopagus went out of use at the end of the sixth century, perhaps in consequence of the more formal regulation of the street system in this part of the city which is implied by the setting up of the boundary stones (*A.J.A.*, XLIII, 1939, p. 588). The Altar of the Twelve Gods, which was regarded as a key point in the city plan at least from the time of Herodotus if not from its establishment, may be counted part of the same program.

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Eaves Tiles and Antefix from the Tholos

INTRODUCTION

The Excavation

The distinction of sheltering the Tholos was shared by two sections of the current excavation: Beta and Zeta (Fig. 1). The round building itself and its two annexes appeared in Beta, its porch and precinct in Zeta. Section Zeta was cleared in 1933, Section Beta in 1934, both under the direction of Eugene Vanderpool.[1] Supplementary exploration in the lower levels was carried on by the author in the spring of 1937 and again in 1938. The archaic buildings that appeared beneath the Tholos were found to extend northward and the pursuit of them led in 1938 to renewed probing deep beneath the Hellenistic Metroon. The Tholos, its archaic predecessors, and their immediate environs have now been thoroughly examined. But much indirect light on their history may be hoped for from the more detailed study of the area to the south and the southeast.

The present report is little more than an attempt to present the evidence for the reconstruction and history of the buildings.[2] The epigraphic and literary evidence bearing on the Tholos has been discussed repeatedly and at length by others. Detailed consideration of the historical significance of the new material had best wait until the excavation of the Agora, and of the North Slope, is more nearly complete.[3]

The main theme of this study is the series of public buildings at the southwest corner of the market square. But since their history extends over a mere thousand years, the account of them will be more comprehensible if framed in brief notices of what came before and after.

[1] For preliminary notices of the excavation see T. L. Shear, *Hesperia*, IV, 1935, pp. 321 f. and 343 ff.

[2] My obligations to my colleagues are many: first to John Travlos for the architectural drawings and for infinite help in working out the architectural problems; to Eugene Vanderpool for repeated discussions and useful notes on the results of the preliminary excavations and for assistance in the study of the black-figured pottery used in fixing the chronology; to Arthur Parsons for counsel on the prehistoric pottery; Rodney Young on the Geometric; Lucy Talcott on the red-figured (pp. 129-131 are from her pen); to Eugene Schweigert for his report on the inscription that tells of the furnishings of the Tholos (pp. 144-147), and to Alison Frantz for many excellent photographs. I have consulted my wife on many points and never without profit.

[3] The best general account of the Tholos based on the literary and epigraphic evidence remains that by Wachsmuth, *Die Stadt Athen*, II, pp. 315 ff.; the most recent is by Judeich in *Topographie*[2], pp. 346 ff. For the connection between Tholos and Prytaneion see J. Charbonneaux, *B.C.H.*, XLIX, 1925, pp. 158-178, and Doro Levi, *Annuario*, 6-7, 1926, pp. 1-25. On the "Prytanikon" as a term covering the Tholos and its precinct see the study → E. Vanderpool in *Hesperia*, IV, 1935, pp. 470 ff.

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Fig. 1. The Tholos Seen from the East Pediment of the Hephaisteion. June, 1939

Earliest Habitation

The earliest considerable remains of habitation in the region of the Tholos are of the Middle Helladic period. To the north and northeast of the building the lowest layer of gravelly earth above bedrock yields broken pottery of that period in some quantity: Grey Minyan, Matt-painted, and the appropriate coarse wares. Elsewhere in the lowest levels scattered sherds of the same period are encountered. With this Middle Helladic material have been found several pieces that seem certainly to be Early Helladic; a handful that may be Neolithic.

Again to the northeast of the Tholos a few sherds of Late Helladic pottery have appeared in the lower levels. The most convincing evidence for actual habitation in this period is a well 4.75 m. deep, of very irregular outline, cut down in the bedrock some 10 m. northeast of the Tholos (Pl. I and Pl. II, Section **BB**). Its filling yielded a handful of plain potsherds and the oinochoe shown in Fig. 2, of an advanced Late Helladic III shape.[4]

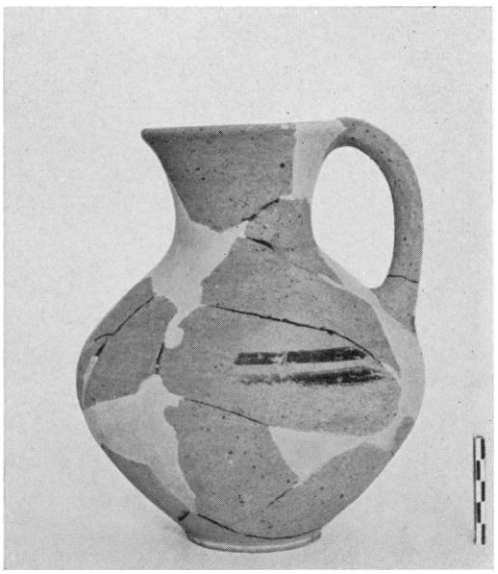


Fig. 2. L. H. III Oinochoe (Inv. No. P 13.256) from Well to Northeast of Tholos

Occasional Protogeometric sherds appear almost everywhere close above bedrock. An irregular pit 2 m. deep, 8 m. to the southeast of the Tholos, just north of the fountain house, yielded pottery exclusively of this period; it may be a well. Late Geometric pottery occurs in abundance; and in many places, notably in the line of the ancient roadway, continuous stratification has been observed from that period onwards.

EARLIEST STRUCTURAL REMAINS: BUILDINGS A AND B

The earliest foundations so far encountered in this area belong to a long narrow structure, Building A, which lay at the foot of the hill to the southeast of the later Tholos, and adjusted the line of its front wall to the roadway in the bottom of the

[4] Inv. No. P 13.256. Height, 0.199 m.; diameter, 0.166 m. Pale yellow clay tempered with coarse brown grit. Two brown bands around the shoulder; traces of another at the base of the neck. On the shape cf. W. Kraiker in Kraiker and Kübler, *Kerameikos, Ergebnisse der Ausgrabungen*, I, pl. 25, 496, pp. 15, 74 (from the sub-Mycenaean cemetery → O. Broneer, *Hesperia*, II, 1933, p. 368, fig. 40, a (from a very late Mycenaean deposit on the North Slope of the Acropolis). For Mycenaean remains, possibly of a burial, in the Bouleuterion Square, c → *Hesperia*, VI, 1937, p. 167.

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valley (Pl. I). There remain only scattered lengths of the lowest foundations and many of these are difficult of access, lying as they do deep beneath later foundations and below the present water level. The irregular lines of the walls and the varying character of their construction suggest that parts of the complex were covered rooms,



Fig. 3. Junction of Cemetery and Building A Beneath the Southwest Corner of Building J, from South. Arrow Points to Corner of Building A

other parts open yards. The building had a maximum length of *ca.* 30.50 m.; its greatest preserved width is *ca.* 6.00 m., though it may have been considerably broader.

The most clearly defined part of the structure is its southwest end, a rectangular room with overall dimensions of *ca.* 5 × 10 m. Toward the southwest this room shared a party wall with the Cemetery of the eighth and seventh centuries [5] (Fig. 3).

[5] R. S. Young, *Late Geometric Graves and a Seventh Century Well in the Agora* (*Hesperia,* Supplement II, 1939).

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That the wall was intended primarily for the house is shown by the angles which it makes with the front walls of house and Cemetery and by the fact that it stopped toward the north with the line of the north side of the house. Northeastward of this room the road wall continues at first in the same line, then with two slight bends till it reaches the northeastern limit of the building and returns on itself at an acute angle, leaving the building with a truncated point. Between the southwest room and the northeast end of the building there remain against the inner face of the road wall the stumps of two cross walls. The northwestern limit of the building in this region is



Fig. 4. Kiln in Building A, from East (Street Wall of Building A in Lower Left)

uncertain. The lightness of the walls and the angles in the line of the road wall combine to suggest that these three northern divisions were open yards. A break in the north wall of the building toward its northeast corner indicates an entrance way into the northernmost of the compartments. A great well of late Roman date has destroyed the east side of the doorway.

The construction of the walls of the building is of the simplest (Figs. 3, 4). They are made from irregular masses of Acropolis limestone and field stones bedded in clay, with no attempt at worked joints. The stones vary in size from that of a man's fist to his head. For the most part the foundations were carried down to bedrock with a uniform thickness of *ca.* 0.40 m. The street wall of the rectangular southwest room, however, since it served in its lower part as a retaining wall and would also seem to have carried the weight of a roof, has a more massive socle below floor level (0.70-0.80 m. thick) and is built of larger stones. The southwest room was floored with hard-packed earth, the "yards" with sand and gravel.

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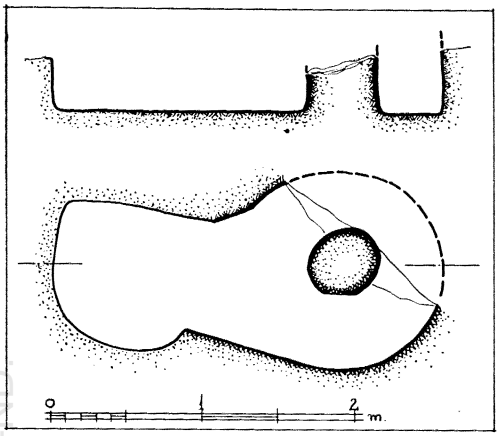


Fig. 5. Kiln of Seventh Century B.C.

A clue to the purpose of the building is afforded by a small kiln that has appeared in the second compartment from the west (Figs. 4, 5). This establishment suffered severely when it was abandoned together with the house, and subsequently it lost much of its north side by the cutting of a well in the fifth century before Christ. Yet enough remains to show the scheme: a round combustion chamber, *ca.* 1.33 m. in diameter, with a column at its center to support an upper floor, and, to the north, a firing-room of irregular shape. The sidewalls have been broken down to the level of the contemporary floor of the surrounding yard and retain no trace of the upper floor of the round chamber. The floor of the yard sloped down steeply from south to north, so that it gave support to the wall of the round chamber yet permitted of firing at the mouth of the lesser chamber. The walls of the round part are covered inside with a layer of clean clay 0.03 m. thick. The central column is built up of crude brick. It too was surfaced with clay, in two layers to a total thickness of *ca.* 0.05 m. The floor also was finished with a layer of clay 0.05-0.15 m. thick, carefully laid and tramped above a thin layer of ash and charcoal. This flooring continued unbroken in the area of the firing-room as well. The wall surfacing, however, stopped at the mouth of the round chamber. Over the floor in both chambers was found a layer of ash and charcoal; above this, tumbled fragments of the upper walls, the whole sealed under by a hard-tramped sandy floor that had formed after the abandonment of the kiln.

The clay surfacing of floor and wall and the abundant traces of burning leave no question that we have to do with a kiln. The central column shows that the round part had an upper floor and so presumably an upper chamber, which could readily have been covered with a dome. The firing-chamber was probably only a single story in height, equal to the lower story of the round part. For the details of the restoration one may turn to the representations of kilns on the terracotta plaques from Pentaskouphia near Corinth (Fig. 6). A glance will show that the remains under discussion agree perfectly both in scale



Fig. 6. Kiln on Plaque from Pentaskouphia (*Gaz. Arch.*, 1880, p. 105)

[6] Illustrations of the pertinent plaques are conveniently available in Richter, *The Craft of Athenian Pottery*, pp. 76 ff., figs. 72-80. For Athenian kilns of the fifth to fourth centuries outside

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and scheme, and, as we shall see shortly, in date. The Pentaskouphia tablets may be regarded with assurance as potter's ovens. No better identification suggests itself for the Agora example. Wasters, to be sure, were not found around it. But in the next compartment to the northeast appeared the exiguous remains of a clay-lined basin such as is used in modern Greek potteries for the washing of clay.

The bonding of the masonry at the junction of house and Cemetery enclosure leaves no doubt as to their contemporaneity. The Cemetery wall has been assigned to the eighth century on the evidence of pottery found behind and in front of it. The exploration of the foundations of the house has shown that they were let down into a gravelly accumulation which yields pottery of the latest Geometric period, very little earlier than the material found on the road in front of the Cemetery. This supplementary evidence would tend to bring the date of construction as late as possible in the eighth century, or to the beginning of the seventh.[7]

Both house and Cemetery enclosure were short-lived. The southeast wall of the enclosure near its northeast end, where it still stands to a height of 0.85 m., leans out at a dangerous angle, and its outer face, as found by the excavators, was banked high with stones tumbled from its upper part. In this débris were found fragments of vases which are also represented by sherds in the westward continuation of the same deposit excavated in 1935 and in the votive deposit at the north foot of the Areopagus excavated in 1932.[8] The ruinous top of the southeast wall of Building A was overlaid by gravelly accumulation which again yielded pottery of precisely the same styles. Pottery of the same sort was found too in the filling of the kiln which is shown by the stratification to have been abandoned along with the house. For the groups of equivalent pottery from the votive deposit of the Areopagus and from farther west on the road beside the Cemetery a lower limit about the middle of the seventh century has been fixed by their publishers. At about this same time, then, our house must have gone out of use and become ruinous. The Cemetery also would seem to have been neglected in the years that followed, for there is no evidence for the rebuilding of its enclosure wall until more than a century later. This conclusion accords with the evidence of the graves themselves: though a couple of infant burials were made as

the Dipylon see *Arch. Anz.*, 1937, cols. 184 ff., fig. 11. A round kiln with central column not later than the third century before Christ is known from Kynuria (*Ath. Mitt.*, XXXIII, 1908, pp. 177 ff.). The building of such a kiln as ours is perhaps illustrated on a black-figured skyphos in the Robinson Collection (*C.V.A.*, Robinson Coll., fasc. 3, III H e, pls. I and II).

[7] Cf. R. S. Young, *Hesperia*, Supplement II, pp. 8 ff. A pit sunk in 1938 through the ancient roadway in the angle between Cemetery and house has revealed the north edge of the burnt deposit which yielded Grave Group XII. This deposit almost directly overlies the road surface as it was when the Cemetery enclosure was built. From beneath the road surface was extracted another fragment of the Protoattic vase P 5285 published by Young, *loc. cit.*, p. 138, no. B 86, and assigned by him to the first quarter of the seventh century.

[8] *Hesperia*, Supplement II, p. 10 (filling of brown earth → *Hesperia*, II, 1933, pp. 542 ff.

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late as the turn of the seventh and sixth centuries, the latest of the regular series of interments has been assigned to the second quarter of the seventh century.[9]

Why house and burial plot should have been thus abandoned is not apparent. It is clear, however, that most of the area lay open and served as part of the public highway for something like a hundred years, i. e., until the erection of Building F. For this intervening period there is no trace of construction save the tenuous remains of a slightly founded house, Building B, beneath the northeast corner of Building F (Pl. I). Within the room, of which only the northeast corner is preserved, were found the stones and fire-reddened earth of a simple round hearth. On the floor of the room lay enough waste from the working of iron to suggest that the place had served as a smithy. Pottery from beneath the floor, which should give a *terminus post quem* for the construction, runs down into the beginning of the sixth century.

"THE PRIMITIVE BOULEUTERION": BUILDINGS C, D, and E

The history of the region of the Tholos in its next period is intelligible only when considered in conjunction with contemporary developments in the area to the north. In a previous report something has been said of a "Primitive Bouleuterion," the foundations of which lie deep beneath the Hellenistic Metroon, beneath even the Old Bouleuterion.[10] Continued exploration has made possible a more precise restoration of both the scheme and the history of this building and the related structures (Pl. III).

The principal structure, Building C, is now shown to have been long and narrow (6.70 × 15.00 m. overall) with two rooms of unequal size facing south on a courtyard or terrace (Figs. 7, 8, 13). The east end wall of the building immediately adjoined the main north to south roadway, and its southward continuation served as a retaining wall for the terrace. This terrace was delimited toward the west and sheltered from the steeply rising hill by a retaining wall in the line of the west wall of the building proper. The construction of the building involved the cutting down of the bedrock for its northwest corner, the raising of the terrace and terrace wall to a considerable height along the road.

Of this building we had previously known the east, north, and the north part of the west wall, as well as the interior cross-wall. Renewed probing in the spring of 1938 established the southwest corner of the building proper and the junction of the south wall with the east wall. The south wall has suffered severely, inasmuch as it was overlaid first by the north wall of the Old Bouleuterion and then by a cross-wall of the Hellenistic Metroon. Any further investigation of it could be done only at the cost of the late Roman mosaic in the third room from the south of the Hellenistic Metroon. By such investigation one might hope to establish with precision the places of the

[9] *Hesperia*, Supplement II, pp. 13 ff.

[10] *Hesperia*, VI, 1937, pp. 117 ff.

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doorways for the two rooms. The existence of these doorways may be taken as certain, however, from the absence of any trace of entrance ways to the building in its east, north, and west sides, and from the fact that the interior crosswall shows no break for a doorway between the two rooms. The recent excavations have also exposed a splendid length of the east wall of the building (Fig. 7) and have brought to light the rock-cut bedding and a few stones of the west wall of the courtyard.



Fig. 7. Foundations of Building C from East

The walls of the building are everywhere built in a rude polygonal style of masonry from masses of Acropolis limestone that vary greatly in size and shape. Traces of plaster, a single coat of plain brown clay, cling to the inner face of the east wall. The floors of the rooms, as also of the courtyard, were paved with 0.05 to 0.10 m. of firm-packed brown clay.

In the earlier report on this building a date in the seventh century before Christ was proposed on the evidence of pottery found in association with its principal retaining wall.[11] This date must be lowered somewhat in the light of the more recent

[11] *Hesperia*, VI, 1937, pp. 122 ff.

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exploration, in the course of which much more of the associated filling has been handled. It remains true that the bulk of the pottery from this filling is of the



Fig. 8. Early Foundations Beneath Porch of Metroon, from North

seventh century before Christ.[12] But in various significant places around the building, in its floor packing and its footing trenches, there has since been found a certain

[12] The filling behind the original retaining wall of Building C has yielded another fragment of the large and distinctive Protoattic amphora of the mid-seventh century before Christ, the first pieces of which came to light in the votive deposit at the foot of the Areopagus, some 150 m. to the south (*Hesperia*, II, 1933, pp. 572 ff., no. 133). For similar connections between the votive deposit and the area of the Tholos, cf. p. 7.

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amount of pottery which must be as late as the early sixth century. In Fig. 9 are illustrated two pieces which were removed from the footing trench of the south wall of the building, near its southwest corner. They are among the latest things associated with the construction, and their relatively complete condition suggests that they had been in contemporary use. They should thus give a fairly close indication of the date of the building.

a. Inv. No. P 13,336. Krater. Height, 0.215 m.; diameter, 0.293 m. Much broken but almost complete. Thin brown glaze in bands both inside and outside. In shape this krater stands midway



Fig. 9. Vase and Lamp from the Footing Trench of Building C

between those of the latest Geometric period with their slightly everted rims and low bases and the classical shape of the François-Vase type which is well developed in the second quarter of the sixth century. The wavy line and the strap handles of our piece hark back to the earlier period; an early date is demanded also by the primitive articulation of the neck and the harsh line of the base. We may safely place the krater at the beginning of the sixth century.

b. Inv. No. L 3494. Lamp. Height, 0.021 m.; diameter, 0.088 m. Flat underside; slightly incurved rim; unbridged nozzle; coarse brown clay. This lamp is obviously developed beyond the open saucer type of the second half of the seventh century (*Hesperia*, VII, 1938, p. 427, D 28, 29); but its wall is not yet so sharply incurved nor is its nozzle so adequate as those of lamps of similar fabric which are commonly found in the Agora in contexts of the second quarter of the sixth century. Again we are reduced to the first quarter of that century.

This additional pottery, therefore, indicates for the building a date as late as the first quarter of the sixth century; there is no reason to believe that it was erected much, if at all later.

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After a short interval, the smaller Building D was erected to the south, and was placed so as to face northward on the old terrace, without, however, reducing the area of the terrace. The relation of the two buildings to one another is approximately symmetrical and their lines are fairly parallel, yet the later date of the lesser is indicated by the fact that it was covered neither by the east terrace wall nor apparently by the original west retaining wall. The latter wall would seem to have been extended in an angular line to the original southwest corner of the new building and then to have been broken down in part when the westernmost room was added to that building. We may assume an entrance way with a gate leading from the street to the terrace between the south end of the terrace wall and the northeast corner of the new building. The main doorway of the lesser building faces northward on the square and thus adds to the effect of a closely related and definitely delimited complex.

The original scheme of the smaller building included two rooms of unequal size; a less substantial, perhaps shed-like third room was later appended toward the west. The difference in date is possibly one of months rather than years. Of the walls there remain the foundations for much of the north and west sides, a short length in the line of the east side, the northern stumps of the two interior cross-walls. The southwest corner is preserved only as a bedding cut in the rock; the wall itself suffered from the superposition first of the cross-wall of the Old Bouleuterion and then of a cross-wall of the Hellenistic Metroon. These foundations are made of irregular masses of Acropolis limestone in a style closely similar to that of the larger building but with more attention to the jointing and to the smoothing of the outer faces (Fig. 10). The floors were carefully surfaced with a 0.10 m. layer of clean brown clay. On account of the rise in the bedrock, the floor of the west annex lay 0.10 to 0.20 m. above that of the middle room.

Immediately to the north of the midpart of the lesser building is preserved the southwest corner of the foundation for another small structure built of Acropolis limestone in much the same style, Building E. Its northern and eastern parts have been broken away by the foundations of the Hellenistic Metroon. Since its floor level lies some 0.30 m. higher than that of the building to the south and since it interferes with the entrance to the latter, the small structure may be thought to postdate the abandonment of the other.

For the dating of Building D there is available a little much-broken pottery from the clay packing of its floor. This agrees precisely with a greater mass of pottery removed from the upper part of the filling of a large pit, perhaps a well, the mouth of which came to light just to the north of the midpart of Building D. This pit may have served the earlier building to the north; it would seem certainly to have been filled in before the construction of Building D, for otherwise it would have been an intolerable nuisance in front of the main entrance. Since the pit extends under the foundations of the Hellenistic Metroon, it could not be completely cleared, but from

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the upper 3.70 m. of its filling comes an informative group of plain and figured pottery, sufficient in bulk to be used as trustworthy evidence for the date of the filling of the pit and so of the construction of Building D. Taken as a whole, this pottery would seem to belong chiefly to the second quarter of the sixth century; it is appreciably earlier than most of the material from the lower filling of the " Rectangular Rock-cut Shaft " on the hillside above, for which a lower limit close to 530 B.C. has been suggested.[13] In Figs. 11, 12 are illustrated four of the cups from the pit; these



Fig. 10. Foundations of Buildings D and E, from East. Mouth of Pit at Lower Right

will give a fair notion of the chronological range of the material and the latest of them will be as late as anything from the pit.

a. Inv. No. P 13,350. Cup. Height, 0.067 m.; diameter, 0.145 m. Handles and fragments of wall restored. Dull black glaze covers the entire inside save for a reserved line around the lip. Close in shape and distribution of glaze to the cup signed by Exekias (Hoppin, *Greek Black-figured Vases,* p. 91). Its similarity to the Comast-cups will keep its date in the second quarter of the sixth century. The fragments show this to be the most common type of cup in the group.

b. Inv. No. P 13,348. Band-cup. Height without foot, 0.06 m.; diameter 0.135 m. Base and parts of wall are missing. On the better preserved side, the rear part of a lion in the middle of the band, flanked on each side by a bud attached to the handle. On the floor a reserved medallion with a black circle at the center; a narrow reserved band around the lip. Dull black glaze. For the type, band-cup with brief picture outside, see Beazley, *J.H.S.*, LII, 1932, pp. 187, 189.

[13] *Hesperia,* VII, 1938, pp. 363 ff., especially pp. 365 ff.

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c. Inv. No. P 13,347. Fragment of a Siana-cup, with overlapping decoration. Preserved height, 0.046 m. Youth, with scarf and hair band, running right; in front of him the spring of a handle. On the type, cf. Beazley and Payne, *J.H.S.*, XLIX, 1929, p. 260. Our piece, as Eugene Vanderpool points out to me, is probably to be associated with Beazley's Heidelberg Group, subclass II (*J.H.S.*, LI, 1931, pp. 275 ff.).

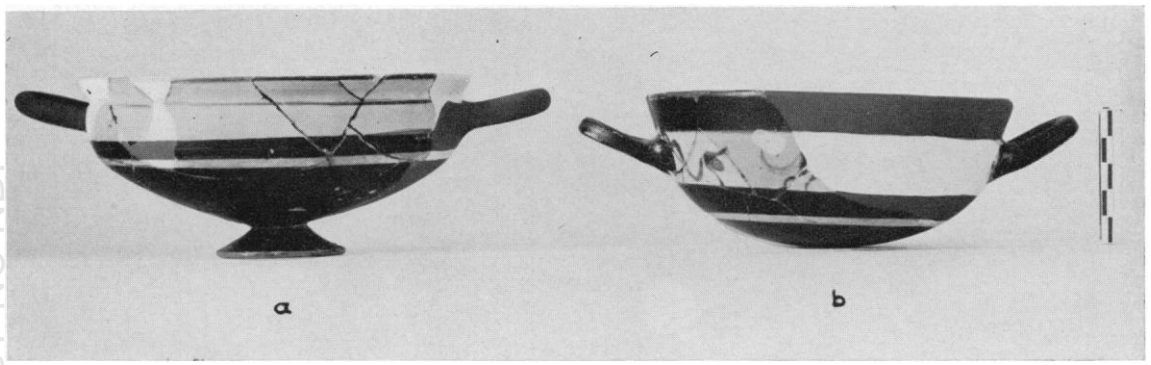


Fig. 11. Kylikes from Well to North of Building D

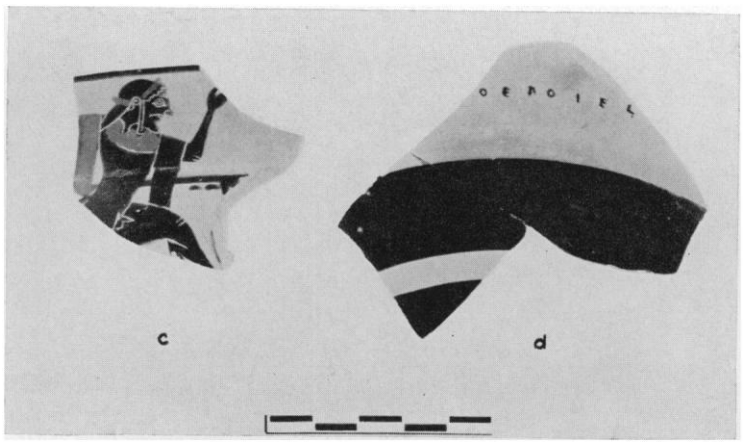


Fig. 12. Fragments of Kylikes from Well to North of Building D

d. Inv. No. P 13,349 (g). Fragment of a lip-cup. Preserved height 0.065 m. In addition to the wall fragment here illustrated, there are scraps from the rim (high, reserved, slightly inset), from the base (thin and open inside), from the wall near a handle (palmette) and from the other side of the wall (preserving the final nu of the verb). On the floor a reserved medallion with a trace of a central ring in black. The shape of the vase and of the lettering and the use of a patronymic suggest the work of Tleson, son of Nearchos. Cf. Beazley, *J.H.S.*, LII, 1932, pp. 195 f.

If we may accept the current dating of the little-master cups, the latest of the pieces illustrated here carries us into the third quarter of the sixth century. Building D must be at least equally late. The close crowding of subsequent events in this area would seem to keep its date within that quarter century.

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After a few years, radical changes occurred.[14] Building C would seem to have been injured in some way; its southeast corner and interior cross-wall show clear traces of rebuilding; new floors were encountered 0.30 to 0.60 m. above the old. Building D at the south side of the courtyard was now destroyed and would appear to have been abandoned. The old terrace wall along the east side of the courtyard was razed and its material was used in the construction of a new retaining wall that swung out at a slight angle from the southeast corner of Building C for some 4.50 m. and thence continued in a straight line in a direction slightly east of south. Behind the new retaining wall additional filling was thrown, to a maximum depth of 0.70 m. above the original floor. The new surface of the court, like the old, was floored with clay. The courtyard was now approached by means of a stairway set in the new retaining wall. This wall in its southward course must have joined the northward continuation of the east wall of the great house-like Building F which had been erected some little time before. The actual junction has been demolished by later foundations. The result of the change was to create a large, open, and level area between Buildings C and F. A date early in the last quarter of the sixth century was fixed for this reconstruction in the earlier report and will still stand.[15]

THE HOUSE OF THE COLONNADED COURT: BUILDING F

Position, Exploration, Preservation

Building F, the largest of the archaic structures in this region, was fitted into the bend of the age-old thoroughfare that passed southward along the east foot of Kolonos to swing southwestward between Kolonos and the Areopagus. No extensive levelling operations were carried out before the construction, and consequently the inevitable natural contours of the region are perceptible in the floor levels of the building: viz., a gentle upward slope from north to south and a more marked rise from the middle of the valley on the east toward the hill on the west (Pls. I-III, Fig. 13).

Since the floors of Building F lie as much as 0.80 m. below the original ground level of the Tholos, the exploration of the earlier building could be carried out only at the expense of the intervening layers of earth, which have been removed entirely with the exception of certain small masses left to support later structures (Fig. 14). In tracking down the archaic foundations beneath the Tholos itself, we first took advantage of openings made in the floor by two large mediaeval pits and by a modern cellar; and we probed inward and outward from the plundered wall trench of the Tholos. Since obscurities still remained in the plan, we were obliged to cut some four small trenches through the Tholos floor to bedrock and from their sides to tunnel

[14] Cf. *Hesperia*, VI, 1937, pp. 124 ff., for earlier discussion, photographs, and cross sections.
→ *Hesperia*, VI, 1937, pp. 126 f.

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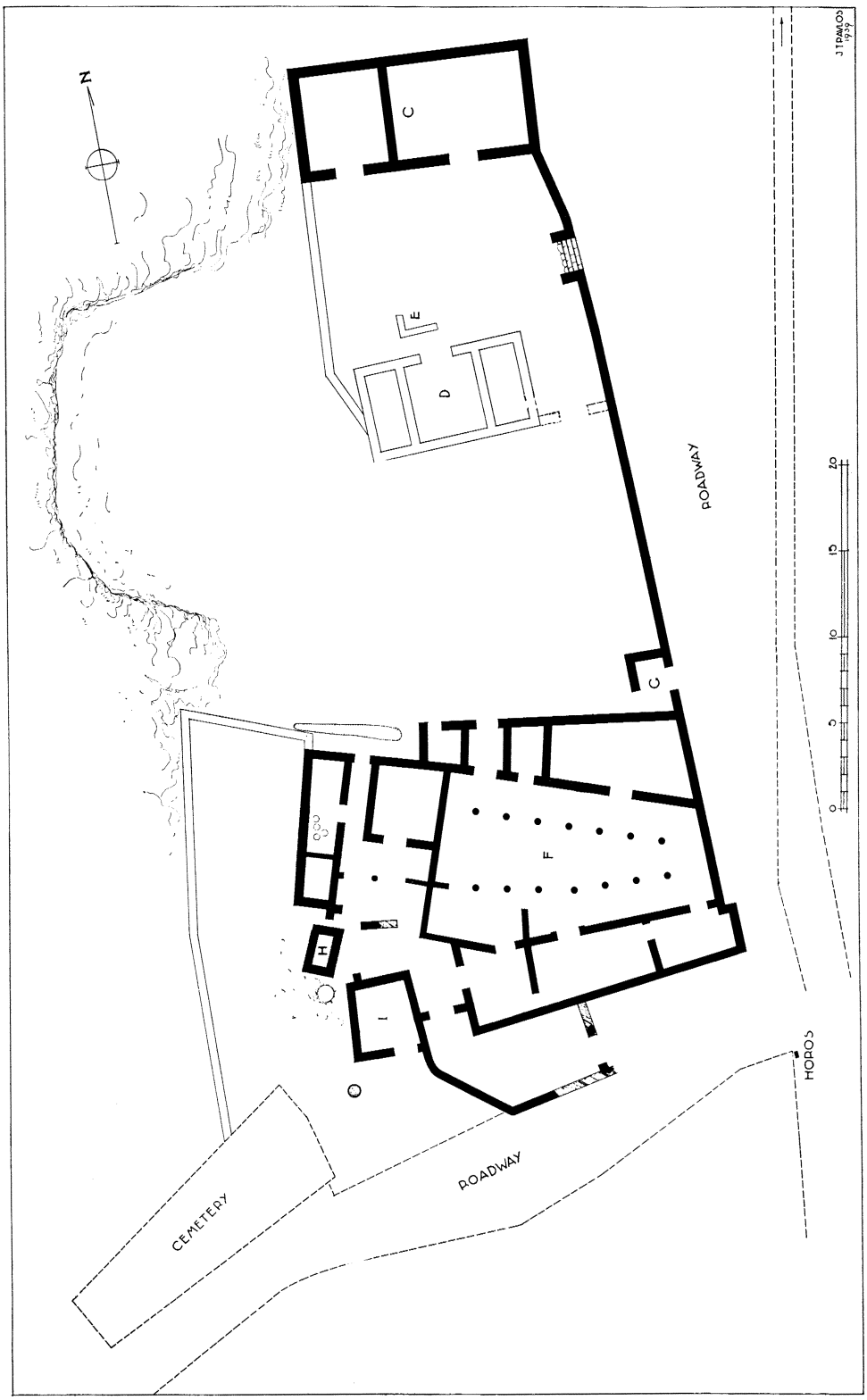


Fig. 13. Area of Tholos in Last Quarter of Sixth Century. Restored Plan. 1:400

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under the floor in pursuit of the elusive corners. In dealing with a structure so capricious in plan one cannot speak with assurance without having exposed its entire area; but we feel confident that the essential features of the plan have been established and we question whether the gain to the archaic building from further exploration could be justified at the cost of the continued dissection of the Tholos.

The plan (Pl. III) and the photograph (Fig. 14) will show more clearly than



Fig. 14. Area of Building F, from Southeast

words the state of preservation. In general it may be said that the lower foundations of the walls are preserved over perhaps three fourths of their length; elsewhere the course of the wall could usually be established from a dressed bedding in the rock or from a soft channel in the earth. Nowhere do the walls stand higher than 0.60 m. above their contemporary floors. Of the column bases there remain the one of the inner courtyard, in the main courtyard the two for the east porch, four bases (counting the corner base twice) and the impression of a fifth for the south colonnade, and two (again counting the corner base twice) for the north porch. The original floors of the rooms and the courtyards, the contemporary ground levels round about the building, and the street surfaces to east and south are almost everywhere clearly

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distinguishable. The most violent damage occurred in late Roman times in the east part of the main courtyard where a great well was sunk and where vandals dug down through even the archaic floor levels in search of building stone.

PLAN

The outline of the building approaches a rectangle with an overall east to west length of *ca.* 27 m. and a breadth of *ca.* 18.50 m. (Fig. 13). Its two western corners are hollow, for good reasons. The southwest corner was fitted around Building I which appears to be contemporary with or slightly earlier than Building F and which, though it obviously had very close associations with its large neighbor, had to remain slightly apart. The two were separated by an alley of generous width which could be closed by means of gates. Into this open southwest corner were also squeezed Building H (perhaps a bake-oven) and two wells. The northwest corner was obviously left open to admit another culinary installation, viz., a broiling pit, to which a second was later added. The building had ready communication with the open area to the north, and so with the Primitive Bouleuterion, through a broad doorway in the middle of its north side.

Of the interior plan of the building, the most prominent element is the main courtyard in the east central part. To the north it was closed by a series of four rooms, to the south by a corresponding series of three rooms. The principal rooms of these two series would seem to have opened directly on the courtyard, each through its own door. To the west of the main court lies a semi-independent block of rooms provided with its own miniature colonnaded courtyard. The wall that divides this block from the main courtyard has a continuous foundation that shows no break such as commonly occurs elsewhere in the house beneath a doorway, and, from the condition in which the foundation was found, it seems improbable that any door existed in the wall. Communications between the west block and the main courtyard must then have been indirect. They were possible through doorways in the north side of the house, perhaps also through a doorway in the west end of the south series of rooms. But here the builders of the Tholos wall have completely demolished the critical part of the archaic foundation, so that we cannot be certain even of the existence of this entrance way. The propinquity of the west block of rooms to the culinary facilities already noted marks the west block as the purely domestic part of the house; the pleasant apartments that opened on the main court will then be available for living and dining.

The east wall of the house was continued northward, obviously to make contact with the archaic buildings to the north. We have supposed that this wall when first built extended to the line of the south side of Building D, leaving room for a gateway between. The foundations of the later buildings have so disturbed the critical area that certainty is impossible. Later, as we have noted above (p. 15), this road wall

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was made continuous between Buildings F and C. In the angle between Building F and the road wall are foundations of a single room (Building G), apparently a primitive propylon giving access from the road to the open area between Buildings F and C.

Wall and Floor Construction

The walls as preserved are built of irregular masses of Acropolis limestone together with a great many small field stones (Figs. 15-17). Rarely do they show a worked joint surface. Where large blocks were used the interstices were packed with



Fig. 15. East Wall of Building F, with Early Enclosure Wall Above and Drain of Tholos Kitchen to Left, from East

small stones or chips. Everywhere the stones were bedded in a mortar of brown clay. The foundations vary in depth according to the nature of the subsoil, occasionally resting at floor level, elsewhere going down as much as 0.30 m. below the floor. The outer walls have a fairly uniform thickness of *ca.* 0.50 m.; but the interior walls show great variations, with a minimum thickness of 0.25 m. The material of the upper walls was perhaps crude brick. A fair amount of disintegrated brick was found overlying the ruinous foundations and, moreover, the east wall was levelled off throughout its preserved length at a height *ca.* 0.35 m. above the contemporary street level in front. Many fragments of wall plaster of plain brown clay, *ca.* 0.01 m. thick, were found in the plundered trench of the north wall of the south wing in the area of the large middle room.

The interior floors were everywhere prepared by levelling the underlying earth and spreading over it five to ten centimetres of brown clay. This clay, when tramped

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or rolled, provided a slightly undulating but exceedingly smooth and durable floor surface. The court floors were carefully surfaced with fine gravel.

The Main Courtyard

Of the main courtyard the south colonnade may be restored with certainty and precision from the evidence of the four column bases that remain in situ. The restoration of two bases between the easternmost two that are preserved gives a satisfactory spacing of 1.885 m. The intercolumniation in front of the entrance to the middle room is appropriately wider, viz., 2.15 m. In the very edge of the trench for the Tholos wall is part of the impression left in the earth by the westernmost column. Between that column and the spur wall that runs out toward it, there remained a passageway of convenient width. From the plan (Pl. III) one will observe that a fringe of flagstones, of a bluish slate-like stone and of random size, lies just within the line of columns in front of the doorways of the two western rooms. These are probably only survivors of a paving which would have covered originally the full depth of the porch in the line of the entrances. The slabs are but slightly worn, however, and must have been placed late in this period of the house. Beneath them is the hard-packed sandy surface of the original floor. The approaches to the two doors were curiously separated by a spur wall that runs out from the front wall of the south wing and stops abruptly a little short of the line of the columns. It has every appearance of being a part of the original construction.[16]

The restoration of the north porch may seem at first glance more dubious. Only two of its column bases remain in position. Yet the other five may well have disappeared in late disturbances, especially if they were as unsubstantial as the western surviving base, which has survived by a miracle. In favor of the restoration of a complete colonnade along this side may be urged the perfect spacing (1.885 m.) possible on the basis of the two surviving stones, and, further, the general desirability of having the main front of the north wing protected from the southern sun.

The placing of the column bases that survive in the east part of the courtyard shows clearly that the narrow east end had its porch; the column spacing as recovered for the south and the north sides is equally decisive against a colonnade across the west end.

Despite the apparent informality of the design, there is a certain regularity in the scheme of the colonnades. The interaxial spacing of the columns is closely uniform, with the exception noted above, and was probably fixed roughly at six feet.

[16] Just inside the fourth column base from the east, immediately to the left (that is, of one entering the main room of the south wing) is a round clay-lined basin, the mouth of which was respected by those who laid the flagstones. It has a depth of 0.30 m. and a diameter of 0.48 m.; its bottom is slightly concave. When excavated, it was found to be full of loose sand. The purpose of this basin is obscure.

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The columns are centered for the most part *ca.* 2.10 m. from the face of the wall, perhaps the equivalent of seven feet. The exceptional width of the east porch is conceivably to be explained by a desire to give greater depth where the length was inevitably so limited. By the judicious placing of the western columns of the south porch the architect was able to mitigate the unhappy effect given by the violent angle in the line of the south wall of the courtyard.

The column bases so far as preserved are cut each from a single mass of Acropolis limestone. The two in the east end of the courtyard may be taken as typical (Fig. 14). Their height is *ca.* 0.36 m., of which the upper part was roughly brought to a columnar shape. They projected 0.05 to 0.10 m. above the original contemporary ground level. The tops, with a diameter of *ca.* 0.35 m., were hammer dressed. They are neither very smooth nor very level. None of the surviving bases in the main courtyard has any setting line or dowel hole on its top. The western of the two preserved bases in the north colonnade is very slight: an irregular drum of limestone 0.16 m. high, 0.30 m. in diameter. Of the western preserved column bases in the south porch only the tops have been exposed.

The columns were round with a diameter of *ca.* 0.30 m. This is most clearly shown for the fifth column from the east in the south colonnade. Here at a later date the intercolumniations were filled with light screen walls which were carried close up against the column on two sides. The column has disappeared, but the wall foundations remain, preserving the impression of the column. That the shafts were of wood we may infer from their small diameter, from the slightness of their bases, and from the complete absence of fragmentary stone columns. It follows that the superstructure of the porches was also of wood.

The North Wing

The marked convergence in the side walls of the north wing, as also of the southern, is difficult to explain otherwise than as a naïve device for securing a number of rooms of various sizes and convenient shapes. The length of the north wing is almost equally divided between a capacious eastern compartment and three small rooms toward the west. Of the lesser rooms the middle one would seem to have been little more than a passageway through which one entered the main courtyard from the area to the north. In the north side of the room is a doorway 1.30 m. wide flanked by jambs made from exceptionally large and regular stones. We found no socket stone or other trace of an actual door. Such, however, may have existed in the corresponding inner doorway, where the foundation has completely disappeared. The miniature, almost square room at the west end of the series likewise opened on the area to the north, through a doorway only 0.78 m. wide. The slightly larger room to the east of the entrance is without special character. Its east, west, and north walls show no trace of a doorway, though preserved to a decisive height. Hence the door

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must be placed on the side toward the courtyard, where no stones remain in the foundation trench. In the large east room there is no evidence for interior divisions or beddings of any sort. Its north and south walls are equally well preserved, and neither affords a certain clue for the placing of a doorway. The general plan would make it probable that the main entrance was from the side of the courtyard. The height of the east wall on the axis of the room is decisive against an entrance from that side.

The South Wing

The principal room of the south wing, probably of the entire building, occupied the midpart and perhaps half of the area of the wing. Its chief entrance must have opened near the middle of its north side. The eastern door jamb still stands in place, the best-worked block that remains in the building. The continuous foundation suggests that the door had a stone threshold. Its condition does not permit of our fixing the width of the opening. A break in the foundation for the east wall of the room betrays a second doorway that led in from the eastern room of the wing, and a similar break in the west foundation wall fixes the place of a third entrance, probably a service door, that opened into the west room.

The west chamber of this wing is large and approximately square, but its outline is made strangely irregular by the curious angles of the bounding walls. This room, as we have already seen, communicated directly with the main courtyard and with its larger neighbor to the east. Its west wall has suffered severely from the cuttings made for the wall of the Tholos and for a large mediaeval pit. It is tempting, however, to restore in this wall a doorway which would have provided reasonably direct communication between the front and the back parts of the main building.

The east room of the south wing projects in a curious manner beyond the east line of the building. Its south and east walls, moreover, were founded more lightly than those of the neighboring parts of the building. Of these walls no stones remain in place, only the shallow trenches for the foundations. This irregularity is probably due to the greater solidity of the subsoil in this region which had previously been traversed by the roadway. That the eastern room is an original part of the house can scarcely be doubted in view of the way in which the deep foundation for the main south wall of the building projects eastward beyond the wall that separates the middle and eastern rooms. A break in the subfoundations for the north wall of the east room suggests a doorway opening on the courtyard.

The Domestic Quarter

The more purely domestic activities were carried out in the back or western part of the establishment. The principal room in this quarter, presumably the kitchen, is large, almost square in shape, and faces south through a broad doorway and a porch

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into a small courtyard. The room itself is now practically inaccessible beneath the wall and the well-preserved floor of the Tholos. Of its porch there remain the lower part of a thin screen wall across the eastern part of its front, the bedding for a pilaster, presumably of wood, that helped to support the west end of the architrave, and the base of its one column. This column base closely resembles those in the east part of the main courtyard: it is cut from a single piece of Acropolis limestone and has a round bearing surface 0.36 m. in diameter (Fig. 16). In the middle of its top is a large round dowel hole. The miniature courtyard was closed toward the south by a short length of wall but was readily accessible through gateways at its southwest and southeast corners. Several flagstones remain in place along the north side of the court. From its southeast corner led out a drain which made its way through the alleys between Buildings F, I, and J to pour its water into the main roadway (Pl. III). In its upper part the drain was made of cylindrical pipes with carefully fitted joints and with rectangular clean-out holes (Figs. 17, 18).[17] In the outer alley this construction gave way to a channel with walls roughly built of field stones and covered with thin stone slabs; its depth is 0.25 m., its width 0.20 m. (Fig. 19). This drain must be of relatively late date, for its course is clearly adapted to Building J, and it would seem to have cut across the line of one of the spur walls which must have supported the gate by which the alley between Buildings F and I could have been closed in an earlier period. In the mouth of this alley there remains a short section of a drain made from terracotta pipes identical with those of the drain just described. This earlier channel presumably served the same purpose and, before the erection of Building J, was able to follow a more direct course to the main road. Its lower part also was built of small stones, a couple of which have been preserved beneath the screen wall to the west of the western column of Building J. The painstaking construction of these drains and the fact that they are covered

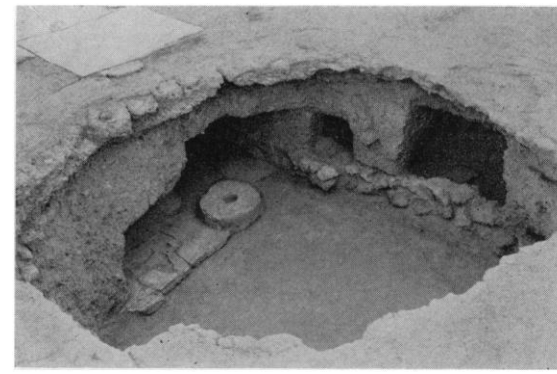


Fig. 16. Column Base and Flagstones in Kitchen Court of Building F, from Northeast

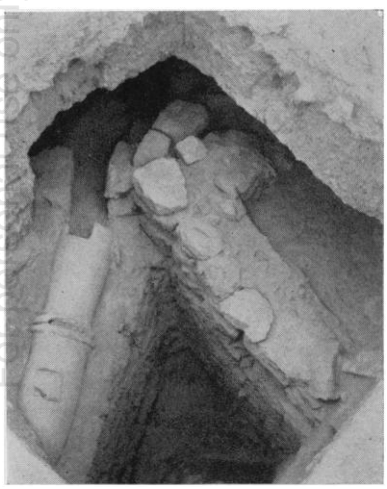


Fig. 17. Drain of Building F Beneath Tholos, from Southeast

[17] Inv. No. A 1038. Buff clay tempered with coarse grit; thin brown glaze on the inside only.

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suggest that they were intended not so much for rain water as for waste from the kitchen.

The porch and small courtyard of the domestic quarter subsequently suffered alterations. The top of the column base as found was much worn by traffic which must have occurred after the removal of the column. The work of the column was perhaps thereafter performed by the thin wall along the west side of court and porch, a late date for which it indicated by the fact that it overlies the stone flagging of the court (Fig. 32).

To the west of the " kitchen," its porch, and its court, and separated from them by a corridor, lies a long narrow room which is divided by a thin partition into com-

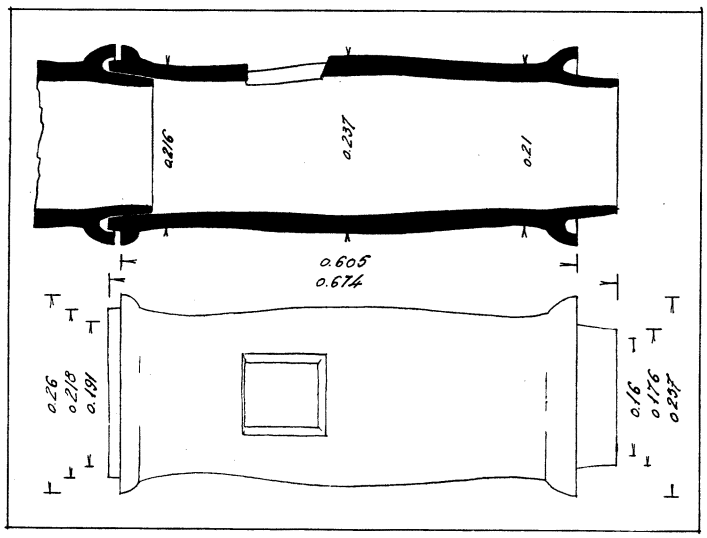


Fig. 18. Inv. No. A 1038. Terracotta Pipe from Drain of Building F

partments of unequal size. A series of small depressions cut in the bedrock beneath the dirt floor of the larger compartment may have been intended for the bases of large jars and suggest that we have to do with a storeroom. The purpose of the smaller room was presumably similar, though little of its area could be examined.

Immediately to the south of the " storerooms " are the foundations of a small structure (H) not quite rectangular in shape (1.90 × 2.90 m. overall). The socle is prepared in the usual way of broken stone bedded in clay, and the floor is of hard-packed clay (Fig. 20). The dimensions would seem to be inadequate for human occupancy, nor is there any break in the foundation such as those which mark the places of ordinary doorways elsewhere in the building. It is to be noted further that the clay floor of the little chamber, as found, was deeply reddened by fire and that an accumulation of ash, as much as 0.20 m. in thickness, overlay the contemporary ground level immediately to the east. It is perhaps not unduly rash to see in these

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foundations the remains of a bread oven of the same scheme as those in common use in the country districts of modern Greece and as those represented in terracottas of the classical period: a small chamber in which a fire might be kindled and its ashes then raked out to make way for the loaves, the baking to be effected by the heat imprisoned in the heavy walls.

An adequate water supply was conveniently provided by two successive wells, the earlier of which lay just to the south of the "oven," the later to the west (Fig. 32). The first well was an unlined shaft cut to a depth of 10.20 m. in the soft bedrock. It would seem to have served for but a limited time: only a dozen water jars were found in its bottom, buried deep beneath a great mass of soft bedrock fallen from its sides. Precautions against similar trouble were taken in the case of the new well: its sides were lined to their full depth of 9.30 m. with a curbing of small stones of irregular size, laid loosely, but so skilfully that the well, on being cleared, was found to be in perfect condition (Fig. 20). The interior diameter of the shaft is *ca.* 0.70 m., contracted to a minimum of 0.60 m. at the mouth. During a long period of use, rubbish gathered in the bottom of the well to a depth of over 3.00 m. In this accumulation were found over 170 jars, both glazed and unglazed, of types suitable for drawing water, together with many smaller vases of various sorts, terracotta lamps, figurines, etc., which had been carelessly dropped in the well while it was still in use. The upper 6.00 m. of filling consisted of earth and small stones that had been thrown in when the well was abandoned. From this depth came fragments of large terracotta storage jars, of saddle querns and the accompanying flat millstones, and, from the mouth, a few pieces of Tholos tiles, presumably broken during construction. We may conclude that the second well was still open and in use until the archaic building was supplanted by the Tholos.

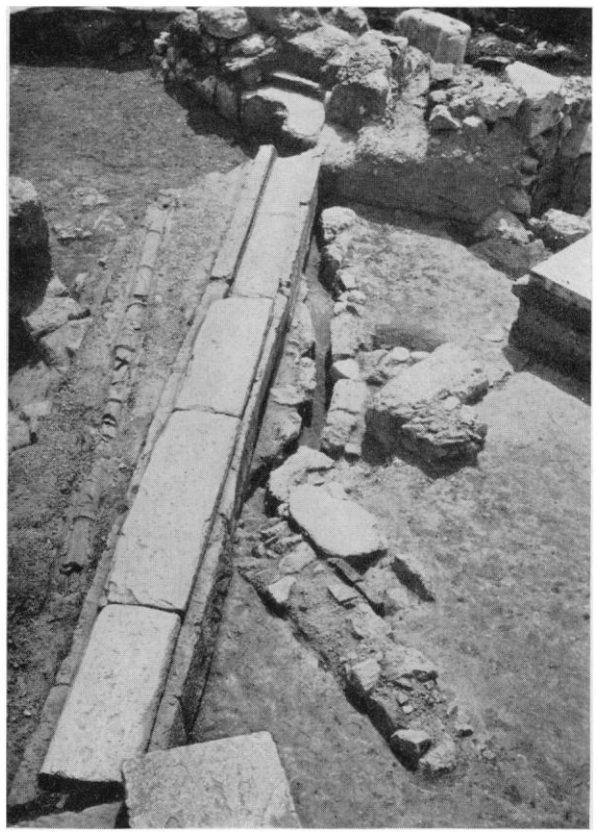


Fig. 19. Stone Drain of Building F, from West

The north to south corridor through the domestic quarter gave access northward to a pair of long fire-pits (Figs. 13, 32, 57, 60, and Pl. II, DD). In the beginning

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there was probably only one pit, the southern, with a length of *ca.* 6.75 m. Subsequently 2.20 m. were cut off its west end and perhaps at this time the second pit was installed, equal in length to its abbreviated neighbor. The channels have been much disturbed by the later construction above them, and by a great mediaeval pit that has broken away their eastern ends almost to the very bottom.

The pits were cut down in the firm earth to a depth of 0.55 to 0.65 m., with a width of 0.60 to 0.70 m. Floors and walls were carefully plastered with brown clay

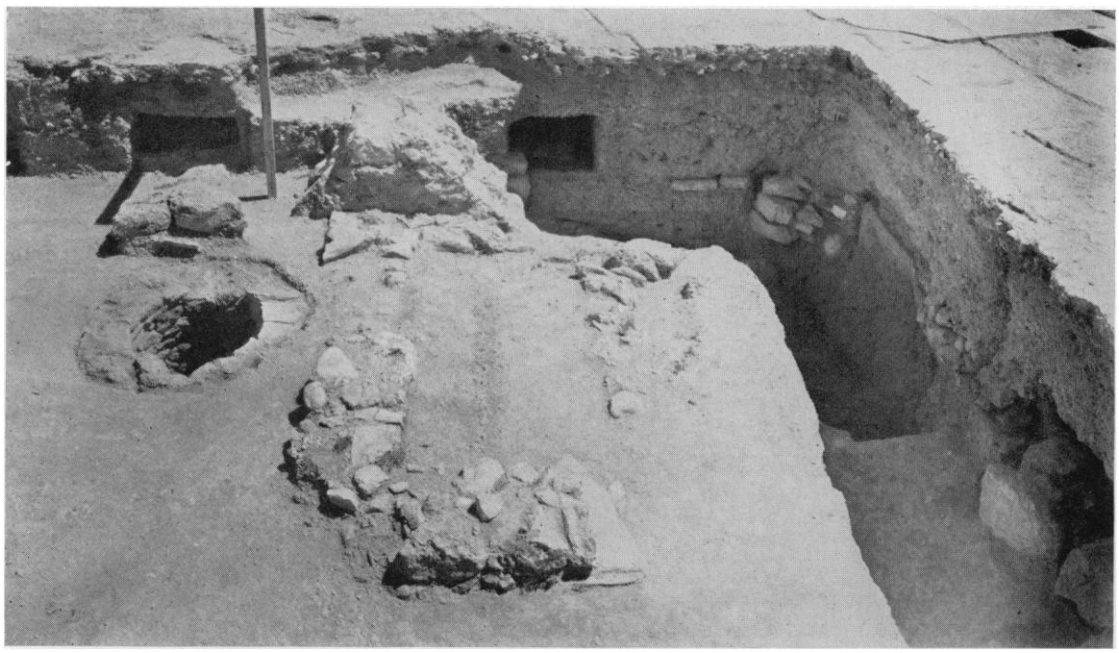


Fig. 20. Foundations of Building H and Mouth of Stone-curbed Well, from South

ca. 0.03 m. thick. Between the pits and to either side of them extends a very firm, smooth, sandy floor, darkened by fire in places. Their bottoms, as found, were covered with 0.05 to 0.20 m. of ash and charcoal and the bones of animals, identifiable as cows, sheep or goats, pigs, deer.[18] Many of the bones show the cuts made by the knife of the butcher or cook. Above this débris came a filling of loose earth, in which, in the northern pit, was found a large fragment of Tholos eaves cover tile with antefix (Inv. No. A 880). In the southern pit, immediately above the ash, lay several fragmentary crude bricks, fallen presumably from some construction at the mouth of the pit. Among them was found a certain amount of broken household pottery and a bronze arrowhead (Inv. No. B 563, Fig. 25).

[18] For the identification of the animals we are indebted to Mr. Nils Gejvall of the Museum of Natural History, Stockholm.

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The analogy of modern practice in Greece leaves no doubt that these pits were intended for the broiling of meat. We may imagine that then, as now, a wood fire was kindled throughout the length of the pit and allowed to die down in a glowing bed of coals. Then the spits were placed across the mouth of the pit, exposing their burdens of meat to a safe and uniform heat, and allowing none of it to escape.[19]

We may suppose that these pits, first the one and then the two, served the archaic complex through most of its history and were filled up only when work began on the Tholos. The Tholos tile, found in the filling of the northern pit, will have been broken during construction.

The area to the west of Building F was doubtless enclosed by a wall, the course of which can be recovered in part. Immediately to the north of the northwest corner of Building F, a few stones remain of a wall which led westward. We may conjecture that the western limit of the enclosure of the archaic period coincided approximately with that of the earliest period of the Tholos, and so we have restored it on the plan (Fig. 13). .Toward the south, the area was later delimited by a wall which ran northwestward from the Cemetery to the foot of the rising hill. This wall continued in use after the construction of the Tholos (Figs. 32, 62).

Alterations in Plan

The laying of the Great Drain and the construction of the Old Bouleuterion toward the end of the sixth century had serious consequences for Building F. The monumental Bouleuterion demanded open space to the south and got it through the demolition of the north suite of rooms of Building F. The event was recorded in the stratification: the stripped foundations of this part of the older building were found overlaid by the mass of filling brought in by the builders of the Great Drain, and this in turn was covered in places by the working chips from the construction of the Bouleuterion. The main north wall of Building F was left standing but the northern and eastern colonnades seem now or soon to have been pulled down. The loss of space was made good by the erection of Building J to the south of Building F; of this more later (Fig. 32).

To a slightly later date may be assigned certain damage and subsequent alterations which have left their mark chiefly in the south wing of Building F (Pl. III, Fig. 32). The damage was serious: the south wall was broken down to floor level and later rebuilt; the north wall of the wing was destroyed and its stones to a depth well below floor level were removed to be used in the reconstruction.

Of the building as reconstructed we can recover the outline of one large room that

[19] Compare the similar pits, of late Roman date, in the third room from the south of the Hellenistic Metroon mentioned in *Hesperia*, VI, 1937, pp. 197 f. Such pits have recently been observed in the houses of Olynthos (*Ill. London News*, Nov. 5, 1938, p. 848, fig. 15, p. 862; *A.J.A.*, XLIII, 1939, p. 53).

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was placed, with its major axis north to south, above the ruins of the middle room of the original south wing. Its length occupied the combined width of the south wing and of the colonnade. It seems probable that a porch of three columns was built across the west front of this room, utilizing one of the columns of the original south colonnade, and a small limestone base that remains in place farther south. The north end of the porch was closed with a wall from which spur walls of uncertain purpose project northward. The walls and floors of the reconstruction are closely similar to those of the original building. The south wing, to east and west of this one room, would seem not to have been rebuilt.

To the west of Building H, the Bake-Oven, masses of fallen wall stones were found overlying the ground level of the original building. The pottery found with the stones indicates that this damage occurred at the same time as that just noted in the south wing of Building F. Above the débris are slight remains of unsubstantial walls which must again date from the reconstruction (Fig. 20).

The domestic quarter also must have suffered on the same occasion. It would seem, however, to have been rebuilt and to have continued in use until the construction of the Tholos. Some or all of those modifications which we have noted in its original plan may date from the rebuilding.

Chronology

A clue to the date of Building F should be given by the pottery found in and beneath its floor packing. The floor has been cut through over a large part of the house, but the pottery that can be associated directly with the construction of the building is scanty and fragmentary. The pottery would seem certainly to be as late as the middle of the sixth century, and the building must therefore be equally late. This brings us to a time close to that suggested above for the erection of Building D. Since, however, Building F would seem to have been intended to supplement Building D and eventually supplanted it, we may assign a slightly later date to Building F, the difference being undoubtedly a very few years.

Evidence for the period of use of the building may be gotten from the filling of the two wells near its southwest corner (p. 25). Though without clearing the entire area to bedrock one could not insist that these were the only two wells which served the house, yet, in view of their relationship to the house and to one another, this seems highly probable. The first of these wells yielded, in addition to the water jars already mentioned, two fragmentary black-figured amphorae of about the mid-sixth century (Inv. No. P 6548 and one uncatalogued). These lay at the bottom. From deep down in the accumulation of the period of use (9.00 m.) comes the oinochoe in Fig. 21, of the late third quarter of the century.

Inv. No. P 5463. Height, 0.179 m.; diameter, 0.129 m. Broken but practically complete. Published in color in the *Ill. London News*, October 19, 1935, p. 647, fig. 6. Shape IV of Richter and Milne, *Shapes and Names of Athenian Vases*, figs. 122, 123.

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An arming scene: a bearded man putting on his greaves; behind him his father, cloaked and holding a spear; in front of him his mother with spear and shield; at either extremity a fully armed hoplite. A tongue pattern across the top of the panel; three lines of brown glaze down either side, one across the bottom. A purple line around the lip, one at base of neck above the panel, and two around the vase below the panel.

Applied purple for beard and hair of central figure, for head bands, overhang of mother's peplos, alternate folds of her skirt and father's cloak, for one helmet and the shield rims of the outside figures, for alternate tongues of the pattern above; white for the mother's flesh, for the father's hair and beard, for dots on the helmet crests, and for the shield devices (a bent leg, a tripod [?], and a square).

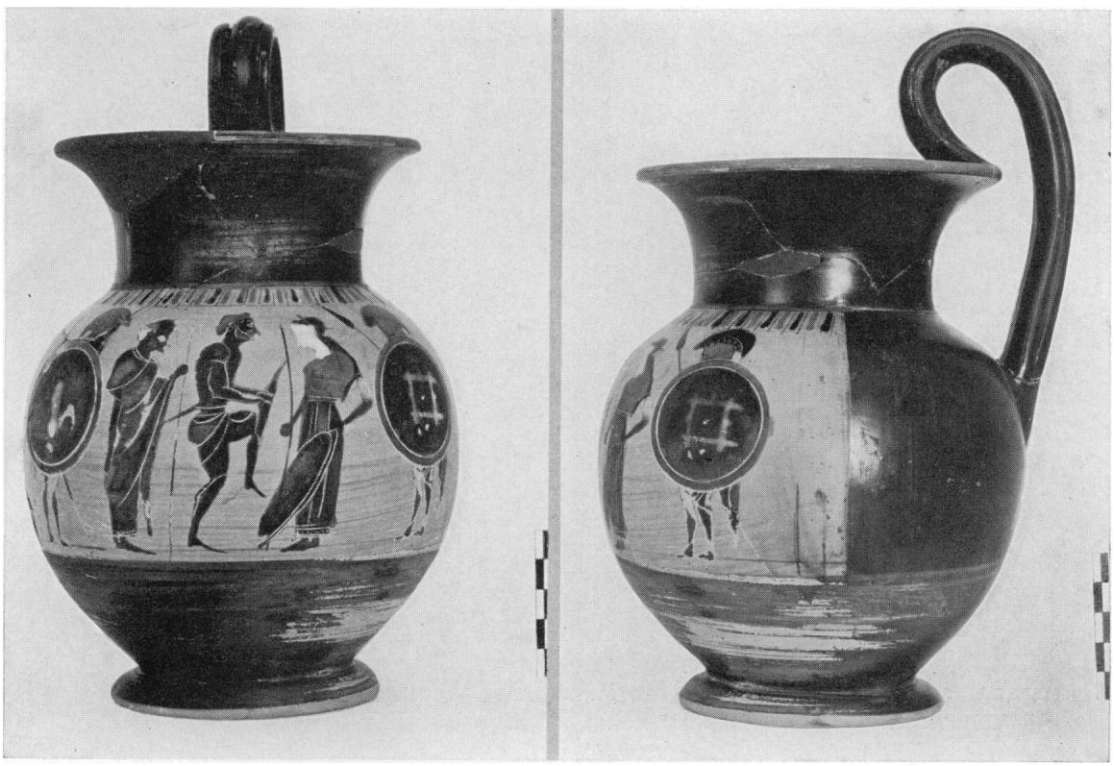


Fig. 21. Inv. No. P 5463. Oinochoe from Earlier Well of Building F

High up in the accumulation of use (8.25 m.) lay the fragments of the black-glazed pelike in Fig. 22, which may be placed near the end of the century.

Inv. No. P 5459. Height, 0.26 m.; diameter, 0.189 m. Broken but almost complete. The hesitating shape and the break in line between neck and shoulder (emphasized by a rib) mark this as a very early example of a shape, the beginning of which is assigned by Richter and Milne, *op. cit.*, p. 5, to the end of the sixth century.

The pottery and the lamps (few and fragmentary) from the mouth of this well are appreciably later than the material from the accumulation of use. They are of types which appear commonly in contexts to be associated with the Persian destruction.

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Our inference is that the well, after serving the house in the third and part of the last quarter of the sixth century, was rendered useless by the caving in of its side walls; its upper part was filled in some years later, probably in the process of cleaning up after the Persian sack.

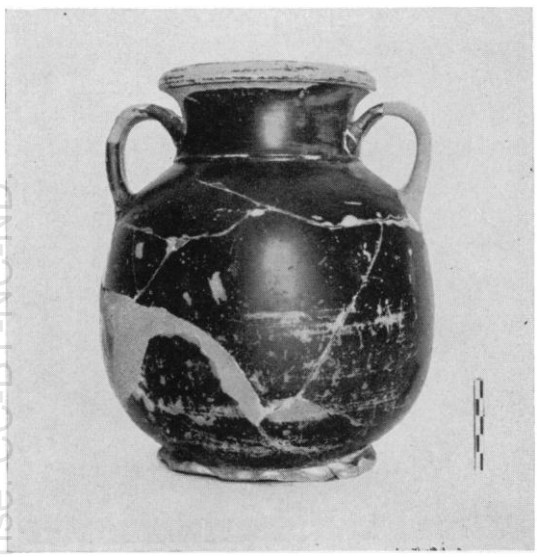


Fig. 22. Inv. No. P 5459. Pelike from Earlier Well of Building F

The filling of the second well, that with the stone curbing, also showed a stratified sequence. The vases and lamps that gradually accumulated in the bottom of the well together with silt to an eventual depth of over three metres show a perceptible development. A preliminary study of the black-figure, of the red-figure (two pieces only), and of the shapes of plain vases suggests a range from the end of the sixth century through the first quarter of the fifth. Since this group deserves to be presented elsewhere *in toto*, I shall illustrate here as specimens only three pieces, insignificant in themselves but susceptible of fairly close dating (Fig. 23). Piece *a* comes from a depth of 8.00 to 8.70 m., i. e., from two thirds of the way down in the accumulated silt; *b* and *c* from a depth of 7.00 m., i. e., from *ca.* one third of the way down.

a. Inv. No. P 12,780. Black-figured lekythos. Preserved height, 0.098 m.; diameter, 0.057 m. Mouth and fragments of wall missing.

Four vertical palmettes in black-figure on a red ground with enclosing arcs in white, and with white dots around hearts; a reserved band around the vase below the figures. On the shoulder, two rows of thin rays. The base is disc-shaped and reserved on its edge.

For this early type of lekythos with vertical palmettes cf. C. H. E. Haspels, *Attic Black-figured Lekythoi*, pp. 185 f.

b. Inv. No. P 12,765. Black-figured lekythos. Preserved height, 0.129 m.; diameter, 0.055 m. Mouth, shoulder, and parts of wall missing.

Black-figure on red ground. Departure of a quadriga: a woman mounting, a woman at the horses' heads, two figures behind the horses. Below the scene are two pairs of reserved lines, across its top a band of dots between pairs of lines. Applied purple for alternate folds of the garments, for manes, tails, and harness; white for female flesh, alternate horses, for part of the dress of one figure behind the horses (with purple spots), and for alternate dots in top band. The foot in two degrees, the upper reserved. This piece is close in shape and style to the work of Miss Haspels' Haimon Painter (Haspels, *op. cit.*, pp. 130 ff.; pl. 41, 1).

c. Inv. No. P 12,766. Black-figured lekythos. Preserved height, 0.093 m.; diameter, 0.04 m. Broken away above shoulder. Black-figure on a red ground. Three vertical palmettes with white arcs above and lines of white dots around the hearts. Below the palmettes, two reserved lines. On the shoulder, two rows of thin rays. A foot of angular profile, its outer edge reserved on its upper part. For this more developed type of palmette-lekythos, cf. Haspels, *op. cit.*, pp. 185 ff.

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For the stout palmette-lekythos *a* close parallels are to be found from the Marathon tumulus of 490 B.C.[20] For the types represented by our *b* and *c* Miss Haspels arrived at a date about 480 B.C. Her dating agrees perfectly with evidence from the Agora where lekythoi of precisely these types are found in contexts of the Persian disturbance of 480/79 B.C.[21] In view of the fact that a fair number of water jars had gotten into the well before lekythos *a* and again after lekythoi *b* and *c*, the period of



Fig. 23. Lekythoi from Second Well of Building F

use of the well may be supposed to have begun a few years before 490 B.C. and to have ended shortly after 480 B.C. The vases themselves are perhaps not decisive as to whether the well was abandoned as a result of the invasion. There is no evidence in the filling of violent disturbance. It is quite possible that the well continued in use through the Persian occupation and until such time as the Tholos was built. The scraps of small tiles and large storage jars found in the upper filling above the accumulation of the period of use may very well derive from the final demolition of the earlier building by the builders of the Tholos. The limited amount of finer pottery found at this depth is not appreciably later than that from the topmost accumulation

[20] *C.V.A.*, Athens, National Museum, III H h, pl. 10, 2-4, 13.

[21] Notably in the deposit of pottery found to the west of the Hephaisteion in 1936 (*Hesperia*, VI, 1937, pp. 344 f.).

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of the period of use. The fragmentary roof tiles of the Tholos found in the mouth of the well will have been broken during the construction of the new building.

Another, and a still more specific bit of evidence for the later history of the archaic building is given by several ostraka (Fig. 24), two of which, *a* and *b*, were found among the fallen stones just to the west of Building H (p. 28). A third, *c*, lay in another mass of stones fallen from the walls of Room K just to the south of the Tholos (with it were working chips from the construction of the Tholos). A fourth, *d*, comes from the very mouth of the earlier of the two wells.

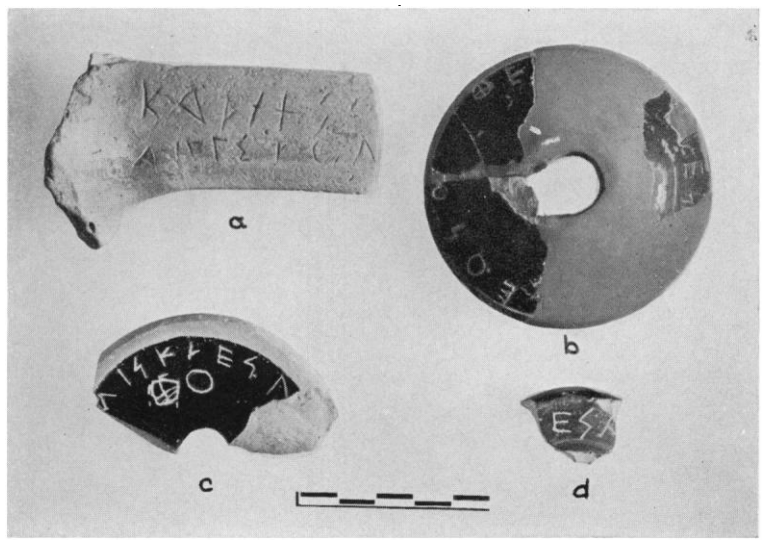


Fig. 24. Ostraka from Ruins of Archaic Buildings

a. Inv. No. P 10,140. Part of the handle of a large vase; micaceous brown clay; a stripe of brown glaze on its outside. Preserved length, 0.08 m.
Incised on outside: Καλ(λ)ίχσεν̣[ος] | Ἀριστον[ύμου].

b. Inv. No. P 10,141. Fragmentary base of a kylix; black glaze above and below; reserved bands around top of edge and beneath it. Diameter, 0.07 m.
Incised on top: Θεμ̣[ισθο]κλ̣ῆς [Νεοκ]λέος.

c. Inv. No. P 10,824. Fragmentary base from a kylix; black glaze above and below; its edge reserved. Diameter, 0.075 m.
Incised on underside: [Θε]μισθοκλῆς Ν[εοκλέος].

d. Inv. No. P 5270. Fragment from the base of a kylix; black glaze above and below; its edge reserved. Diameter, *ca.* 0.07 m.
Incised on top: [*Ἱππο*κρά]τ̣ες : Ἀ[λκμεονίδο] or Ἀ[λοπεκῆθεν].

These four ostraka may be assigned with practical certainty to the ostrakophoria of 482 B.C. The three names represented here appear, together with that of Aristeides, son of Lysimachos, in groups of ostraka found in this region, especially at a certain

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level in the road to the southeast of the Tholos, and commonly in association with the débris from the destruction of buildings. One such group was found in the roadway 15 m. due south of the Tholos. Its forty pieces record seven votes against Aristeides, seventeen against Themistokles, seven against Hippokrates (five as son of Alkmeonides, two as from Alopeke), and nine against Kallixenos. The débris obviously derives from the sack of 480/79 B.C. Hence the occasion of the balloting must have been an ostrakophoria before 480 B.C. in which the names of both Aristeides and Themistokles were up, i. e., the ostrakophoria of 482 B.C.[22]

There can, therefore, be little doubt that the building with which we are immediately concerned was damaged in 480-79 B.C. Another indication of a violent end is given by two bronze arrow points, Inv. No. B 499 from among the débris to the west of Building H and Inv. No. B 563 from the filling of the south broiling-pit (Fig. 25). They are of types already familiar from contexts of the time of the Persian troubles on the North Slope of the Acropolis.[23]



Fig. 25. Inv. Nos. B 499, 563. Arrow Points

The hasty rebuilding for which the evidence has been noted above would seem to have occurred immediately. In the foundation trenches of the south wing of the building, from which stones were removed for the reconstruction, the ashes of the conflagration lay thick and fresh along with pottery of *ca.* 480 B.C.

BUILDING I

This small, almost square structure, which consists, so far as we know, of but a single room, fits neatly into the open southwest corner of Building F,—so neatly, indeed, as to suggest that the two buildings are contemporary (Pl. III, Figs. 13, 32). This probability is strengthened by the fact that the east wall of Building I originally continued southward beyond its building, then bent eastward to border the road. Its eastern part is now overlaid by a succession of later walls, so that we cannot say how far it originally extended,—possibly to a point opposite the southeast corner of Build-

[22] On the date see Carcopino, *L'Ostracisme Athénien*[2], p. 15 → Broneer, *Hesperia*, VII, 1938, p. 242. Ballots from that year's voting were apparently still lying about in numbers when the Persians came, and hence they were trapped beneath the falling buildings. This circumstance will explain the easy predominance of the four names (Aristeides, Themistokles, Hippokrates, Kallixenos) in the statistics of the ostraka thus far found in the Agor → *Hesperia*, VII, 1938, p. 361).

[23] B 499 is 0.039 m. long, two-bladed, socketed, barbed; B 563 is 0.023 m. long, three-bladed, socketed. C → Broneer, *Hesperia*, II, 1933, pp. 341 f., fig. 13; IV, 1935, pp. 113 ff., fig. 4.

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ing F. There are scanty traces of a northward return against the middle of the south wall of Building F, and of a gateway in the return. The passage between Buildings I and F was controlled at either end by a gate, of which the beddings for jambs remain. With the coming of Building J, the southern gate, which had originally been set 1.50 m. in from the mouth of the corridor, was moved out to the very mouth and was reduced in width. At the same time a gate was inserted in the east to west passage between Buildings I and J. At a date perhaps still later the north end of the corridor between Buildings I and F was closed with a light wall.

We know but little of the building. Its northwest and southeast corners have been exposed. Its northeast corner lies deep beneath a particularly well preserved part of the Tholos floor. Its southwest corner and the whole of its south wall were sacrificed to the laying of the Tholos wall. At the southeast corner, by good chance, there remains the bedding for a jamb facing west; this calls for an opening in the south wall, either a doorway or conceivably a colonnade. The construction, so far as observed, is typical of that of the archaic buildings: walls of limestone in a rude polygonal style, floors of packed clay.

The purpose of the building is not apparent; a possibility will be suggested below (p. 42).

THE SOUTHEAST BUILDING WITH THE DISTYLE PORCH: BUILDING J

The room which was lost to Building F by the demolition of its north wing was replaced by the construction of Building J (Figs. 26, 27, 32). The attenuated proportions of the new building were dictated by the shape of the available area, viz., the long narrow strip between Buildings F and I and the road to the south of them. Despite the curious plan of the building and the slight break in the line of its back wall, it would seem to have been built all at one and the same time.

The building falls into two principal parts: a large eastern room with colonnaded front, and a western part that comprises an entrance vestibule, three small rooms and one large. A slight thickening of the midpart of the foundation of the east end wall of the building suggests a doorway there. A glance at the plan will show that both parts of the new building had ready communication with its two older neighbors by way of the narrow intervening alley. It has already been observed (p. 33) that the construction of Building J involved the demolition of an old enclosure wall to the south of Building F; the colonnaded east room of the new building took the place of the old yard.

In construction, Building J closely resembles the other archaic structures. Not one of its four corners forms a right angle and its west end is some 0.50 m. wider than its eastern. The walls as preserved, and they stand to a maximum height of

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Fig. 26. Building J, from East



Fig. 27. Building J, from West

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0.65 m., are of irregular masses of Acropolis limestone bedded in clay. Of the larger blocks the joint and face surfaces were roughly dressed with the hammer. The outer walls vary in thickness from 0.45 to 0.55 m.; the interior walls are *ca.* 0.30 m. thick. The columns, presumably of wood, rested on bases each of which was fashioned from a single irregular block of Acropolis limestone with a circular bearing surface 0.40 m. in diameter. The intercolumniations were closed, at least in their lower parts, by screen walls; a doorway was left against the east side of the west column. An interesting detail is preserved in connection with one of the doorways of the western part of the building, viz., a field stone the size of two fists with a sinking in its top to



Fig. 28. Interior Doorway in Building J, from West
(Arrow Points to Socket)

receive the pivot of the door hinge (Fig. 28). The floors throughout were of firm-packed brown clay.

There are indications of serious damage done to the building and of a subsequent repair. The north wall where it stands highest near its west end shows traces of rebuilding. The spur wall that adjoins the east side of the main doorway in the west part of the building had been rebuilt, though not all its malalignment can be attributed to this circumstance. In the last years of the building's history, moreover, the south half of the main cross-wall was demolished and dispensed with. The line of the little stone drain as it swings around the northeast corner of the building suggests that the mouth of the passage between Buildings J and F was closed by a wall at a late date in their history. Clear evidence of the disturbance was given also by two successive floor levels encountered in the middle rooms of the building. Between them lay a mass of débris: fallen wall stones, bricks, and roof tiles.

Evidence for dating both the original construction of the house and its repair

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may be had from the pottery found beneath their respective floors. Of the material from below the lower floor I illustrate two pieces that are typical and at the same time as late as anything to be associated with the original construction (Fig. 29).

a. Inv. No. P 12,236. Fragment from the floor of a black-figured kylix. Preserved width, 0.104 m.

Dionysos, bearded and wreathed, reclining among vines, a kantharos in his left hand. Behind him a female figure, in front the tip of a drinking-horn (?). Applied purple for beard and band around horn (?); applied white for female flesh and for dots on Dionysos' cloak. Exterior, as preserved, solid black.

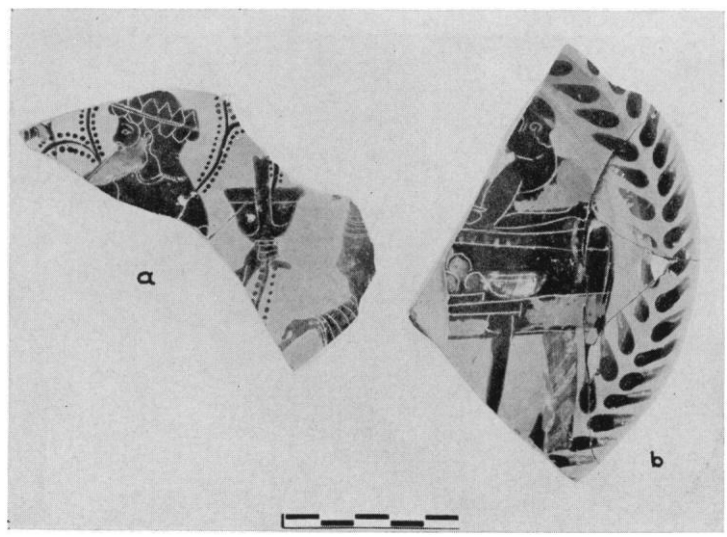


Fig. 29. Black-figured Sherds from beneath Original Floor of Building J

b. Inv. No. P 12,235. Fragment of a black-figured plate. Preserved width, 0.122 m. Slightly defined base, flat on underside; gently curving wall.

A youth with a fillet in his right hand reclining on a couch; to the left the hand of a companion; in front of him a table with a bowl and a basket of bread. On the rim a bay wreath. Applied purple for the banqueter's cloak and hair band, for the rails of table and couch, for the leg of the couch. Applied white for the fillet held in the hand, for the bread and the bowl, for decoration on the couch.

These pieces may be placed in the neighborhood of 500 B.C. and suggest for the building a date at the turn of the century.

From the packing for the floor of the building as repaired come the representative pieces illustrated in Fig. 30.

a. Inv. No. P 12,233. One-handled bowl. Height, 0.053 m.; diameter, 0.15 m. Fragmentary. Low base-ring of V-shape. Flat rim sloping steeply inward. Black glaze over entire interior, on handle, on a band around the wall, on the base-ring, and in two circles and a dot on the underside.

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b. Inv. No. L 3694. Lamp. Height, 0.035 m.; diameter, 0.138 m. Fragmentary. Underside gently rounded; a large tube in the middle; angular shoulder; flat rim. Thin brown glaze on inside and on top of rim.

c. Inv. No. L 3327. Lamp. Height, 0.021 m.; diameter, 0.054 m. Back part restored. Underside flat; wall high and gently incurved; the neck remarkably long for its period. Fine buff clay, unglazed.

d. Inv. No. P 12,232. Ostrakon. Length, 0.103 m. Fragment from the outcurving rim of a large krater, glazed on the inside and top.

Incised on the outside, retrograde: Ἱπποκρά(τες). An effort had been made to erase the first pi and the rho. That this is an abortive ostrakon may be taken as certain, inasmuch as the writing was undoubtedly done after the pot had been reduced to sherds, and the lettering agrees precisely with that of many complete ostraka of Hippokrates found in the neighborhood.

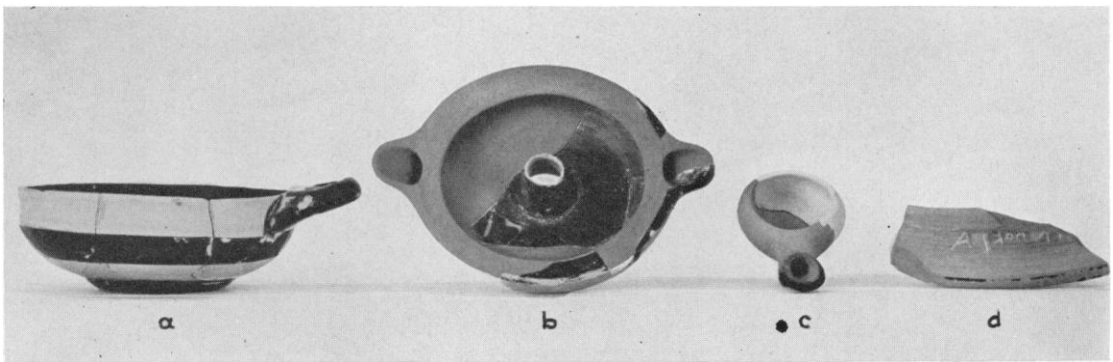


Fig. 30. Pottery from between Floors of Building J

This material may be dated with confidence in the decade 490-480 B.C. Bowls of the type of the piece *a* and lamps of the sort of *b* and *c* are found in the Agora in well groups and deposits of pottery resulting from the events of 480-79 B.C.[24] The ostrakon of Hippokrates undoubtedly comes from the same ostrakophoria as those discussed above (pp. 32 f.), i. e., from the year 482 B.C.

The damage done to our building and the mass of débris between its two floors are therefore due to the Persians; it follows also that this building, like its larger neighbor, was reconditioned and continued in use for some time after 479 B.C., probably, as we shall see, for but a few years.

BUILDING K

It was perhaps immediately after the construction of Building J that the old Cemetery, which had been neglected for generations, was again put in shape. Its southeast wall was rebuilt in connection with a re-ordering of the roadway, of which

[24] In the rectangular rock-cut shaft on the slopes of Kolonos (*Hesperia*, VII, 1938, pp. 363 ff.) in its upper filling (to be published shortly) such bowls and lamps appeared together with ostraka of the 80's. A lamp (Inv. No. L 3374) of the shape of *b* was found about in the middle of the accumulation of the period of use of the second well of Building F (pp. 25, 30).

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more below (p. 107). And now, apparently for the first time, its northeast and northwest sides were enclosed. To the same time may be assigned the length of enclosure wall which runs off at right angles from the northwest wall of the Cemetery, presumably to assist in enclosing the back yard of the archaic complex.

Into the angle between Building J and the newly walled Cemetery was thrust our present Building K, of but a single room and of curiously irregular outline. It clearly represents a desperate effort to utilize all available space. The Tholos foundation dealt hardly with the little building, leaving nothing but a few stones of its extremities. There is a suggestion of a doorway in its east wall, opening on the corridor. Its construction is of the typical archaic sort: limestone walls and clay floor. Its purpose will probably never be known.

THE ROUND POROS MONUMENT

In the angle of the narrow alley which runs between Buildings I and J there stands a curious round monument that consists now of two stone drums, one above the other (Fig. 31). The lower drum is of coarse-grained brown poros. Its lower diameter is 0.795 m., its upper 0.71 m., its height 0.56 m. The diminution, therefore, is very marked, too great to allow one to suppose that the stone is a re-used column drum. Its sides are smooth dressed but unstuccoed; its top is finished uniformly smooth and is neatly bevelled around the edge. There is no specially prepared bearing surface. Near the northeastern edge of the top rises a tapering peg 0.23 m. high, roughly trimmed from stone identical with that of the lower drum, and secured to the drum by a mortise-and-tenon joint. Later disturbance has caused the peg to rise somewhat from its socket. The surfaces of the drum are fresh and unweathered, so that it must have been sheltered, or, if it stood exposed, it must have had but a short life before being buried.



Fig. 31. Round Poros Monument, from East

The upper of the two drums, of coarse gray poros, has a diameter of 0.615 m. and a preserved height of 0.26 m.[25] Its top has been roughly cut down. Its bottom is separated from the top of the lower drum by an interval of 0.10 m. which was

[25] Its material and diameter would permit this to be an unfinished piece of a column intended for the Tholos.

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packed with brown clay. The upper drum was not centered on the lower but would seem to have been thrust deliberately toward its northeast edge, so that the top of the peg might be housed in a slot cut in the face of the upper drum.

The history of the monument is evident. In its original form it consisted only of the lower drum with the peg rising from its top. The hard-tramped gravelly surface of the alley is packed firmly against both the wall of Building J and the monument, and proves clearly that the two were in use together. The filling brought in by the builders of the Tholos was banked against and covered over the drum, but not the peg. Subsequently the monument was renewed by means of the upper drum, which maintained contact with the original through the peg. Eventually the activities that had centered around the monument were transferred elsewhere and the upper drum was cut down to the contemporary ground level. Since its top as preserved rises but little (0.15 m.) above the bottom of the poros blocks in the Tholos wall, we may infer that this change occurred early in the history of the Tholos. The upper drum may well represent a temporary measure for keeping the monument in service during the construction of the round building and the ordering of its precinct. It is tempting to suppose that the successor to our present monument stood on the square poros base to the southeast of the Tholos, which is shown by the stratification to have been placed very shortly after the completion of the Tholos (p. 93).

The purpose of the round monument is not, perhaps never will be, certain. Its substantial character, however, and the extraordinary pains taken to keep it in service clearly rule out its employment for any merely domestic use. One may think of it rather as the base for some small altar or libation table in the service of the cult which may be supposed to have been observed already in the archaic complex as it certainly was in the Tholos. We shall find reason to believe that a cult existed in this same area in the days of the Tholos.[26]

IDENTIFICATION OF THE ARCHAIC BUILDINGS

There can be no reasonable doubt that the complex of archaic buildings F to K lay within the limits of the Agora, and that they were public buildings. This is shown clearly by their relation to the boundary stone of the Agora which still stands in place to the east of them and which will receive more attention below (p. 107). Though the full significance of the stone will not be apparent until more of the ancient levels have been exposed around it, a glance at the plan (Fig. 32) will assure one that the present

[26] A poros drum, similar in size and shape to the one here described, was found inside the round building that has appeared in the southeast corner of the excavation, high on the slope of the Acropoli→ *Hesperia*, VII, 1938, p. 329). Though that round building in its present state is of the Roman period, the working of its original stones is typically archaic, so too that of the stone drum. The two bases undoubtedly served similar purposes by or in their respective buildings. More light may be expected from the eventual identification of the building on the north slope.

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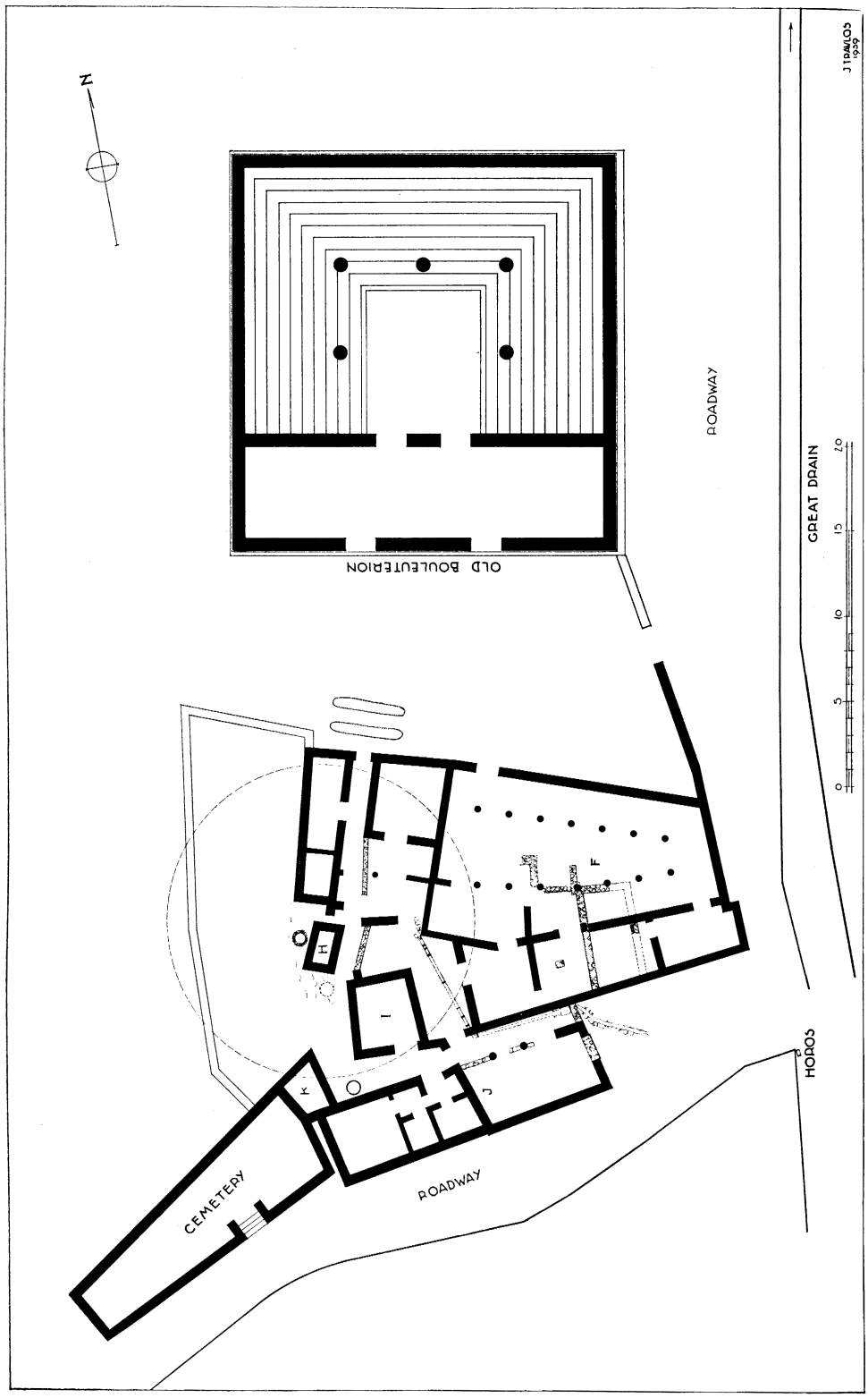


Fig. 32. Area of Tholos at End of Sixth Century. Restored Plan. 1 : 400

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buildings, the most considerable in the neighborhood when the boundary stone was erected, were included in its delimitation.

There can be equally little doubt that these archaic buildings were the predecessors of the Tholos not only in situation but also in function. In the study of the Tholos that follows we shall note several indications of continuity: the original enclosure wall of the Tholos followed the limits of the archaic complex, as they were immediately before the erection of the Tholos (p. 85); the structure that may safely be regarded as the kitchen of the Tholos was placed directly above the archaic broiling-pits (p. 73); the cult place associated with the Tholos immediately overlay a probable cult place of the older establishment (p. 141).

It is, of course, well known from literary references that the Tholos was primarily the headquarters of the prytaneis, the place where they regularly ate and worshipped and where they occasionally slept. The actual construction of the Tholos, however, comes late. It may be taken as certain that a bouleuterion, the Old Bouleuterion, had been standing immediately to the north and that the prytaneis had been carrying out their duties and had felt the same domestic needs for at least a generation before the Tholos was built. We may safely infer, therefore, that the archaic complex had served the needs of that earlier generation of prytaneis.

For the particular uses of the various parts of the complex we are reduced more largely to conjecture. We have, however, found good reason to identify the western part of Building F as the culinary quarter. The three rooms of the south wing of the same building and the main room of its north wing were presumably the dining and living rooms of the officials. The permanent attendants, who are vouched for by literary and epigraphic references for the time of the Tholos,[27] but who were equally indispensable in the earlier period, may have lodged in the small rooms of the north wing, later in the western rooms of Building J. The colonnaded east room of Building J and the open yard that preceded it conceivably sheltered the horses or donkeys on which many of the prytaneis must have ridden to the city from the outlying townships. Building I remains somewhat apart, and this, in view of its close contemporaneity with Building F, suggests that its function was not simply domestic. In front of it stood the round poros monument which, we have seen reason to believe, served some ritual purpose. May we not then regard Building I as a chapel to shelter the cult which is well attested for the period of the Tholos and which in all probability had its beginning much earlier? The few speculations that may prudently be made about the nature of this cult had best be left to the discussion of its place in the Tholos (pp. 137 ff.).

What now about the identification of the still earlier buildings to the north? It must be reasonably clear from the general plan (Fig. 13) that Building F repre-

[27] Wachsmuth, *Die Stadt Athen*, II, pp. 319 f. Cf. also the attendants of the Boule (*βολῆς ὑπηρετῶν*) whose place was marked in the Theatre of Dionysos (*I.G.*, I², 879; Bulle, *Untersuchungen an griechischen Theatern*, p. 68).

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sents a southward extension of the complex D-C (the argument is strengthened by a consideration of the relative chronology of the various buildings), and that F bore much the same relation to C and then to the Old Bouleuterion as D had borne to C, and as the Tholos was to bear to the Old Bouleuterion. In other words, if we designate the Old Bouleuterion as O and the Tholos as T, we arrive at the following correspondences,—D : C :: F : C :: F : O :: T : O. This line of reasoning would therefore suggest that Building C had been in some measure the equivalent of the Bouleuterion and Building D the domestic headquarters of the prytaneis.

A consideration of Buildings C and D in themselves had already led to the same conclusion.[28] C is a substantial building with a plan suitable neither to a house nor to a temple. It directly underlies and was succeeded by a building that was certainly public and served the Boule. We are almost driven to suppose, therefore, that Building C in its day had also served the Boule. It would not, to be sure, have accommodated a meeting of the Boule even of four hundred, but it may very well have housed the records, seals, and other permanent equipment of the Boule. Common meals for officials would seem to have been an ingrained practice in Athenian public life; the magistrates must have felt the desirability of them at the time of the erection of these earliest buildings, perhaps long before. This domestic need may then have been provided for by Building D.

If one grant that Buildings C and D were intended for the use of Boule and prytaneis, one must also suppose that in the period of those buildings the meetings of the Boule took place in the immediate vicinity. But where? Quite possibly in the open air on the adjacent slope of Kolonos, that is in a situation similar to that used by the Council of the Areopagus throughout its history (so far as we know), and also like the earliest meeting place of the Demos on the rugged slope of the Pnyx hill. Certain clues will perhaps permit of the more precise fixing of the auditorium. It will be observed that the construction of Building F, the demolition of Building D, and the raising of the ground level to the south of Building C resulted in a large and comparatively level open area between Buildings C and F. Just to the west of this area and on its axis, the foot of Kolonos has been cut down over a large semi-circular area to a floor that slopes down from west to east (Pl. III, Fig. 13). This extensive cutting, which has suffered much in late times, would seem to have served no useful purpose in connection with either the Old Bouleuterion or the New Bouleuterion by which it was partially overlaid. The cutting certainly antedates the New Bouleuterion, quite possibly the Old as well. With all due reserve in view of the scantiness of the evidence one might suggest that the cutting, together with the open area in front of it, was intended to receive the wooden benches of the Councillors, and that it continued to serve this purpose until the erection of the Old Bouleuterion at the end of the sixth century.

[28] *Hesperia*, VI, 1937, pp. 205, 212.

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Our earliest building, C, will take us back to the time of Solon, or to the years immediately after his reforms. The very fact that a new building was erected at this time and in this place tends to confirm the tradition (as old at least as the fourth century before Christ) that Solon was the author of a Boule of Four Hundred,—distinct from the old Council of the Areopagus.[29] That a prytaneion, however, had existed in Athens before Solon may be taken as certain. Thucydides (II, 15) and Plutarch after him (*Theseus*, 24) imply that it was as old as the Synoikismos, and Aristotle (*Ath. Pol.*, 3, 5) tells us that before Solon's time the chief archon had lived there. Its very position on the North Slope of the Acropolis in company with the other age-old official residences, the Boukolion and the Basileion, would suggest its priority to any institution of the sort in the lower region. Later, when the Boule began to meet by the market square, the prytaneis found it convenient to establish a common dining hall nearby. To distinguish it from the old it is probable that they called the new building the "Prytanikon." Henceforth the prytaneis dined regularly in the lower building, while the distinguished citizens and strangers who dined at the expense of the state *honoris causa*, having more leisure, continued to resort to the old building on the North Slope.[30]

THE THOLOS

Position

The limits of the Tholos and its precinct closely coincide with those of its archaic predecessor (Figs. 1, 62). The round shape of the building is happily suited to the angle of the ancient roadway and may indeed have been suggested by the exigencies of the site. To the north at the time when the Tholos was built lay the Old Bouleuterion; subsequently the Metroon. Though the Tholos was closely related to those buildings in function, it was separated from them in all periods by an east-west boundary wall. Toward the south, from perhaps the late fifth century before Christ, rose another large public building which has not yet been fully investigated nor certainly identified. It was not, however, an immediate neighbor, for between its precinct and that of the Tholos passed an east to west thoroughfare which gave access from the market square to the hilltop above.

State of Preservation

The Tholos proves to be one of the best preserved buildings of the Agora (Fig. 33). Of the lowest course of its wall eight blocks whole and fragmentary

[29] Aristotle, *Ath. Pol.*, 8, 4; Plutarch, *Solon*, 19.

[30] Though the term "Prytanikon" appears only in inscriptions of the third and second centuries before Christ, it may well have been in use as early as the time of our archaic buildings. After the demolition of the early buildings and the construction of the Tholos, the old term would naturally have been superseded in common use by the name of the new building, "Tholos" or "Skias," but may have continued to be used in official parlance. (→ E. Vanderpool, *Hesperia*, IV, 1935, pp. 470 ff.; S. Dow, *Hesperia*, Supplement I, pp. 27 f.

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remain in position, and toward the west a single block of the second course rests undisturbed. Elsewhere for the most part the wall has been stripped to the bottom of its foundation trench. Wall blocks of the Tholos were incorporated in the foundations of a fountain to the southeast of the building (p. 97); a single block was found standing upright on the foundations of the Propylon of the Bouleuterion to the northeast, and two fragmentary blocks were re-used as beddings for a gateway to the north of the Tholos (p. 81). Of the six interior columns, five stumps still stand in place. The sixth was uprooted, base and all, in mediaeval times, but the lower end of the column was found lying just to the northeast of the building. The interior has been disturbed repeatedly: in the late Roman period by a great intrusion of irregular shape in the southwest quadrant, in the Turkish period by two large pits alongside the northwest and northeast columns, in the last century by a huge rectangular gash that marks the place of the cellar of a modern house. Apart from these disturbances, the excavators found intact the mortar bedding for the final flooring of marble slabs with thirty-one of the slabs themselves still in place in whole or part. The construction of this latest floor had naturally sealed under the earlier floors of packed earth and of mosaic. Of the original roofing of terracotta tiles many fragments were found in the earth filling round about the building. The rectangular annex to the north of the round building has suffered severely, especially from two large circular pits that were sunk through its area in late mediaeval times. Yet enough remains of its foundations and walls to enable one to trace its history. Of a porch to the east, most of the foundations remain and a single marble block of its first step. A later annex to the west survives only in foundation trenches and in a couple of foundation blocks. An earlier and a later enclosure wall can be restored with certainty through most of their lengths from their surviving blocks.

On the slope of Kolonos to the west of the building is an extensive system of wells and reservoirs that provided water for the Tholos, as also for the New Bouleuterion. To the east, between the Tholos and the roadway, were found traces of the drains that served the building in its various periods. We shall also have occasion to consider several monuments that were erected from time to time within the enclosure of the Tholos, among them a fountain designed for the use of the building.

The Plan of the Building

The original scheme of the building was simple: a solid outer wall, a doorway toward the east, possibly another toward the north, and six interior columns for the support of the roof (Fig. 34). A radius of 8.45 m. was used for fixing the inner dressed faces of the lowest wall blocks. The circle was followed with great accuracy, for the surviving blocks exhibit no measurable variation in their placing on their respective radii. The arrangement of the columns will be clear from Fig. 34. Instead of forming a complete circle concentric with the wall, they fall into an eastern and a western group of three each. Each group may be thought of as lying on the arc of a

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circle described from a center on the east to west axis of the building but on the far side of the center used in laying out the wall. Here again great precision is evident in the execution of the design, save for a slight discrepancy in the placing of the east central column. Its center lies 0.13 m. to the west of its theoretically correct position.

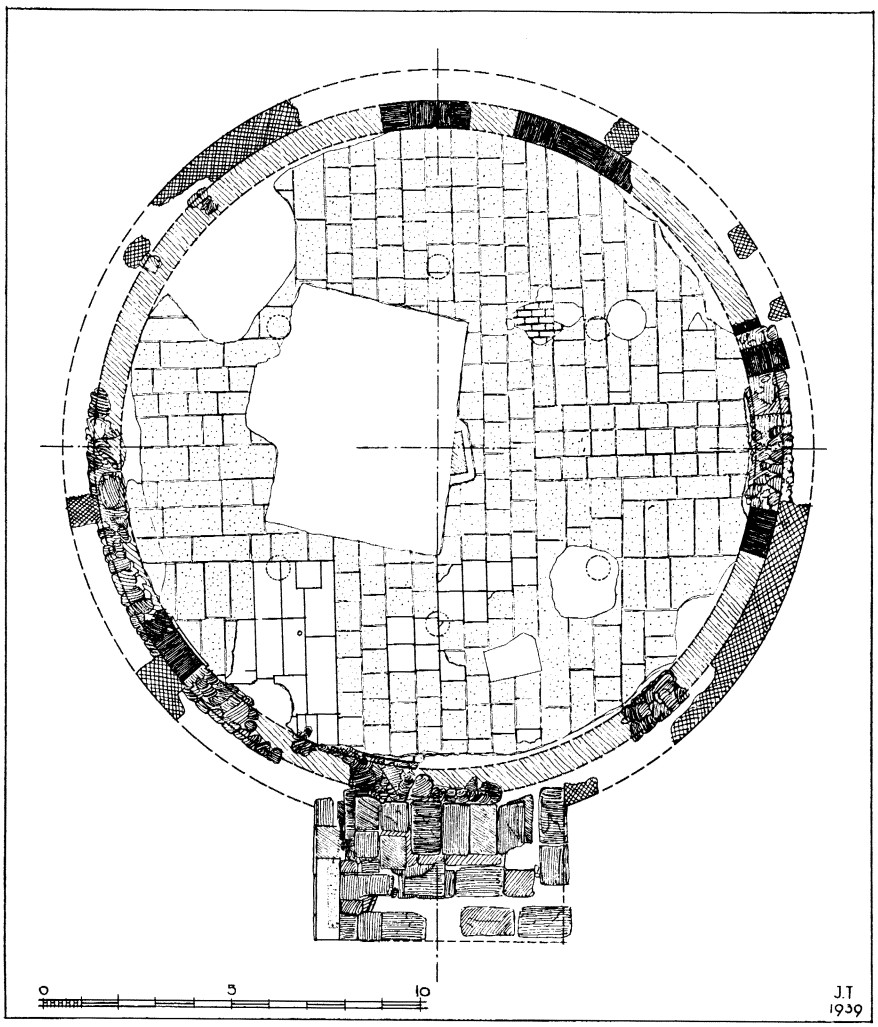


Fig. 33. Tholos, Actual State. 1 : 200

The only apparent motive for the peculiar disposition of the columns is the desire for a large open space in the middle of the building. The plan adopted suggests a broad nave flanked by aisles. The maximum intercolumniation of 6.32 m. must have been and of course could have been spanned with wooden beams.

In the middle of the building there are traces of a rectangular base (Fig. 20). Only the impression of its north edge remains, the rest having been destroyed by the modern cellar wall. The north side measured *ca.* 1.08 m. in length, and, if the

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base be restored as square, it will be found to center approximately in the building. As will appear on the plan, however, the base was far from being in perfect alignment with the axis of the Tholos. The bottom of the impression lies 0.38 m. below the bottom of the marble slabs of the latest paving, rather above the original earth floor of the building, and well above bedrock. It could not, therefore, have been intended

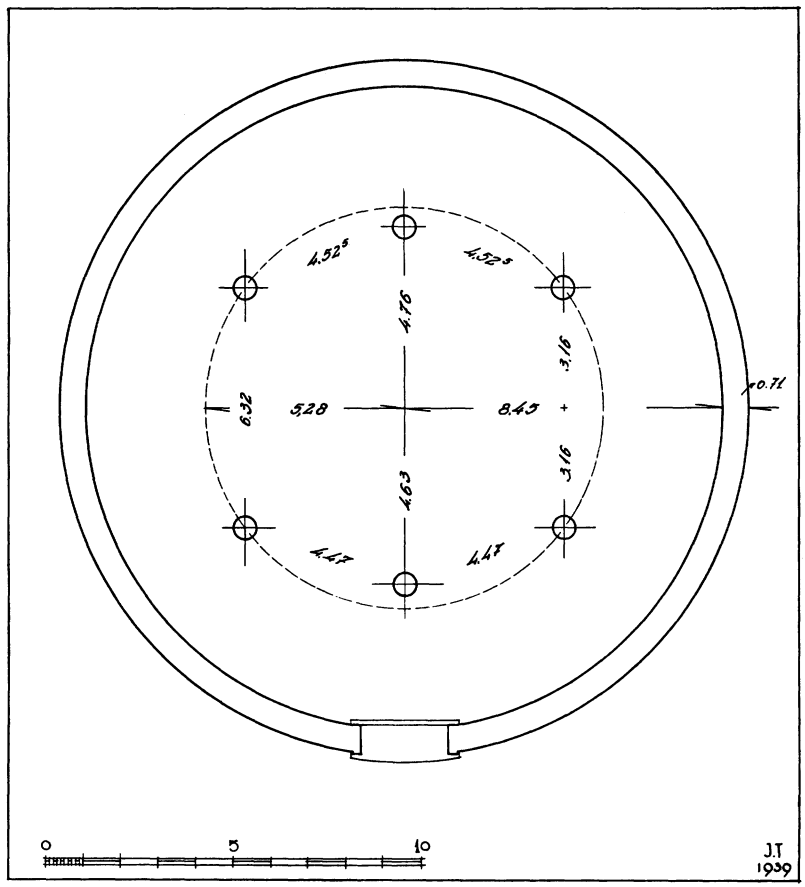


Fig. 34. Tholos, Original Plan. 1:200

for a central column for the support of the roof. It may be supposed rather to have carried some comparatively light object, conceivably an altar. A candidate is at hand in the handsome round marble altar which was found just to the northwest of the building and which has been assigned, tentatively and without convincing grounds, to the New Bouleuterion.[31]

The height at which the central base rested proves that it was not contemporary

[31] *Hesperia*, VI, 1937, pp. 151 f., fig. 87. The altar has a lower diameter of 0.95 m., so that it could have been accommodated on our square base (1.08 m. to the side).

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with the Tholos. Its failure to align with the marble-slab floor, on the other hand, may be taken to prove that the base antedates that floor. It may well have been inserted in the course of the reconstruction that followed on serious damage suffered by the building at the close of the fifth century.

The eastern porch, added to the building four centuries or more after its original construction, was centered with commendable precision on the east to west axis. The axes of round building and porch, measured on the front line of the porch, show a variation of less than 0.10 m. The doorway itself, of which nothing remains, was

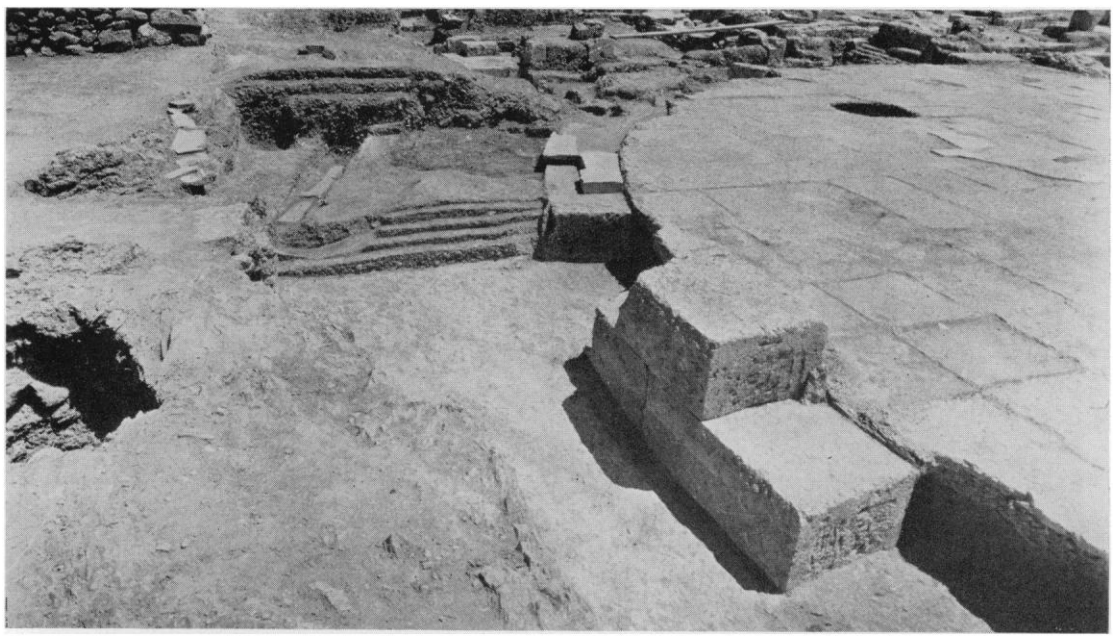


Fig. 35. West Side of Tholos, from South

presumably placed with equal accuracy. The north annex, on the other hand, was set, in its various periods, with scant regard for the axes of the round building. Its position and orientation were apparently fixed rather by external considerations. This is true also of the west annex, the axis of which varies as much as 1.20 m. from that of the Tholos. Its position was obviously determined by a desire to bring its north side as nearly as possible into alignment with the screen wall along the south side of the Bouleuterion Square. It may be observed that the east to west lines of the paving slabs in the latest floor of the Tholos show a maximum variation of 0.40 m. from the axis of the building, this, presumably, through sheer carelessness.

The Wall

The first task of the architect of the Tholos was to prepare a level area for his building. This he did by cutting down the foot of the hill toward the west and

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using the material so gained to raise the level toward the east. As may be gathered from the plan (Pl. I) and from the photograph (Fig. 35) the outline of the cutting toward the west is curiously irregular. Toward the northwest it extends some 3.00 m. beyond the outer face of the Tholos wall as it was actually placed and suggests that some slight alteration occurred in the placing of the building after work began. The scarp that resulted from this cutting is still preserved to a maximum height of 1.50 m. at a point opposite the southwest part of the Tholos. Within the western area, where rock cutting was necessary, a level floor was produced. On this floor was bedded directly the first course of wall blocks (Fig. 35). The dressed bedrock outside the wall was covered originally to a depth of *ca.* 0.20 m. with chips from the working



Fig. 36. Tholos Foundations in Southeast Quadrant, from Northeast

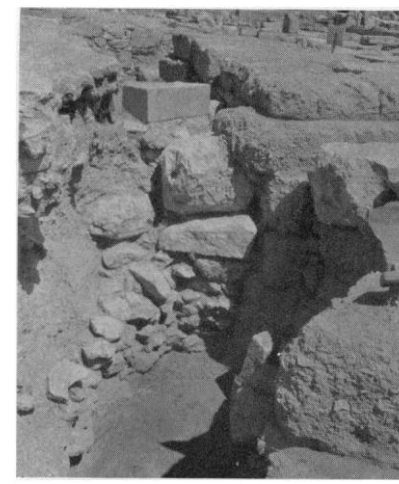


Fig. 37. Subfoundation of Tholos Wall Adjoining Porch, from South

of the wall and with earth and was then surfaced with 0.05 m. of clean brown clay. Subsequently, though within the fifth century, the level here was raised by some 0.15 m. and the clay surfacing was renewed. The pains taken in the maintenance of this passage way and the much-trodden state of its successive surfaces suggest that it served for the circulation of not a little traffic behind the building.

In its western part, then, and over rather more than one quarter of its total length, the first course of dressed wall blocks was laid directly on bedrock. Elsewhere the course rested on a packing of broken limestone that filled a trench *ca.* 1.25 m. wide and extended down to bedrock (Figs. 36, 37). Beneath the southeast segment of the wall it shows a maximum depth of *ca.* 2.20 m. In its lower part this packing consists of stones of about the size of a man's head thrown in without order; toward the top the stones become progressively larger and are jointed with some little care, so that they give the semblance of a rudely built polygonal wall. None of the packing,

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of course, was intended to be visible. This cheap foundation is but one indication of the strict economy observed in the construction of the building throughout.

No special euthynteria or levelling course was employed; in the west side, where blocks of the first two courses remain in situ, both courses are of precisely the same height and their blocks are worked in the same way. The height of the wall blocks that remain undisturbed in the lowest course varies between 0.46 m. on the west and 0.42 m. at the southeast. As may be gathered from the levels given on the sections (Pl. II), considerable variations exist in the level of both the top and the bottom of the first course, and these variations are to be accounted for only in part by the settling of the stone packing. The surviving blocks vary in length between 1.17 and 1.30 m., as measured on the chord of the outer face; their effective width is 0.71 m. Their inner faces were left somewhat rough, the better to grip the stucco. In the case of the surviving blocks of the first two courses on the west side, and of the first course at the southeast, the outer faces for the most part were left straight and in quarry condition; only the ends and the top were chamfered to the line of the circle of the true outer face of the wall (Fig. 35). The upper wall in its more exposed parts was, of course, more smoothly finished. One of the pieces found in a Hellenistic context to the north of the building is illustrated in Fig. 38, and it may doubtless be taken as typical of the upper wall blocks; its outer face is finished fairly smooth and is lightly drafted along its upper edge. The anathyrosis is deeper and more carefully cut on this block than on those that remain in place, and it alone of all the surviving blocks has a clamp cutting. Nowhere is there a trace of dowels. Pry-holes appear regularly in the middle of the blocks.

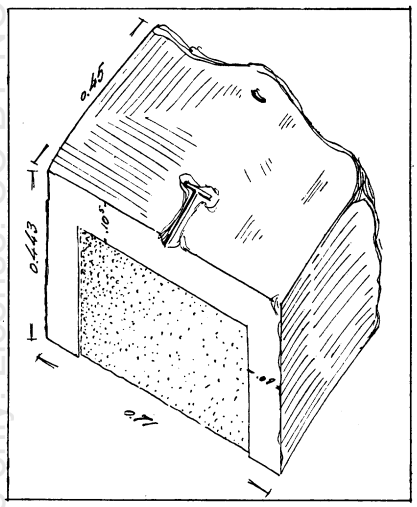


Fig. 38. Inv. No. A 1047. Fragmentary Wall Block of Tholos

A pry-hole in the top of the surviving block of the second course proves that the wall had once been higher by at least one more course of stone blocks. The upper wall was probably made of crude brick. For a later period this is made reasonably certain by the finish of two blocks from a string course of Hymettian marble that would seem to have been inserted in the wall of the building in the course of the reconstruction at the turn of the fifth and fourth centuries. One of these marbles (Inv. No. A 914, Figs. 39, 40, 42) was found by the excavators in the mediaeval curbing of a well 14 m. to the east of the Tholos (cf. below, p. 125); the other (Inv. No. A 915, Figs. 41, 42) had been re-used as a cover slab on one of the terracotta channels that drained the Tholos before the construction of its Porch. Their asso-

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ciation with the building is established by their exact correspondence in curvature and in width. The width of A 914, which alone preserves that dimension, is 0.728 m., enough, that is, to allow the face of the stone just to appear through the plaster on the wall blocks. A 914, though broken in two pieces, preserves its original length. A 915 is broken at both ends, as well as along its inner face. Both pieces are 0.11 m. thick. There is a significant difference in the treatment of the upper and lower joint surfaces of the two blocks. The underside is roughly but regularly picked in the middle with a smooth resting surface at a slightly higher level 0.08-0.10 m. wide along each side and across one end; this was dressed with the toothed chisel. The top surface is still more roughly picked in the midpart and has a smoothed band 0.025 m. wide along the sides and across one end, this time at a perceptibly lower level. The under surface of the marble was obviously intended to rest on stone; its top is not suitable for a joint with stone. But it may very well have supported an upper wall of crude brick, and its treatment finds adequate parallels, *inter alia,* in the better preserved walls of the Pompeion by the Dipylon and of the Gymnasium of Epidauros, which would seem certainly to have been of brick in their upper parts. The probability is strengthened by the absence in the tops of the marbles of any trace of pry-holes which must have been required for the setting of a superimposed course of stone.

A clue to the height at which the marble stringcourse was set in the wall is given by a series of rectangular sinkings in the top of the marble A 915.[32] They lend themselves to the restoration of a window grill with a heavy upright on either side and two lighter vertical bars toward the middle.[33] A third small hole near the middle of the block may have served for the fastening of a double grill, or it may be counted an error on the part of the ancient mason. There is no trace of a sill either of wood or of stone above the marble block. Yet the surface of the marble is exceedingly rough and unsightly. We may conclude that the marble stringcourse itself served as the sill for this, and presumably other windows, and that its top surface lay above eye level. Just such a scheme was employed in the Pinakotheke of the Propylaia, where the top of the stringcourse sill is 2.418 m. above the floor in the porch (Fig. 43).[34]

The block A 914 gives us still other information. One of its ends is finished with carefully worked anathyrosis: obviously a joint surface. The other end, however, was dressed smooth with a toothed chisel and was clearly intended to be visible. That it adjoined an opening in the wall is confirmed by the return across this end

[32] The holes in the underside of A 914 are natural faults in the marble.

[33] For similar window sills from the Philippeion at Olympia cf. *Olympia, Die Ergebnisse,* II, p. 132.

[34] The top surface of the sill in the Propylaia is also rough and unsightly, and its clamps are exposed. Bohn (*Die Propylaeen,* p. 24, pl. IX) supposed that it was concealed by an inset sill, for which, however, there is no positive evidence.

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Fig. 39. Inv. No. A 914. Block from Stringcourse, Right Side Up

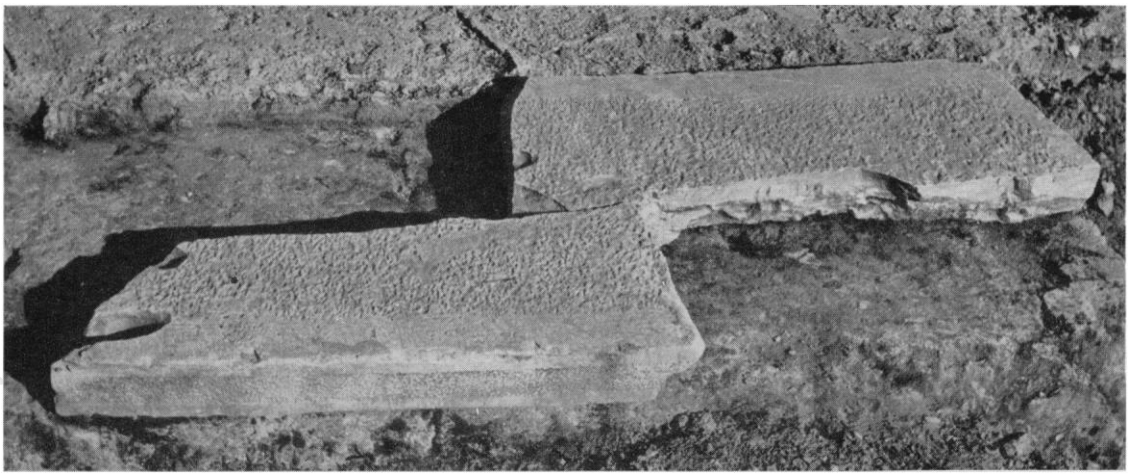


Fig. 40. Inv. No. A 914. Block from Stringcourse, Under Side Up

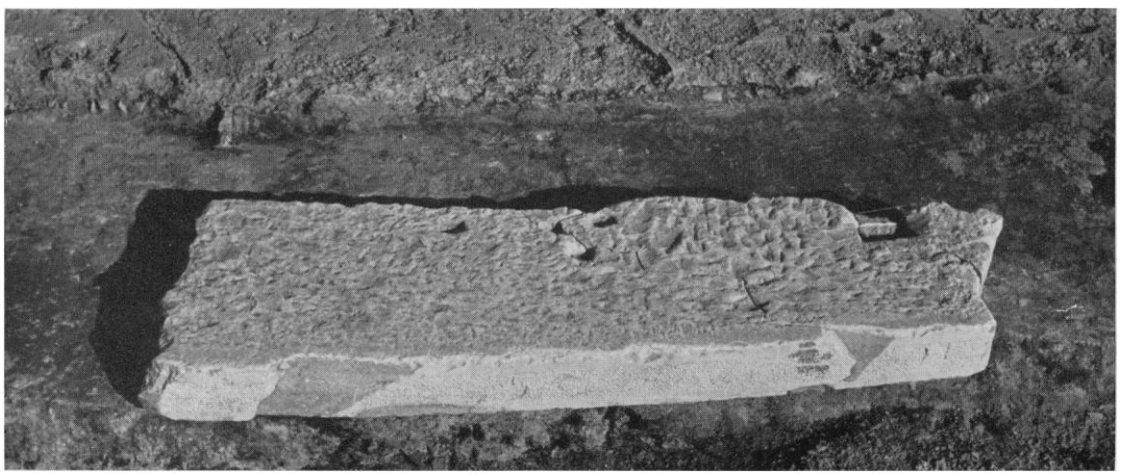


Fig. 41. Inv. No. A 915. Block from Stringcourse, Right Side Up

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of the well-worked bearing and resting surfaces of the top and bottom of the marble. Since the sides of the main doorway of the building must have been lined with jambs which would have concealed the adjacent ends of the stringcourse, we may suppose that the present marble adjoined some lesser doorway. In our study of the Kitchen of the Tholos we shall find reason to believe that a doorway existed in the north side of the Tholos to facilitate communication between the main building and the kitchen. Our marble may come from here.

The drawing (Fig. 42) shows that the better preserved end of the block A 915 has a joint surface cut radially and worked with anathyrosis for a distance of 0.08 m. in from the outer face of the stone. Farther in, the end of the block runs off at a curious angle and is not cut as a joint surface. We may infer that for the greater part of its length the stringcourse consisted of narrow slabs set in rabbets along the inner and outer edges of the topmost course of stone and that only beneath the windows and alongside the doors did it carry through the full thickness of the wall. For this detail also one may find an illuminating parallel in the Pinakotheke of the Propylaia.[35]

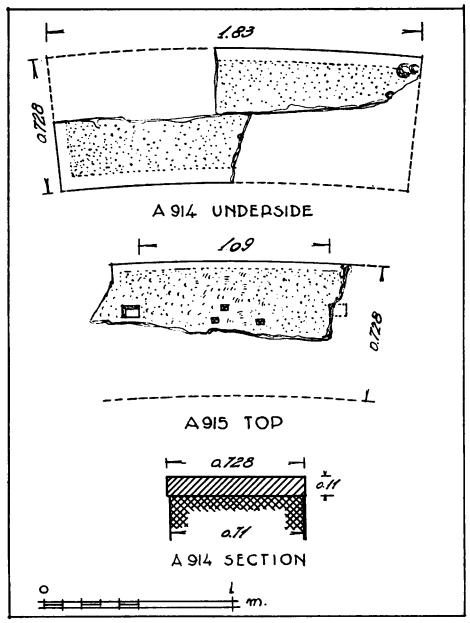


Fig. 42. Blocks of Stringcourse of Tholos

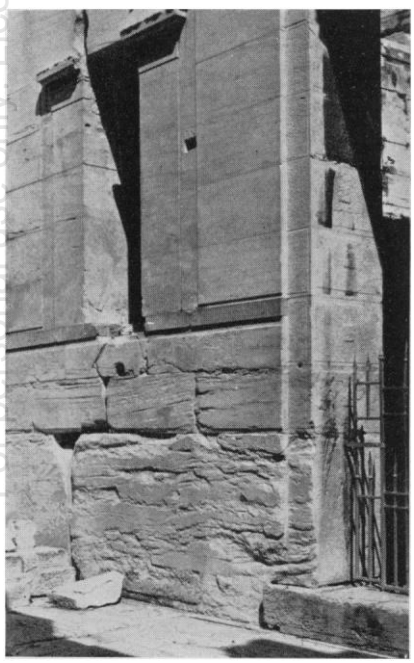


Fig. 43. Door and Window in Pinakotheke of Propylaia

On the preserved marbles, the inner face was dressed smooth with a toothed chisel; the outer face was lightly stippled and edged with a smooth band 0.025 m. wide on all sides. Both the inner and the outer face of the marble were obviously intended to be visible. See p. v addenda.

The wall of the building suffered severely once more in the late Hellenistic period. We have already observed that a block of the stringcourse and several of the wall blocks of the building were found in late Hellenistic contexts in the Tholos precinct. After this second serious injury, then, the wall would seem to have been stripped of its stringcourse and of one

[35] Bohn, *Die Propylaeen*, p. 24.

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or more courses of regular wall blocks that may be assumed to have been damaged, and it must then have been rebuilt, probably in brick.

The wall of the Tholos, we may readily believe, was wrecked yet again when this part of the city was sacked in the third century after Christ. A strengthening ring of concrete was thrown around the foundations at some time subsequent to that event and probably in connection with a final repair of the building. Masses of the concrete remain in place and, where the material itself has disappeared, the empty trench shows its position. The ring encircled the building pressing against the outer face of the old foundations, and abutting against the sides of the foundations of the Porch. It would appear to have had a uniform thickness of *ca.* 0.70 m. It is lightly founded: only rarely and that by chance does it run down to bedrock, for the most part it does not extend below the level of the bottom of the lowest wall course, in the west part scarcely below the top of that course. The concrete is of a typical late Roman character: field stones and broken masses of ancient blocks laid in hard, grey lime mortar.[36]

For the restoration of the wall in this final period we have no further evidence. We may suppose, however, that very few of the original blocks survived the destruction of *267* A.D. and the subsequent frantic search for building material for the construction of the Valerian Wall. Consequently another thoroughgoing reconstruction was necessary and it was carried out in the building material of the day, viz., concrete. The wall was now doubled in thickness, at least in its lower part, and it was presumably raised to its full height in concrete. This wall stood until the final abandonment of the building, after which despoilers tore away the concrete, removed most of the remaining ancient blocks and also most of the original stone packing.

Traces of stucco of at least two periods remain on the inner faces of the surviving wall blocks, both those in situ and those that were re-used elsewhere. They have been examined most satisfactorily in a small pit sunk through the floor to bedrock against the inner face of the surviving blocks in the west side (Fig. 44). The remains here may be regarded as typical and they form the basis of the following notes. The face of the wall, to the very bottom of the lowest course (and in the southeast quadrant to a level 0.02 m. below the bottom) was covered with a backing coat of grey plaster 0.006 m. thick: sand and lime and pebbles up to 0.005 m. in diameter. Around the base of the wall was then applied a band of red pigment, 0.0005 m. thick, 0.12 m. high. Above this the wall surface was finished with extremely fine marble dust stucco, 0.0015 m. thick, smooth polished, white. This coat slightly overlaps the red pigment, and projects a little at its lower edge. Whether the upper wall surface was lined off in blocks we cannot say at the moment. One might learn by exposing fully the face of one or more of the blocks that remain in situ.

[36] Cf. the somewhat similar reinforcement in concrete around the column bases of the Temple of Artemis at Sardis, *Sardis*, I, i, *The Excavations*, p. 111.

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For the second plastering, a new backing coat was applied over the original finished surface: 0.005 m. of fine, brown mortar made of sand and lime. On this was laid a coat of marble dust stucco, 0.004 m., thick which was surfaced with a skin-thick film of slate-grey pigment. The second plaster finishes in a turned-out edge *ca.* 0.25 m. above the bottom of the lowest course and is clearly to be associated with one of the upper floors of packed earth that antedate the first marble paving. The second coat of stucco was certainly lined off, as appears from a vertical groove of V section (0.004 m. wide, 0.0015 m. deep) on the face of one of the wall blocks in the fountain.

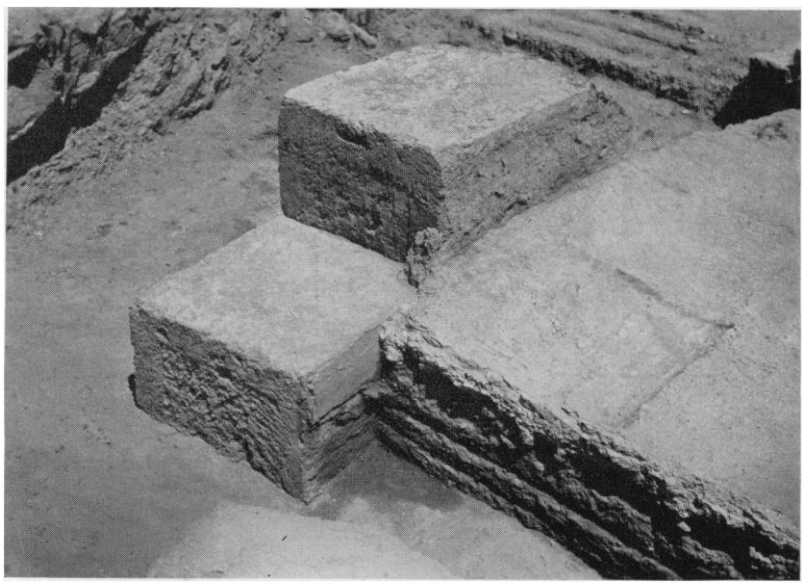


Fig. 44. Wall Blocks in West Side of Tholos with Stucco on Inner Faces, from South

After the laying of the marble-slab floor, the wall, at least in its lower part, was revetted with large rectangular slabs, presumably of marble. Of the backing coat of mortar a good sample remains in place in the southeast quadrant (Fig. 45). It still rises 0.38 m. above the top of the marble floor. The mortar is *ca.* 0.10 m. thick, made from lime, sand, gravel of the size of kidney beans, crushed tile, and larger bits of roof tile. On its face may be read the impression left by a slab *ca.* 0.72 m. wide.

The Entrances

The principal, possibly the only entrance to the building in its original form may be placed with assurance in the east side on axis. The chief open area associated with the building lay to the east, and, moreover, no satisfactory place for a major entrance exists to north, south, or west. At the critical point the wall of the Tholos has been stripped down to the packing of irregular stones, so that we lack evidence for the

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width of the opening. On our restorations we have made the original opening 2.30 m. wide; the clear width of the doorway of the Tholos at Delphi (a much smaller building) is 2.186 m. It will be observed that the lines of the earlier drains of the building cut its wall slightly to the south of the axis; they presumably passed under the threshold.

In late Hellenistic times the east entrance was given a more monumental aspect by the construction of a porch of which the foundations only remain (Fig. 66). They consist of three courses of conglomerate blocks, supplemented by several re-used pieces of poros and marble, all laid in a very irregular fashion. The first step, of Hymettian

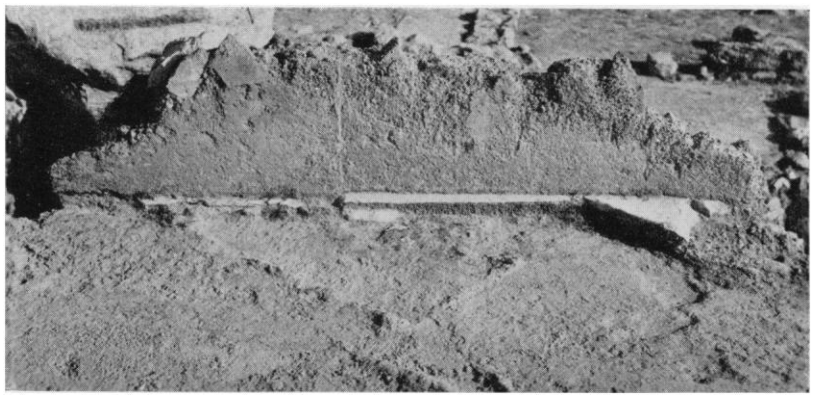


Fig. 45. Mortar Backing for Revetment on Tholos Wall

marble, is preserved along part of the south side, and setting lines fix the width of a second step at 0.30 m. along the south side, 0.32 m. across the front. A consideration of the relative levels of porch foundations and Tholos floor shows that the porch had only two steps. The massive stone underpinning in the middle of the structure indicates that it was floored with marble slabs. Of the superstructure no certainly identifiable pieces have been found. Since the dimensions of the foundations do not lend themselves readily to the spacing of Doric columns, a solution in the Ionic order is suggested in the restored drawings (Figs. 47, 48).[37] The doorway has been narrowed

[37] Among the re-used blocks in the foundation of the porch may be noted the marble step along the south side. It measures 2.154 m. × 0.62 m. × 0.285 m. One long side and its two ends were originally exposed, the other long side has anathyrosis and cuttings for clamps. It is of good Hellenistic workmanship, obviously from a sizeable monument base.

In the middle of the preserved top of the porch foundation lies, upside down, the capping block from another, or perhaps the same monument. It too is of Hymettian marble. It measures 1.033 m. wide, 0.292 m. high, and has a preserved length of 0.915 m. A crowning moulding has been chipped away.

In the same course lies another re-used block of Hymettian marble, apparently from the vertical column of a small street fountain. It measures 0.505 m. × 0.393 m. × 0.29 m. high. Three faces are smoothly finished; the fourth is picked and drafted, and has a vertical channel 0.10 m. wide, 0.09 m. deep, suitable for a small water pipe of clay or metal. Imbedded in the foundation elsewhere

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somewhat in the restoration of this period to agree better with the column spacing of the porch which can be fixed with but a slight margin of error. Such a change may be assumed inasmuch as the Tholos wall had at this point been stripped of all its blocks before the construction of the porch.

The large proportion and the wide variety of re-used material in the foundations of the Porch suggest that its construction followed on some serious disturbance. The use of a marble block from the Tholos itself for the covering of a Tholos drain that must antedate the Porch indicates that the Tholos was involved in that disturbance (p. 90). A slight amount of pottery gathered from the packing for the foundations of the Porch is as late at least as the second century before Christ, perhaps as late as the first century. The disturbance, therefore, may with great probability be counted the Sullan sack of 86 B.C. The Tholos itself was presumably reconditioned at once, but the construction of the Porch falls considerably later. In the interval between these events two terracotta channels for the drainage of the Tholos served their day. Of these, the first, as noted above, was built in part of material from the wreckage of the Tholos and was subsequently replaced by the second which was in turn cut off by the builders of the Porch (p. 90).

Of other doorways we have no certain record in the foundations. But the study of the Kitchen, as already observed, makes probable a lesser doorway in the north side of the Tholos to facilitate communications between the main building and the Kitchen. The placing of the Kitchen in its later periods suggests that this doorway opened slightly to the west of the axis (Fig. 56). It is not impossible that this lesser doorway was included in the original plan, but our only positive evidence for its existence is of the period subsequent to the damage of the end of the fifth century, viz., the block from the marble stringcourse noted above (p. 53) and the removal of the Kitchen door from its north side to its west end.

The Interior Columns

The six interior columns of the building rested on piers *ca.* 1.00 m. square built up of blocks of soft grey poros, a block to the course (Fig. 46). These piers carry down to bedrock. The pier blocks are but roughly squared and the tops of the piers are irregular in outline and by no means smoothly finished. The tops of the north-

were two fragments from a roughly hewn round basin of Pentelic marble, with an outside diameter of *ca.* 0.78 m., conceivably to be associated with the same fountain. Mention may also be made of a fragmentary statue base of Eleusinian marble that now lies upside down on top of the stone underpinning of the Tholos wall between Tholos and porch. It was perhaps inserted here at the time when the Tholos was rebuilt after the injury of late Hellenistic date and suggests that the threshold was raised to a higher level, the better to suit the rising floor level inside the building. The base measures 0.692 m. wide, 0.247 m. high, and has a preserved length of 0.50 m. In its original underside is a cutting for a dowel, in its top a cutting for a lifting lewis and a broken bedding perhaps for the foot of a bronze statue. The workmanship is worthy of the fifth century before Christ.

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western and southwestern piers were effectively covered by the original earth floor of the building and show no trace of wear; but the two surviving eastern bases and the west central are traffic worn.[38]

The columns were cut from hard grey poros, undoubtedly from the same quarry as the blocks of the outer wall, but of carefully selected pieces. The lower diameter of the northeast column, which now lies free, measures 0.60 m. A fragment apparently from well up in the shaft of one of the columns was found to the east of the building where it must have been re-used in some late wall. Its diameter is 0.49 m. The shafts are unfluted; they are dressed with some care and retain no trace of stucco, not even those stumps that have been effectively protected by the earth and marble floors. The stump of the west central column now stands 0.33 m. high. Much of its top surface is smooth dressed and appears to represent the original working. If this be true, it gives the height of the first drum in this column. None of the other stumps retains its original top.[39]



Fig. 46. Southwest Column of Tholos, from North

That the six columns are contemporary with the wall of the building may be taken as certain from the identity of material and workmanship, and from their relation to the earliest floor. They would seem to have been standing and still in use in the early Roman period when the mosaic floor was laid, for this floor encircles the stumps of the five columns that remain in place. The columns had certainly been cut down, however, before the construction of the slab floor, for the marble slabs and

[38] Of the northeast column base no stone remains in place. The clearing of the late pit by which it had been disturbed revealed the impression left by the removal of the square blocks. Of the lowest block the northwest corner could be fixed with precision. Small flakes of this block still clung to the earth and proved to be of the same soft grey poros as that used in the other piers. The stumps of the three western columns had appeared on the original clearing of the building in 1934. But it was the discovery of the place of this fourth column in 1937 that betrayed the enigmatic scheme of the interior supports. Their probable arrangement was worked out on paper and the remaining two column stumps were then exposed by cutting through the mortar packing for the latest marble floor which sealed them under.

[39] Of column capitals no certainly identifiable piece remains. But mention should be made of a small fragment of an Ionic capital of Pentelic marble (Inv. No. A 933) found in a rubbish pit to the southeast of the Tholos together with many roof tiles of the building that would seem to have been discarded after the injury at the end of the fifth century. Only a part of one volute remains and a little of the resting surface of the underside. The face of the volute is flat. The resting surface had a diameter of *ca.* 0.44 m., so that the top of the shaft, did it have a moulding of any sort, could have measured little more than 0.40 m. This represents a diminution perhaps impossibly great.

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their packing passed over the stumps which had for the most part been roughly trimmed down to the level of the mosaic floor. The removal of the columns would seem to have occurred somewhat before the laying of the latest floor, as one may infer from the worn state of the original top of the first drum of the west central column. This worn surface was found beneath the mortar packing for the marble slabs. No trace has been found of a second set of columns and enough of the area remains undisturbed to make the negative evidence practically conclusive. In its later periods, then, the building appears to have had no interior supports.

The Floor

The original floor of the building was surfaced with a layer of clean brown clay 0.05 m. to 0.10 m. thick. In various places where exploratory cuts have been made through the floors and where late pits have revealed the stratification, one may note small areas of this original surfacing. Where examined in front of the surviving wall blocks on the west side of the building, this floor lay at a level *ca.* 0.10 m. above the bottom of the first wall course; in front of the surviving wall block in the southeast quadrant it appears 0.02 m. below the bottom of the lowest course. As will be clear from the sections of Pl. II, the original floor, like the later, pitched down toward the eastern door and the mouth of the drain. The maximum difference in level on the east to west axis is 0.32 m. This is perhaps a greater difference than was anticipated in the original design for, on turning to Fig. 62, one will note that the levels of the tops of the column bases were graduated to correspond with a floor sloping toward the door, but the difference between the west central and east central bases is only 0.06 m.

In subsequent ages the floor level rose by some 0.45 m. in all. Much of this accumulation dates from the fourth and early third century before Christ, from a limited period when the interior of the building was treated in an outrageous way. At this time the original floor was disturbed in many places. The present exploration revealed numerous irregular pits that extended down well below the first floor level, in the southeast quadrant of the building to a depth 0.40 m. below the bottom of the first wall course (Pl. II, Section DD). These depressions were found full of loose earth mingled with ash, charcoal, and great quantities of broken pottery. In this period the actual cooking would seem to have taken place within the round building itself and the ash from the braziers as well as the damaged crockery was simply dumped on the floor. It will be suggested below that this period may correspond with a time when no separate kitchen existed (p. 135). In a typical mass of this loose rubbish which was encountered in an exploratory pit in the north central part of the building, an inscribed marble stele was found lying face upward and quite complete (Inv. No. I 5509).[40] Its top was overlaid by a packing of firm-trodden earth, by

[40] To be published shortly in *Hesperia.*

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which it had been effectively protected. The document contains a record of the activities of the *poletai* of the year 367/6 B.C. Its remarkably perfect condition, even to the painted egg and dart of its crowning moulding, suggests that it had stood for but a limited time.

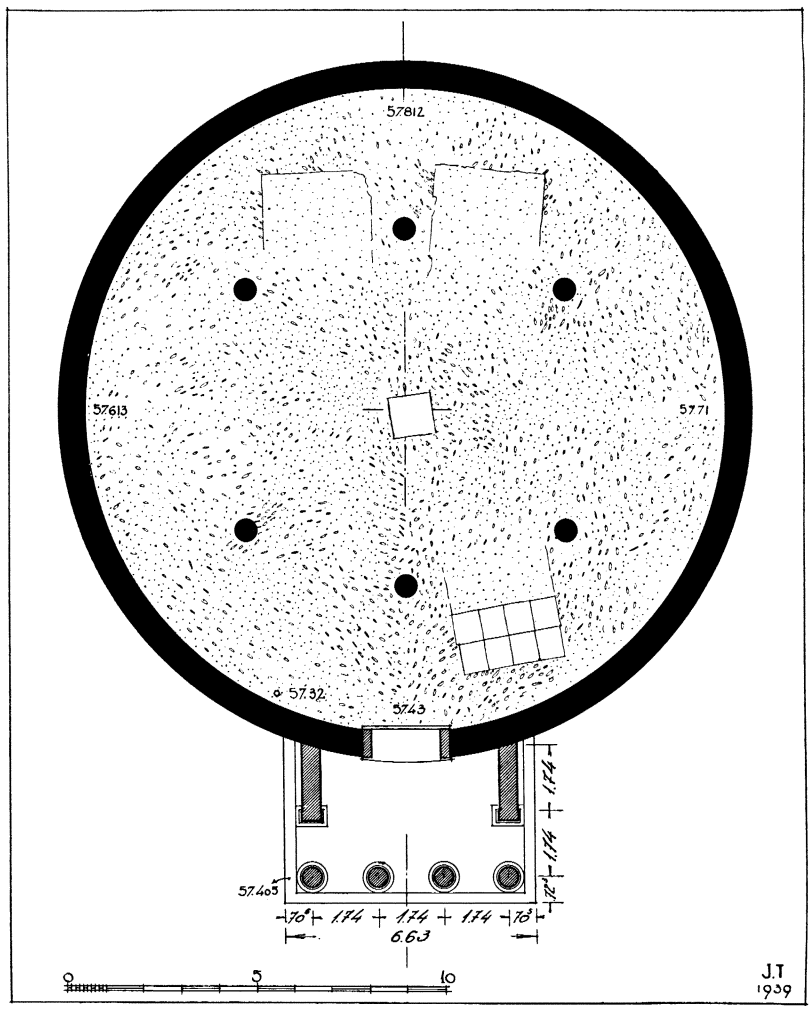


Fig. 47. Tholos in First Century after Christ. 1 : 200

This same exploratory pit in the north central part of the Tholos exposed also a shallow trench that followed the arc of a circle approximately concentric with that of the Tholos wall, at an interval of *ca.* 2.40 m. from the inner face of the wall. The trench was *ca.* 0.50-0.60 m. wide, 0.10-0.12 m. deep, and its mouth was approximately on a level with the original floor of the building. It was full of the typical loose rubbish of the fourth and third centuries before Christ. Traces of a similar depression, or perhaps of the continuation of the first, were observed to the east of the east

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central column and again to the south of the southwest column. In the last place the trench was bordered by a few working-chips of Hymettian marble. The clean lines of the trench, especially in the north central area, suggest that it had served as the bedding for stone slabs that must have been removed when the loose rubbish was

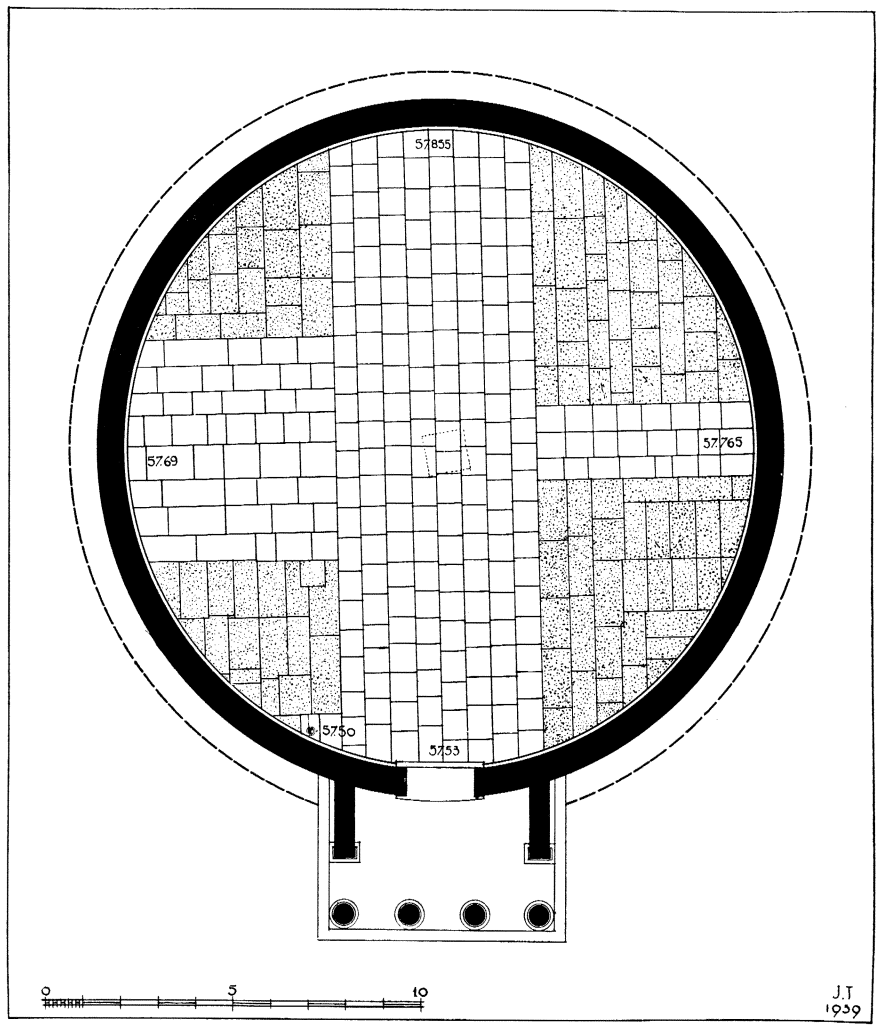


Fig. 48. Tholos in Second Century after Christ. 1 : 200

gathering. It is quite possible that some of the original blocks survive as cover slabs on the poros drain of the Tholos and on the drain of a small fountain to the east of the Propylon of the Bouleuterion (pp. 90 and 104, note 86). These slabs are of Hymettian marble, 0.45 m. to 0.50 m. wide, 0.10 m. to 0.12 m. thick. The two complete pieces measure 1.39 and 1.69 m. in length. They are roughly dressed on all sides and worn by traffic regularly on one of their broad faces. Since the worn face

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of three out of the four slabs is now toward the earth as the blocks lie on the drains, one must suppose that the marbles were brought from elsewhere and that the wear had occurred before they reached the drains. These blocks, then, had conceivably served as flag-stones in the floor of the Tholos, arranged perhaps in a circle that passed around the building just outside the columns. From their material and dimensions one might surmise further that they were in the beginning discards from the marble stringcourse in the Tholos wall.

More orderly habits were eventually resumed; the masses of loose débris were

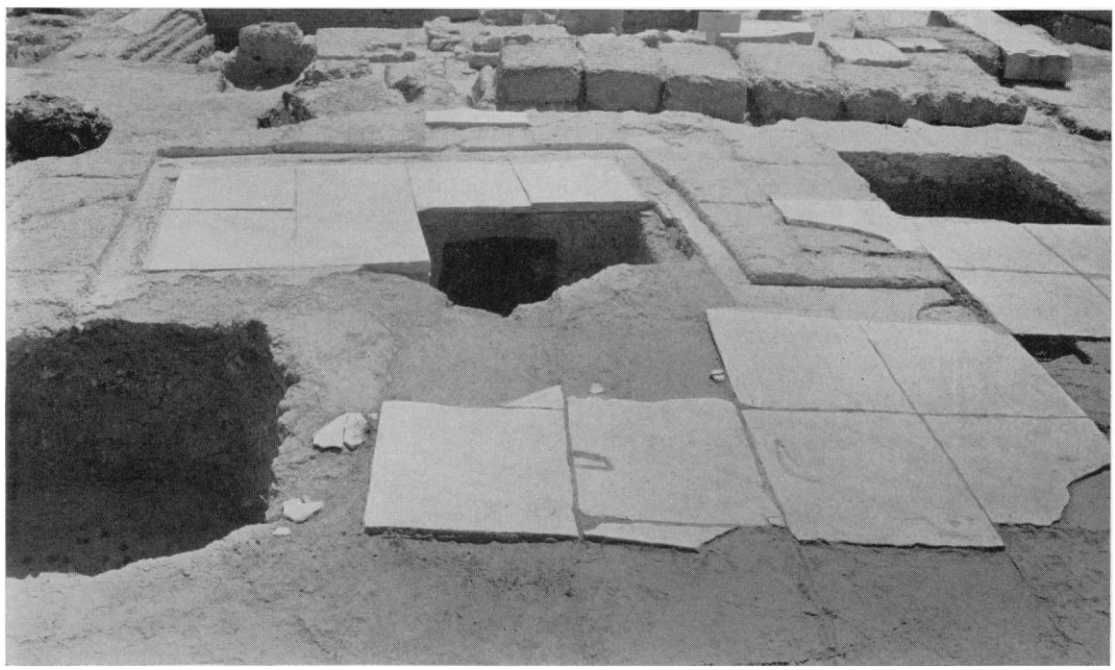


Fig. 49. Patch of Marble Slabs in Mosaic Floor of Tholos, from West

covered over by another firm-packed dirt floor which was kept so clean that scarcely a fragment of pottery was found to represent the lapse of approximately three centuries before the laying of the first marble floor.

This first stone floor consists of a mosaic made from splinters of Pentelic marble with a maximum length of *ca.* 0.10 m. They are bedded in and on hard grey mortar which in turn rests on a packing of field stones, a single layer of them about of the size of a man's fist. The surface of the mosaic was originally covered by a thin coat of fine cement and this by a film of red pigment. But at practically all points where the mosaic has been examined, the surfacing is worn away and the marble chips are tramped smooth.

Over much of the area the mosaic had suffered still more severely and had been extensively patched (Figs. 47, 49). The most instructive of the repairs was

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exposed in the northeast quadrant where six out of an original eight marble slabs remain of a large rectangular patch (*ca.* 1.62 × 2.75 m.). These slabs are of Pentelic marble 0.04 to 0.07 m. thick, their top surfaces lightly stippled and somewhat worn by traffic, their under surfaces deeply striated and much worn from some previous usage. For their laying, both the mortar and the pebble packing of the mosaic had been removed, so that they rested only on earth and consequently had settled in an uneven and very unsightly fashion. To the west of the marble slabs the mosaic and its underpinning had disappeared over a large area and had been replaced by a layer of grey mortar. This extends to a line beyond the north-south axis of the building.

Between the west central and northwest columns are traces of another large rectangular patch. Here the marble chips and their mortar but not their pebble packing had been removed and replaced by rectangular slabs of which no trace remains save the straight cut sides of the scar in the mosaic. Again, between the west central and the southwest columns there is similar evidence for another repair. Soundings in the corresponding part of the southeast quadrant revealed the mosaic much worn but in place. These large repairs presumably mark the places in the building that were exposed to the heaviest traffic and wear. Elsewhere, minor repairs were executed by the insertion of terracotta roof tiles in the holes.

The mosaic floor sloped down from all sides to a sink hole against the inner face of the wall in the southeast quadrant. The maximum difference in level, as measured at the mouth of the drain hole and at a point against the face of the wall in the northwest quadrant is now 0.50 m., but in this figure some allowance has to be made for a slight sinking of the floor toward the east subsequent to the removal of the adjacent foundations.

A *terminus post quem* for the laying of the mosaic is given by a few scraps of pottery found at various points immediately beneath it: western sigillata, terra nigra, "Samian," of the first half of the first century after Christ. The floor may well be of about the middle of the century.

After perhaps a century of use and an infinite amount of patching the mosaic floor was overlaid by a pavement of marble slabs. The arms of a great cross of white Pentelic marble lie on the north to south and east to west axes of the building; its north arm is curiously narrow; its angles are filled with blue Hymettian slabs. As will be clear from the plans and photographs (Figs. 33, 48, 66) the slabs vary greatly in size, but were so arranged as to form strips closely uniform in width from end to end and obviously calculated to give an orderly impression to one entering by the principal doorway in the east.[41]

[41] The surviving slabs vary in thickness from 0.02 m. to 0.05 m., and the impressions left by the missing pieces indicate that still greater variations existed. These same impressions reveal that a couple of old marble roof tiles were incorporated in the paving in the east central part.

The marble slabs were laid on a bedding of mortar 0.03 m. to 0.05 m. thick that rested on the mosaic floor. The mortar is of good quality, grey in color, made of lime, sand, gravel of the size

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In several places the marble slabs were found to have been completely worn through by traffic. Such wear necessitated an irregular patch of mosaic in the northwest quadrant (Fig. 50). The mosaic is made of limestone tesserae, rudely squared, *ca.* 0.01 m. to the side. A simple rectangular pattern is worked out in grey lines on a white ground.

The slab floor, like its predecessor, pitched down to the drain hole in the southeast quadrant. In one of the surviving slabs there remains a trace of the actual sink hole which would seem to have been worked in the shape of a four-petalled rosette, the

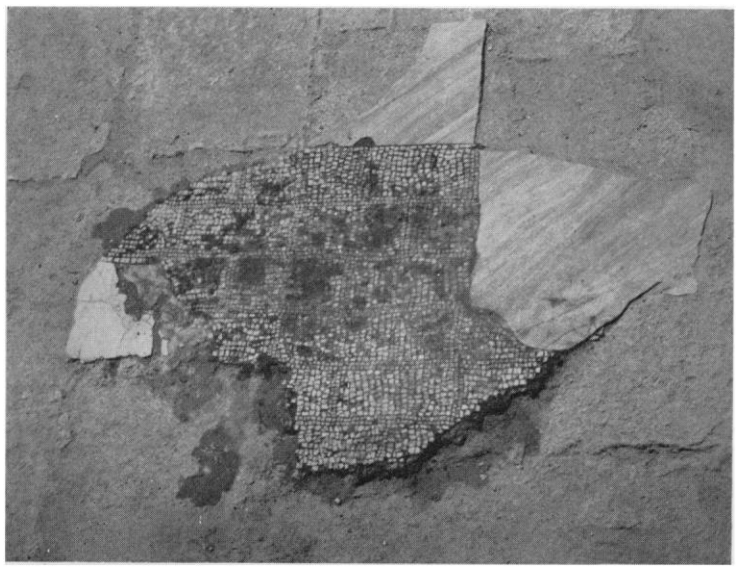


Fig. 50. Mosaic Patch in Marble-Slab Floor of Tholos

spaces between its petals being cut away. This drain hole is surrounded by white slabs which appear here by exception in the blue quarter. The maximum slope of the slab floor is now 0.37 m., again to be reduced slightly by the sinking of the floor toward the east.

Since the slab floor directly overlies the mosaic, we could hope for little evidence for its dating. Of the coins found between the two floors, two are Athenian pieces of the New Style, 229-30 B.C., one is of the time of Augustus. A scrap of terracotta lamp found in the same place is of the advanced first century after Christ. This evidence, coupled with the much worn state of the mosaic, will serve to bring the slab floor into the second century after Christ. It continued in use till the end of the history of the Tholos and was directly overlaid by débris from the final destruction of the building.

of kidney beans, and ground tile. In places where a greater depth of packing was necessitated by depressions in the older floor, fragments of light roof tiles were freely incorporated in the mortar.

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The Roof

To the original roof of the Tholos may safely be attributed a set of terracotta tiles, numerous examples of which have been found on all sides of the building in accumulations of rubbish that date from the injury at the end of the fifth century before Christ. Many of the tiles themselves show traces of burning and thus indicate that the damage was done by fire. Their attribution to the building is established not only by their place of finding but also by the curvature of the eaves tiles of the series; those pieces that do not come from the eaves are so similar to the eaves tiles in material and workmanship as to leave no doubt of their association.

The clay varies in color through different shades of buff and yellow. In texture, however, it is uniform. The tempering material is brown and black grit of the size of coarsely ground coffee. On top and edge the tiles are surfaced with a thin wash of very fine clay, buff to greenish yellow in color.

Among the surviving fragments, three types of tile are represented. First a set of rain tiles from the eave, triangular in shape, of the scheme and dimensions illustrated in Figs. 51, 53, 54, and in the Frontispiece.[42] It will be observed that the face of the tile forms an angle of 61° with its underside and the angle of the antefix was carefully adjusted so that the faces of antefixes and of eaves tiles were in the same plane. Since this plane was presumably vertical we must suppose that the roof rose at an angle of *ca.* 29° to the horizontal, an exceedingly steep slope.[43] Along either edge of the underside of the tile runs a massive flange which is interrupted by a gap near its lower end, doubtless so that it might grip a raised band which must have encircled the building on the top of the cornice. This device sufficed to keep the tiles in place; there are no holes for metal pins. The tiles may, however, have been bedded in clay, which would have been securely gripped by the deep under flanges. The upper edges of the weather surface are bordered by low narrow ridges

[42] One example (Inv. No. A 861) of this series was found much broken but practically complete, so that the dimensions and the scheme are certain. Practically every piece of decorated face of this series that has been found has been catalogued; they number fourteen. One tip and one lateral fragment have also reached the catalogue. Some of these small fragments may well come from the same tiles; though not in many cases, for the pieces have been found in widely separated places.

[43] Tholos at Delphi, 11½°; Tholos at Epidauros, 14° (Herold-Dörpfeld), 20° (Defrasse-Lechat); Philippeion at Olympia, 15°; Monument of Lysikrates, 25°; Arsinoeion on Samothrake, 20°; Tower of the Winds, 28°; Round Temples in front of the Exedra of Herodes Atticus at Olympia, 26°; Parthenon, 13½°. The coins suggest that the Temple of Vesta at Rome also had a steep conical roof. A denarius of Q. Cassius of *ca.* 60 B.C. shows a pitch of *ca.* 54° to the horizontal (H. Dressel, *Zeitschrift für Numismatik*, XXII, 1900, p. 20, pl. I, 1 and 2), while coins bearing the name of Augustus but struck under Tiberius reduce the slope to *ca.* 33° (*ibid.*, p. 24, pl. I, 3-8; E. A. Sydenham, *Num. Chron.*, 1917, pp. 258 ff., pl. XI, 5). On subsequent issues on which the temple appears the pitch remains fairly constant. The evidence of the coins must, of course, be used with caution; the round building on the Uffizi relief, thought to represent the same Temple of Vesta, has a slope of 14° to the horizontal (*Not. d. Scav.*, 1900, p. 161, fig. 2).

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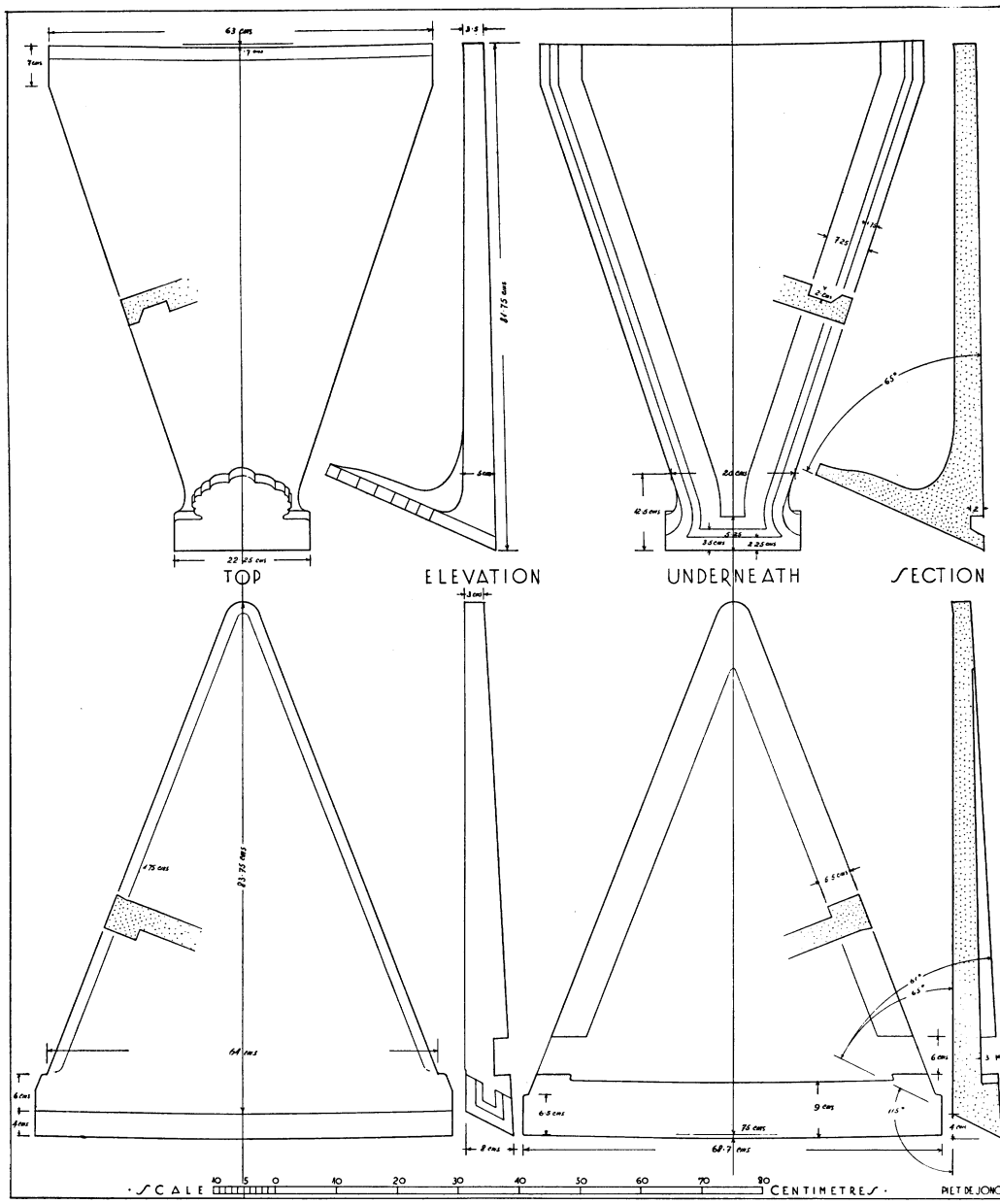


Fig. 51. Eaves Tiles of Tholos: Cover Tile Above, Rain Tile Below

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intended to stop the water which might creep under the cover tiles. On the face of the tiles runs a double braid pattern, with palmettes inset on its middle line. The individual strands are bordered in black; their median lines are alternately purple and black, the "eyes" are regularly black; the hearts of the palmettes alternately

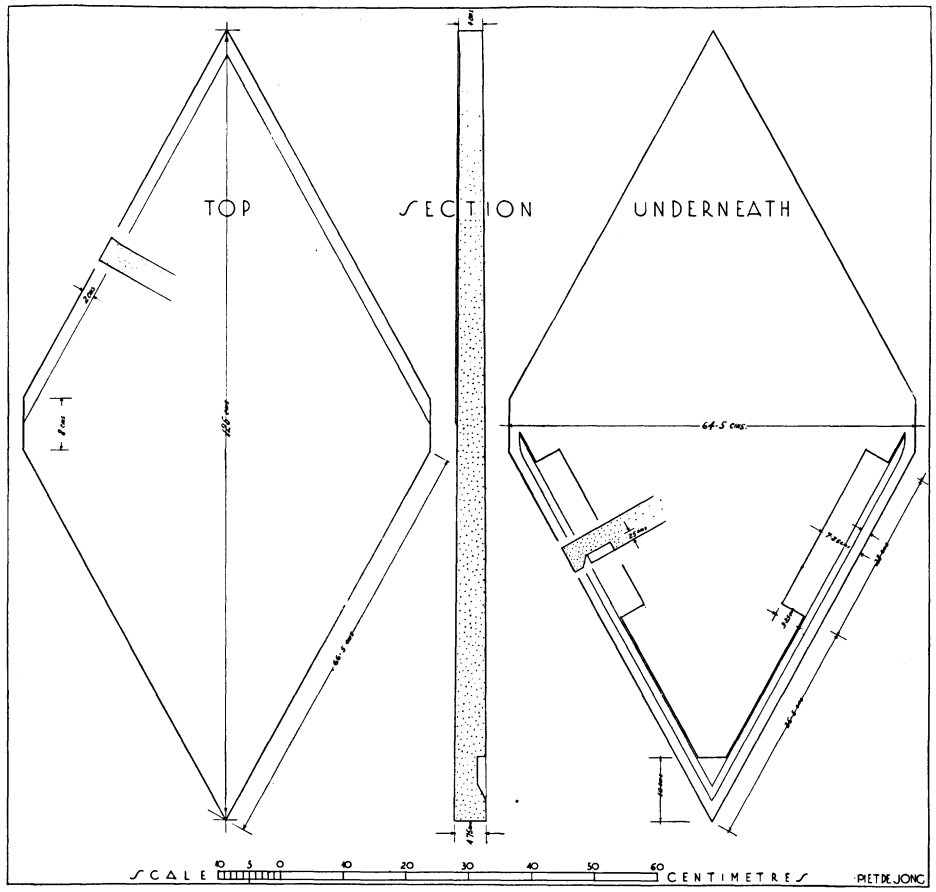


Fig. 52. Diamond-shaped Tile of Tholos

purple and black, this all against the cream of the clay slip. On the soffit, which had a horizontal projection of *ca.* 0.06 m., a band of bead-and-reel was reserved in a black band bordered on either side with purple. The lower edge of the weather surface of the tile is bordered with purple.

The scheme of the eaves cover tiles with their antefixes has been recovered from several fragmentary specimens (Frontispiece and Figs. 51, 54).[44] As will be clear

[44] Of the tiles, five fragments have been catalogued, and of the antefixes as many more pieces. The most useful fragments are Inv. No. A 880 which retained together the antefix and the lower part of the tile and Inv. No. A 865 which is complete in its upper part and retains also the spring of the antefix, though with an intervening gap.

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from the figures, these tiles too are triangular, their points down and covered by the antefixes. The upper edge has a curve concentric with the face of the eaves tile. This edge on the weather surface is protected by a low flange. A capacious channel along either side of the undersurface allowed the cover tile to grip more securely the underlying rain tiles. These channels join one another back of the antefix through a narrow slot which was presumably intended to fit over the head of a metal pin rising from the cornice through the point of the V between the two rain tiles. The cover tile thus held, the face of its antefix falls, as it should, along the inner edge of the purple border on the tops of the rain tiles.

Though no complete antefix has been found, the fragments suffice for the restoration of both shape and pattern (see the Frontispiece). The style is again red-figured. Purple was used for the hearts of all the palmettes, for a band across the bottom, for

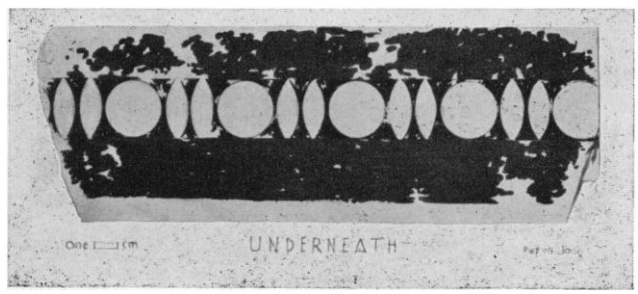


Fig. 53. Soffit of Tholos Eaves Tile

two small diamond-shaped space fillers within the tendrils, and for the edges of the antefix.

The tiles of the third series are diamond shaped with the lateral angles slightly truncated as shown in Fig. 52. This type is by far the commonest among the preserved fragments.[45] It seems altogether probable that these and the other tiles of this series were intended to be of a size and to have a width equal to that of the eaves cover tiles measured across their upper ends. The slight discrepancies among them may well be due to differences in shrinkage in the kiln, and to unavoidable inaccuracies in the restoration. The many points that survive from more fragmentary tiles of this series are all precisely of the same angle.

One half of each diamond-shaped tile, the half that lay toward the eaves, has a plain weather surface. Along either edge of its underside it has a channel to assure a grip on the underlying rain tile. This channel is widened in its upper part and the lateral extension terminates above in a square shoulder, intended perhaps to lock

[45] By counting lower points only, one can safely say that at least twenty-two separate tiles are represented among the pieces recovered. Four tiles were sufficiently well preserved to permit of their restoration with a very narrow margin of error (A 856-859). These measure 0.637 m. × 1.27 m., 0.65 m. × 1.25 m., 0.64 m. × 1.25 m., 0.635 m. × 1.26 m. respectively.

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against a projecting lug on the edge of the rain tile. The apex of the underside is also scooped out, again, we may suppose, to afford a hold on a metal pin set in the roof sheathing. The upper triangle of each tile has, conversely, a completely flat underside and a low water stop along either edge of its weather surface.

Our evidence is insufficient to permit of the certain recovery of the whole scheme of the roof. We may, however, take as certain the combination of the eaves rain tiles and eaves cover tiles in the way suggested above. Each of these types is of distinctly curious form and yet they go together in a perfectly satisfactory way.

Having placed a double series of tiles around the periphery, we are left with another continuous concentric circle toward the inside. It is clear that even to

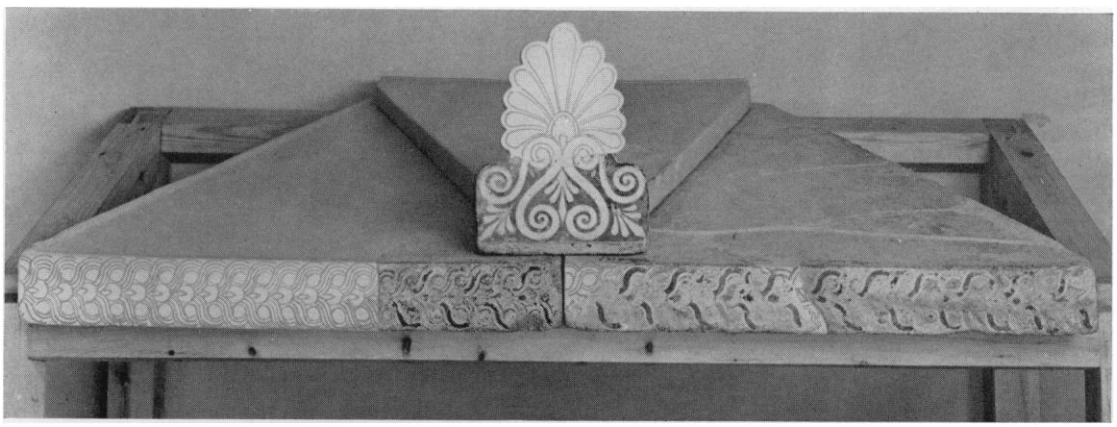


Fig. 54. Eaves Tiles of Tholos, Assembled

start off with the diamond-shaped tiles we lack among the surviving pieces a set of triangular rain tiles with point upward. A moment's reflection will suggest the need of a set of triangular cover tiles with points downward to fill the spaces between the upper points of the diamond-shaped tiles. For it appears that the diamond-shaped pieces may adjoin one another in the same row but cannot overlap one another to form a net pattern of themselves, this because they are symmetrical top and bottom and so would not adapt themselves to the converging radial lines of the roof. Hence the second and each succeeding band of roofing would seem to have comprised tiles of three different types and formed, so to speak, an independent circular strip concentric with its neighbors, starting from a continuous line below and finishing with a continuous line above.

We have already observed that the diamond-shaped tiles appear to be all of a width and to be equal or approximately equal in width to the eaves tiles as measured across their tops. This circumstance precludes the possibility, at first glance so desirable, of arranging the tiles in radial series. For such a disposition the diamond-shaped tiles of each succeeding ring must have become narrower, by a figure greater than

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the maximum disparity among the surviving tiles. The designer of the roof may have been forced by considerations of economy to adopt a scheme which would permit of the great majority of the tiles being made of a standard size from the same moulds. The triangular tiles of each row must have required separate moulds. To one viewing the roof from a distance the emphasis would appear to have been placed not on the radial but on the concentric lines of the cone of the roof.

The absence of tiles of demonstrably smaller dimensions or of differing angles among the considerable mass of surviving fragments is perhaps decisive against carrying the terracotta tiles to the point. The upper part of the roof was conceivably covered with bronze.[46]

We may regard it as probable that the cone of the roof rose with unbroken lines to a central akroterion. That there existed an open lantern in the middle is rendered improbable by the lack of adequate facilities for drainage and by the presence of windows in the side wall, at least in a later period of the building. Had a clerestory been intended, the columns would presumably have been arranged on a single circle concentric with the outer wall of the building.[47]

The lexicographers, as so often in their references to Athenian buildings, are more confusing than helpful on the question of the Tholos roof. The following are the pertinent quotations.

Hesychios, *s. v.* Θόλος: (1) *στρογγυλοειδὴς οἶκος δι' ὀστράκων εἰλημ[μ]ένος.* (2) *κυρίως μὲν καμάρα· καταχρηστικῶς δὲ οἶκος εἰς ὀξὺ ἀπολήγουσαν ἔχων τὴν στέγην κατεσκευασμένος – – –.*

Harpokration, *s. v.* Θόλος: *Ἀμμώνιος γοῦν ἐν δ΄ περὶ βωμῶν γράφει ταυτί· ὁ δὲ τόπος ὅπου ἑστιῶνται οἱ πρυτάνεις καλεῖται Θόλος, ὑπ' ἐνίων δὲ Σκιὰς διὰ τὸ οὕτως ᾠκοδομῆσθαι αὐτὸν στρογγύλῳ παρόμοιον θολίᾳ.*

Bekker, *Anecdota Graeca*, I, p. 264, 26, *s. v.* Θόλος: *τόπος τις ἐν τοῖς ἀρχείοις κληθεὶς διὰ τὸν τρόπον τῆς κατασκευῆς. ἦν γὰρ θολοειδὴς καὶ ὀροφὴν εἶχε περιφερῆ οἰκοδομητὴν οὐχὶ ξυλίνην ὡς τὰ ἄλλα οἰκοδομήματα.*

Photios, *s. v.* Θόλος: *τόπος ἐν τοῖς ἀρχείοις θολοειδής· ὀροφὴν ἔχων ἐξ οἰκοδομῆς, ἀλλ' οὐχὶ ξυλίνην· ἢ διὰ τὸ οἰκοδομεῖσθαι αὐτὸν στρογγύλον.*

[46] The excavators of Olympia speak with certainty of a bronze roof above the midpart of the Philippeion; its outer part being covered with marble tiles. The line of the roof of the Philippeion, however, would seem to have been broken above the cella wall, the central part rising higher. *Olympia, Ergebnisse*, II, p. 132.

[47] Two small fragments of terracotta sculpture found in the region of the Tholos may conceivably derive from an akroterion on its apex. One piece (Inv. No. T 887) comes from a disturbed context in the side of a mediaeval pit to the west of the Bouleuterion Propylon; the other (Inv. No. T 1712) from a layer of the late fifth century before Christ just to the west of the Kitchen of the Tholos. Both scraps appear to come from the undraped limbs of a human figure approximately life size. Their fabric and restrained modelling would be appropriate to the period when the Tholos was built.

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Etymologicum Magnum, s. v. σκιάς: τοὺς δὲ τοιούτους [στρογγύλους οἴκους] διὰ τὸ τὴν ὀροφὴν ἔχειν μίμημα τῶν σκιαδείων σκιάδας προσηγόρευον.

That the building should have been called "The Parasol" is of some interest for the restoration: it tends to confirm the evidence of the tiles as to the exceptionally steep pitch of the roof and practically rules out the possibility of a break in the line of the original roof, or of an opening at its center. The observations of the lexicographers on the construction are not so intelligible. Those of the later writers may go back to the δι' ὀστράκων εἰλημ[μ]ένος of Hesychios, and his phrase in turn may echo some early description of the original terracotta roof. That roof, as shown by its surviving scraps, was clearly of an extraordinary scheme which must have excited contemporary interest (since it gave a name to the building) and which may have gotten into the handbooks before its destruction at the end of the fifth century. In face of the new evidence of the excavations one will scarcely again venture to infer from the passages quoted that the building was domed in any period.[48]

In their design and technique our eaves tiles and antefixes find their best parallels among certain of the early red-figured terracottas of the Acropolis. For the braid pattern of the Tholos tiles one may compare Buschor's Eaves Tile XIX which differs only in that the hearts of its palmettes are uniformly purple and the loops of its braid show black above black, purple above purple. The comparison will serve to emphasize the effect of the lively variety in the Tholos design. Buschor assigns his Eaves Tile XIX, together with his Sima XVII, Eaves Antefix XVI, and Ridge Antefix VI to his Roof 20, which he dates *ca.* 460 or soon thereafter.[49] The Tholos

[48] I am aware of no adequate parallel for the Tholos roof. In this connection, however, it might be well to re-examine certain tiles found about the round Heroon at Olympia. Of these Graef wrote (*Ergebnisse*, II, p. 106): "Wahrscheinlich ist dass der Bau durch ein Zeltdach gedeckt war; denn innerhalb und in der nächsten Umgebung wurden zahlreiche Bruckstücke von grossen dreieckigen Dachziegelplatten vorzüglichster Herstellung gefunden, die offenbar von einem derartigen Dache stammen." The marble tiles from the Tholoi of Delphi and Epidauros and from the Philippeion of Olympia were of a much more normal scheme, their sides converging toward the top to match the radial lines of the roof. Of roof tiles for the Arsinoeion of Samothrake no mention is made in the publication. It was argued, before the discovery of the Tholos, that the Monument of Lysikrates was modelled on the Tholos (references in Wachsmuth, *Die Stadt Athen*, II, p. 315, note 5). The roof of the Monument and our roof have in common a change in scheme on the line of the upper ends of the lowest series of tiles (marked on the Monument by a second set of antefixes) and a discrepancy in radial placement between the lowest and the upper series (Stuart and Revett, *Antiquities of Athens*, I, Ch. IV, pl. VIII). But, whereas our diamond-shaped tiles must have formed a reticulate pattern, the upper roof of the Monument has the imbricate scheme that was to be so common henceforth. (A good example of the later period is the roofing of the small round temples that flanked the Exedra of Herodes Atticus at Olympia: *Ergebnisse*, II, p. 136, pls. LXXXIII ff.) It is doubtful, moreover, whether the architect of the Monument of 334 B.C. had seen the original roof of the Tholos which was probably destroyed at the end of the fifth century. Cf. p. v addenda.

[49] *Die Tondächer der Akropolis*, II, p. 72.

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antefix, while bearing a general resemblance to Buschor's No. XVI from the same roof has several features which would suggest an earlier date: the design is more compact, the main palmette more massive, the clasp around the tendrils lingers on from archaic times. The filling palmette of the Tholos antefix with its pointed central petal may be closely paralleled on one variety of Buschor's Antefix XII (*op. cit.*, fig. 59) which comes from a burnt layer, presumably *Perserschutt*, to the south of the Parthenon. The combination of round and pointed palmettes of the scheme of ours appears on vases of *ca.* 470 B.C.[50] Hence we shall not be far wrong in placing the Tholos tiles in the neighborhood of 470 B.C. In the richness of their color scheme and the excellence of their design they take a very high place among Greek architectural terracottas, and they must have enhanced not a little the otherwise severely simple exterior of the building.

It is clear from the number of fragments of the original tiles found about the building that the roof suffered severely in the fire at the end of the fifth century before Christ. We have as yet no positive indication of how it was renewed. No replacements of the original types of tile have been found around the building nor of the roof tiles of more usual type that have appeared in various contexts in the neighborhood can any be attributed with assurance to the building. Since it is difficult to believe that the new roofing, had it been of terracotta tiles, would have disappeared completely, we may suspect that the building was re-roofed with bronze. The original scheme may not have been entirely successful aesthetically; the walls were perhaps counted too light to support a marble roof. The comparable round building of Rome, viz., the Temple of Vesta, was roofed with Syracusan bronze in the second century before Christ (Pliny, *N. H.*, XXXIV, 13).

The removal of the interior columns must have occasioned a change in the scheme of the roofing. One might be tempted to suppose that the building was henceforth covered with a dome. Yet such a restoration may be excluded with almost complete certainty. No trace was found among the ruins of the building of the massive brick or concrete masonry such as must have been employed in a dome of Roman date and which should have been capable of withstanding even the vicissitudes to which the buildings of the Agora have been exposed. Still more damaging is the lack of any indication that the walls were strengthened at this time to receive the greater weight. Even the increased thickness of the wall of the final reconstruction is scarcely adequate to a dome, particularly in view of the very slight depth of the reinforcing concrete and the absence of buttresses.

We are driven to conclude that from the time of the removal of the columns in the first or second century after Christ the roof of the Tholos was carried on wooden

[50] E. g., Langlotz, *Griechische Vasen in Würzburg*, no. 510 (*ca.* 470) = Jacobsthal, *Ornamente*, pl. 47 c.; Jacobsthal, *op. cit.*, pl. 61 b (of the '70's, p. 85); 74 b (by the Syleus master of *ca.* 480 B.C. [?] and, to judge from the round palmettes, earlier than ours).

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rafters without intermediate supports. A satisfactory parallel for such a scheme is provided by the Arsinoeion of Samothrake. Though its diameter was slightly greater than that of the Athenian building (18.98 m. as against 18.32 m.), it appears to have had no interior columns. The rafters were supported by angle braces, the cuttings for the lower ends of which appear in the lower part of the back of the triglyph blocks.[51]

The Kitchen

The rectangular structure set against the north side of the round building is in its original form closely contemporary with the Tholos and it shared the subsequent fortunes of its larger neighbor (Figs. 55 ff.). The designation as kitchen may be taken as reasonably certain. In the first place, it is clear that while the round building was in order there was no provision within it for the extensive culinary operations implied by its known function as a regular dining place for at least fifty people. Since the west annex is of late date, the north annex must be regarded as the only candidate for the domestic quarter through most of the life of the Tholos. The identification is strengthened by the fact that the north annex lies directly above the broiling pits which had been the most essential part of the culinary department of the predecessor of the Tholos. Finally we may note that a capacious drain which would seem to have served the building is also suggestive of its domestic character.

The scheme of the Kitchen in its various periods, so far as it can be recovered, will be clear from the restored plans in Fig. 56. The original plan (A) was a simple rectangle. Its south wall rested on the foundations of a part of a wall of the archaic building, the eastward continuation of which probably continued to serve as the northern enclosure wall of the Tholos area. Of the new construction there has survived only a levelling course of roughly trimmed slabs of Acropolis limestone. Of the north wall likewise only the lowest foundation remains: a course of irregular masses of Acropolis limestone, their tops dressed level. Of the west wall, a mediaeval pit has left only a spur at either end; it is of similar material and construction. The northeast corner and the east wall have been entirely demolished by a late well and pit respectively; but the point of junction of the east with the south wall is given by a cutting on the latter. A gap 1.05 m. wide in the middle of the north foundation undoubtedly shows the position of a doorway. Of direct communication with the main building no trace remains. Since, however, communication via the main east doorway of the Tholos would have been extremely awkward, we may venture to restore a lesser doorway in the north wall of the round building just west of its north to south axis. A doorway so placed might have served all periods of the Kitchen. The floor of the Kitchen in its first period lay some 0.60 m. lower than the contemporary floor of the Tholos. The flooring now, as in all its periods, consisted of firm packed earth.

[51] Conze-Hauser-Niemann, *Archaeologische Untersuchungen auf Samothrake*, I, pp. 81, 84, pls. LV, LVII.

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Fig. 55. Tholos from North

To the original roofing of the Kitchen may be assigned two small scraps of eaves tile that were found, the one (Inv. No. A 426) in the northern well of the unfinished cistern to the west of the Tholos (p. 98), the other (Inv. No. A 207) at a point *ca.* 40 m. to the east of the Tholos (Fig. 59). They are identical with the eaves tiles of the Tholos itself in point of fabric and are closely similar in decoration, but in place of the bead-and-reel on their soffits they have only a purple band like that on

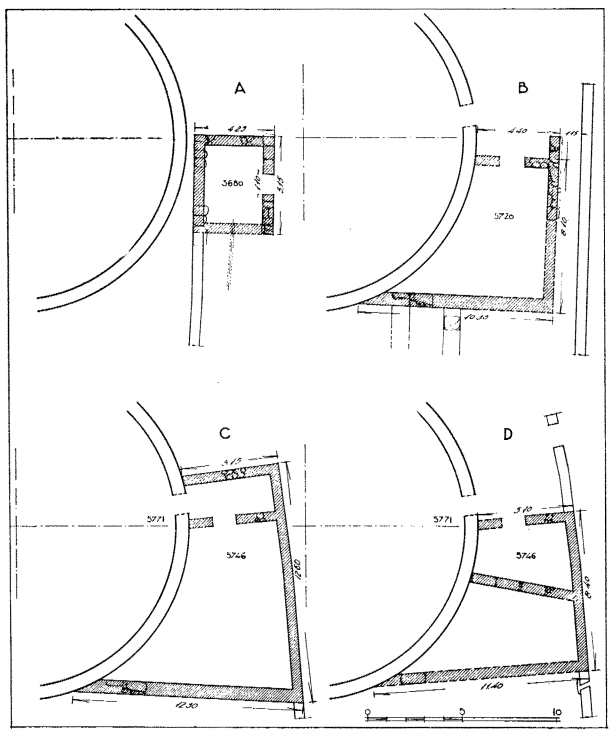


Fig. 56. Kitchen of Tholos in Various Periods (Restored Plans). 1:400

their tops, and the purple and black mid-stripes of their braid show a different alternation from those of the Tholos tiles. One of the pieces (A 426) is blackened by fire.[52]

The drain referred to above would seem to have issued from the east end of the Kitchen, to have proceeded at first due east and to have entered the Great Drain after making a slight swerve southward (Fig. 76). Tiles have survived only in the eastern part. Back of the Great Drain six round pipes remain in place, of the form shown in Fig. 58.[53] Careful provision was made for the admission of this pipe line

[52] Both fragments are small and preserve neither length nor breadth nor indeed any original edge save the decorated face. They were secured to the cornice by round iron pins carefully leaded.

[53] Inv. No. A 1040. They are made of fine buff clay, covered with brown glaze on the inside only. Their oval clean-out holes were covered variously: with a field stone, a broken roof tile, a potsherd.

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to the Great Drain at a level near the bottom of the latter. The angle of the junction is curious but is paralleled in the case of other early tributaries of the Great Drain. Farther westward the drain channel was put together of archaic roof tiles of terra-cotta: broken pieces for bottoms and sides, complete tiles for the top.[54] It must be admitted that no direct connection can be established between these surviving sections of the drain and the Kitchen. But it is difficult to see what other building could have



Fig. 57. Area of Tholos Kitchen from West

been served by the channel. Chronologically also the association is tempting, for the form of the round pipes is appropriate to the time of the construction of the Kitchen, i. e., the early fifth century, and the few pot-sherds found in the packing of the drain are of the same period.

It has been observed above that the Kitchen in its original form is contemporary with the Tholos. This is clear from several indications. Section DD of Pl. II will show that the underpinning of the Tholos wall, consisting here of a packing of small stones, required the support of a retaining wall from the very beginning. On the

[54] They measure 0.53 × 0.67 m. and have gently curved lateral flanges.

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other hand, the Kitchen can scarcely antedate the Tholos, for its construction involved the abandonment of the broiling-pits which must have continued in use to the last days of the predecessor of the Tholos. Actually, as noted above (p. 26), the filling of the northern broiling-pit included a large fragment of a Tholos tile, crisp and fresh, apparently broken during construction. The old pits, then, would seem to have been filled in by the builders of the Tholos, and the Kitchen was erected above them. The fact that only a thin film of clay separates the mouths of the pits from the original floor level of the Kitchen indicates that no appreciable time elapsed between the two events.

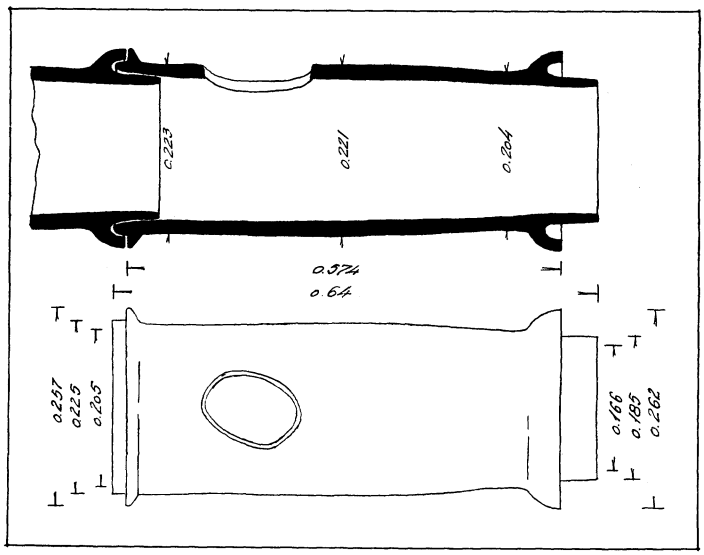


Fig. 58. Inv. No. A 1040. Terracotta Pipe from a Drain, Probably of the Tholos Kitchen

The Kitchen of the first period suffered, we may suppose, along with the Tholos at the end of the fifth century. The architect who laid out the stairway leading to the Bouleuterion Square would seem not to have anticipated its reconstruction, for he carried his stairway southward to a point in line with the northernmost point of the Tholos wall. But the building was apparently reconditioned; its floor level was raised and in the filling between the floors were included scraps of Tholos tiles blackened by fire.

A thoroughgoing reconstruction was made a half century or more later (Fig. 56, B). An independent south wall was now dispensed with, so that the east and west walls were made to abut directly on the Tholos wall. The north wall was moved southward by *ca.* 0.40 m. and its orientation was slightly changed. Whereas the axis of the Kitchen of the first period was made to agree closely with that of the main building, the north wall of the second period would seem to have been aligned with

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a new north enclosure wall of the Tholos area, a wall later in date than the original Kitchen. A new west wall was built *ca.* 1.00 m. east of the old; the doorway was changed from the north to the west side of the building and the north wall was extended westward to carry a shallow porch. The northeast corner of the new building has entirely disappeared. But in fixing the line of the new east front we may utilize a length of foundation tangential to the Tholos wall, similar in construction to the other foundations of the second period and at right angles to the better preserved north wall of the second period. The resulting enclosure is of very irregular shape, so irregular indeed that it could scarcely all have been roofed. But late disturbances have robbed us of the evidence for interior division walls or columns, did such ever exist.

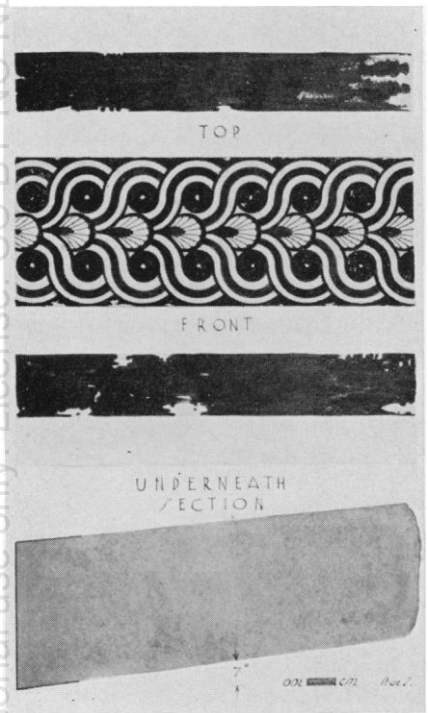


Fig. 59. Eaves Tile Probably from Tholos Kitchen (from a Water Color by Piet de Jong)

The north wall is the best preserved part of the second period and its construction may be taken as typical (Fig. 55). Its socle is 0.26-0.33 m. high and is made of irregular masses of Acropolis limestone, an occasional piece of soft poros, and a few broken roof tiles from the Tholos series. On this foundation stood orthostates of Acropolis limestone with polygonal jointing and rough-picked outer faces. The irregularities in the inner faces of these large blocks were packed with smaller pieces of limestone bedded in clay. The orthostates vary in height from 0.47 m. to 0.94 m.; the wall is 0.47 m. thick in its upper part. It is preserved at no point to a height above the tops of the orthostates.

The floor level inside the Kitchen of the second period is *ca.* 0.50 m. higher than that of the first; it agrees approximately with the bottom of the first course of squared blocks in the Tholos wall.

A set of roof tiles exists which may be associated with the second period of the Kitchen (Fig. 61). Many fragments of these tiles were found in the filling of the well at the west edge of the court of the New Bouleuterion and in the manhole immediately to the west of the Tholos, both parts of the unfinished reservoir to be discussed below (p. 100). They are inscribed as public, so that they presumably belonged to some part of the Tholos-Bouleuterion-Metroon complex. Their unassuming character would be most appropriate to the building with which we are here concerned, and the provenance of the fragments points in the same direction.

The tiles are trough tiles of the Laconian sort, made of pale yellow clay and

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covered on the outside with thin brown glaze. In no case could the complete dimensions be recovered. Two of the broad rain tiles of the series were pierced in the middle with oval openings protected by high collars, a simple but effective provision for the escape of smoke and for ventilation.[55]

Six of the fragments, probably all from different tiles, retain the stains of letters painted on their upper surfaces. The inscription may be restored ΔHMOΣION.[56]

For the date of the second period evidence is given by the material from the footing trench of the new north wall and from beneath the newly established floor level. The pottery from these places is as late as the third quarter of the fourth century and it was accompanied by an Athenian silver coin of a series dated in the period of Philip II (359-336 B.C.). The construction may well fall in the third quarter of the century.

Probably contemporary with the Kitchen of the second period are two east to west walls that ran out at right angles from the outer face of the east wall of the Kitchen near its south end (Pl. I). They were approximately, in their upper parts perhaps quite parallel to one another, with an interval of *ca.* 2.80 m. from center to center. They could be traced eastward a distance of 7.50 m. and a depression in the earth suggests that they were joined by an end wall at about this length. The surviving parts of the walls consist of the foundation trenches with an irregular mass of Acropolis limestone in the line of the northern wall, pieces of similar stone and a block of conglomerate in the southern. The foundations were 0.90 m. thick and were apparently intended to carry a considerable weight. The purpose of the walls is not apparent.

The next reorganization of the Kitchen (Fig. 56, C) was occasioned by the construction of the limestone wall along the south side of the corridor between the Propylon and the stairway to the Square of the New Bouleuterion. The north wall of the second period would seem to have been abandoned and a part of the new limestone wall used in its stead. A new west wall, of which a single large block remains in position, was built to the west of both its predecessors. A doorway continued to break the west wall. It will be noted from the plan that this doorway now opened on a small court or open vestibule formed by the westward continuation of the south parapet of the Bouleuterion passage and by its southward return. For the eastern limit of the building of this period no evidence exists, but it may be supposed that the east wall of the second period continued in use and that it was joined to the

[55] Inv. Nos. A 428, 429. As appears in the photograph, the apertures vary in shape. That in A 428 measured *ca.* 0.155 m. × 0.32 m.; that in A 429 *ca.* 0.20 m. × 0.26 m. For other examples of such pierced tiles cf. Overbeck-Mau, *Pompeii*[4], p. 257, fig. 141, 1, 2; *Mon. Ant.*, XXIII, 1914, col. 764, fig. 43; col. 810, fig. 69 (Caulonia); Wiegand-Schrader, *Priene*, p. 306, fig. 330; Dyggve-Poulsen-Rhomaios, *Das Heroon von Kalydon*, fig. 48, p. 392; *A.J.A.*, XLIII, 1939, p. 54 (Olynthos).

[56] Inv. Nos. A 432, A 433 a, b, and c, A 597, A 598. The preserved letters are [.]HMOΣ[...], Δ̣Η̣[.....], Δ̣Η̣[.....], [...]OΣ[...], [...]OΣ[...], [....]Σ̣O̱[.].

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new north wall. Once more we have recovered a plan of irregular outline and again it is difficult to believe that the whole was roofed. But we have no more evidence than in the preceding period for dividing walls.

The material and the style of construction of this third period are closely similar to those of the preceding, with the difference that the exposed part of the new north wall, in polygonal masonry of Acropolis limestone, rests on a massive socle of conglomerate blocks.[57] The floor level inside the enclosure was raised by a few centimetres.

The third period of the Kitchen would seem to be precisely contemporary with

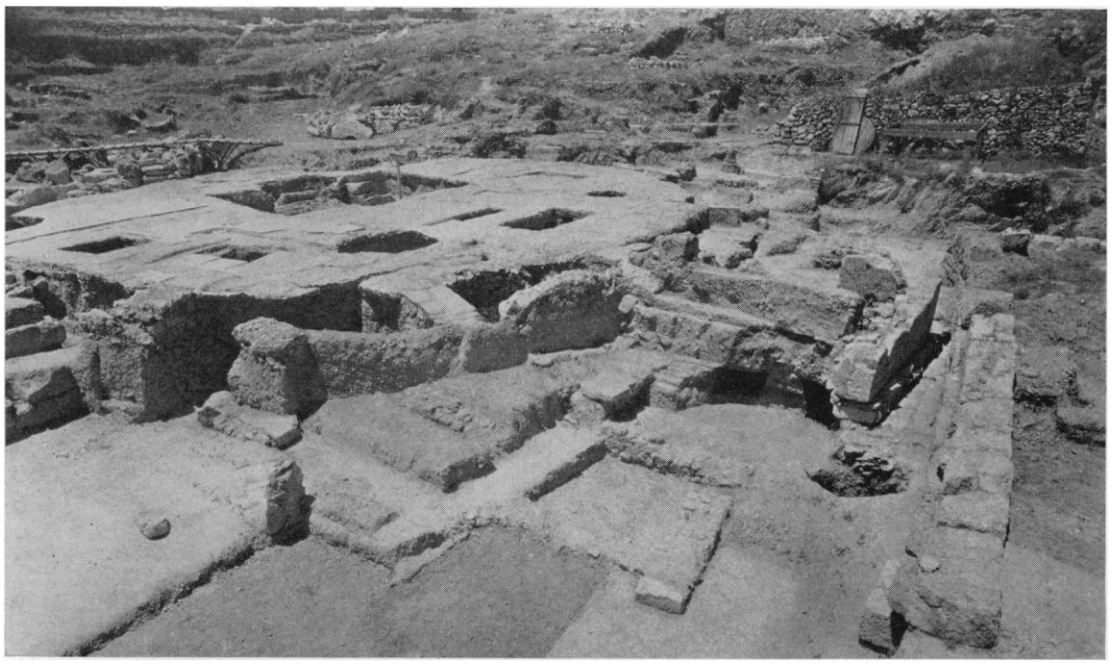


Fig. 60. Tholos and Kitchen from Northeast

the erection of the new south parapet of the Bouleuterion passage. This reorganization thus forms a part of the program that embraced also the Porch and the Propylon of the New Bouleuterion and that has been assigned to the early third century before Christ.[58]

Of the fourth period, a more complete plan can be recovered (Fig. 56, D). The west and north walls would seem to have remained as in the preceding period; the east wall was entirely rebuilt slightly farther west and at a higher level. Its south end is fixed by a large conglomerate block which still lies practically in situ, its corner trimmed to fit the curve of the Tholos wall. A clue to the position of its

[57] For a detailed description of this wall cf. *Hesperia*, VI, 1937, pp. 163 f.
→ *Hesperia*, VI, 1937, pp. 165 ff.

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northeast corner is given by the drain channel which was let through the south parapet of the Bouleuterion passage, presumably at a point where it would just avoid the corner of the Kitchen. In this period the area was certainly divided by a cross-wall into eastern and western compartments. Of this wall three large conglomerate blocks remain in place; they stand on edge, end to end, and the joints between are packed with small stones (Fig. 60). From the fact that stucco occurs on the western face of the dividing wall and on the outer face of the Tholos wall which bounds the western compartment, but nowhere in the eastern compartment, we may infer that the western was a roofed room, the eastern an open area.[59] There is no trace of a con-

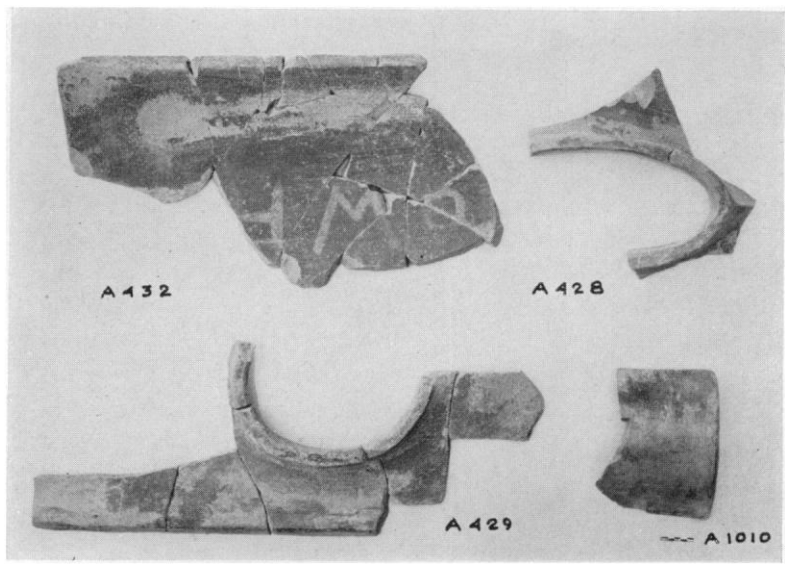


Fig. 61. Roof Tiles Probably from Kitchen

necting doorway in that part of the division wall which remains, though there may have been an opening at the extreme north. The floor in the western room was now raised *ca.* 0.25 m. above the level of the third period, and *ca.* 0.20 m. above the level of the ground in the eastern area.

It was perhaps in connection with this reorganization that the south wall of the Bouleuterion passage was extended westward, how far we do not know. Of the extension there remain two bedding blocks, cut from wall blocks of the Tholos, with cuttings in their tops which suggest that they carried the threshold of a gate or door which would have provided communication between the Bouleuterion passage and the area to the west of the Kitchen. The old southward return of the passage wall was now probably demolished.

[59] The stucco is of lime and sand on a backing coat of clay and is plain white to a preserved height of 0.18 m.

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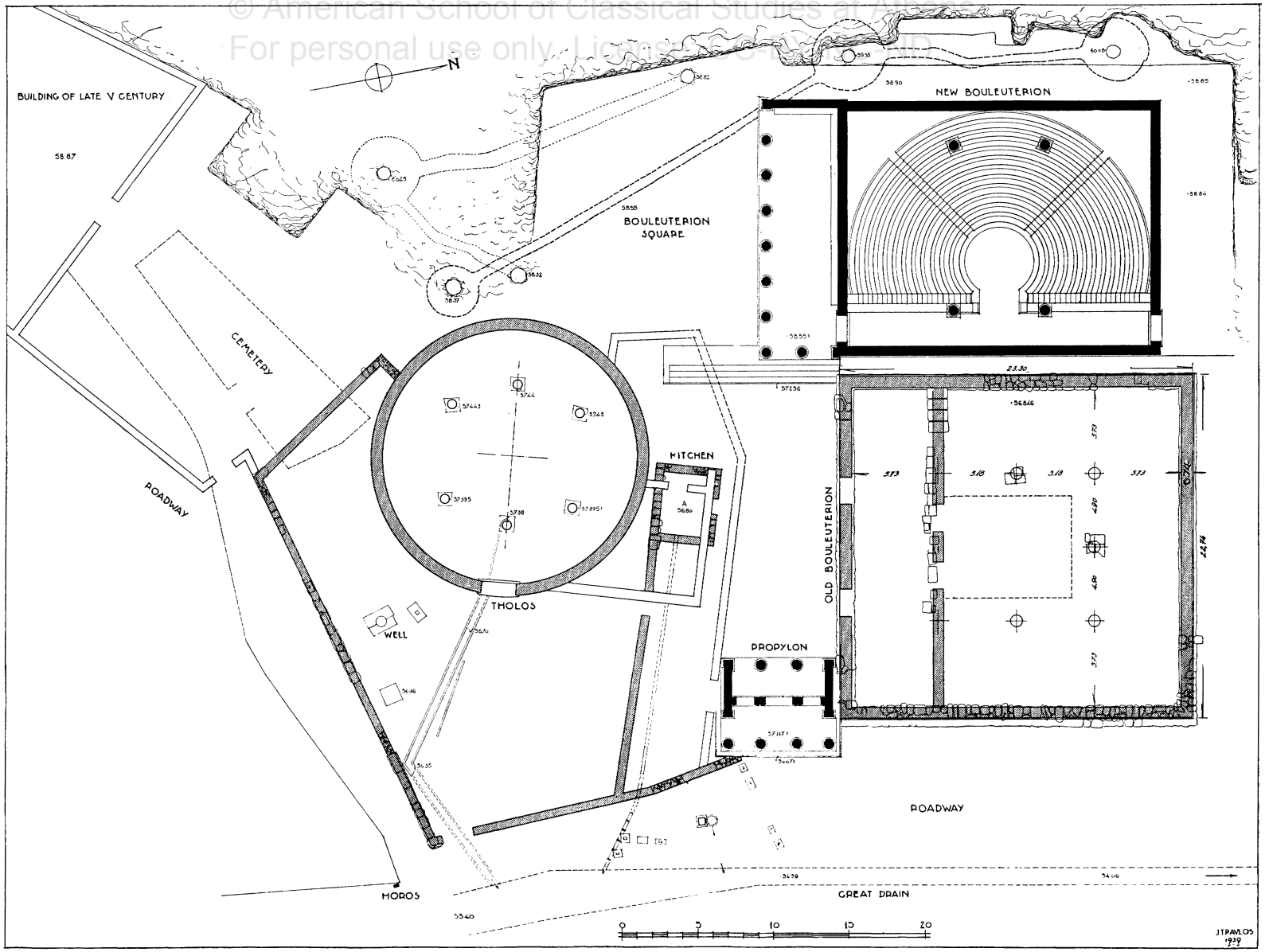


Fig. 62. Area of Tholos in Mid-Fifth Century (with Additions to Early Third Century). Restored Plan. 1 : 400

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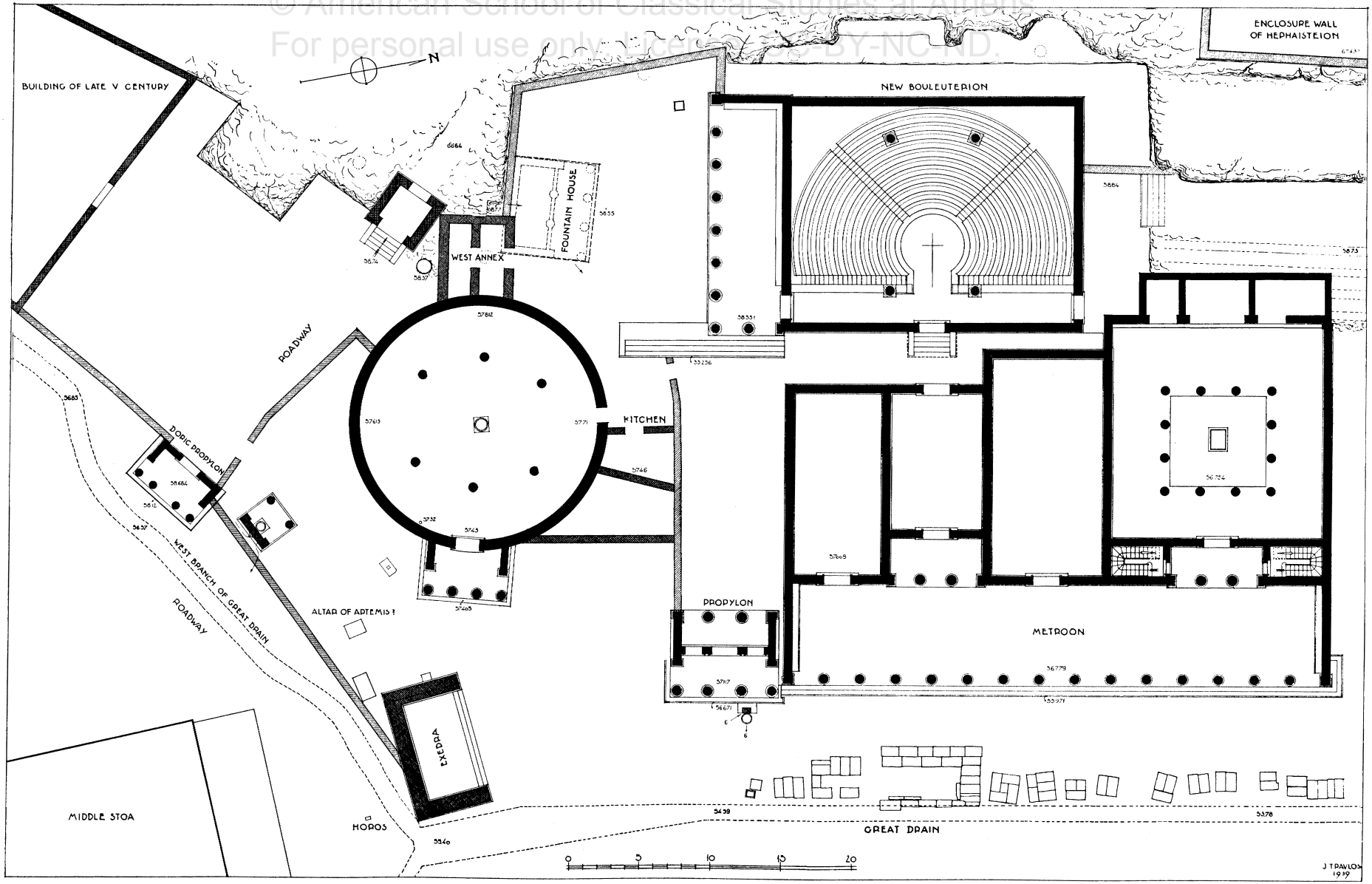


Fig. 63. Area of Tholos in First Century after Christ (with Addition of West Annex). Restored Plan. 1:400. Cf. p. v Addenda

For the dating of the fourth period we may consult the pottery from the filling used to raise the floor level in the western room. This proves to be advanced Hellenistic, of the second and early first centuries before Christ.[60] The assumption is that this part of the building suffered with the rest in 86 B.C. and was subsequently rebuilt.

The Kitchen must have gone down with the main building once more in 267 A.D. and have been restored for a last time. So much we may infer from the fact that the division wall between the two rooms has been rebuilt in its upper part with mortared masonry similar to that of the concrete ring around the Tholos and bonding with that ring.

The West Annex of the Tholos

The rectangular structure set against the west side of the Tholos has already been noticed in a previous report,[61] but since its place in the sequence of construction in this region is now clearer, it may be briefly considered again (Pl. I, Fig. 63). The Annex has overall dimensions of *ca.* 5.50 m. × 6.00 m. It was divided into two narrow cells by an east to west cross wall, the bedding for which is interrupted in the middle, presumably for a doorway. The east side of the annex was closed by the wall of the Tholos proper; its west, north, and south walls rested on beddings dressed in the rock. Of the actual masonry there remains in place a re-used poros block of the lowest course of the west wall and a little underpinning of broken stone for the north and south walls. In the north room is a small area of the floor of tramped earth, at a level 1.27 m. above the marble-slab floor of the Tholos. The Annex was presumably entered from the north: no trace of a doorway is apparent in the adjacent wall of the Tholos, which is here preserved to a sufficient height; to the south opened the mouth of a contemporary well; to the west the bedrock rises abruptly. Having blocked an important line of traffic around the back of the Tholos, the builders of the Annex were obliged to cut away the rock to the west of the new building so as to provide a sloping passage *ca.* 1.30 m. wide that gave access to the Bouleuterion Square from the south.

The relative date of the Annex is clear. Its foundations overlie in part, and so involved the previous dismantlement of a considerable length of the screen wall of the Bouleuterion Square, which had in its turn postdated the destruction of the large

[60] One of the most distinctive pieces is a fragmentary Panathenaic amphora already published → Sterling Dow in *Hesperia*, V, 1936, pp. 50 ff. and dated by him in the second century before Christ. Since Dow's writing, another Panathenaic Amphora (Inv. No. P 8522) dated by a *tamias* (whose name has been broken away) has been found to the north of the Hephaisteion in a cistern which would seem certainly to have been filled after the Sullan incursion. The style of drawing and the letter forms are less advanced than those of the piece from the Kitchen.

→ *Hesperia*, VI, 1937, p. 171.

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monument, perhaps a fountain house, at the south side of the Square. The Annex also intrudes on the foundation beddings for the propylon to the south and suggests the previous dismantling of that building (p. 119). But the Annex would seem to be earlier than the rebuilding of the Tholos wall in concrete, inasmuch as the ring of concrete overlies part of the stone packing for the south wall of the Annex and appears, from the trench left in the earth by its removal, to have run continuously along the old wall of the Tholos through the length of the Annex.

The purpose of the Annex is no more certain now than at the time of writing of the earlier report. Its close connection with the Tholos is, however, apparent and the lack of immediate communication between the two is now seen to have been compensated for by the doorway in the north wall of the Tholos. The building conceivably served as a store-place, either for some of the domestic equipment of the Tholos or for the set of official weights and measures which was kept at the Tholos.[62]

The Precinct Walls

An area to east, north, and south of the Tholos was defined and enclosed by stone walls which followed with remarkable fidelity the outer limits of the immediate predecessor of the Tholos. From the plans (Pl. I, Fig. 62) one will note that a wall left the Tholos in its southwest quadrant, started southwestward but immediately turned at right angles to run southeastward across the end of the old Cemetery to the edge of the road. The southeast wall of the enclosure, in a long straight line, cut obliquely across the back wall of Building J and bordered the road to a point *ca.* 3.50 m. short of the Great Drain. Thence it swung north, left a gateway at the corner, and then would seem to have availed itself of the foundations of the east wall of Building F to the northeast corner of the court of that building. The north wall of the precinct followed the line of the north wall of the old courtyard to the Kitchen of the Tholos. What, if any, enclosure may have existed at this time to the west of the Kitchen is uncertain. Between the northeast corner of the Tholos enclosure and the southeast corner of the Old Bouleuterion the arrangement of the preceding period would seem to have continued in use, viz., a wall broken by a gateway, the evidence for the precise restoration of which has been destroyed by the Propylon of the Bouleuterion. The line of post beddings that runs northeastward from the south side of the gateway may also be earlier than the Tholos, as early perhaps as the Old Bouleuterion.[63]

The enclosure wall in its different parts exhibits a great variety of material and

[62] In its plan the Annex bears a superficial resemblance to the stairway set against the back of the round temple of Asklepios at Pergamon (T. Wiegand, *Zweiter Bericht über die Ausgrabungen in Pergamon 1928-32, Das Asklepieion*, pp. 11 f.). But its dimensions are extravagantly large for this purpose, nor is the need for such a stairway apparent in the case of the Tholos.

[63] Cf. *Hesperia*, VI, 1937, p. 134.

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of construction. The surviving parts of the south, east, and north sides belong largely, as we have seen, to the earlier period. Of the new construction on the southeast side, the southernmost 2.00 m. still stand to a height of 0.70 m. The thickness is 0.43 m. The wall is built of irregular blocks of Acropolis limestone and of soft poros fitted with neat polygonal jointing on either face and held by a mortar of clean brown clay (Fig. 64). In its further course, the southeast wall shows a different style. The wall proper rested on a levelling course of soft grey poros. This course was supported by an underpinning of large irregular masses of Acropolis limestone,



Fig. 64. Precinct Wall of Tholos, Near Southwest Corner



Fig. 65. Precinct Wall of Tholos behind Drain Wall, Near Middle of South Side

usually but one course of them. Of the wall that rested on the levelling course, nothing remains in position. Toward the middle of this side, however, the levelling course was omitted and the wall proper was carried down to the limestone underpinning (Fig. 65). Over a length of 1.50 m. it still stands to a height of 0.90 m. with a thickness of 0.50 m., built again of irregular masses of soft poros and Acropolis limestone. A study of the stratification suggests that when the wall was built the levelling course was visible to its full depth on the road side, while inside of the wall the ground level lay a few centimetres higher and thence sloped up gently toward the Tholos (Pl. II, Section CC).

When work was begun on the New Bouleuterion the intention would seem to have been that the original north wall of the Tholos enclosure should remain in use, that the Kitchen should be removed and that a broad open way should lead from

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the market square, between Tholos and Old Bouleuterion to the New Bouleuterion. All this was altered. The New Bouleuterion was set farther north; the Kitchen was rebuilt, and the open way between Tholos and Old Bouleuterion was reduced to a passage by shifting the original north wall of the Tholos enclosure 5 m. to the north (Fig. 62). A gateway in the east part of this wall is indicated by a break in its foundations just to the south of the (later) Bouleuterion Propylon. Toward the west, the new wall returned against the Tholos, enclosing the Kitchen with its own proper building: a more reasonable arrangement.

Of the new north wall only a few scattered blocks in the lowest foundation of its eastern part remain: re-used poros blocks, several of them with sinkings for stone posts in their original top surfaces. Of the western part of the north wall nothing remains, but its line may be fixed from its relation to the Kitchen, and to a heavy stele bedding that must have been set against its north face to the north of the Kitchen. For the return against the Tholos we may use a short length of retaining wall in polygonal limestone construction to the south of the Bouleuterion Stairway. The right angle which it formed to abut against the Tholos wall is preserved only in the wall trench. The relation of the new enclosure walls to the Bouleuterion Stair is not certain; it is quite possible, however, that the south end of the Stair was never finished and that its area was included in the Tholos precinct.

The new northern enclosure wall remained in service until the construction of the Bouleuterion Porch and Propylon early in the third century before Christ (Fig. 63).[64] A new north wall was now built, running westward from the southwest corner of the Propylon. In view of its relation to the new buildings, the wall was re-aligned and made parallel to the south side of the Old Bouleuterion. The northwest corner of the Tholos enclosure was also altered, for the new wall returned southward against the Tholos 2.50 m. before reaching the Bouleuterion Stair (Fig. 56, C).[65]

The next noteworthy change in the outline of the Tholos precinct came in the late Hellenistic period after the West Branch of the Great Drain had been shifted to the southeast (p. 113). The objects of the shift were clearly to permit of enlarging the Tholos area for the reception of a fountain and to allow of the more effective placing of a propylon farther to the south. The Tholos precinct was then extended by a triangular area with a maximum length of *ca.* 18 m. and width of *ca.* 4 m.

The new wall along the southeast side of the precinct was founded for the most part on the west wall of the earlier drain (Fig. 82). Toward the south it abuts against the north foundations of the Propylon; toward the north it probably fell in with the line of the earlier southeast precinct wall, and later must have abutted against the back of the Exedra (p. 94). The new southwest wall leaves the west side of the

[64] It was the presence of this wall that occasioned the curious angle in the south foundation of the Propylon (Pl. I).

[65] For an account of the wall → *Hesperia*, VI, 1937, pp. 163 f.

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Propylon approximately in the line of its north wall. At a distance of 2.15 m. from the foundations of the Propylon it comes to a clean end, obviously for an entrance. Since no more of the wall remains, the width of the opening cannot be fixed. Farther west, the original enclosure wall presumably continued in use.

The new walls are preserved only in their foundations. These consist of a heterogeneous collection of re-used blocks: Acropolis limestone, poros, and conglomerate, laid dry.

We have no evidence as to how the east side of the area was closed after the intrusion of the Exedra.

The Drainage of the Tholos

The main building in its various periods was adequately drained, in keeping with the domestic character of its uses. A long succession of drain channels of various types led away from the east side of the Tholos to empty, in the earlier periods, into the main line of the Great Drain, subsequently into the more convenient West Branch of the Great Drain (Pl. I, Figs. 66, 68).

The earliest surviving drain, which is probably closely contemporary with the building itself, consists of round terracotta pipes of the shape and size indicated in Fig. 67. Each length was provided with a lidded clean-out hole.[66] Eight sections remain in place in the midpart of the drain. From the extension of their line beneath the later porch one sees that this first drain left the building just south of the axis, presumably from beneath the threshold. It led, at a very gentle gradient and in a direction slightly south of east, to the southeast precinct wall. Thence it would seem to have swung northeast and followed the face of the precinct wall through the gateway at the corner to debouch into the Great Drain through a small rectangular hole which may still be seen in the wall of the Great Drain, 0.55 m. from its south end.

The second drain of the Tholos series followed much the same course as its predecessor. There remains in place the part between the front of the Tholos Porch and the Tholos precinct wall together with the elbow that leads northeastward along the face of the precinct wall. The Tholos end of the channel was partly broken away by the Porch builders, partly incorporated in their foundations; the other end was completely demolished by the construction of the Exedra. Its blocks were presumably re-used in the foundations of the Exedra and one of them was found where employed for a third time in the curbing of a nearby well of mediaeval date. The drain channel (0.14 m. × 0.38 m.) is cut in massive blocks of soft grey poros, set end to end with square joints. In its west part it was covered with re-used slabs of Hymettian marble, three of which remain in place to the east of the porch. As

[66] Inv. No. A 1039. Fine buff clay, glazed only on the outside in bands around either end and the middle.

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Fig. 66. Tholos from Southeast

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already conjectured, these blocks may have been removed from within the building (p. 61). Farther east, where the channel lies deeper and where its top was not exposed to disturbance by traffic, it was covered with large terracotta roof tiles, among them one fragment of a Tholos eaves tile.

A little pottery found in the packing along the sides of this drain (notably a large fusiform unguentarium) suggests for its laying a date scarcely anterior to the early third century before Christ. If we have recovered aright the history of the marble cover slabs, a date in the early third century will be confirmed by the evidence from inside the building.

The third drain of the series postdates the construction of the West Branch of the Great Drain into which it poured its water. After leaving the Tholos at the same point as its predecessors, it made its way in an irregular sweeping curve toward the southeast. Its channel consisted of ⊔-shaped terracotta troughs, with a reinforcing collar at either end.[67] The one piece of covering that was found in position consisted of a fragmentary block of the marble stringcourse from the Tholos itself; a smaller piece of the same block had been incorporated in the side wall of the drain. This evidence, combined with the fact that the drain was set down into a Hellenistic level, suggests that the third drain is to be dated after the "Sullan" injury to the building; its predecessor presumably having been damaged on that occasion.

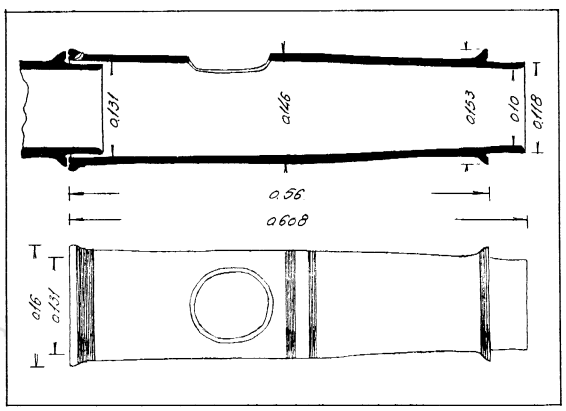


Fig. 67. Inv. No. A 1039. Terracotta Pipe from Original Drain of Tholos

The east end of the third drain was apparently disturbed by the construction of the rectangular monument base that was built on the line of the old precinct wall (p. 94). This necessitated the laying of Drain 4, which branched off from its predecessor at a point just in front of the (later) Porch and thence took a more direct line past the north end of the new base, to empty again into the West Branch of the Great Drain. It too consisted for the most part of ⊔-shaped terracotta channels,[68] though fragments of ∩-shaped pipes were found in place toward the east. Of the covering nothing remains.

A radical change in the drainage system was occasioned by the building of the Tholos Porch. From the same sink-hole just inside the main door of the building, the waste was carried along the foot of the inner face of the wall in ⊔-shaped

[67] Inv. No. A 834. Fine buff clay. Length, 0.685 m.; width inside, 0.27 m.; depth inside, 0.24 m.
[68] Inv. No. A 835. Length, 0.635 m.; width inside, 0.30 m.; depth inside, 0.30 m.

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terracotta channels [69] to a point south of the Porch. Here it was led through the wall and carried due east in a similar drain again to the West Branch of the Great Drain. Of its covering of broken drain tiles a few pieces were found in place. A small tributary of uncertain origin joined the drain from the north.

This fifth drain was disturbed by the erection of the Exedra and its eastern part was deflected southward, to be carried through the (obviously dismantled) older



Fig. 68. Later Drains of Tholos from Southeast
(Crater in Upper Left is Mouth of Tholos Well)

rectangular monument base.[70] This drain would seem to have continued in use until the destruction of the building in the third century after Christ. It was cut through by the concrete reinforcing of the Tholos wall as subsequently repaired. No trace of a drain has been found in connection with the latest period of the Tholos.

The arrangements for receiving the waste water inside the building would seem to have been of the simplest. At the point where the earlier drains left the building, against the inner face of the wall and deep below the mosaic floor there remains part of a sink-hole lined with mortar. After the construction of the Porch and the conse-

[69] Length, 0.63 m.; width inside, 0.24 m.; depth inside, 0.20 m.

[70] Of the ⊔-shaped pipes, several remained in place, covered with broken roof tiles (Inv. No. A 837). Length, 0.62 m.; width inside, 0.15 m.; depth inside, 0.12 m.

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quent change in the line of the drain, the sink-hole remained in the same place, though the mortar basin was now replaced by the simple open end of the terracotta trough. On the laying of the marble-chip floor, the sink-hole was shifted farther south: a round hole *ca.* 0.14 m. in diameter close against the face of the wall. As noted above, the whole floor slopes to this point, so that it could have been swabbed down very readily. The marble-slab floor also drained at this same point through a screen cut in the form of a perforated four-petalled rosette.

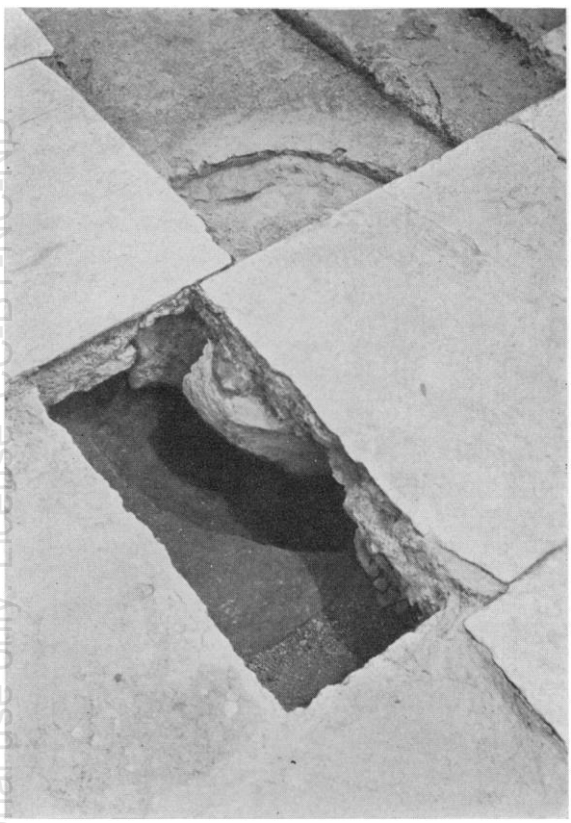


Fig. 69. Drain Channel in East Central Column of Tholos, from Southwest

An entertaining detail of the sanitary arrangements is recorded on the stump of the east central column (Fig. 69). A vertical channel 0.08 m. in diameter and sunk almost to its full depth in the face of the shaft ran down the west, i. e., the inner side of the column and communicated with a horizontal channel cut in the top of the poros column base. This horizontal channel swung around the south side of the column and then led eastward to the original sink-hole against the inner face of the Tholos wall. An exploratory pit sunk midway between column and wall exposed its silt-filled channel which had doubtless once been occupied by terracotta drain pipes. The remains suggest a wash-basin set against the inner face of the column, inconspicuous from the main entrance, yet convenient. The precise date of the installation is not clear. It would seem, however, to have been abandoned as early at least as the laying of the marble-chip floor, the packing for which was found to run down into the drain trench already stripped of its terracotta pipes.

MONUMENTS WITHIN THE THOLOS PRECINCT

The surviving bases indicate that the temenos was occupied by a number of monuments of various periods. Many of the smaller monuments and doubtless innumerable inscriptions must have been completely uprooted by the disturbances of later times, especially in the north central part of the area where late Roman intrusions had violated the levels even of the sixth century before Christ.

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To the southeast of the Porch, and set with its back toward the original enclosure wall, is a beautifully worked base of grey poros, its top cut to a square 1.17 m. to the side (Fig. 70). On its top are faint setting lines 0.013 m. in from north and east edges, but no other workings. Its level suggests that the base is closely contemporary with the Tholos itself. The remarkably fresh state of its surfaces is explained by the fact that the ground level soon rose around it. Broken Tholos tiles, discarded after the injury at the end of the fifth century, lie between the base and the precinct wall at the level of the top of the base. As suggested above (p. 40), this base conceivably carried the successor of the round poros monument of the archaic period. Its importance is attested by its fine workmanship and its position.

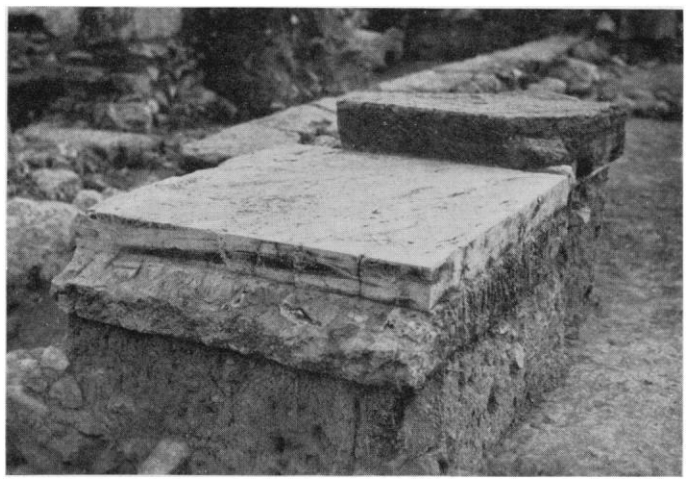


Fig. 70. Square Poros Base in Tholos Precinct, from North

Immediately adjoining the southwest side of the square base is a rectangular foundation (1.10 × 1.40 m.) consisting of a packing of field stones that now supports a poros block, obviously re-used. The surface of this stone, which is only of the levelling course for the base proper, lies 0.18 m. above that of the neighboring base. This suggests a considerably later date. Yet the second monument, like the first, is related to the early rather than the later precinct wall. As to its purpose see p. 141.

Several metres to the east of the north part of the Tholos Porch appeared the very ruinous foundations of two rectangular monuments of some size (Pl. I). In both cases only the southwest angle was preserved, so that the original dimensions could not be fixed. Both foundations were built of irregular masses of Acropolis limestone and were so shallow as to have carried no great weight. Their level would suggest for them a date in the Hellenistic period. They have been removed in order to permit of the exploration of the earlier foundations beneath them.

At various points in the area are single poros bedding blocks with rectangular

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sinkings in their tops for the support of monuments of different sorts. The largest lies in the angle between the Tholos wall and the south side of the Porch (Fig. 66). The sinking in its top measures 0.22 m. square, 0.24 m. deep. The fact that the corner of the block was trimmed away by those who laid the new Tholos drain necessitated by the construction of the Porch indicates that the monument antedates the Porch. Its high level, however, is against a much earlier date. It conceivably carried a fountain (p. 100). Another bedding block lies 3.50 m. to the east of the front of



Fig. 71. Foundations of Exedra, from Northeast

the Porch. It is of Kara limestone with a sinking in its top 0.105 m. × 0.19 m. × 0.08 m. deep. Its level would permit of a date in the fourth century.[71]

Just to the east of the early square base is an exceedingly rude bedding for a rectangular monument of uncertain purpose (1.20 m. × 2.00 m. overall; Pl. I, Fig. 82). It utilized a part of the old enclosure wall of the Tholos, and so must postdate the demolition of that wall; on the other hand its relations with the Tholos drains, as already observed, would make it earlier than the Exedra to which we next turn.

The entire east angle of the precinct was occupied in later times by this large

[71] In the roadway, outside the northeast corner of the precinct, there remains a group of three poros beddings, all made from re-used blocks, one of them from a length of water channel (Fig. 76). The sinkings in their tops, taking the bases from north to south, measure 0.09 m. × 0.16 m. × 0.09 m. deep, 0.12 m. × 0.18 m. × 0.09 m. deep, 0.11 m. × 0.22 m. × 0.08 m. deep. A clue to their date is given by the presence of a broken Tholos roof tile, doubtless discarded after the injury at the end of the fifth century, close by at the level of their tops. Between the two northern blocks was noted the impression of another now missing block of similar size.

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rectangular monument (5.50 m. × 9.50 m. overall). Much of the foundations for the east end and south side remains, as also packing for the other sides and for the interior (Fig. 71). Its east end falls just inside and is parallel to the Great Drain; its south foundation adjoined the old southeast enclosure wall. A glance at the general plan (Fig. 63) will suggest that the orientation of the monument was determined more by the terrace wall of the great Middle Stoa than by the Tholos.

The structure had massive foundations along its east, west, and south sides: two courses of conglomerate blocks laid alternately as headers and stretchers. The foundations of the north side and of the interior were less substantial and were obviously intended to carry a lesser weight. No piece of the superstructure has been recognized. The scheme of the foundations suggests the restoration of a large exedra, of a type common in Delos, with a continuous pedestal for sculpture and a bench at the foot of the pedestal. Pottery found around the foundation does not descend below the fifth century before Christ, but the relations of the foundation with the Tholos drains have indicated for the Exedra a date subsequent to that of the Tholos Porch. The style of construction is Hellenistic and the monument may be placed tentatively in the latter part of the first century before Christ.

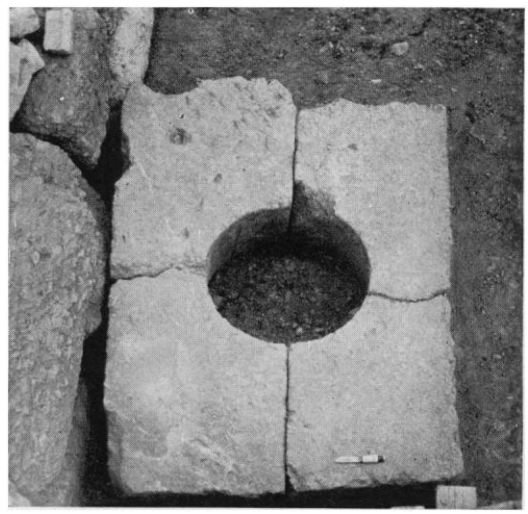


Fig. 72. Curb of Tholos Well

To the west of the west end of the Exedra is a single bedding block of poros, obviously placed after the erection of the Exedra and intended for the support of some small monument.

WATER SUPPLY

Well of the Tholos

No immediate successor has been found for the curbed well which served the predecessor of the Tholos (p. 25). But at an interval of perhaps a generation after the construction of the Tholos, a new well was sunk in its enclosure to the southeast of the building. This position, remote from the Kitchen, was probably chosen in the knowledge that the most copious springs were to be tapped in the line of the valley. The new shaft was cut to a depth of *ca.* 12 m. below the contemporary ground level, with a diameter of *ca.* 1.40 m. Its walls were left unlined, but its mouth was capped with a curbing of massive blocks of soft white poros, two courses of two blocks each with a round aperture 0.65 m. in diameter (Fig. 72).

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The decision to leave the well uncurbed was fatal economy. It continued in use for a very short time as shown by the fresh state of the capping stones and by the paucity of water jars in the filling: only two terracotta hydriae were found at the bottom together with fragments of three small black-glazed bowls, and the much oxidized remnants of a bronze hydria. The shaft was choked with a tumbled mass of the soft bedrock which had fallen from its sides. Its curb stones rested in this filling at a depth of from 1.50 m. to 3.50 m. from the mouth. The collapse of the well left an irregular crater, *ca.* 3.20 m. in diameter and *ca.* 1.60 m. deep, within the



Fig. 73. Foundations of Tholos Fountain from East, Doric Propylon at Left. Cf. Fig. 89

Tholos enclosure (Fig. 68). This pit was very shortly used as a convenient place in which to dump a great quantity of refuse: roof tiles from the Tholos, many of them charred, millstones, broken vases and lamps, ash and charcoal. This material is of the same character as that found in lesser quantities all around the Tholos above the ground level of the late fifth century and it is sufficient in bulk to imply some serious damage done by fire to the Tholos and its kitchen at that time (p. 129). After the reconstruction that followed, the mouth of the pit was levelled and was sealed over by a layer of clean brown clay 0.10 m. thick.

Fountain in Tholos Precinct

One of the latest and yet to us the most intelligible of the monuments in the temenos is the fountain that was set against the new southeast enclosure wall to the

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southeast of the Tholos (Fig. 73). It faced toward the Tholos, received its water from a pipe that approached from the southwest, and discharged its waste into the new channel of the West Branch of the Great Drain.

There remains a massive rectangular substructure, 3.00 m. × 3.41 m. on the topmost surviving course, consisting of two courses of re-used building blocks of poros and conglomerate. We have already observed among them several (at least seven) wall blocks from the Tholos itself (p. 45). The first visible step of the monument must have rested on top of the foundation as we now have it. Between the foundation of the fountain and the new enclosure wall a passage 0.15 m. wide was left for the feed pipe, which was protected by stone slabs as shown by a ledge cut on the precinct wall. The lowest block of the water column remains in place on the axis of the foundation at its back edge. In this poros block is cut the elbow that started the water upward.[72] The waste apparently flowed from the rear edge of the basin (which we must restore in front of the water column), was received by a channel roughly hewn in the top of the poros foundation, and thence was carried in a terracotta channel through a passage cut obliquely in the new precinct wall, to be poured into the new course of the West Branch of the Great Drain.[73]



Fig. 74. Fountain on a Fourth-century Krater (Furtwängler-Reichhold, Pl. 147)

Of the superstructure nothing more has come to light. The dimensions of the foundation, however, would justify the restoration of a baldachino above the water column and its basin (Fig. 63), of a type that is illustrated in vase paintings (Fig. 74).[74]

The fountain is obviously later than the new enclosure wall against which it is set. The presence of the Tholos wall blocks in its foundation suggests a date after the Sullan destruction. Pottery found around its foundations seems not to be later

[72] The inside of the pipe is carefully plastered with fine lime mortar. The original feed pipe, probably of terracotta, would seem to have had a bore of *ca.* 0.11 m., which was reduced to 0.08 m. in the vertical passage in the stone.

[73] One of these terracotta pipes, of ⊔-section (Inv. No. A 920: 0.62 m. long, 0.153 m. deep, 0.13 m. wide inside) was found in place, rudely covered with broken roof tiles (Fig. 89).

[74] For this and the other fountains to be noted below see the general studies on ancient fountains by A. K. Orlandos in Ἀρχ. Ἐφ., 1916, pp. 94 ff.; and by B. Dunkley in *B.S.A.*, 1935-36 (1939), pp. 142 ff., pls. 21 ff.; and the useful observations of T. Wiegand in *Priene*, pp. 75 ff.; *Milet*, I, 5, pp. 73 ff. For this fountain in particular cf. Orlandos, *loc. cit.*, p. 101, figs. 12-14; Dunkley, *loc. cit.*, pp. 182 f.

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than the middle of the first century before Christ. Its construction may well fall within the latter part of that century.

Wells, Cisterns, and Fountains to the West of the Tholos (Pl. I, Figs. 62, 75)

In placing their next wells, the authorities of the Tholos avoided the treacherous valley and chose the more solid formation of the slope of Kolonos. One shaft was sunk near the west edge of the Bouleuterion Square, at its midpoint as it was before the construction of the Porch, a second was dug on the shoulder of the hill to the southwest of the Tholos (Fig. 75, A and C). These two attempts appear to have been closely contemporary; hence, one well was presumably intended for the Tholos, the other for the Bouleuterion. No trouble was encountered with the rock; the sidewalls held perfectly; but, though the northern well was sunk to a depth of 16.80 m. and the southern to a depth of 23.10 m., they failed to tap good springs. The absence of water pitchers at the bottom suggests that they were used little if at all.

In despair, the engineers decided to convert their wells into a reservoir. The lower parts of the shafts were filled; the upper part of the southern well was expanded into a flask-shaped chamber; a tunnel was cut between this chamber and the northern well; a vertical shaft (E) was sunk immediately to the west of the Tholos and was joined to the chamber in the southern well by a tunnel. This last move suggests that part at least of the water was to be drawn from the roof of the Tholos. An overflow pipe led out of the shaft behind the Tholos; thence it apparently swung around the south end of the stairway to the Square of the Bouleuterion, cut diagonally across the passage between Tholos and Old Bouleuterion, passed around the southeast corner of that building, and so made its way to the Great Drain.[75]

But after all this outlay, the reservoir was never finished; its interior was found unplastered and choked with the dug bedrock which had been thrown back.

The cistern project, however, was soon resumed with modifications (Fig. 75, System F-I). The system, as finally completed, consisted of three flask-shaped chambers connected by tunnels, all cut in the solid rock and carefully plastered with hydraulic cement. Two of the chambers (F and H) lie to the west of the New Bouleuterion and presumably drew their water from down-pipes at the northwest and southwest corners of that building. The mouth of the third chamber opens to the southwest of the Tholos; close enough to have received water from the roof of that building.

[75] Terracotta channels of ⊔-form remain in place a distance of 8.00 m. north of the shaft and again between the corner of the Old Bouleuterion and the Great Drain. They are placed indiscriminately with mouth up or down; the mouths, when up, were covered with broken roof tiles. The individual channels measure 0.56 m. long, 0.14 m. wide, and 0.10 m. deep inside. In the passageway between Tholos and Old Bouleuterion the course of the drain has been fixed by its plundered trench.

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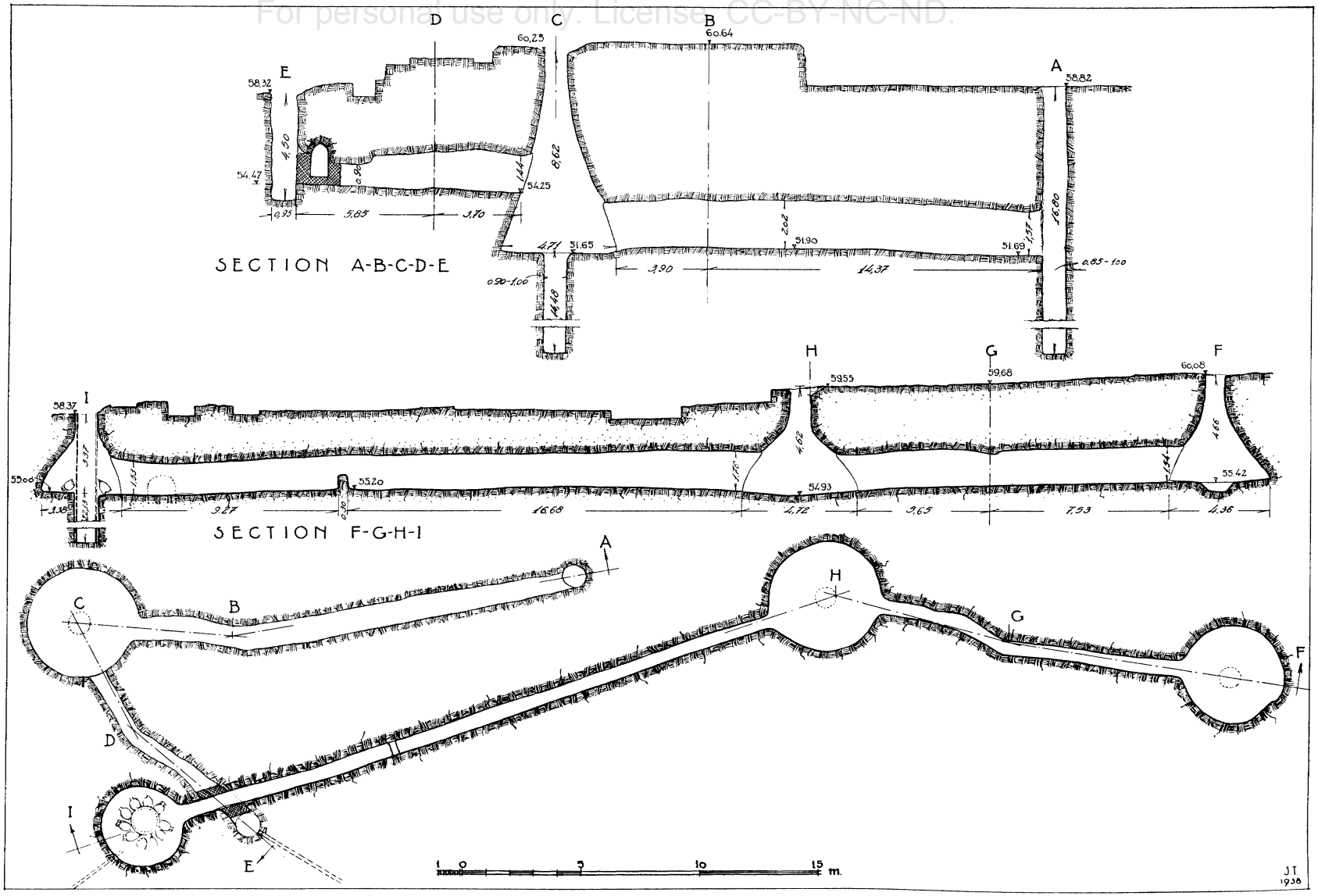


Fig. 75. Wells and Cisterns to West of Tholos (cf. Fig. 62). 1:250

We may suppose that the water for the needs of the Tholos, especially of its Kitchen, was drawn from the mouth of the south chamber, that for the Bouleuterion from the middle chamber. In order to assure a due proportion for each institution in time of low water, a trap wall was built across the tunnel between the south and middle chambers.

On the plan (Pl. I) one may trace the course of a small terracotta water channel which would seem to have had its beginning in the angle between the Tholos and its Porch, to have then swept around the south side of the Tholos, and to have emptied into the south chamber of the cistern system (Fig. 68).[76] From the crude way in which it enters the cistern this channel is clearly a later addition; yet it would seem to antedate the Porch of the Tholos since it was cut by the new Tholos drain (5) necessitated by the erection of the Porch. It possibly took the overflow from a fountain standing on the poros block in the angle of Tholos and Porch (p. 94).

For the chronology of the cisterns we may consult the material recovered from the filling of the earlier system. That which comes from the lower part of the shaft of the south well, i. e., from below the floor of the unfinished cistern chamber, is, as might be expected, the earliest. Pottery and lamps from this group are appreciably later than the latest found at Olynthos among the houses destroyed in 348 B.C.; yet they will scarcely be as late as the end of the century. Much of the pottery from the north well and from the shaft to the west of the Tholos must date from the turn of the century and some of that from the unfinished cistern chamber and its mouth will be of the first quarter of the third century. As pointed out in an earlier report, the coins from the filling of the north well also run down into the early years of the third century.[77]

The filling of the earlier system yielded masses of broken household pottery which in the north well and the shaft behind the Tholos was accompanied by broken public measures and by roof tiles marked public. The measures certainly came from the Tholos;[78] and, as noted above (p. 78), the tiles in all probability derive from the Tholos Kitchen. There is good reason, then, to believe that the table ware once served the public tables in the Tholos. It agrees very closely both in character and in date with that found in the disturbances in the floor of the Tholos itself, and much of it was undoubtedly discarded on the same occasion: viz., the troublous years at the turn of the fourth and third centuries.

The collation of this evidence suggests that the two wells were dug and probably used as such for a very short time late in the third quarter of the fourth century;

[76] The channels are ⊔-shaped and measure 0.62 m. long, 0.075 m. wide, and 0.083 m. high inside. They were covered with broken roof tiles.

[77] *Hesperia*, VI, 1937, pp. 166 f. Of the vases illustrated *ibid.*, p. 165, fig. 98, it may be noted that *b-f* came from the filling of the north well, *g* from the bottom of the south well and *a* from within the foundations of the Propylon of the New Bouleuterion.

[78] *Hesperia*, IV, 1935, p. 347; VI, 1937, p. 166.

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they were then incorporated in a storage system, the completion of which was forestalled by the troubles at the end of the fourth century. The construction of the new three-chambered reservoir may be associated with the addition of the Porch and Propylon to the New Bouleuterion, late in the first quarter of the third century.

The splendid new reservoir served for long. The pottery and lamps recovered from the filling of its chambers and tunnels are chiefly of the second century before Christ, but some of the material would seem certainly to run down into the first century before Christ.[79] The system was probably abandoned at the time of the Sullan irruption; it had possibly gone out of use somewhat earlier, but was not used for water storage after that time.

After the cistern system had been abandoned, a well was sunk through the floor of its south chamber, to a depth of 25.50 m. below the mouth of the chamber. The shaft was carefully curbed with terracotta tiles. In the old cistern chamber a number of large wine amphorae were placed to take up space in the filling. Though the water did not flow in freely, it rose to a great height; water jars, which invariably mark the accumulation of the period of use, were found from the bottom up to within 5 m. of the mouth. The long history of the well is recorded in the great mass of pottery, lamps, and broken marbles from its filling. The earliest of this material is of the advanced first century after Christ, in which period is probably to be placed the digging of the well. Thence follows a continuous series through the second and the mid-third century. At a level of 20 m. from the top occurs an abrupt change in the filling: from the silt of gradual accumulation to a mass of broken stone. Above this change the pottery is appreciably later, enough so as to suggest a period of disuse. Immediately below the 20 m. level lay a coin of Otacilia Severa (244-249 A.D.), immediately above was found a marble portrait head in the style of the mid-third century after Christ (Inv. No. S 954). From higher up come two more marble heads (Inv. Nos. S 938, 950), numerous fragments of marble sculpture, and a couple of marble inscriptions (Inv. Nos. I 4911, 4913). We may safely associate the interruption in the use of the well with the Herulian sack of 267 A.D. After a short break the sequence of pottery resumed and continued into the fifth century. Since pottery of the fifth century rose to within 5 m. of the mouth of the well and rather above the water table of the present day, it seems unlikely that the well continued in use much if at all later. The final chapter in its history was mutilated by intruders of Byzantine times, perhaps of the fourteenth century after Christ, who dug down to the level of the bottom of the old cistern chamber and removed the curbing tiles of the well to that point.

While in this region we may conveniently consider the arrangements for flowing water in the Square of the New Bouleuterion. The immediate source of the first was a

[79] The evidence for dating consists largely of stamped amphora handles on which Virginia Grace has kindly given me an opinion.

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pipeline carried in the bottom of a tunnel which has been traced beneath the surface of Kolonos Agoraios. This line perhaps drew its water from the main which is known to have passed between the Areopagus and the Pnyx and along the foot of the Pnyx hills toward the Hill of the Nymphs.[80] The present excavations have shown that it approaches our area from the southwest and issues from the brow of Kolonos high above the Square of the Bouleuterion (Fig. 84). Its course across the Square has been obliterated by later construction. But immediately west of the Tholos there remain some 3 m. of pipe identical with that in the tunnel and in a line which would carry it around the south side of the Tholos.[81] Its further course is uncertain.

This pipe-line was obviously designed to feed a fountain in the region of the Tholos and Bouleuterion, but of the fountain itself nothing remains nor is it certain whether it stood in the Bouleuterion Square or in the Tholos enclosure to the southeast of the building. For the date of laying of this pipe-line we have as yet no satisfactory evidence. The branch which served the area of the Tholos was blocked in the first half of the first century before Christ, again, presumably as a result of the events of 86 B.C.

The second installation for running water is now represented by a large rectangular foundation at the south side of the Bouleuterion Square (Fig. 63). This monument was briefly described in an earlier report [82] but was left unidentified. Since the previous writing, it has been observed that a water pipe made its steep way down the scarp and entered the structure at the middle of its south side.[83] On the plan is recorded a short length of drain pipe, presumably for the waste, near the northeast corner of the monument. This drain apparently made its way around the south end of the stair of the Square of the Bouleuterion, thence along the south edge of the passage between Tholos and Metroon, through the bounding wall of that passage and so eventually to the Great Drain. A couple of sections remain in place along the south side of the passage. Though only the lowest foundations remain of the fountain house itself, there can be little question about its general scheme: a basin at the back with a colonnade across the front. A suggestion for the restoration is given on

[80] Judeich, *Topographie*², pp. 202 f.; *Hesperia*, I, 1932, pp. 200 ff. A branch channel does lead northward from this main line at the point where that line was crossed by the ancient road leading up to the east side of the assembly place, but it is exposed for only a few metres.

[81] Inv. No. A 290. The pipes are ⊔-shaped; 0.65 m. long, 0.09 m. wide, and 0.065 m. deep inside. The joints were secured with white cement. The pipes in the tunnel are coated with water deposit to a thickness of 0.01 m. Within the tunnel the pipes are in places uncovered, in places protected by tiles; behind the Tholos they are overlaid with broken roof tiles.

[82] *Hesperia*, VI, 1937, pp. 170 f., fig. 100.

[83] The down pipe is of terracotta with an interior diameter of 0.085 m. and is securely imbedded in lime mortar. The horizontal section as preserved is of mortar only with an interior diameter of 0.16 m. This pipe would have passed over the lowest foundation course of the monument. We have as yet no knowledge of the source of supply.

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Fig. 63.[84] It is to be noted that the structure was centered on the axis of the porch of the New Bouleuterion.

A date around the turn of our era was suggested for this monument in the earlier report. As noted before, it had a useful life of a very few years; the screen wall around the Bouleuterion Square, itself probably of the first century after Christ, overlies its already ruinous foundation. Its function was presumably taken over by the smaller fountain to the southeast of the Tholos.[85]



Fig. 76. Area to East of Propylon of Bouleuterion, from North

Fountains by the Propylon of the Bouleuterion

Councillors going to or from the New Bouleuterion might have refreshed themselves at a fountain by the edge of the square in the area of the Propylon of the Bouleuterion. In this region a succession of at least three fountains may be traced.

The earliest, of which comprehensible remains survive, rose in the thoroughfare

[84] For the type cf. Ἀρχ. Ἐφ., 1916, pp. 99 ff., fig. 11. Well-preserved comparable examples have been found at Magnesia (Humann-Kohte-Watzinger, *Magnesia am Maeander*, pp. 135 ff.), at Sikyon (*A.J.A.*, XXXVIII, 1934, pp. 153 ff.; XXXIX, 1935, pp. 407 f.; XLI, 1937, pp. 335 f.; Πρακτικά, 1934, pp. 116 ff.), and at Phigaleia (Ἀρχ. Δελτ., XI, 1927-28, pp. 1 ff.; *B.S.A.*, XXXVI, 1935-36, p. 187).

[85] A plastered water basin at the foot of the western screen wall of the Bouleuterion Square may also have served a fountain. Its source is not apparent. It presumably supplied the immediate needs of the Square after the removal of the ornamental fountain.

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midway between the southeast corner of the (later) Propylon and the Great Drain (Figs. 76, 77). There remains in place a large conglomerate block (0.82 m. × 0.70 m. × 0.35 m.) which presumably carried the water column; to the north of it a less substantial bedding of re-used poros blocks (0.90 m. × 1.10 m.) for the basin; and between this bedding and the Great Drain a stone channel (No. 4 on the plan) for the waste water (0.33 m. wide, 0.26 m. deep inside).[86] A little broken pottery found in the contemporary packing around the foundations is as late as the early fourth century, and the latest sherds found inside the drain of the fountain are still of the

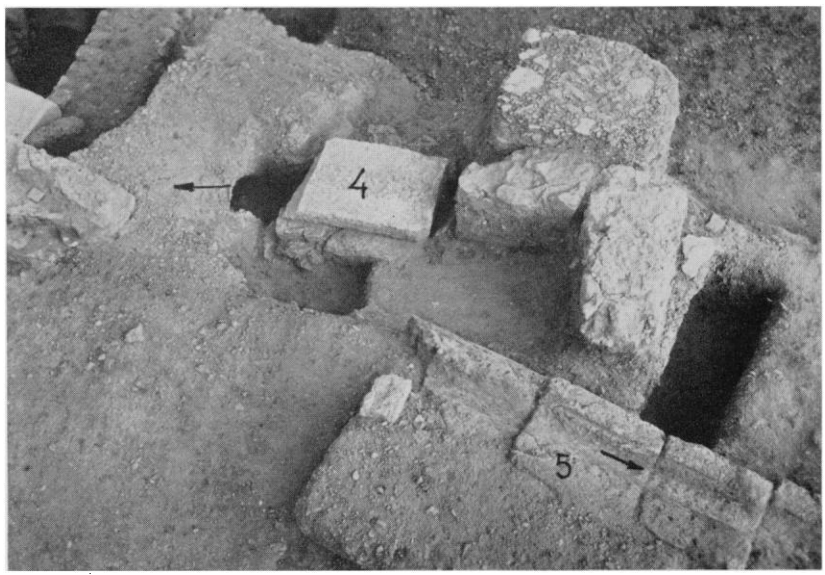


Fig. 77. Fountain in Street to East of Propylon, from North

fourth century before Christ. Its brief active life may be placed in the second half of that century; it was perhaps immediately replaced by a second fountain.

Of the second installation we have certain traces only of the feed pipe (Fig. 76, No. 5 on the plan, Pl. I). This is a stone trough which runs from east to west across the interval between the Great Drain and the (later) Propylon.[87] It probably drew its water from a more capacious stone channel of which scattered blocks remain in a south to north line along the east side of the Great Drain. The eventual source

[86] Of the covering of this drain one slab was found in situ. It is a block of Hymettian marble (0.78 m. × 0.50 m. × 0.11 m.) of the same series as those re-used as cover slabs on the second drain of the Tholos (p. 90) and like them it shows on its present under surface much wear from traffic which must have occurred in its earlier use. The feed pipe has entirely disappeared.

[87] The conduit is made of miscellaneous re-used architectural blocks of soft white poros. The channel proper is cut in the tops of the blocks, semicircular in section, 0.15 m. wide, 0.07 m. deep. Its bottom is deeply worn by water.

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was presumably the great Fountain House to the south. Toward the west our pipeline was broken away by the foundations of the Propylon. But at its west end as preserved the channel appears to swing northwest. The basin into which it delivered its water conceivably rested on a foundation of which only the impression, *ca.* 1.70 m. square, was found beneath the Propylon in its northeast part. Of a drain for waste water no trace has been observed. For the date of this system, it is to be noted that its feed-pipe overlies and so postdates the drain of the first fountain; the arrangement was clearly put out of commission by the erection of the Propylon.



Fig. 78. Fountain on a Hydria by the Berlin Painter. (Beazley, *Berl. Maler*, Pl. 24, 1)

The remains of the third fountain are more legible (Fig. 76). It was supported on a large bedding block of poros which still lies in situ against the east front of the Propylon to the north of its fore-step. Water reached it from the southeast through a terracotta pipe of which one length remains in place close by the bedding block (Inv. No. A 1048; Fig. 79, No. 6 on the plan, Pl. I). The massive wall of the pipe and the fact that its joints were closed with hard lime cement indicate that the water was brought under pressure and hence could have been carried to some height in the shaft of the fountain. A couple of sections remain of the waste pipe which led away from the east side of the fountain to the Great Drain.[88] This fountain was presumably of the same simple pillar-and-basin type as the first (Fig. 78). For its date we have as yet no satisfactory evidence apart from the fact that it obviously postdates the construction of the Propylon. A water deposit of only 0.005 m. on the inside of the feed pipe would suggest no long period of service, at any rate for this pipe.[89]

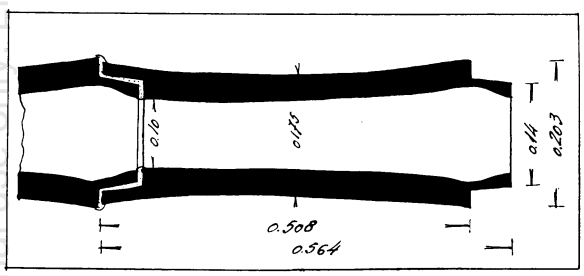


Fig. 79. Inv. No. A 1048. Feed-pipe of Propylon Fountain

[88] The channels are ⊔-shaped; 0.64 m. long, 0.17 m. wide, and 0.165 m. deep inside.

[89] The marble blocks from a fountain, which were re-used, as noted above (p. 56, note 37), in the foundations for the Porch of the Tholos, may conceivably derive from this place. If that be so, we may suppose that our present fountain was destroyed in 86 B.C. Several other pipe lines, both early and late, between Propylon and Great Drain will be discussed elsewhere.

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ROADS AND ROAD DRAINS

The Early Period

The earliest thoroughfare in this region followed closely the east and southeast foot of Kolonos Agoraios and thence continued southwestward in the bottom of the valley between Kolonos and the Areopagus. This roadway had doubtless been in use from time immemorial, but the lowest layers of firm-packed road gravel have yielded chiefly pottery of the late Geometric period, i. e., of the late eighth century, with a sprinkling of Protogeometric sherds. From the late Geometric period onwards the thoroughfare remained in constant use until the late Roman period, and at several points where the stratification was examined to its full depth the history of the road could be read in successive layers of accumulation: silt or sand brought down from the slopes by winter rains, gravel spread for the paving of the road, masses of débris from the destruction of the adjoining buildings, and in each layer a scattering of broken pottery. In the early centuries, the thoroughfare was ill defined and consequently the lowest road metal is found over a wide area: between the front of the Tholos and the line of the West Branch of the Great Drain; beneath the porch of the Hellenistic Metroon and eastward of that building to the line of the Great Drain. The erection of the first durable buildings at the foot of Kolonos and the enclosure of the early Cemetery fixed the western and northern edge of the roadway; this line remained amazingly constant throughout antiquity, exhibiting only a periodical tendency to push eastward and southward.

At a time not long after the construction of Building A and of the Cemetery wall the level of the road in front of them was raised some 0.50 m. to 0.70 m. by the laying of a mass of earth, gravel, and small stones. This was presumably intended to improve the grade and the drainage of the road. The date of this activity, as indicated by the abundant pottery found in the filling, falls in the second half, probably in the third quarter of the seventh century. As noted above (p. 7) pottery from this filling joins that of a votive deposit from the foot of the Areopagus.

The ancient thoroughfare was little affected by the construction of Building F. The next noteworthy change was the laying of the Great Drain along the west side of the square. Little can be said about the upper part of the Drain until the modern road has been removed from above it. At the moment, however, it would seem probable that the Drain began at a point east of the (later) Tholos as a shallow unbridged channel, the sides of which, in a distance of *ca.* 30 m., converged from an initial breadth of *ca.* 2.75 m. to the width of the drain proper, i. e., *ca.* 1.00 m. Thence, northward, the trench was covered with stone slabs, their tops flush with the surface of the square. The great open mouth would have received the drainage from the roadway between Kolonos and Areopagus, probably too the waste from the large

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Fountain House to the south. A date in the last quarter of the sixth century as previously suggested for the Great Drain may still be accepted.[90]

To approximately the same period we may assign the boundary stone of the Agora which was exposed in situ in 1938 at a point *ca.* 3 m. south of the (hypothetical) original head of the Great Drain (Pl. I, Fig. 80). The marker is a massive post of coarse-grained white marble with bluish streaks (probably island), rough picked on all sides (cf. *Hesperia*, VIII, 1939, pp. 205-6, fig. 4). On the broad face that looks northeastward a band was smoothed across the top and down the right edge to receive the inscription: *hóros eimì tês agorâs*.[91] The setting and significance of the boundary stone, as of the drain, will be clarified, it is hoped, by the removal of the modern road and by the exposure of the contemporary levels to the east and south. At present one may suggest that the stone was intended to mark the southwest corner of the square at the point where two roads issued from it: the one to swing southwest around the west end of the Areopagus, the other to lead southward to the area of the Fountain House. Cf. p. v addenda.

The fork in the roads was later made more precise by the erection along their sides of retaining walls which met at an acute angle behind the boundary stone. Of the wall which runs southward from this angle, less than a metre has been cleared. The course of the other has been exposed throughout the area of the Tholos. Its irregular line was dictated in part by the contours of the land to the south, in part, it would seem, by the archaic buildings to the north. The marked deflection in the line of the road parapet just south of Building J suggests the priority of that building. It is probable, however, that the two are closely contemporary, parts, that is, of one program, to which we may assign also the rebuilding of the southeast wall of the Cemetery and the enclosure of the northeast corner of the same. In the course of this re-ordering of the Cemetery, its sanctity was so far violated as to permit of a stairway being carried transversely across it to facilitate access to the upper slopes of Kolonos from the road in the valley. The south parapet of this stairway may still be seen near the middle of the southeast wall of the Cemetery. Centuries later this same important line of traffic was graced by the Doric Propylon of which more below (p. 114).

→ *Hesperia*, VI, 1937, p. 4.

[91] Inv. No. I 5510. Height, 1.20 m.; width, 0.31 m.; thickness, 0.19 m. Height of letters, 0.043 m. (alpha) to 0.024 m. (omicron). The upper part of another stone of this same series, similar in material, workmanship, and lettering, was found in the spring of 1939 in the much disturbed interior of the Hephaisteion (Inv. No. I 5675). The very deep wear of traffic has obliterated the horizontal line, leaving only ---*mi tês agorâs* in the vertical line. This stone too must have stood in situ at some other point of heavy traffic, presumably another entrance to the market square. The wear suggests that the street level gradually rose around it and finally covered its top. Eugene Schweigert has drawn my attention to a third boundary stone of the Agora, of poros, with archaic lettering (Inv. No. I 3226). Only the upper right-hand corner remains, preserving the letters [*ag*]*orâ*[*s* | *hór*]*os*. This stone was found in the wall of a modern house in the north central part of the excavations (Section P).

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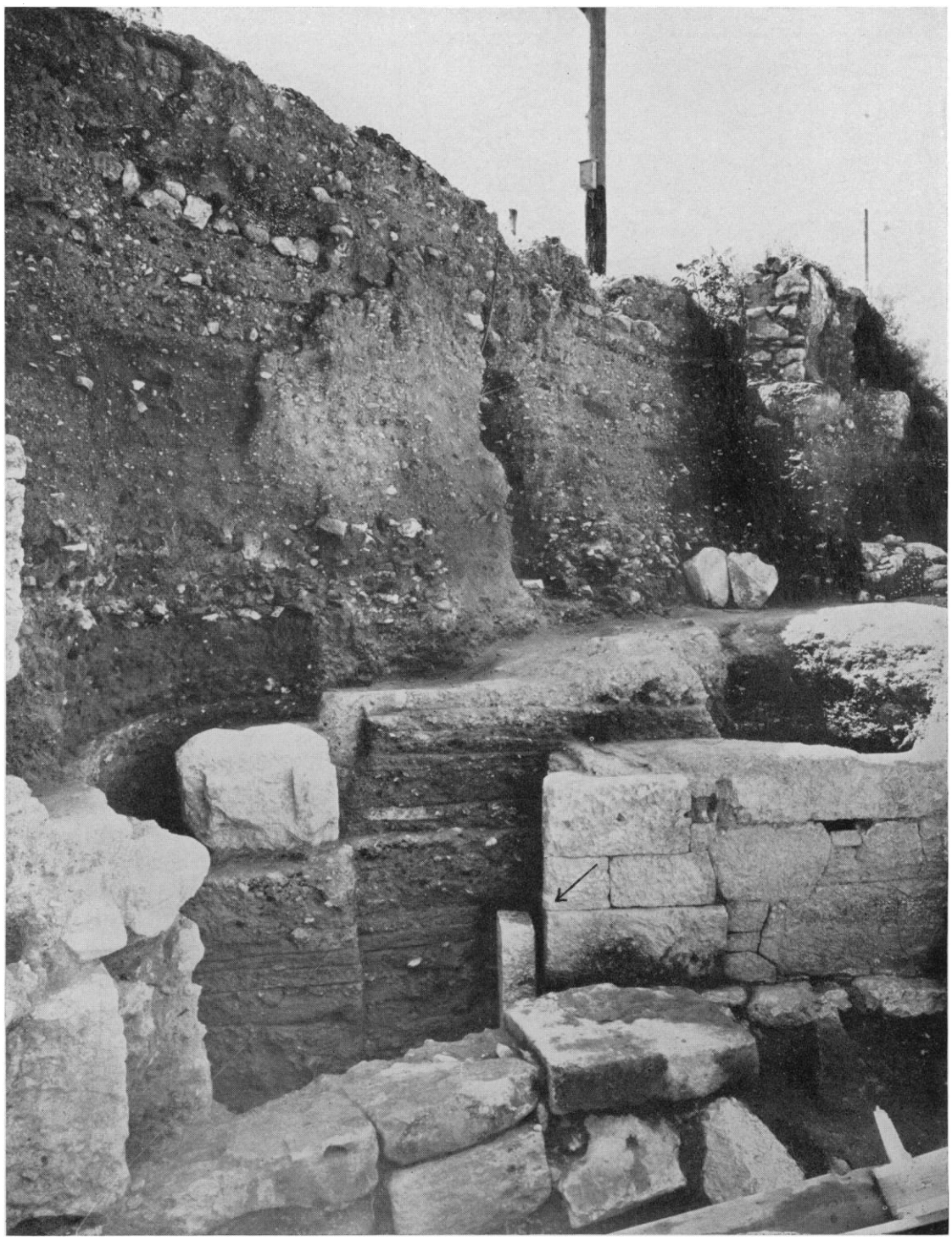


Fig. 80. Boundary Stone of Agora from Northwest, Modern Surface at Top

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The parapet now erected along the south side of the road to the south of the archaic complex was built of irregular masses of Acropolis limestone with polygonal jointing (Figs. 80, 81). Commonly a narrow interval between two large blocks was filled with a ladder-like series of small stones. At the angle by the boundary stone the jointing is more regular. Immediately behind the marker a large poros block was inserted to form, as it were, a background for the inscribed marble. In this part of the wall, moreover, the capping stones, which would appear to give the original height of the wall (1.53 m.), are also of poros, neatly squared. In the region of the boundary stone the wall rests on a levelling course of limestone slabs which project considerably from the face of the wall; elsewhere the wall blocks rest directly on

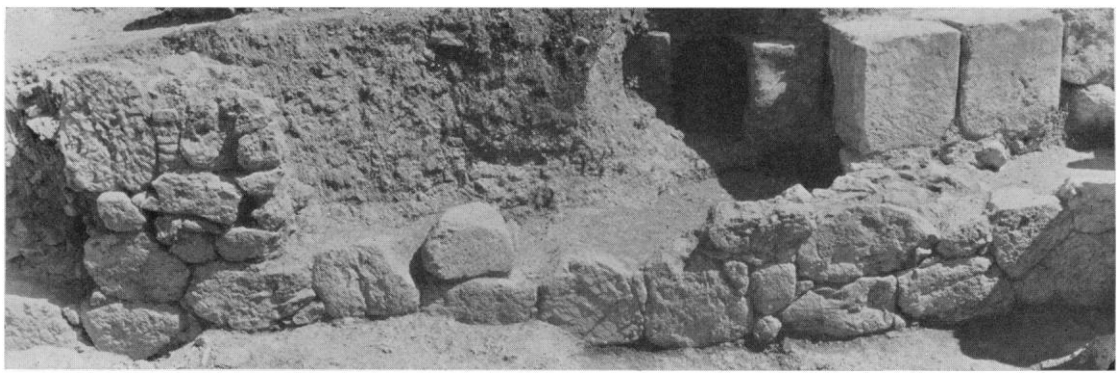


Fig. 81. Parapet of Early Road to East of Building J

bedrock or on a packing of small stones, except along the southeast side of the Cemetery where they rest on the ruins of the original enclosure wall.

For the chronology of these alterations we may start from the boundary stone. The stele was set down to a depth of *ca.* 0.20 m. in bedrock, through a layer of road gravel. The very limited amount of this lowest stratum which has thus far been examined around the boundary stone has yielded a few scraps of pottery including bits of black-figure which will not long antedate the close of the sixth century. They will provide a *terminus post quem* for the placing of the stone. In the first layer of gravel to accumulate above the road level contemporary with the setting of the stele were found two ostraka of Themistokles and two of Hippokrates, probably from the ostrakophoria of 482 B.C. (p. 32). These were accompanied by masses of broken roof tiles. Since a similar combination of broken tiles and ostraka inscribed with the same names (sometimes in company with Aristeides son of Lysimachos and Kallixenos son of Aristonymos) has been noted at corresponding levels in the roadway both to the north and to the southwest of the boundary stone, we may associate this layer of débris with the Persian destruction of 480-79 B.C. And thereby we secure a satisfactory *terminus ante quem* for the setting of the boundary stone. The road gravel

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continued to rise around the stele and, if one may trust the pottery from the small area of the upper strata thus far explored, had completely covered the stone before the end of the fifth century.

In its letter forms, its style of cutting, and its placing on the block the boundary inscription is obviously earlier than the documents of the decade between Marathon and Salamis, e. g., the Marathon Epigrams,[92] the Hekatompedon Inscription,[93] the Leagros Base.[94] The shapes of its alpha, epsilon, and mu, and the disposition of the lettering on the boundary stone are typologically earlier than those on the altar of the Pythian Apollo.[95] The date of the altar has been disputed, but is probably earlier than the end of the sixth century.[96] One is tempted to compare our stone with another early road sign: the Hipparchan herm from the Attic midlands.[97] The two pieces have much in common: the same readiness to resort to the vertical line, much the same letter forms. It is to be noted, however, that the letters on the boundary stone are cut more deeply and with an effect of greater assurance, considerations which at this period suggest an advance. Among the individual letters it is to be observed that the Agora inscription includes one epsilon with horizontal bars, whereas the epsilons of the herm have invariably raking bars, and that the sigmas of the boundary stone are broader and have lost the meagre, more primitive proportions of those on the herm. The herm seems certainly to have been erected by the Hipparchos who was assassinated in 514 B.C.

Perhaps the closest parallel for the lettering of the boundary stone is the Salaminian Decree.[98] It is to be remembered that the lines of the decree were vertical. The depth of cutting is much the same on the two stones and the lesser precision of the boundary inscription will be sufficiently explained by the more uneven surface. The individual letters are very close and the similarity in the range of variations in the letters alpha, epsilon, and rho is so striking as to suggest the same hand. Historians and epigraphists assign the Salaminian decree with increasing assurance to the period of Kleisthenes. We shall probably not err greatly therefore if we place the boundary stone in the last decade of the sixth century.

For the dating of the road parapet behind the boundary stone the evidence is not yet all gathered. The removal of the modern road should make it possible to dig behind the wall and secure decisive evidence. For the present we may note that the wall is certainly later than the boundary stone. This is shown by the wear on the

[92] *Hesperia*, II, 1933, pp. 480 ff.; *A.J.A.*, XLIV, 1940, pp. 56 ff.; Kirchner, *Imag.*, pl. 9.
[93] *I.G.*, I², 4; Kirchner, *op. cit.*, no. 19, pl. 10.
[94] *Hesperia*, V, 1936, pp. 358 ff.; VIII, 1939, pp. 160 ff.
[95] *I.G.*, I², 761; Kirchner, *op. cit.*, no. 11, pl. 5.
[96] *Hesperia*, VIII, 1939, pp. 62 ff.; *B.S.A.*, XXXVII, 1936-37 [1940], p. 263, note 1; cf. *Arch. Anz.*, 1939, cols. 29 ff.
[97] Peek, *Hermes*, 70, 1935, pp. 461 ff., Beilage; Kirchner and Dow, *Ath. Mitt.*, LXII, 1937, pp. 1 ff., pl. I.
[98] *I.G.*, I², 1; Kirchner, *Imagines*, no. 12, pl. → Schweigert, *Hesperia*, VII, 1938, p. 264.

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back of the stele, which could only have occurred while the stele was free standing; it is confirmed by the observation that the original ground level of the wall, as given by the top of its levelling course, is *ca.* 0.20 m. higher than that of the stele. The relation between the wall and the layer of Persian destruction is not yet certain; it is probable, however, that this layer gathered against the foot of the wall soon after its construction. However that may be, the road parapet would seem to antedate by a considerable interval the erection of the earlier Tholos enclosure wall, inasmuch as the original ground level of the parapet is *ca.* 0.30 m. lower than that of the enclosure wall at a point west of the boundary stone. The road parapet may be dated provisionally in the decade 490-80 B.C.

The original enclosure wall of the Tholos to the southeast of the building followed so closely the outlines of the earlier buildings in this area as to cause little change in the roadway. A more striking alteration was necessitated by the construction of the large building, as yet of uncertain name, to the south of the Tholos at an interval of *ca.* 22 m. (Pl. I, Fig. 62). In order to avoid cutting too deeply into the foot of Kolonos, the architect raised the east part of his building by throwing in a great mass of filling. This filling continued northward to the Tholos enclosure and deeply buried the intervening section of the ancient thoroughfare. Since the new building was set astride the line of that old road, the road as re-aligned was shifted as much as 9 m. to the east. The southeast wall of the new building was carried northeast to enclose the area between the two buildings. The line of this enclosure wall can be traced to a point opposite the southwest corner of the Tholos Precinct. Though the critical area has been much disturbed by a large mediaeval pit, it is probable that a passageway was left between the enclosures of the Tholos and the new building to provide for the east to west traffic which had previously been served by the stairway above the Cemetery and which was much later to be controlled by the Doric Propylon. The passageway would seem to have led through the overlap between the two walls, an arrangement which suggests that the road could be closed by means of a gate.

The West Branch of the Great Drain

The next marked change in the roadways of this area comes with the construction of the West Branch of the Great Drain as a capacious bridged cloaca beneath the road level. By the time of its building, the level of the street had risen so high that the torrents of water precipitated by heavy rainstorms must have constituted a continual menace to adjacent property. This consideration, coupled with the greater convenience of underground drainage, will sufficiently account for the costly undertaking.

The new drain, coming down from the southwest, in the valley between Areopagus and Kolonos, skirted the southeast front of the large building to the south of the Tholos and followed the line of the enclosure wall of that building to the point where

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Fig. 82. West Branch of Great Drain, Earlier and Later Courses, from Northeast (cf. Fig. 89)

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we have restored the entrance to the passageway between that building and the Tholos. Thence it swung northeastward and after a gently swerving course emptied into the mouth of the main line of the Great Drain. The channel shows an average width of *ca.* 1.30 m. and depth of *ca.* 1.00 m. (Fig. 82). Its walls were built of a heterogeneous mixture of re-used blocks of poros and limestone. Floor slabs of soft creamy poros remain in place to the south of the Doric Propylon. Of its covering a number of broken marble slabs (re-used) were found in the gravel that filled its original course to the north of the Propylon in the last days before its line was altered (Fig. 89).

For the dating of the original construction of the West Branch of the Great Drain, an indication is given by a limited amount of broken pottery removed from the footing trenches for its side walls. This pottery finds close parallels in Group C of the Hellenistic pottery published in *Hesperia*, III, 1934, pp. 345 ff., and will scarcely be earlier than the late third or early second century before Christ. On the other hand, the drain would seem to antedate the construction of the great Middle Stoa to the east, for the course of the original drain shows no influence from the presence of that building, whereas the later course of the same drain bends sharply around the northwest corner of the stoa. The placing of the stoa and the material from beneath its floor level make it clearly a close contemporary of the Stoa of Attalos, i. e., a building of the third quarter of the second century before Christ. The combination of evidence therefore dates the West Branch of the Great Drain in the late third or early second century before Christ.[99]

The course of the West Branch of the Great Drain was subsequently shifted to the southeast to accommodate two small buildings: the Doric Propylon and the Fountain of the Tholos (Fig. 83). This alteration affected a length of *ca.* 30 m. and meant a maximum shift of *ca.* 4.50 m. The new channel retained the dimensions of the old (1.00 m.-1.30 m. wide, 0.80 m.-1.00 m. deep) and was built in much the same way, i. e., of miscellaneous re-used blocks of Acropolis limestone, soft and hard poros and conglomerate. The joints between the larger blocks are freely packed with small stones and are pointed with soft brown mortar. There is no trace of floor slabs; but the floor of much of the new section consisted of dressed bedrock. Several of the marble cover slabs remain in place. They too are of re-used blocks and include, for example, three large lids from sarcophagi. Though on the plan the new drain may seem to have occupied a great deal of the very limited space now available for the roadway between the Tholos enclosure and the Middle Stoa, one must remember that the pedestrian was scarcely conscious of its existence. When first laid, the cover slabs

[99] The excavation of Sections B′, Γ, and NN to the south of the Tholos has shown that the drainage in the upper reaches of the valley was canalized at an earlier time, as early probably as the fifth century before Christ; though it is doubtful whether any part of the West Branch of the Great Drain was covered with stone slabs before the Hellenistic period.

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were approximately flush with the adjoining street surface, and before the end of classical antiquity they were buried beneath as much as 1.00 m. of accumulated road gravel. In places the slabs are scored by wheel ruts.

The Doric Propylon

It has already been observed that the line of the West Branch of the Great Drain was deflected largely to make room for a monumental gateway across the



Fig. 83. West Branch of Great Drain (Later Course) and Doric Propylon, from Southwest

thoroughfare that led westward from the narrow south square of the Market Place, between the Tholos and its neighbor to the south, and so to the top of Kolonos Agoraios. Most of the foundations, including half the euthynteria, remain in place, and enough of the superstructure has been found in the neighborhood to permit of the reconstruction of the tetrastyle Doric structure illustrated in Figs. 63 and 85.

The foundation was boldly set in the old channel of the drain. Beneath the euthynteria it consists of a maximum of three courses of conglomerate blocks. The euthynteria is of heavy re-used poros blocks, carefully set but unclamped. As will be clear from the section (Pl. II, Section EE), the ground level to the east of the building agrees with the top of the cover slabs of the new drain. The position of the first step on the east front and on the ends is given precisely by setting lines on the euthynteria. The column spacing indicated by the preserved cornice and architrave

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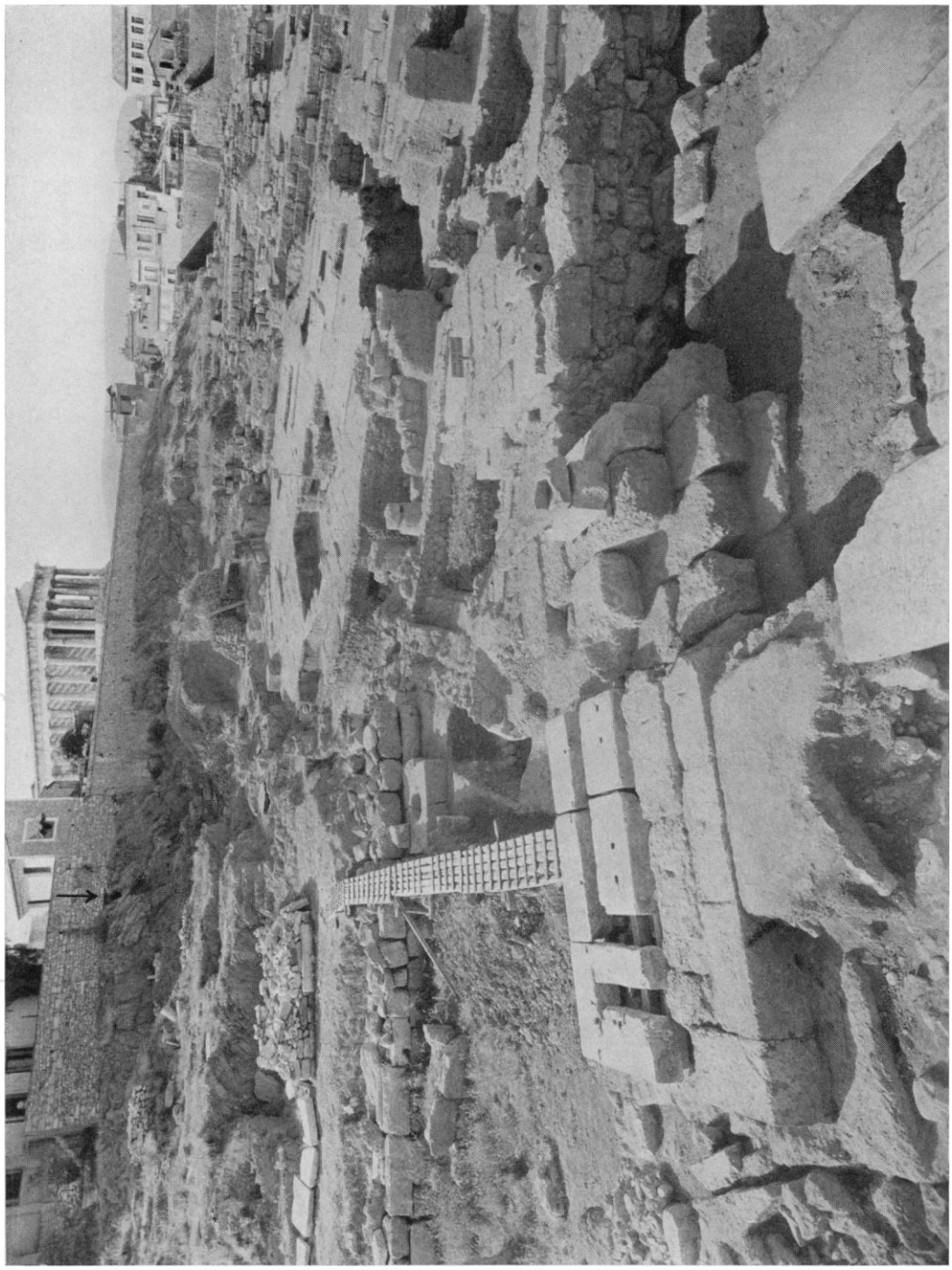


Fig. 84. Tholos from Southeast, Doric Propylon in Foreground
(Arrow on Modern Wall Indicates Mouth of Water Tunnel. p. 102)

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blocks allows of only two steps. Of the steps there remain four (Inv. Nos. A 138, 139, 143, 144) and a fragmentary fifth from the lower series, two (Inv. Nos. A 140, 142) from the upper (Fig. 86). These blocks were found in the curb of the modern street immediately above the foundation. They are of Hymettian marble and were probably cut originally for this building.[100] The blocks of the lower step were clamped to one another and to their backers, but were not dowelled; those of the upper step were not clamped but were secured by channel dowels to the course beneath. The

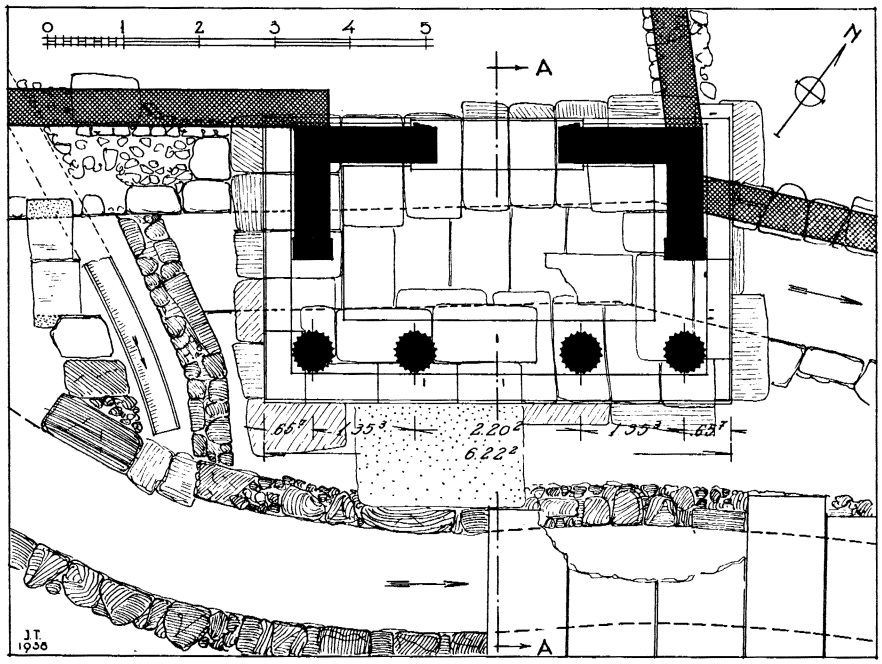


Fig. 85. Doric Propylon, Restored Plan. 1:100

treatment of the back edges of the stylobate blocks shows that the building was floored with marble slabs.

The two surviving blocks of the stylobate retain each the impression left by a Doric column with twenty flutes, secured by two dowels. One of the blocks is from a corner of the building and the mark of the column falls on the corner of the block. A prostyle arrangement is thus assured for one face of the building. Since such a scheme is excluded on the west front by the position of the joining enclosure wall, the corner stylobate block must be kept on the east side, and, as is clear from the arrangement of its pour channels, at the northeast corner. The second stylobate block is shown by its precise correspondence in width and the condition of its surface to have adjoined the south side of the first. The use of columns on the west front,

[100] From the drawings one might suspect two series of clamp cuttings on two blocks of the lower course; the outer cuttings, however, were begun by error and were left unfinished.

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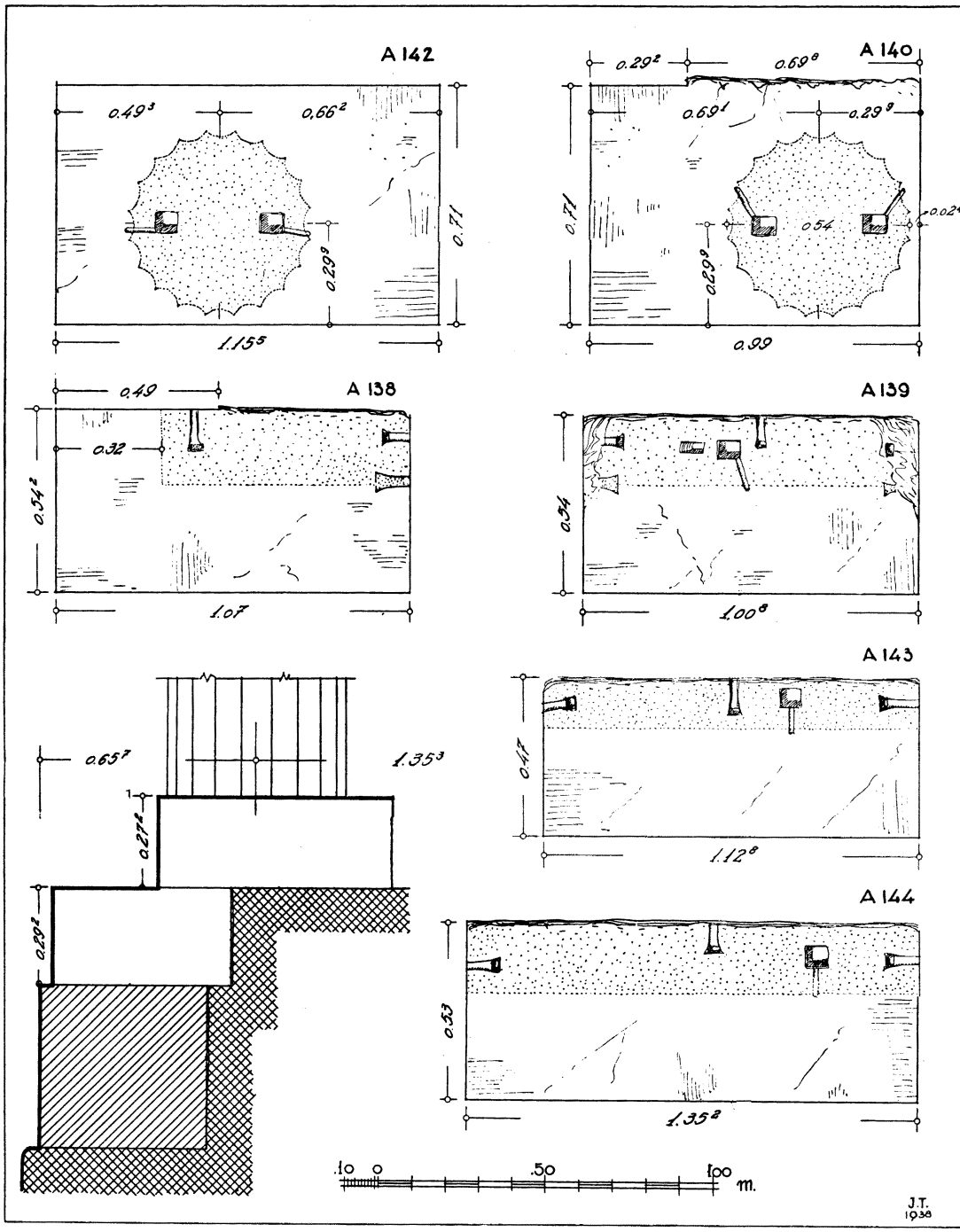


Fig. 86. Steps of Doric Propylon. 1 : 20

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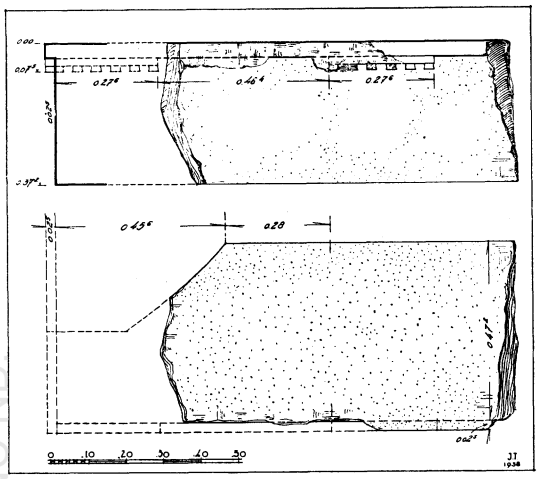


Fig. 87. Inv. No. A 743. Architrave Block from Doric Propylon. 1:20

even between antae, is made highly improbable by the narrowness of the foundation, and consequently, in the restoration, this side has been closed with a wall. Of the columns themselves nothing has yet been found.

A large fragment of a corner architrave block was found deep in the cellar foundations of a modern house just to the north of the Propylon (Inv. No. A 743; Fig. 87). It is of hard grey poros; its surface is finished with the claw and retains traces of white, marble-dust stucco. Since its soffit was finished to be visible, the block may be assigned to the east front of the building, its southeast corner.[101]

With these architrave blocks and with the Propylon may be associated one practically complete cornice block (Inv. No. A 742, Fig. 88) and a small fragment from the corona of another that had been incorporated in the foundations of the late Roman house to the east of the Tholos. They are of granular, brown, perhaps Aeginetan poros and retain traces of white, marble-dust stucco. On the top of the better preserved block are cuttings for rafters and for ⌐ clamps. Considerable variations will be noted in the dimensions of mutules and viae. Roughly cut in the left end of the block is a mason's mark, a delta. The style of the cornice block, obviously much earlier than the date of the foundations of the Propylon, combined with the presence of the mason's mark, suggests that the block was re-used in the Propylon. Cornice block and architrave are closely similar in workmanship and may well derive from the same earlier building. The discrepancy in material need not stand in the way: the grey poros was used in the architrave for its strength, the brown poros in the cornice for its lightness. The stucco, of course, made both look alike.

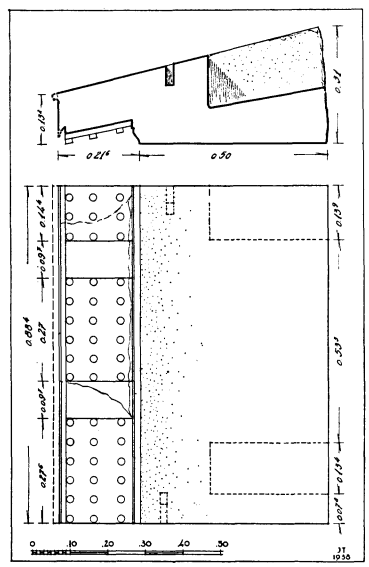


Fig. 88. Inv. No. A 742. Cornice Block of Doric Propylon. 1:20

[101] A small fragment of an architrave (Inv. No. A 744) found in a late Roman context to the northeast of the Tholos resembles the present piece so closely in material and workmanship that it may be assigned to the same building. Its regula, however, measures (2 × 0.147 =) 0.294 m. as compared with 0.276 m. of the larger fragment.

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The preserved blocks provide sufficient data for a reasonably certain and precise restoration of the arrangement of the columns (Fig. 85). The length of the building on the euthynteria may be measured directly as 6.222 m. The width and position of the lower step and the position of the outer columns are known, so that the distance from the edge of the euthynteria to the center of the outer columns may be calculated directly as 0.657 m. The interaxial spacing of the two outer columns, moreover, is given by the two preserved and adjoining stylobate blocks as 1.353 m. This admits of a two-triglyph arrangement above the outer columns, the only uncertain element being the relation of the perpendicular of the outer face of the frieze to the base of the columns. Between the centers of the two inner columns there remains an interval of 2.202 m. If we take the width of the triglyph as 0.27 m., the width of the metope as (0.27 m. + 0.097 m. + 0.097 m. =) 0.464 m., we find that this space lends itself perfectly to a three-triglyph arrangement in the frieze above: (3 × 0.27 m.) + (3 × 0.464 m.) = 2.202 m. The result is a broad and practical central opening. A width of five triglyphs plus four metopes across the ends of the building is found to agree perfectly with the indications for the placing of the toichobate along the west side and with the position of the abutting enclosure walls.

On passing through the propylon just described and on skirting the south side of the Tholos, one made his way up the steep shoulder of Kolonos by the help of a stairway. There remain only the dressed beddings for four steps of stone or marble. On the shoulder of rock above the steps, one may distinguish the carefully cut bedding for the foundation of a small rectangular building which can scarcely have been anything but a second roofed gate (Pl. II, Fig. 63). Its presence here, so close to the other propylon, emphasizes the importance of this line of traffic and at the same time the necessity for controlling access to the area south of the Tholos. The further course of the roadway toward the hilltop cannot yet be fixed, though some trace of it may be recovered on the removal of the modern offices from the brow of the hill.

The Chronology of the Later Changes

The construction of the Doric Propylon followed immediately on the re-alignment of the drain; the new enclosure wall of the Tholos was carried up against the foundations of the Propylon; and, finally, the Tholos Fountain was placed with its back against this new wall. A word now as to the absolute chronology of these events. The original course of the Great Drain both above and below the Doric Propylon was found in a sorry state: choked by its own broken and tumbled cover slabs and by a great mass of water-washed sand and gravel (Fig. 89). This situation implies some violent disturbance and a subsequent period of neglect before the change in the course of the drain. The material recovered from the gravelly filling of the old course should be significant for the chronology of these events. Of the numerous coins from the gravel the latest appear to be early examples of the Athenian series of imperial

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times, a series which has been shown to begin in all probability *ca.* 30 B.C.[102] The stamped amphora handles include a few of the third and early second centuries before Christ, but most of them are of the late second and early first century before Christ.

The less durable household pottery is of a more limited period. In view of its interest for this problem a few representative pieces are presented here. They include some of the latest specimens (Fig. 90).

a. Inv. No. P 13,307. Black-glazed plate. Height, 0.061 m.; diameter, 0.25 m. Thickened rim with angular profile. Thin black glaze fired red in the middle of the floor through stacking.

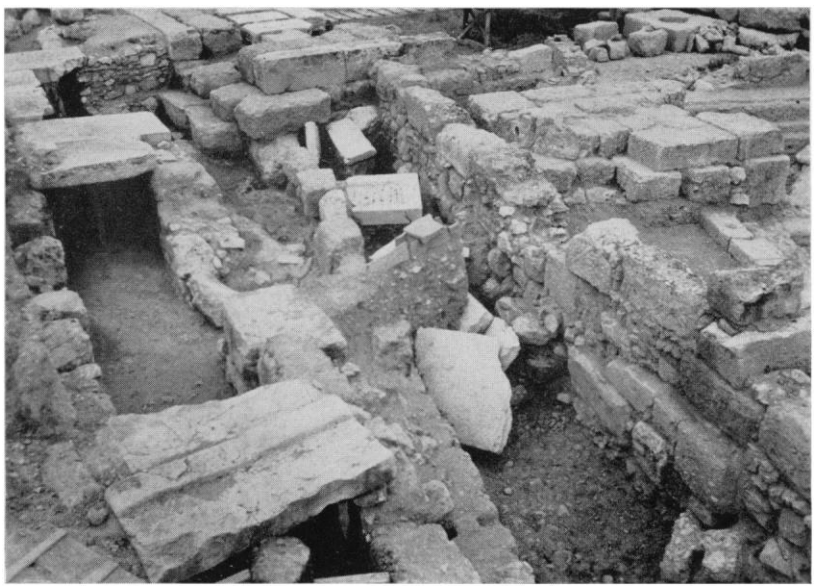


Fig. 89. West Branch of Great Drain, Showing Its Two Courses, from Northeast (cf. Fig. 82)

b. Inv. No. P 10,723. Fusiform unguentarium. Height, 0.144 m.; diameter, 0.026 m. Grey clay with three encircling bands of white paint.

c. Inv. No. P 13,306. Unglazed pitcher. Height, 0.192 m.; diameter, 0.168 m. Round mouth; strap handle; gritty brown clay.

d. Inv. No. P 10,835. Mould for Megarian Bowls. Diameter of rim, *ca.* 0.19 m. Intended for bowls of long-petalled variety with a band of beading above the tips of the petals.

e. Inv. No. L 3137. Lamp of Broneer's Type XII. Height, 0.033 m.; diameter, 0.062 m. Angular profile; transverse bars on shoulder; unpierced knob on right side. Mould made. Covered with thin brown glaze. Cf. Broneer, *Corinth*, IV, 2, pp. 147 f.

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[102] On the Athenian coinage of the imperial period cf. Josephine P. Shear, *Hesperia*, V, 1936, pp. 285 ff. Of the coins from the drain that can be identified and dated even approximately, a hundred and ten belong in the fourth or third centuries before Christ (Athens, other Greek cities, Hellenistic rulers, leagues); twenty-three are of the Athenian New Style of *ca.* 229-30 B.C.; nine are of the Athenian cleruchy in Delos to be placed after 166 B.C., and four are of the Athens Imperial series.

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Close parallels for all the vases illustrated here are to be found in Group E of the Hellenistic pottery which was published in *Hesperia*, III, 1934, pp. 392 ff. The material from the drain may for the most part be placed somewhat later in view of its inferior quality and more debased shapes. It has been suggested that Group E represents the rubbish thrown out from a house that was destroyed or abandoned in the disturbance which followed on the siege of 86 B.C. We may, then, associate the damage to the West Branch of the Great Drain with the same event and we may suppose that the channel remained in a ruinous state for some years thereafter, gradually to become choked with gravel and refuse. The coins of Athens of imperial

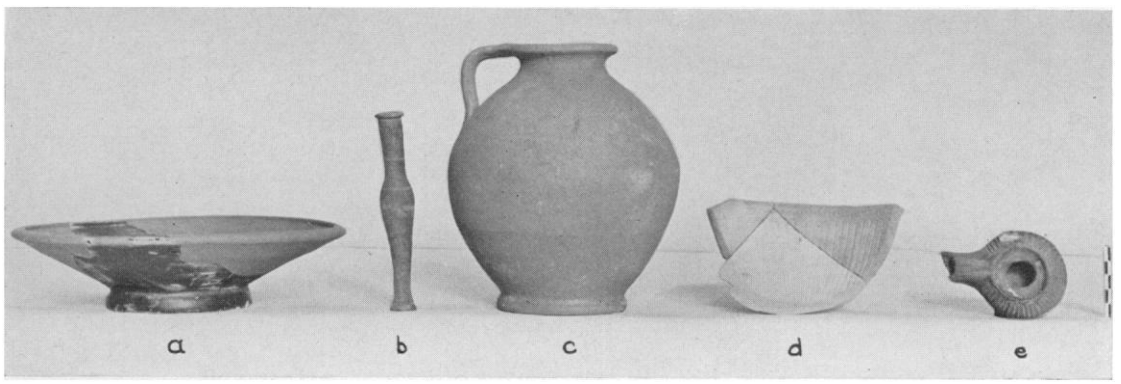


Fig. 90. Material from Gravelly Filling in Earlier Course of West Branch of Great Drain

times show that this process continued until at least 30 B.C.; eventually the mouth of the original channel was sealed by the earth thrown up in the digging of the new.

The material from the footing trenches of the Doric Propylon and of the Tholos Fountain included nothing later than that from the gravelly filling of the original course of the drain. It would seem desirable, therefore, to date those buildings soon after 30 B.C., i. e., to some time in the Augustan era.[103]

HOUSE OF LATE ROMAN DATE TO THE SOUTHEAST OF THE THOLOS

After the final abandonment of the Tholos, the area would seem to have lain unoccupied for perhaps a century. In this interval the ground level to the east and southeast of the round building rose 0.50 m. to 1.00 m. Much of this accumulation consisted of silt left by the floods that must have occurred frequently after the main

[103] The sarcophagus lids found in the covering of the new course of the drain were presumably brought from damaged tombs of the cemetery outside the Dipylon, an area which suffered severely in 86 B.C. To this same occasion we may assign the use as cover slabs of several grave stelai and marble inscriptions which have been found above the main course of the Great Drain.

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drains ceased to be cared for and kept clear. Eventually a house of some size was erected to the southeast of the remains of the Tholos (Fig. 91). From the plan (Fig. 92) it will be observed that three of the walls of the new building lead up to the periphery of the old. In no case, unfortunately, is an actual junction preserved. But, since no trace of a continuation of these walls has been found within the circle of the Tholos, we may presume that the southeastern part of the Tholos wall was still



Fig. 91. House of Late Roman Period to Southeast of Tholos, General View from Northeast

standing or was rebuilt on its old line to receive them. The orientation of this, the latest ancient building on the site, was obviously fixed like that of its predecessors by the line of the valley, or rather, by the line of the important thoroughfare which must still have continued to follow the bottom of the natural depression between the hills. The roadway was more persistent than the man-built drains, for the northeast corner and much of the southeast wall of the house were laid in the West Branch of the Great Drain, proving that it had been abandoned and almost forgotten. Not entirely forgotten, because two small drains led out from the house and poured their waste into the ancient cloaca, the loosely filled channel of which must have been known to absorb and carry away water.

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The house was found in a very mutilated state, for it had been much disturbed to its lowest foundations by the cutting for wells of the Turkish period and by the sinking of modern cellars. For short lengths in the midpart of the building its walls still stood a metre above the floor; for much of their length they had been stripped away to the bottom of the foundation trenches. In seven of the rooms some part of

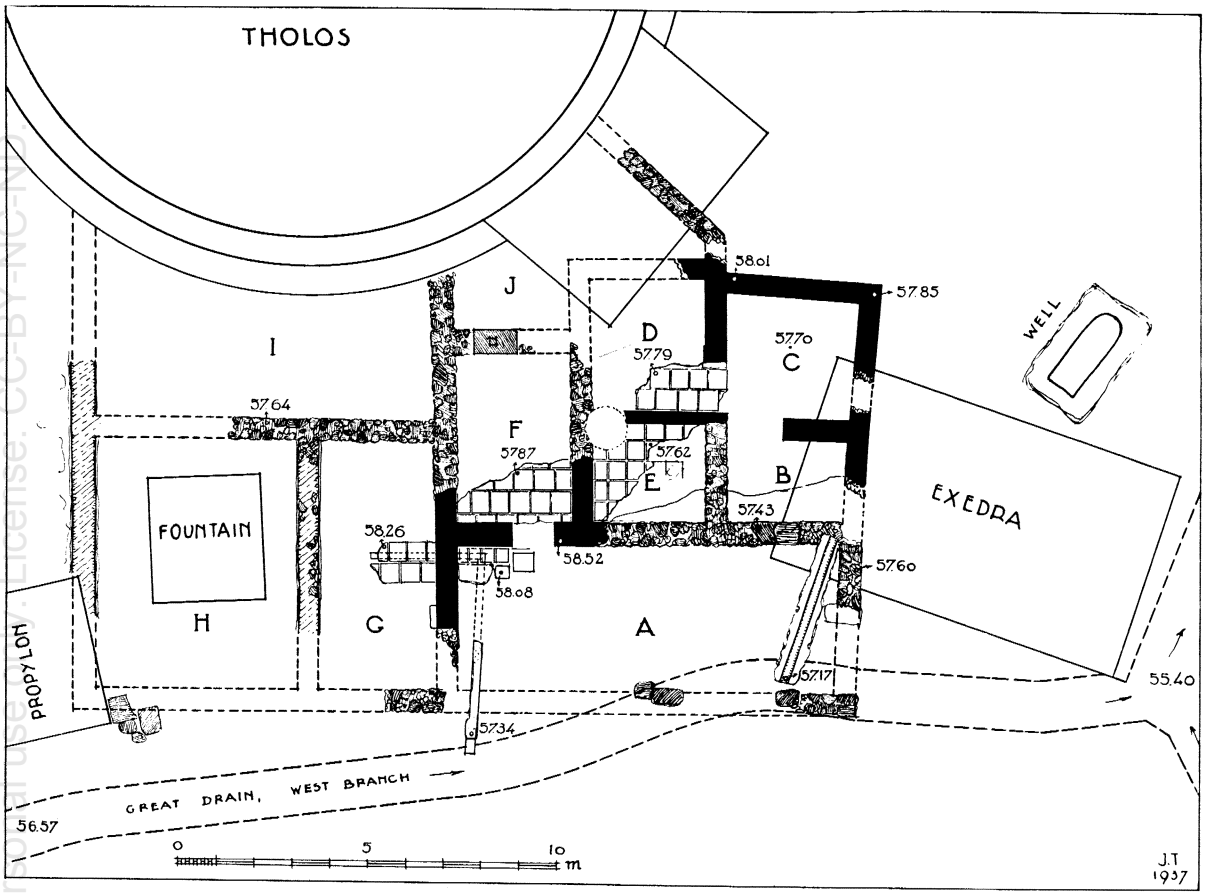


Fig. 92. House of Late Roman Period to Southeast of Tholos. 1:200

the ancient flooring was found in place. The fragmentary condition of the building mitigated the compunction we felt in entirely removing it in order to permit the more effective investigation of the underlying, earlier foundations.

The plan of the house is simple and irregular. It had overall dimensions of *ca.* 16 m. × 21 m. and comprised at least ten rooms of varying shape and size. Those rooms, however, that adjoined the Tholos (I and J) may more probably have been courtyards than roofed apartments. It has been impossible to fix the place of any outside door; for room-to-room communication three doorways are indicated on the

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plan; in no case did they retain traces either of thresholds or of door fastenings. Rooms B and G of the house were served by drains, both of which made their way to the West Branch of the Great Drain *via* the large northeastern room, A (Fig. 92).[104]

The walls were built of rubble stone work that included many fragmentary inscriptions and broken ancient building blocks bound with strong grey lime mortar (Fig. 93). They were carried down in general to the firm surface of the floor of the ancient square, a depth of 0.50 to 1.00 m. below the floor level of the house. Their average thickness is 0.60 m. The reveals of the doorways between Rooms A and F were strengthened by more regular construction in burnt brick (Fig. 93).[105] Of the wall plaster much survived from a backing coat with striated surface, very slight traces of an unpainted finishing coat. Both layers were thin, of grey and crumbly lime plaster.

Rooms D, E, F, and G retained parts of their final flooring of heavy square tiles of terracotta bedded loosely on earth (Fig. 93).[106] The floors of Rooms B and C were rudely surfaced with broken roof tiles of Laconian type. In Rooms A, C, D, and G the wall plaster ran down below the level of the latest floor a depth of 0.10 to 0.20 m. to an earlier floor of hard tramped earth.

Together with the débris from the fallen walls that overlay the final floor of the house were found numerous broken roof tiles doubtless from the building itself. They are of the common Laconian type.[107]

For the dating of the house, effective *termini* are provided by the pottery and coins found beneath and between its floors. The fragmentary pottery and lamps from under the original floor are of the fourth and fifth centuries after Christ. The evidence of the coins agrees. The latest among them are so-called Vandal pieces with the monogram of Anastasius I (491-518 A.D.), and four of these were found in significant places. The original construction, therefore, cannot antedate the turn of the fifth and sixth centuries; it is probably little if at all later. A coin of Justin II (565-578 A.D.) found between the first and second floors of Room A is significant for the date of the upper floor. The raising of the floor level in so many of the rooms may well have been occasioned by some damage to the house as a whole, conceivably by fire. So much is suggested by a mass of burnt débris that was found some 7 m. to

[104] The drains were floored with large concave roof tiles bedded on lime mortar and were walled with rubble masonry. Of the southern only the mortar bedding remains.

[105] The bricks (Inv. No. A 736) measured 0.42 m. × 0.21 m. × 0.03 m. and were laid in mortar 0.04 m. thick.

[106] Tiles of two sizes occur, the one (Inv. No. A 737) measuring 0.305 m. to the side, the other (Inv. No. A 738) 0.515 m., each with a thickness of 0.03 m.

[107] One of the better preserved rain tiles (Inv. No. A 735) preserves its original dimensions: length, 0.80 m.; width at narrow end, 0.35 m.; width at wide end, 0.415 m. They are of coarse red clay, unglazed.

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the northwest of the house: ash, charcoal, broken pottery and glass, scraps of metal, bones of animals, etc. Among the rubbish lay twenty-four coins, the latest of which were eleven of Justin II (565-578 A.D.) and one of Tiberius II (578-582 A.D.).

Further light on the history of the house is furnished by a well some 12 m. deep that was cut immediately to the north of the building and presumably served as the water supply of the house in its later period. The water jars and other pottery that accumulated in the shaft during its original period of use may be dated roundly in



Fig. 93. House Southeast of Tholos, Detail of Room F, from West

the seventh century after Christ. Subsequently the upper part of the well would seem to have collapsed; the shaft was lined with massive masonry to a depth of 6.50 m. This second period of use may be dated from the material found in the lined part of the shaft to the tenth and eleventh centuries after Christ. Between the two active periods of the well would seem to have intervened a long period of disuse, from which may be inferred also the abandonment of the house and the desolation of the area. A limited amount of pottery found among the débris on the upper floor of the house points to the same conclusion, viz., that the house continued in use into the seventh century after Christ and then became ruinous.

No satisfactory evidence exists for the identification of the building. Its rela-

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tively ambitious plan, its careful construction, and its proximity to the Tholos might suggest that it was a public building and that it had assumed in whole or in part the functions of the Tholos. But the chronological gap between the two buildings argues to the contrary. Till further evidence is forthcoming, we may more safely think of the later building as a private house of unknown ownership.

CHRONOLOGY OF THE THOLOS

The construction of the Tholos must, obviously, be dated after the final demolition of the archaic buildings beneath and around it. We have seen that those buildings were reconditioned after 479 B.C. and continued to be used for some time, probably not for long. The limited amount of pottery found in the contemporary filling within and without the Tholos and in the broiling-pits to the north (filled in when the Tholos was built) can be little later than that from the *Perserschutt*. It affords a *terminus post quem*.

A welcome *terminus ante quem* is given by a mass of broken pottery which was found in a pit (*ca.* 1.00 m. in diameter, 0.30 m. deep) 4 m. to the southeast of the Tholos (Pls. I, II, Section CC). This pit had been cut down through the new ground level established when the Tholos was built; after being filled it was covered over with a layer of clean brown clay. The fact that the rubbish was thus carefully disposed of within the precinct of the Tholos leaves little doubt that it came from the building itself. More than one of the pieces is blackened by fire. We may suppose that the damage was caused by some slight conflagration within the Tholos or its Kitchen. A representative selection of the material is illustrated in Fig. 94.[108]

a. Inv. No. P 10,812. Black-glazed kylix. Height, 0.07 m.; diameter, 0.131 m. Rim slightly inset; reserved bands around edge of base, on its top, and on its bottom. Fragments from four other such cups are incised on the floor each with the ligature ⍋ = ΔΕΜΟΣΙΑ.

b. Inv. No. P 10,822. Round-mouthed oinochoe. Height, 0.185 m.; diameter, 0.17 m. Thin brown glaze over all save the handle and a band around the lower part of the neck.

c. Inv. No. P 10,819. Black-glazed olpe. Height, 0.136 m.; diameter, 0.07 m. Underside flat; black glaze over all.

d. Inv. No. P 10,821. One-handled bowl. Height, 0.045 m.; diameter, 0.102 m. Handle restored. Thin brown glaze on inside, in a band on the outer wall, and in circles on the underside.

e. Inv. No. P 10,817. One-handled bowl. Height, 0.045 m.; diameter, 0.118 m. Black glaze over all.

f. Inv. No. P 10,818. Askos. Height to lip, 0.043 m.; diameter, 0.081 m. Handle restored. Central tube. Black glaze over all, save on underside.

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[108] For comparison with this and the later "kitchen dumps" of the Tholos note the masses of broken pottery found outside and close by the entrance of the Arsinoeion of Samothrake (Conze-Hauser-Niemann, *Archaeologische Untersuchungen auf Samothrake*, I, pp. 8 f.; pl. LXVII). The point should be of interest in determining the use of the Arsinoeion.

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g. Inv. No. L 3138. Lamp. Height, 0.025 m.; diameter, 0.105 m. One nozzle restored. Central tube. Black glaze on inside, on nozzle, and in a divided band on the rim.

This group of serviceable table ware finds a perfect parallel in a larger mass of pottery which was removed from a well beneath the Stoa of Zeus in 1935 and published by Miss Talcott in *Hesperia*, V, 1936, pp. 333-54. The correspondence both in variety of types and in shapes is striking, and, though no actual join could be established, the feeling persists that part of the rubbish from the Tholos was used to fill the well. This hypothesis would happily explain the free use on the vases from



Fig. 94. Vases and a Lamp from Rubbish Dump in Tholos Precinct

the well of the ΔE ligature, which was resolved by Miss Talcott as ΔEMOΣIA and associated with the public tables. The vases from the well have been assigned to the period 480-460 B.C. Additional confirmation is given by a fragment of a red-figured kantharos with the Judgment of Paris found together with the plain ware in the pit by the Tholos (Fig. 95). It clearly belongs early in the decade 470-460 B.C.

Inv. No. P 4952. *Arch. Anz.*, 1937, col. 94, fig. 3; *Illus. London News*, Sept. 11, 1937, p. 437, fig. 21; *A.J.A.*, XLII, 1938, p. 6, fig. 6. Four fragments of the wall, the largest from the rubbish dump, the rest from a filling of the fifth century before Christ to the south of the Tholos. Height of largest fragment, 0.115 m.; estimated diameter at rim, 0.25 m.; thickness of wall, 0.006 m. A trace of the spring of the rising band-handle remains on the inner edge of the rim at the extreme right of the largest fragment. For the shape cf. the British Museum kantharos E 155 (*C.V.A.*, III I c, pl. 33, 2).

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To Paris seated, Hermes presents Hera and Athena; Aphrodite, broken away, was presumably heralded by the fluttering Eros whose wing and toe tips remain. Added clay with traces of a red overwash for the leaves of the tree; clay-colored paint for the lacings of Paris' sandals, for the strings of Hermes' cap, and for the leaf-like ornaments on Athena's diadem; red for Paris' hat; dilute glaze for the rocks; brown inner drawing on Paris' arms and legs; relief contour nearly complete.

The external evidence thus indicates that the Tholos was built shortly after 479 B.C., shortly before *ca.* 460 B.C. We have already observed that its original roof

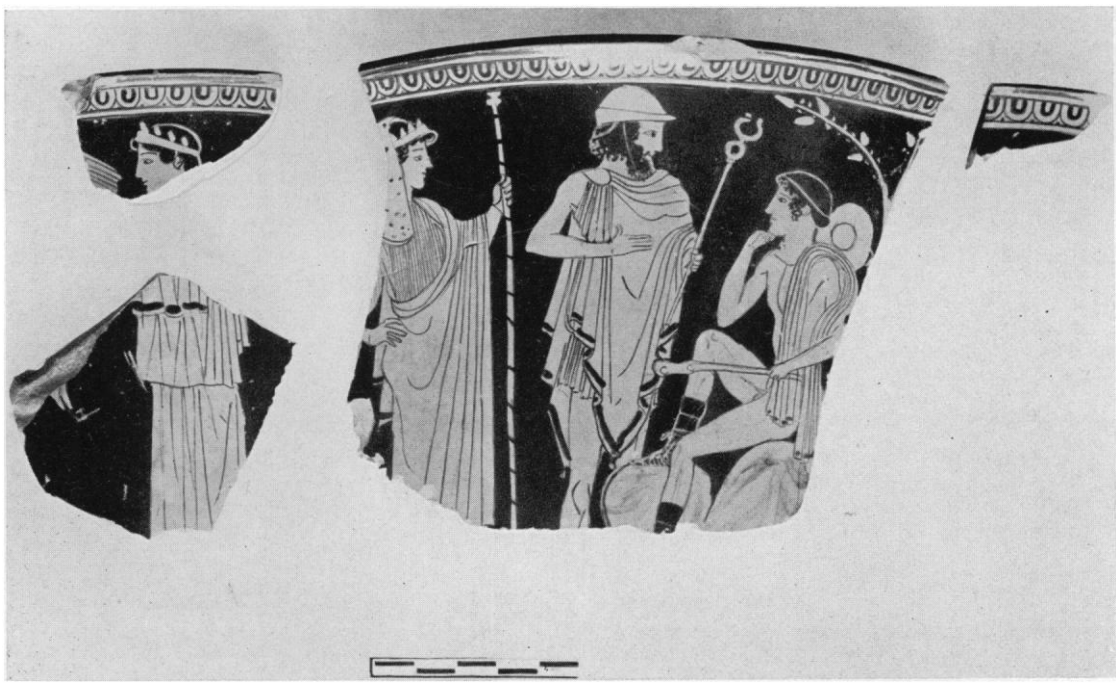


Fig. 95. Inv. No. P 4952. Red-figured Kantharos, the Largest Fragment from a Rubbish Dump in Tholos Precinct

tiles are painted in the style of *ca.* 470 B.C. and there we may date the building. The Tholos must then be one of the first buildings put up by the state after the walls of the city had been restored. In the utter economy of its construction it stands in striking contrast with the Periclean buildings erected with the ampler revenues of the next generation.

The dump of broken pottery discussed above suggests, as already noted, that the building suffered some slight damage soon after its erection. For this event we have no other evidence.

A more serious disaster occurred later in the century. On all sides of the building, above its original ground level, was found a mass of débris, 0.10 m. to 0.40 m. thick, containing many broken roof tiles of the Tholos series, some of them blackened by

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fire. In the débris were found also chips from the breaking up of poros column drums suspiciously like those of the original Tholos. Along with this destruction débris were found masses of chips from the working of Hymettian marble, presumably for the blocks of the stringcourse which would seem to have been inserted in the wall in the course of the reconstruction that followed. It would appear, therefore, that wall, columns, and roof suffered severely in consequence, we may suppose, of a general conflagration which must have destroyed both the round building and its kitchen.

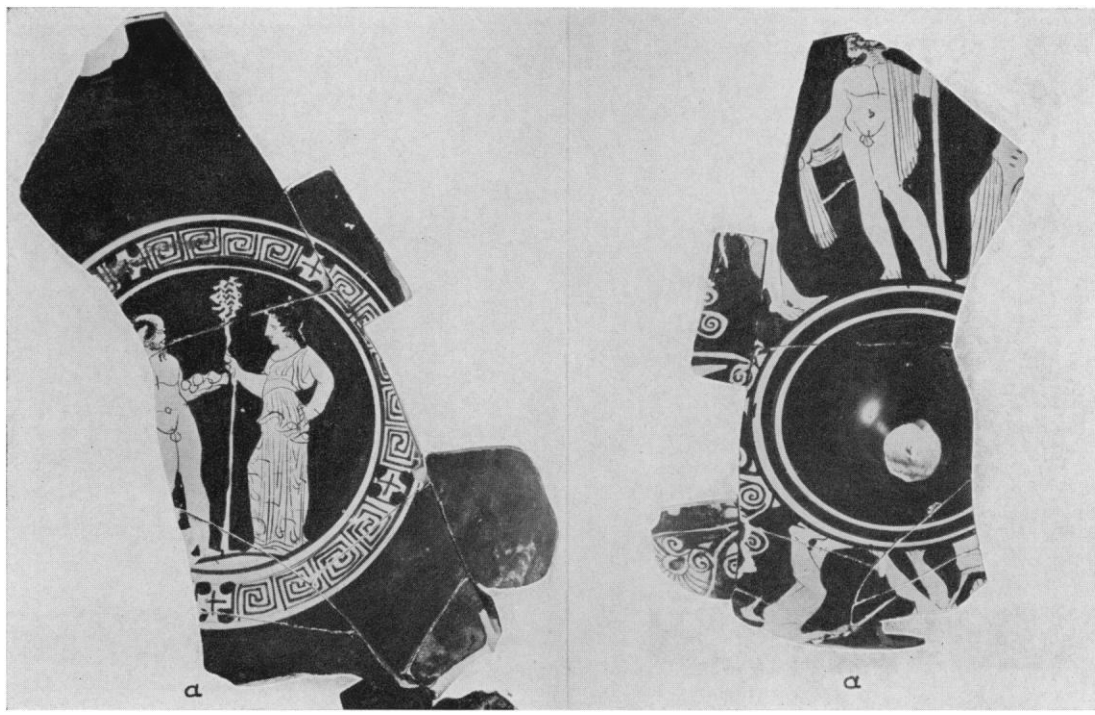


Fig. 96. Inv. No. P 10,797. Kylix from Rubbish Dump of Tholos

For the more precise dating of this destruction we may refer to the largest single mass of débris, viz., the rubbish which was deposited in the crater-like mouth of the abandoned well in the Tholos precinct (p. 96). Of the many vases recovered from this place five of the figured pieces, including the apparently latest, are illustrated in Figs. 96, 97. It is hoped that the remainder may someday be presented elsewhere as a group.

a. Inv. No. P 10,797. Red-figured kylix. Fig. 96.
Diameter, 0.235 m.
The foot broken off; most of the rim, with much of the sides and part of the medallion missing.

I. Satyr and maenad. He holds a tray of fruit in his left hand; she wears a high-girt chiton with long overfold, and grasps a thyrsos in her right hand. Meander border interrupted by cross squares with large glaze dots at their corners.

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A. Parts of three figures, Dionysos between a satyr and a maenad. The figure of the god, standing facing, looking left, is complete except for the back of his head and his upper left arm with the hand holding the thyrsos. He is ivy-crowned and nude save for a folded cloak which falls across his left shoulder and is held in his extended right hand. At the left, the legs and tail of a satyr; at the right, part of the figure of a maenad in chiton and panther skin.

B. Parts of two figures remain; next the palmette handle ornament, a satyr, left, his right arm outstretched, in his left hand a thyrsos. At the center, the legs and a trace of the head of a second figure, also holding a thyrsos, the butt end of which rests on a bench or box. No relief contours; the hair of Dionysos and of the satyr on the interior runs to brown, and there is a little brown inner drawing; considerable remains of red wash on the reserved surfaces.

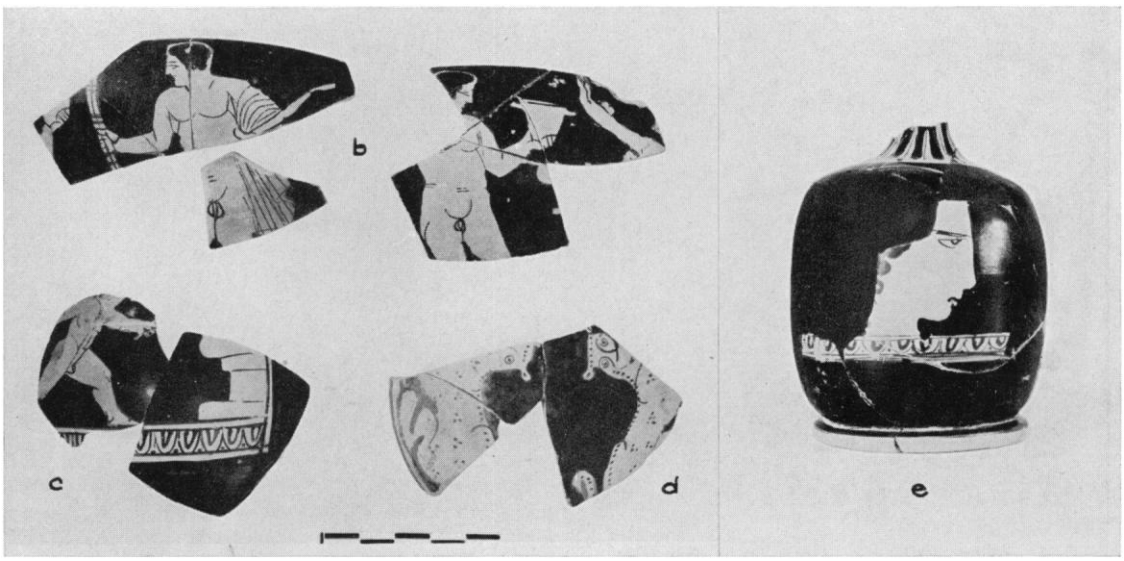


Fig. 97. Sherds from Rubbish Dump of Tholos

An echo from the time of the Pothos painter and the Dinos painter; a muse, the second from the left on a bell krater in Heidelberg, by the former (*Att. V.*, p. 454, 19; Kraiker, *Die rotfigurigen attischen Vasen*, no. 208, pl. 41) gives a good model for our maenad's drapery; the heads of Dionysos and of the satyrs cling to the Dinos painter's formula.

About 410 B.C.

b. Inv. No. P 10,798. Red-figured kylix. Fig. 97.

Estimated diameter, *ca.* 0.22 m.

Three fragments (*a-c*) of rim and wall; nothing of the interior medallion remains.

Fragment *a* shows a nude youth, standing facing, looking right, and extending a skyphos towards a dancing figure of whom only an outstretched arm remains. Fragments *b* and *c*, from the opposite side of the cup, give parts of a similar youth, nude save for a cloak thrown over his left arm. He looks left toward a figure (hand only) who extends a skyphos, as in fragment *a*. In his right hand he holds a torch; in his bent left arm an elongated object, staff(?).

No relief contours; no brown inner drawing; traces of red wash on reserved surfaces.

Later fifth century. Beazley, in a note of October 14, 1937, assigns the fragments to the painter of Heidelberg 211 (Kraiker, *Die rotfigurigen attischen Vasen*, pl. 40), "very near the late painter of London E 777."

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c. Inv. No. P 10,799. Anthesteria oinochoe. Fig. 97.

Maximum width, 0.077 m.

Wall fragment from a typical toy jug.

A child, holding a narrow object (torch ?) in his extended left hand, runs right toward an altar. Egg-and-dot border below; brown wash inside; no relief contour.

G. van Doorn, in a note of June 7, 1938, places the piece in the neighborhood of 410 B.C.

d. Inv. No. P 11,765. Red-figured askos. Fig. 97.

Estimated diameter of top, *ca.* 0.10 m.

From the low domed top of a shallow-type askos; on either side a panther seated, with head facing. Poor dull glaze, in part fired red.

In all, six examples of "feline" askoi of this particular sort, all from the same shop and probably from the same hand, have been found in the Agora. Four of these (Inv. Nos. P 2804-7) are from the upper filling of a well near the Tholos, along with a quantity of very fragmentary pottery apparently the result of a thorough house-cleaning; the context is not later than the first years of the fourth century. Another (Inv. No. P 9427) was found in the lower filling of a well, on the slopes of the Areopagus, which contained a great variety of figured, glazed, and household wares of the last quarter of the fifth century, as late as the last decade. The upper filling of this well, sharply differentiated, comprised figured and stamped wares of the first quarter of the fourth; it thus provides a convenient *terminus ante quem.*

An askos from Rhodes (*Clara Rhodos*, VI-VII, 1932-3, p. 446, fig. 2, and p. 447), found with a lamp of Broneer's Type VI (*Corinth*, IV, 2, pp. 138 ff.), shows the shape to which our fragments belonged; contrast the later version as given in *C.V.A.*, Oxford, III I, pl. 48, 38, with its exaggerated flaring lip and (*ibid.*, pl. 45, 9) its elegantly stylized beak-faced panther.

Among the quantity of carelessly decorated shallow-type askoi found in graves and other deposits of the latest fifth and earliest fourth centuries throughout the Greek world, it may be useful to note that our creatures have a very short life. The pot-boy who made them, perhaps at a single sitting, might have been busy about 405 B.C.

e. Inv. No. P 11,764. Red-figured squat lekythos. Fig. 97.

Height to neck as restored, 0.096 m.; diameter, 0.078 m.

Handle and neck missing; no direct join between shoulder and body fragments; the walls filled out with plaster.

A large-scale head with long curling locks, in profile, right. Below, an egg and dot band; around the base of the neck, tongues.

No relief contour. Firm glaze, somewhat metallic; the lower edge of the ring foot and its underside reserved, the latter neatly moulded.

The absence of either coif or tiara, commonly represented on small head lekythoi (cf. Langlotz, *Griechische Vasen*, nos. 582, 583, pls. 208, 209) suggests that here the head may be male; compare the head of Apollo on a lid, slightly later, in Oxford, *C.V.A.*, III I, pl. 4, 6. For the treatment of neck and foot, see Langlotz, *op. cit.*, nos. 586, 587, pl. 209.

About 410-400 B.C.

These fragments include all the red-figure from the deposit, with the following exceptions: a krater fragment obviously earlier than any of the pieces illustrated; a few scraps of cups with handle palmettes in the manner of those shown; and a fragment from a cup medallion preserving part of a draped figure from a cup similar to *b* above. A number of lamps and of vases, both black-glazed and coarse, run closely parallel to the material from other and ampler Agora deposits of the last quarter of the fifth century. It will be noted that the figured fragments form a group closely limited in date, its boundaries, at most, the years between 420 and 400. The no less homogeneous context suggests that in the case of the latest-appearing pieces, such as *d* and *e* above, destruction must have followed hard upon acquisition.

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The evidence of the pottery would date the destruction of the Tholos to the closing years of the fifth century. We shall probably never be certain of the cause of the damage. A comparatively fragile building in and about which cooking was constantly being done, the Tholos was as liable as a private house to damage by accidental fires. It may be observed, however, that around the market square many ancient wells are now known to have been filled up at the end of the fifth century. The groups of pottery from them are remarkably homogeneous one with another and closely similar to the material from this Tholos dump. The abandonment of a well, cut, as the Agora wells invariably are, in the bedrock, was a serious matter, and in the case of the private houses implies an extraordinary disturbance in the household. The accumulating evidence suggests more and more clearly that this wide-spread desolation resulted from the confusion and proscriptions that attended the political changes at the end of the century.[109] One is tempted to ask whether the damage to the Tholos may not have occurred during some stormy meeting of the Boule in those violent years.

Reason was shown in the earlier report for dating the New Bouleuterion in the last quarter of the fifth century.[110] In the light of the new evidence, it seems possible that the construction of the new building was necessitated by damage done to the old at the time when the Tholos suffered. Or, if we suppose that work on the New Bouleuterion had begun slightly earlier, we may attribute the striking changes in its plan, to which repeated reference has been made, to the damage just noted.

The needs of the Boule must have required the speedy rebuilding of the Tholos. The archaeological evidence, slight as it is, points to the same conclusion. The pottery found with the working chips of the reconstruction is still of the late fifth or very early fourth century. And the stringcourse of Hymettian marble, which may safely be attributed to the reconstruction, is so closely paralleled both in its effect and in its working by the corresponding member of the Propylaia as to make improbable any great lapse of time between the building of the Propylaia and the rebuilding of the Tholos.[111]

A slighter disturbance of a generation later is attested by another dump of broken pottery which came to light inside the Tholos enclosure, some 5 m. to the southeast of the building, just to the west of the (later) fountain. A great cesspool had been sunk through the ancient pit in modern times, leaving only an edge of the dump. The pit would seem to have been round, with a diameter of *ca.* 1.50 m. and a depth of *ca.* 2.50 m. below the contemporary ground level. The little of the ancient

[109] Miss Talcott, who has conceived this explanation for the filling up of the wells, will develop it further in her forthcoming study of the groups of pottery from the wells of this period.

[110] *Hesperia*, VI, 1937, pp. 153 ff.

[111] One would gladly know whether Sokrates entered the original or the rebuilt building when he was summoned to the Tholos by the Thirty (Plato, *Apology*, 32 C).

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filling that remained was packed with broken black-glazed vases, undoubtedly from the shelves of the Tholos closets. A representative group appears in Fig. 98. They are of interest as illustrating the frugality which continued to mark the housekeeping of the state officials.

a. Inv. No. P 12,387. Kantharos. Height, 0.065 m.; diameter, 0.103 m.
Handles restored. Black-glazed all over. On the floor four free-standing stamped palmettes within a rouletted circle.

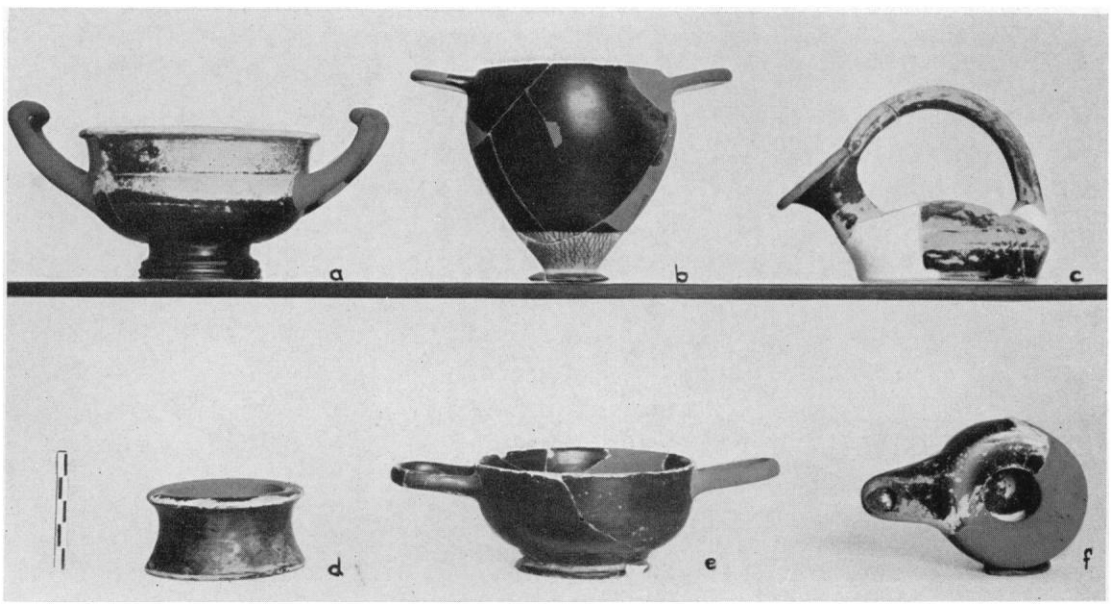


Fig. 98. Vases and a Lamp from Refuse Dump in Tholos Precinct

b. Inv. No. P 12,389. Skyphos. Height, 0.09 m.; diameter, 0.08 m.
Handles restored. Black-glazed inside and out, save in area of handles and in the band on the lower wall which is covered with cross hatching.

c. Inv. No. P 12,398. Askos. Height with handle, 0.083 m.; diameter, 0.087 m.
Black-glazed all over save on bottom.

d. Inv. No. P 12,397. Saltcellar. Height, 0.035 m.; diameter, 0.065 m.
Black-glazed all over.

e. Inv. No. P 12,383. Cup-kotyle. Height, 0.047 m.; diameter, 0.093 m.
Black-glazed inside and out; underside reserved with black circles. At middle of floor, three free-standing stamped palmettes.

f. Inv. No. L 3350. Lamp, Broneer's Type VI. Height, 0.034 m.; diameter, 0.06 m.
Rear part restored; handle missing. Black-glazed inside and out save on underside.

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This material finds close parallels among the later vases found on the floors of the houses of Olynthos that were destroyed in 348 B.C., and it may be placed with confidence in the second quarter of the fourth century.[112]

The lower filling of the southern of the two wells to the west of the Tholos (p. 100) yielded another mass of plain black-glazed pottery sufficient in bulk to suggest a violent disturbance at least in the domestic part of our building at a date perhaps a half century after the last, i. e., late in the third quarter of the fourth century before Christ.

After the next disturbance, which followed closely, no such careful provision was made for the disposal of the rubbish. As noted above (p. 59) vast quantities of broken pottery, ash, and charcoal were left lying on the floor of the Tholos itself. Much was thrown into wells and cisterns to the west of the Tholos (p. 100). Still more was dumped in the Tholos enclosure to the southeast of the building where it was found in an uneven layer at the appropriate level over much of the area. The refuse from all these places is of the same character and date. The great bulk of the pottery is plain black-glazed ware: kantharoi, skyphoi, plates, and saucers. Cooking equipment is represented by numerous but fragmentary braziers and casseroles. Much the commonest shape is a shallow saucer, very hastily turned on the wheel. The shape appears in two fairly standard sizes, one with a diameter of *ca.* 0.06 m., the other of *ca.* 0.11 m. The circumstances of finding leave no doubt that this pottery was used in the Tholos itself; once again it illustrates the strict economy in this department of public life.

Typical vases from the refuse of this period are illustrated in Fig. 99. The pieces *a* and *c* come from inside the Tholos, *b* from the southern of the two wells to the west of the Tholos.

a. Inv. No. P 13,240. Bowl with incurved rim. Height, 0.041 m.; diameter, 0.127 m. Black-glazed inside and out. On its floor are five free-standing palmettes within a rouletted circle.

b. Inv. No. P 4389. Casserole. Height to lip, 0.064 m.; diameter, 0.190 m. Flanged to receive a lid. Coarse red clay, unglazed.

c. Inv. No. P 13,243. Saucer. Height, 0.014 m.; diameter, 0.107 m.

---

[112] Cf. *Olynthus*, V: for the kantharos, no. 511, pl. 148; for the skyphos, no. 968, pl. 184; for the askos, no. 1076, pl. 192; for the saltcellar, no. 1042, pl. 189; for the cup-kotyle, nos. 542 ff., pls. 151 f.; for the lamp, Group 6, p. 271, pl. 198. This type of lamp, for which a date in the second and third quarters of the fifth century is proposed in the Olynthos publication, in Athens persists well down into the fourth century.

A closely similar group of pottery was found in the filling of the Temple of Zeus and Athena 75 m. to the north of the Tholos (*Hesperia*, VI, 1937, pp. 88 ff., fig. 46). A fragment of a public measure (Inv. No. P 3719) found with the pottery beneath the temple suggests that rubbish from the Tholos may have been used as filling by the temple builders.

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Flat base, slightly defined rim; thin brown wash. Lightly incised on the floors of three such saucers (Inv. Nos. P 3784, 4899, 10,810) are lists of vases and culinary equipment such as spits, hence shopping lists or kitchen inventories.

These pieces and the group as a whole find close parallels in several deposits of pottery found in the Agora together with coins of the turn of the fourth and third centuries. They are close also to the Groups A and B published in *Hesperia*, III, 1934, pp. 313 ff., pp. 330 ff., for which a similar date has been proposed. The shameful conduct in the Tholos is therefore probably to be associated with the political and military disturbances of that time, notably with the struggle between the forces of Kassandros and of Demetrios Poliorketes, in 307 B.C., then between

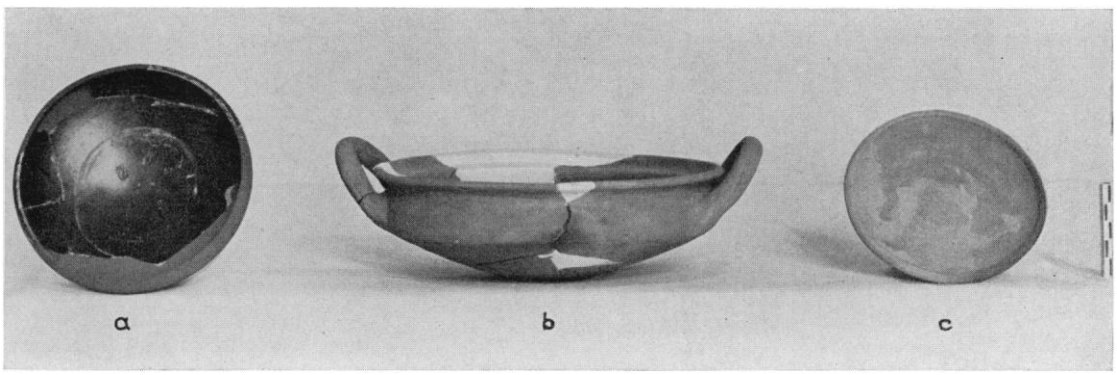


Fig. 99. Vases from Floor of Tholos and from a Well to the West

Demetrios and Lachares in 295-4 B.C. It may well be that guests less refined than the Athenian prytaneis were lodged in the Tholos on these occasions. There is no reason to believe that the round building itself was seriously damaged; but the abundant traces of repeated fires within the Tholos suggest that the Kitchen may have been ruinous and out of use.

The whole building, including the Kitchen, was probably put in order at the same time as its neighbors to the north, viz., toward the end of the first quarter of the third century. During the following two centuries, so far as we can gather from our records, the Tholos enjoyed peace and quiet.

Several indications attest another and a serious disturbance in late Hellenistic times. These various bits of evidence have already been considered separately and need be but briefly reviewed here. Poros wall blocks from the round building are incorporated in the foundations of a fountain which is to be dated probably in the Augustan period, certainly not earlier than the first century before Christ, nor much later (p. 97). Other blocks from the same series were used as underpinning for a

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fence or gate to the north of the Tholos and were there set down into Hellenistic levels (p. 81). A large piece of a block from the marble stringcourse of the Tholos was used as a cover slab on one of the terracotta drains of that building which lies at the level of the late Hellenistic period (p. 90). The Kitchen was certainly rebuilt at some time in the first century before Christ (p. 84). Perhaps the most specific evidence for the date of the damage is given by the study of the West Branch of the Great Drain. We have found reason to believe that it was damaged in the early first century before Christ and was neglected for long thereafter. This combination of evidence leaves little doubt that the damage was done by Sulla's soldiery in 86 B.C. One will understand that a building of comparatively frail construction standing so close to the point where the city wall was breached may have fallen an early victim to the impatient invaders. Or, if we have rightly restored a roof of bronze on the building as it was from *ca.* 400 B.C. onward, the besieged themselves may have begun the damage by stripping the roof for the sake of its metal.

For the date of the reconstruction of the Tholos we have no specific evidence, but civic needs must have called again for its speedy repair. We have found occasion to assign the Porch to an appreciably later date (p. 57). It may well be closely contemporary with the fountain in the Tholos enclosure and with the Doric Propylon to the south, and, together with them, may be counted as evidence of the recovery of material prosperity in Athens in the Augustan period. The laying of the mosaic floor has been placed about the middle of the first century after Christ; the more showy floor of marble slabs, as also the revetment of the walls, in the following century.

Still another disaster was in store for the building. As noted above (p. 54), the ring of concrete around its periphery indicates that the walls had at some time been demolished or weakened to a point where they required such reinforcing. A *terminus post quem* for the laying of the concrete ring is given by a mass of broken pottery through which the concrete was set in the southeast quadrant of the Tholos. This pottery is of the sort that is commonly found in the Agora in deposits of the second half of the third century after Christ. This brings us to the time of the next great catastrophe: it may be taken as reasonably certain that the Tholos, like its neighbors to north and east, suffered in the Herulian sack of 267 A.D.

Again we lack detailed evidence for the time of reconstruction. That no great interval elapsed may be inferred from the fact that the marble-slab floor continued in use into the latest period of the building's history. Nor was this last chapter long. The débris on the floor from the final collapse of the building included pottery and lamps of the turn of the fourth and the fifth centuries after Christ. The latest coins found with them are of Arcadius (395-408 A.D.). Supplementary evidence is provided by the well in the cistern to the west of the Tholos (p. 101). As we have seen, its filling showed a continuous sequence from the first century after Christ into the

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second half of the third, then a short break, then a period of renewed use which extended into the fifth century after Christ.

The Tholos as such was never rebuilt. After an interval of about a century the straggling house was erected to the southeast and in part above the ruinous foundations of the Tholos Porch. This long intervening period, as already observed, makes it altogether improbable that the later building served the same purpose as the old. What, then, became of the prytaneis at this later time? It may be recalled that the Metroon was rebuilt at least in part early in the fifth century after Christ. It is not at all impossible that it continued to be a public building.[113] Deep down in the third room from the south end of the Metroon (just to the north, that is, of the archaic Building D) are two long broiling-pits that were in service at the turn of the fourth and fifth centuries after Christ.[114] They are identical in scheme and closely similar in capacity to those that had once served the archaic predecessor of the Tholos. It is a fair conjecture that the prytaneis had moved north to spread their common tables once more precisely on the spot where they had begun to dine together a round thousand years before.

The rest of the story is soon told. We have seen that the house to the southeast of the Tholos was abandoned as early as the seventh century; the rebuilt Metroon and Bouleuterion probably went out of use as early if not before. The area of the Tholos, like most of the rest of the Agora, lay practically desolate until the tenth century. Coins of this century found deep down in the plundered foundation trenches of the Tholos indicate that much of its stone work was carried off at this period. Of the private houses for which these ancient stones must have been employed no intelligible remains exist in the immediate area of the Tholos. That sporadic habitation did persist in the region from the tenth century until 1932 is proven by scattered coins and pottery from numerous wells. The region is much exposed to wash from the neighboring hills, both on the west and the south, so that, when excavation began, accumulated earth lay to a depth of 4.00 m. above the latest floor level of the Tholos, 6.50 m. above the ground level of the house of the seventh century before Christ.

THE CULTS OF THE THOLOS

In late Roman filling, *ca.* 5 m. to the southeast of the Tholos and just to the northeast of the fountain, was found the small plaque of coarse-grained white marble illustrated in Fig. 100.[115]

[113] Despite doubts expressed in an earlier repo→ *Hesperia*, VI, 1937, pp. 198, 211, 217.

[114] *Loc. cit.*, pp. 197 f.

[115] Inv. No. I 4745. Height, 0.21 m.; width, 0.105 m.; thickness, 0.014 m.; height of letters, *ca.* 0.008 m. Smooth dressed behind. The lettered panel is bordered with a straight incised line and a series of drill holes which suggest that it once had an outer frame.

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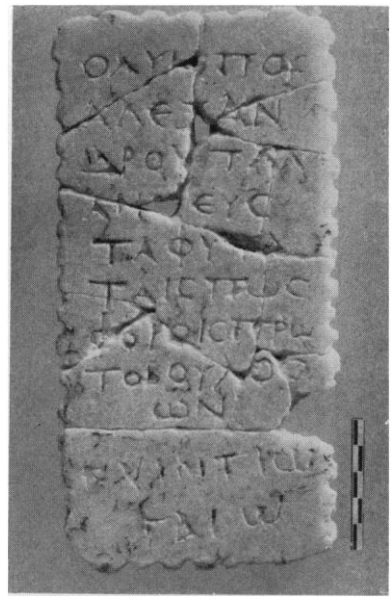


Fig. 100. Inv. No. I 4745. Dedication of Plants to the Phosphoroi

Ὄλυμπος
Ἀλεξάν-
δρου Παλ-
λη[ν]εὺς
τὰ φυτὰ
ταῖς πωσ-
φόροις πρω-
τόβουλος
ὢν
Κυιντίω(ι)
Γαίω(ι)

Olympos himself appears to be otherwise unknown; but his superior, Quintius Gaius, is possibly to be identified with one or other of two men who were archons at the turn of the second and third centuries after Christ, viz., Gaius Quintus Himertos or Gaius Quintus Kleon.[116] The style of the lettering is appropriate to that period.

The little plaque gives us authority to restore a garden around another of the Athenian buildings. Of the actual planting no such definite traces have been found as those observed beside the Hephaisteion,[117] but in the course of the excavation we became painfully aware of many local disturbances, some of which may be attributable to gardening activities.

The dedication also brings a much needed supplement to our knowledge of the Phosphoroi.[118] It has long been clear that they were divinities having intimate relations with the prytaneis and with the Tholos. As early as the middle of the first century before Christ, a dedication in honor of their priest was made by the prytaneis of the tribe Demetrias.[119] In the second and third centuries after Christ this same priest appears in decrees in honor of the prytaneis with an extension to his title which

[116] Nos. 160 and 170 of Graindor's list in *Chronologie des archontes athéniens sous l'empire.*

[117] *Hesperia*, VI, 1937, pp. 396 ff.

[118] For the literature see Wachsmuth, *Die Stadt Athen*, II, p. 317, note 1; p. 319; Höfer in Roscher, *Lexikon*, III, cols. 2440 ff.; Kirchner under *I.G.*, II², 1755; S. Dow, *Hesperia*, Supplement I, pp. 8, 170.

[119] *I.G.*, II², 1755 = Dow, *op. cit.*, no. 99.

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suggests the superintendency of the Tholos: *ἱερεὺς Φωσφόρων καὶ ἐπὶ Σκιάδος.*[120] Various conjectures have been made as to the nature of the divinities. The more plausible have identified them with the Dioskouroi [121] or associated them in some way with Hestia.[122] Their identity with the Dioskouroi is now ruled out by their sex (revealed for the first time by our inscription) and their association with Hestia has rightly been deprecated on the ground that Hestia's home was the Prytaneion rather than the Tholos.[123]

At this point we may consider a small statue of Pentelic marble that was found within a few feet of the inscribed plaque (Fig. 101). It lay in late Roman accumulation beneath the floor of the west part of Room G in the house of late Roman times to the southeast of the Tholos.[124] The figure is that of a vigorous young woman clad in a short chiton with an animal skin tied around her waist and over her left shoulder. The type is clearly that of Artemis, and she might well be restored with bow in right hand, hound by her left side.

The reader may here be reminded that a sizeable fragment of a large stele bearing an inscription in honor of Ephesos and ambassadors from Ephesos of the period 224-196 B.C. was found in 1934 just above the fork in the Great Drain, i. e., *ca.* 18 m. due east of the front of the Tholos Porch.[125] The inscription was to be set up *ἐν ἀγορᾷ παρὰ τὸν βωμὸν τῆς Ἀρτέμι*[δ]*ος Βουλαίας* (lines 19 f.). The marble had apparently been re-used in a late repair of the Great Drain, but, as pointed out by its editor, it had probably been moved little from its original place. Artemis Boulaia appears commonly in the inscriptions honoring the prytaneis of the third and second centuries before Christ among the divinities to whom the prytaneis sacrificed before meetings of the Assembly.[126] Hence it is reasonable to suppose that her altar stood in the immediate vicinity of the Bouleuterion or Tholos. From the ancient authors it is quite clear that the prytaneis made sacrifices by the Tholos [127] and so we may safely infer that the altar of Artemis Boulaia stood within the Tholos precinct.

In the prytany decrees of the second century before Christ [128] Artemis Boulaia

[120] *I.G.*, II², 1795, 1796, 179[illegible] *Hesperia*, III, 1934, p. 56, no. 43; IV, 1935, pp. 47-49, no. 11 (all of about 180 A.D.). In *I.G.*, II², 1077, of 209/10 A.D., the title is again simply *ἱερεὺς φωσφόρων*.

[121] Schöll, *Hermes*, VI, 1872, p. 18.

[122] Wachsmuth, *loc. cit.*

[123] Judeich, *Topographie*², p. 347, note 10.

[124] Inv. No. S 912. Height, 0.87 m. *A.J.A.*, XLII, 1938, p. 9, fig. 12. Missing are the head, the forearms, and the legs from the knees down. A broad fracture down the outside of the left thigh suggests that some substantial part has been broken away. The front is much rubbed by traffic. Long hair hung straight down her back. Dry, rather coarse work, perhaps of the late Hellenistic period.

[illegible] M. Crosby, *Hesperia*, VI, 1937, p. 448, no. 3.

[126] Crosby, *op. cit.*, p. 452, and Dow, *op. cit.*, pp. 8 f.

[127] Demosthenes, XIX, 190: *ἐγὼ δ' οἶδ' ὅτι πάντες οἱ πρυτάνεις θύουσιν ἑκάστοτε κοινῇ καὶ συνδειπνοῦσιν ἀλλήλοις καὶ συσπένδουσιν.* Pausanias, I, 5, 1: *καὶ θύουσί τε ἐνταῦθα* [i. e., by the Tholos] *οἱ πρυτάνεις.*

[128] Dow, *op. cit.*, nos. 69, 71, 72, 79, 88, 91.

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bears also the epithet Phosphoros, an epithet which, though occasionally attached to other divinities, is most commonly applied to Artemis.[129] This being so, and the area being now so closely limited, we need scarcely hesitate to associate Artemis Boulaia-Phosphoros, the Phosphoroi, the altar, and the statue, assigning them to one and the

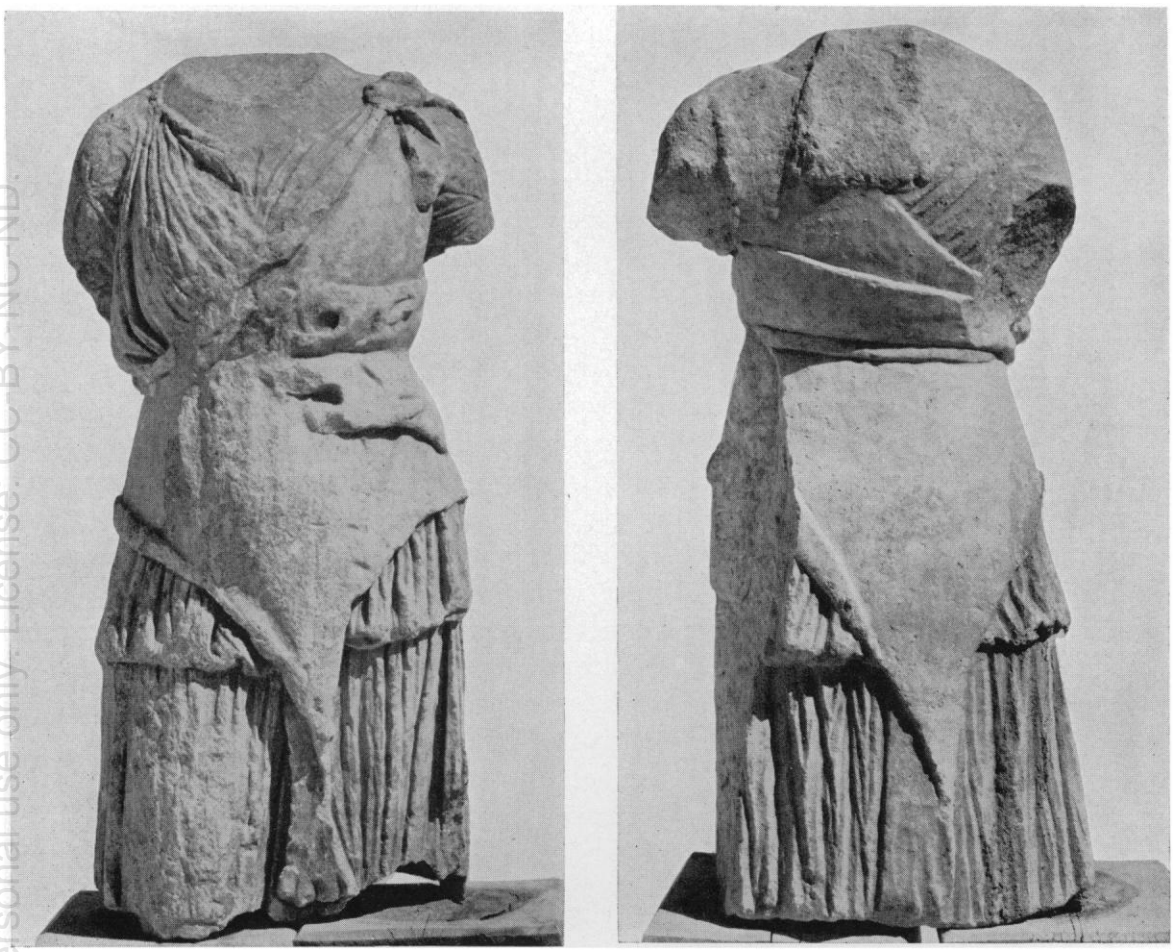


Fig. 101. Inv. No. S 912. Statue of Artemis Type from Precinct of Tholos. To Left, Front; To Right, Back

same sanctuary within the Tholos precinct. We are still in the dark as to the precise status of the Phosphoroi, but we may regard them with assurance as female divinities closely related to Artemis. Whether the statue represents one of them or Artemis herself may also be left an open question.

As for the altar, a place in the southeast part of the Tholos enclosure is indicated by the place of finding of plaque and statue. In this area the ancient levels were

[129] Höfer in Roscher, *Lexikon*, cols. 2441 ff.

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sufficiently well preserved as to make unlikely the complete disappearance of the bedding for an altar of any size. Actually there does exist a suitable bedding: the roughly made foundation to the south of the early square poros base (p. 93). It may well be as early as of the third century before Christ (than which we have no earlier reference to Artemis Boulaia) and may well have supported an altar of moderate scale.[130]

The worship of Artemis and of the Phosphoroi does not, of course, exclude other cults in or around the Tholos. In the prytany decrees mention is made of sacrifices before the meetings of the Assembly not only to Artemis but also to Apollo Prostater, Athena (Archegetis), and other unspecified gods. It is not improbable that some of these other sacrifices were made in the immediate vicinity of the Tholos. The passage from Demosthenes quoted above (p. 139, note 127) suggests that the making of sacrifices, eating, and pouring of libations were three separate operations; they were probably noted in a familiar chronological order. Is it not possible that the sacrifices were made on an altar in the precinct, the libations on a table inside the Tholos, supported conceivably on the square base at its center? As shown above (p. 47), that base was probably inserted in the fourth century before Christ; it may well have taken over the function of the square poros base in the precinct, for the square poros base is shown by the stratification to have been abandoned and covered over at about that time. The square poros base, in turn, which is closely contemporary with the Tholos itself, may be thought to have carried the successor of the round poros monument which had served the archaic complex.

VARIA

Public Measures

It has long been known that the Tholos served as a bureau of weights and measures, for an inscription of the second century before Christ specifies that one of the four sets of official weights and measures should be kept in the building.[131] The discovery of weights, and more especially of measures of volume in the vicinity of the Tholos has been referred to in previous reports.[132] There have now been inventoried over fifty fragments (from about as many separate vessels) of measures of various shapes and sizes, marked as official by the inscription ΔΗΜΟΣΙΟΝ and by one or other of the seals of Athens. These pieces have been found on all sides of the building in contexts that range in date from the second quarter of the fifth century to the

[130] Certain Athenian lead tesserae show on one side a round altar, garlanded, with the inscription Ἀρτέμιδος Φωσφόρου, on the other side a trophy with the inscription Ἀθηνᾷ Νικηφόρῳ. Postolacca, *Annali del Instituto*, 1868, p. 310, no. 758; Engel, *B.C.H.*, VIII, 1884, p. 9, no. 50.

[131] *I.G.*, II², 101→ *Hesperia*, VII, 1938, p. 127, no. 27.

[132] *Hesperia*, IV, 1935, pp. 346 ff.; VI, 1937, p. 166.

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early third century. No vessel certainly a measure has come from a pre-Tholos context. It is worth noting however that in débris on the latest pre-Tholos ground level in the alley between the archaic Buildings I and F, just beneath a mass of working-chips from the construction of the Tholos, there appeared a fragment of a

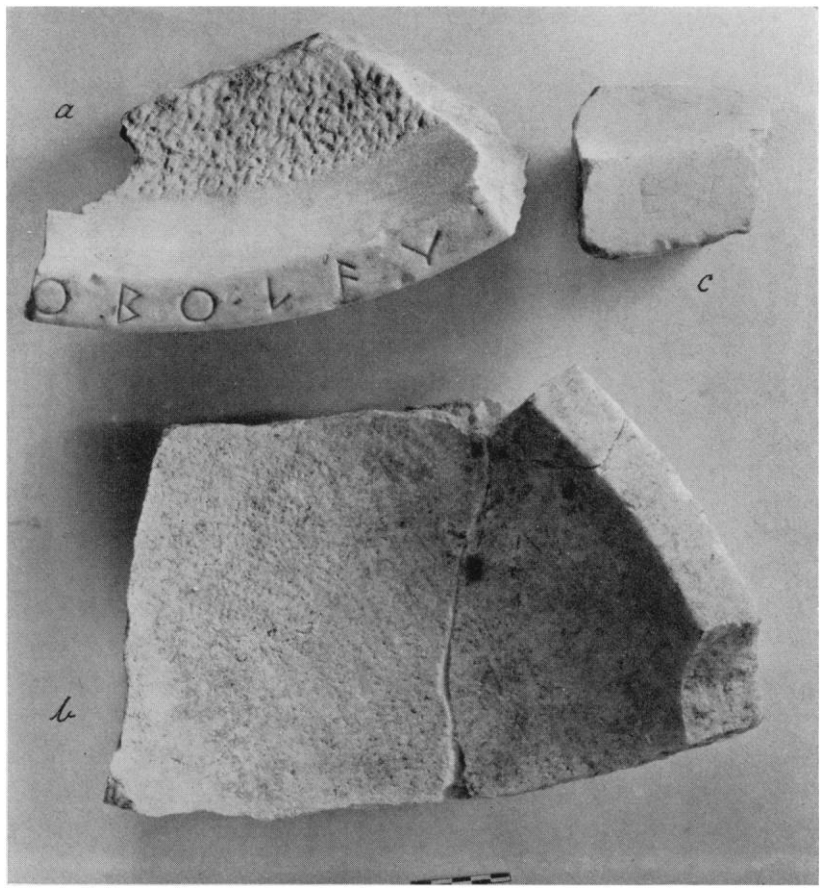


Fig. 102. Fragmentary Marble Basins from Area of Tholos

small plain olpe inscribed on its shoulder in black glaze [ΔΗΜΟΣ]ΙΟ[Ν] (Inv. No. P 10,828).[133] This vase had presumably been used in the predecessor of the Tholos and may be taken as one more indication of the public character of that building.[134]

[133] For a complete olpe of the same type in Berlin, its inscription intact, cf. Furtwängler, *Beschreibung der Vasensammlung*, no. 2669, facsimile of inscription on pl. III, form no. 291.

[134] The evidence of the inscribed vase is not conclusive, inasmuch as an olpe of similar shape inscribed ΔΕ has been found in a well of the late sixth and early fifth century at the north foot of the Areopagus, Section Ψ (Inv. No. P 13,429).

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Marble Basins

Among the scanty furnishings of the public buildings found in the excavation are a number of fragmentary marble basins of which the more interesting are illustrated in Figs. 102, 103. These pieces all come from vessels of a familiar sort: a shallow circular basin with moulded rim supported at waist height on a central post. Many inscribed basins of this kind have been found on the Athenian acropolis and are now in the Epigraphic Museum.[135]

a. Inv. No. I 4869. Fine-grained white marble with brown veins. The outside and the rim are polished smooth; the floor is picked. The inscription is presumably to be restored [τ]ὸ βολευ[τερίο]. The epsilon had a very short tail. The fragment was found just to the south of the Propylon of the Bouleuterion in a level of the early fifth century before Christ, disturbed, however, in late Roman times. For the letter forms one might hazard a date toward the end of the sixth century. The basin, then, must be closely contemporary with the Old Bouleuterion, for which it was intended. The comparatively fresh state of its surface suggests that it suffered at the hands of the Persians and was buried soon after.

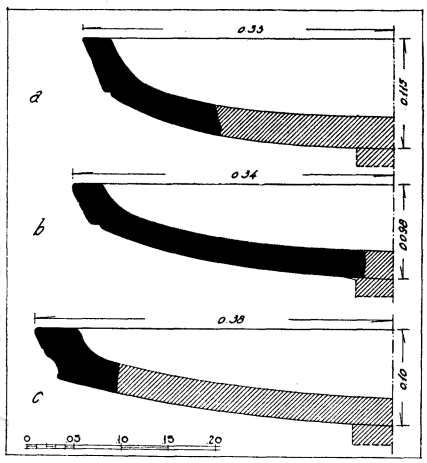


Fig. 103. Profiles of Marble Basins from Area of Tholos

b. Inv. No. ST 250. Coarse-grained, white, Naxian (?) marble. The rim and outside rasped smooth but not polished; the floor finished with a toothed chisel and rubbed smooth toward the middle. Around the outside of the rim are two grooves. This fragment was found where it had been used as a cover slab over the later drain of Building F, just to the north of Building J (p. 23). It was undoubtedly used in Building F and it too was probably broken in 480 B.C.

c. Inv. No. ST 80. Coarse-grained, white, Parian (?) marble. So far as preserved, both inside and outside are smoothly polished. In very shallow lettering on top of the rim: [Δ]εμ[όσιον] (?). Found in the northern of the two wells to the west of the Tholos (p. 100). Since it was found with public measures and with pottery that undoubtedly came from the Tholos, this basin also may be assigned to that building. The letter forms would permit its association with a refurnishing of the Tholos after the disaster at the end of the fifth century; it was broken presumably in the confusion at the turn of the fourth and third centuries.

Millstones

A number of broken millstones came to light in levels associated both with the archaic buildings and with the Tholos. They are all of the simple saddle-quern type, which was in common use with little change from the Neolithic period well into

[135] *I.G.*, I², 739-59. For more complete examples, and for the literature cf. W. Deonna, *Délos*, XVIII, *Le Mobilier Délien*, pp. 48 ff. (tables), pp. 75 ff. (basins on stands); pls. XXI ff., XXXI. Cf. also Robinson-Graham, *Olynthus*, VIII, *The Hellenic House*, pp. 317 ff., pl. 78; *A.J.A.*, XLIII, 1939, p. 60, fig. 14.

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classical times. Each mill comprised a long narrow rubbing stone and a flat lower stone. Both stones are commonly neatly shaped, sometimes quite irregular. They are cut from a highly abrasive, dark colored igneous stone.[136] Representative pieces are shown in Fig. 104.

a. Inv. No. ST 213. Upper Millstone. From the Tholos kitchen dump of the end of the fifth century (p. 96). Length, 0.245 m.; width, 0.13 m. One end broken away. Fine-grained stone, dark slate in color.

b. Inv. No. ST 257. Lower Millstone. From a layer of the late fifth century to the west of the Tholos Kitchen. Preserved length, 0.31 m.; thickness, 0.055 m. One end chipped. Reddish granite. The reverse is in its natural state, like the face of a boulder.

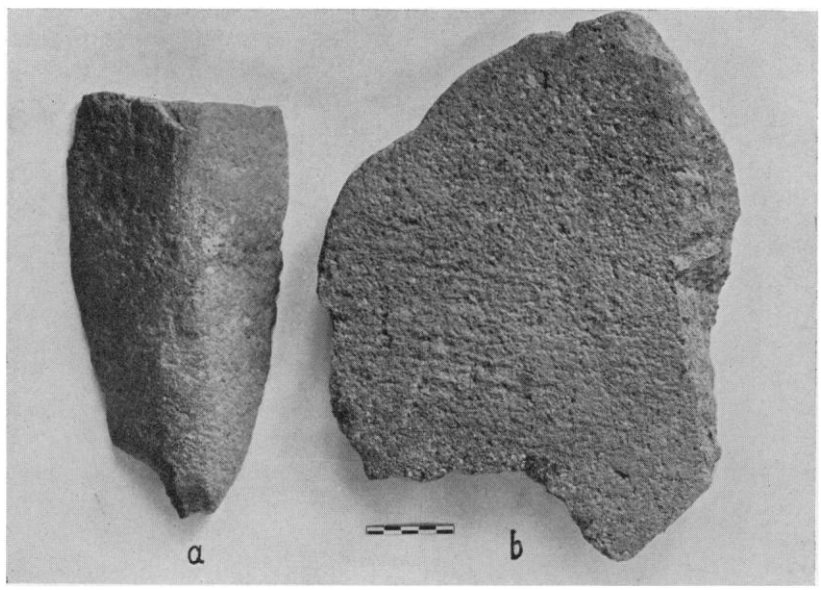


Fig. 104. Millstones from Tholos Kitchen

A Decree Concerning the Skias, 191/0 B.C.

The inscription (Fig. 105) is engraved on a large stele of Pentelic marble of which the rough-picked back, the left side, and the base together with a tenon for a stele-cutting are preserved.[137] The marble lay in the late Roman level within the Tholos Precinct immediately to the southeast of the building.

[136] On this type of millstone see Robinson-Graham, *Olynthus*, VIII, *The Hellenic House*, pp. 326 f., pl. 79; W. Deonna, *Délos*, XVIII, *Le Mobilier Délien*, pp. 123 ff., pls. XLVIII f.

[137] Inv. No. I 5344. Height, 0.75 m.; width, 0.505 m.; thickness, 0.135 m.; height of letters, 0.006 m. In general the inscribed face of the stele has suffered considerably from exposure and accidental battering. The letter-forms are small, careless, and typical of the early second century before Christ.

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191/0 B.C. Non-stoich.

𐅄△||
𐅄△|||
𐅄△||||
[τ]ῶ̣ν ἡμ̣[ϵ]ῖς ἀποκατεστήσαμεν
ἐκ τοῦ θολίου ὀψωνίου Γ
τὰ πάντα κοτυλίδια Γ| ||||/[------]
τριπόδων 𐅄 φιαλ[------]
καὶ τάδε τῶν ἀποσταλέντων τοῦ λ[------]
ὑπὸ τῆς βασιλίσσης Λαοδίκης τοῦ βα[σιλέως ------]
vacat καὶ τάδ[ϵ τὰ]
ποτήρια/ [--------]
ἐπὶ Ἱππίου ἄρχοντ[ος] ἐπὶ τῆς Πανδιονίδος ὀ[γδόης πρυτανείας ἧι Θεοδόσιος Ξενοφαν --$^{ca.\,8}$--εὺς]
ἐγραμμάτευεν· Γαμηλιῶνος ἕκτει μετ' εἰκά[δας, ἐνάτει τῆς πρυτανείας· βουλῆς ψηφίσματα· τῶν προέ]
δρων ἐπεψήφιζεν Πάραλος Ἀρπάλου Συπαλ[ήττιος καὶ συμπρόεδροι· βουλὴ ἐμ βουλευτηρίωι·
Λακράτης Μέν]
τορος Περιθοίδης εἶπεν· ἐπειδὴ οἱ κεχειροτονημ[ένοι ὑπὸ τῆς βουλῆς ἐξ ἑαυτῆς ἄνδρες ἐπὶ τὴν
ἀντικατά]
στασιν τῶν ἐν τεῖ Σκιάδι στρωμάτων ἐπεμελήθ[ησαν --$^{ca.\,32}$-- καλῶς]
καὶ δικαίως καὶ τὴν ἀντικατάστασιν πεποίηντ[αι --$^{ca.\,36}$·--]
[.]ς ἅπασι τούτοις ἀναδεχόμενοι τὴν γιν[ο]μένην κ[---$^{ca.\,36}$---]
καταβέβληνται δὲ καὶ λόγους εἰς τὸ Μητρῶιον ἀκ[ολούθως τοῖς νόμοις --$^{ca.\,17}$--τεῖ]
βουλεῖ καὶ τοὺς ἐξ ἑαυτῆς χειροτονουμένους ἐπὶ τ[--$^{ca.\,34}$--]
στεφανοῦν^{v} ἀγαθεῖ τύχει δεδόχθαι τεῖ βουλ[εῖ ἐπαινέσαι --$^{ca.\,30}$--]
μον Κράτητος Φρεάρριον, Σίμαλον Σίμου ἐγ Μυρρ[ινούττης --$^{ca.\,31}$--]
δικαιοσύνης ἕνεκεν καὶ καλοκαγαθίας ἕνεκεν [εἰς τὴν βουλήν. ἀναγράψαι δὲ τόδε τὸ ψήφισμα
τὸν γραμ]
ματέα τὸν κατὰ πρυτανείαν εἰς τὴν στήλην οὗ τὴ[ν ---$^{ca.\,28}$---]
τοὺς εἰρημένους τὸ γενόμενον ἀνάλωμα ἵνα τούτ[ων συντελουμένων ---$^{ca.\,26}$---]
[μ]ένων, προσαναγράψαι δὲ εἰς τὴν στήλην καὶ τὰ π[άντα κοτυλίδια καὶ τοὺς τρίποδας -----]
[..] τῆς τιμῆς τῶν στρωμάτων καὶ παραδοῦναι τοὺς [--$^{ca.\,31}$--]
ἐπὶ τὴν Σκιάδα στήσαντας καὶ ἐπιγράψαντας. vacat

The new text contains part of a decree passed in honor of a committee of three men appointed from the Council to supervize the replacement of bedding in the Skias, to inspect certain articles, viz., cups, tripods, etc., in the Skias, and to make a list thereof. This list was also to be inscribed on the stele together with the decree itself. The decree is dated in the year of a hitherto unknown Athenian archon, Hippias. Unfortunately the full name of the secretary is lost, but by means of a comparison with another Athenian decree it is possible to assign to him both a secretary and a

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year. This is achieved through an examination of the prosopography of this decree and that of *I.G.*, II², 889. In lines 12-13 the name is clearly [Λακράτης Μέν]τορος Περιθοίδης, and this demotic is to be restored in *I.G.*, II², 889, line 6, and 891, line 4. The year of Symmachos, archon of *I.G.*, II², 891, is 188/7, and consequently a date in the proximity of this year is desirable for the new decree. Dow has published

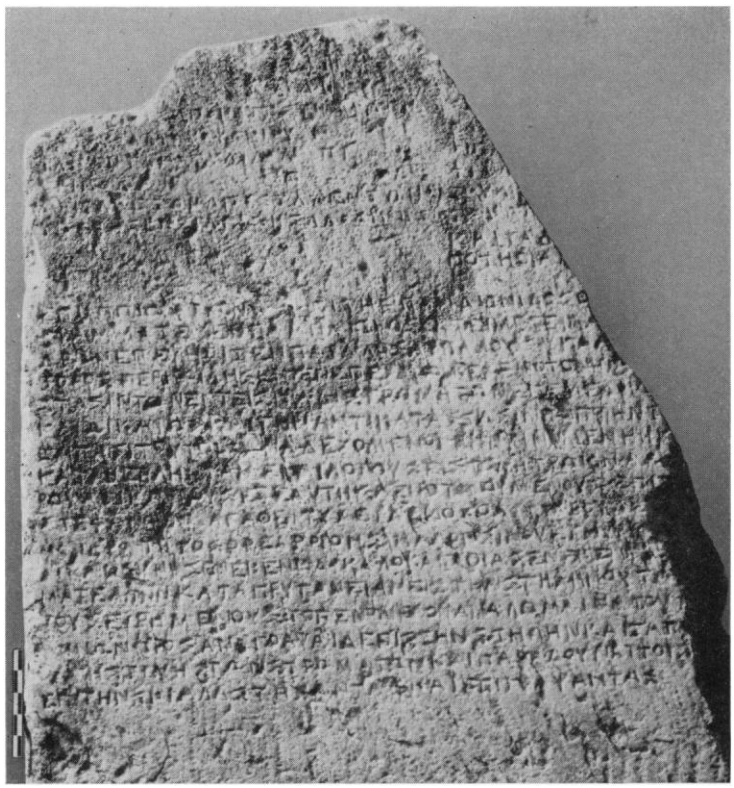


Fig. 105. Inv. No. I 5344. Decree Regarding the Furnishings of the Tholos

recently a prytany decree[138] of which the proposer was this same Lakrates. On various grounds Dow dates this decree 200-190 B.C. A year close to 188 is further confirmed by a study of the family of Simalos, the son of Simos of Myrrinoutta. He was probably the uncle of Anthesterios of Myrrinoutta, *fl. ca.* 147 B.C.[139] The reference to the gifts of Queen Laodike (line 9) adds further confirmation to this date; in 196/5 she was married to Antiochos III.[140] It will be noted that the archon's name in *I.G.*, II², 889 is estimated to have about seven letters, and likewise the archon

[138] *Hesperia*, Supplement I, no. 47, lines 5-6.
[139] See *P.A.*, 12676; *Inscriptions de Délos*, 1498, 38; 1505, 38; *I.G.*, II², 1938, 7; 1939, 8.
[140] Cf. Bouché-Leclercq, *Hist. des Sel.*, 182.

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of Dow's new decree. It is highly probable that the name Hippias should be restored in both texts. To these may be added *I.G.*, II², 904, although the archon in this case may also be Hippakos.

The list of objects, part of which is preserved above the decree, was made by the committee which had charge of the complete restoration of provisions and supplies in the Tholos (*τοῦ θολίου ὀψωνίου*).[141]

IDENTIFICATION AND PURPOSE OF THE THOLOS

Τοῦ Βουλευτηρίου τῶν πεντακοσίων πλησίον Θόλος ἐστὶ καλουμένη, καὶ θύουσί τε ἐνταῦθα οἱ πρυτάνεις καί τινα καὶ ἀργύρου πεποιημένα ἐστὶν ἀγάλματα οὐ μεγάλα. ἀνωτέρω δὲ ἀνδριάντες ἑστήκασιν ἡρώων – – –

[Pausanias, I, 5, 1]

Not the least remarkable feature of the Tholos is that scholars can and apparently do agree about its identification. It fits perfectly into Pausanias' account as the only round building close by the Bouleuterion. Were confirmation needed, one might point to the many fragments of measures found around the building which undoubtedly derive from the set of public measures known to have been kept in the Tholos. The plaque recording the dedication to the Phosphoroi is also a telling piece of evidence, for it must have stood near its place of finding, and the Phosphoroi, we knew, were worshipped near the Tholos. Finally, the numerous prytany decrees found in the immediate vicinity of the building and known from their own texts to have been set up in the Prytanikon would be in themselves decisive, for it has been shown that the term "Prytanikon" designated the area of the Tholos (p. 151).

As to the purpose of the building, the results of the excavation have confirmed and illustrated the literary tradition. The authors and lexicographers make it clear that the Tholos was primarily the place where the fifty prytaneis or presidents of the Council could conveniently dine together at the public expense.[142] The main building is amply large to have seated fifty or more persons; though we could wish for a more precise indication of the seating, or lounging scheme. The effective provision for drainage from its floor must have allowed an agreeable freedom in table manners. The excavations have shown that the round building in all its periods was accompanied by a northern annex adequate to the culinary needs of such a group. Representative lots of the official table ware from various periods have come to light. If they seem to the modern taste extraordinarily simple, one must bear in mind the frugal tradition that is attested for the still more venerable public table in the Prytaneion: a barley loaf

[141] Hesychios (*Lexikon, s. v.* Θόλος) defined the Tholos as *τόπος ἐν ᾧ τὰ συμποτικὰ σκεύη ἀπόκειται.*
[142] Cf. the passages from Demosthenes and Pausanias quoted on p. 139, note 127.

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on common days supplemented by a wheaten loaf on festivals.[143] Our opinion of this everyday ware may now be tempered, moreover, by the reference in the newly found inscription to the princely plate that was presumably available for special occasions.

Our authors assure us that the prytaneis not only dined but also made sacrifices and libations at the Tholos. These were presumably some or all of those sacrifices which, as we know from the inscriptions, were made by the prytaneis before meetings of the Assembly, " for the health and well being of the Council and people, the women and children of the Athenians, their friends and allies." [144] It is gratifying to have learned from the excavations something more of certain of the divinities here worshipped, viz., Artemis and the Phosphoroi, and to be able to point with reasonable assurance to the actual place of worship.

Finally, we have gotten abundant new evidence for one of the minor functions of the Tholos, viz., the safeguarding of a set of official weights and measures.

NOTE ON THE IDENTIFICATION OF THE BOULEUTERION AND METROON

In the foregoing paper the buildings north of the Tholos have been called by the names given them in the earlier report on the " The Buildings on the West Side of the Agora." [145] It is gratifying that these buildings should have attracted not a little interest in the scholarly world, and it is all to the good that their identification and restoration should be examined critically. Various alterations have been proposed by outside scholars and comprehensive shifts in the names have been urged by Dr. Dörpfeld and by Professor Picard. Since the schemes proposed by these two critics are not only at variance with that which I had followed but are mutually exclusive one of the other, there would seem still to be a possibility of errors. To attempt to run down these errors is perhaps the duty of the scholar on the spot, who is inevitably more conscious of the stones, the stratification and the levels, and who consequently feels himself bound, often to his own embarrassment, to give more weight to this sort of evidence.

Dr. Dörpfeld is setting out his views in a special book of which the first two parts have appeared: *Alt-Athen und seine Agora* (Berlin). Dr. Dörpfeld accepts our identification of the Tholos and of the New Bouleuterion. Our Hellenistic Metroon, however, he divides into a number of apartments, assigning the large north room to Apollo Patroös, the three lesser rooms to the Mother of the Gods, the porch to Zeus Eleutherios. Our Propylon of the Bouleuterion becomes the Altar of the Mother of the Gods. This unhappy overcrowding is made necessary by its author's

[143] Solon's ordinance quoted by Athenaeus, IV, p. 137 e. Even the Dioskouroi, when they were banqueted in the Prytaneion, got only cheese, barley cakes, leeks, and olives.

[144] Dow, *Hesperia*, Supplement I, pp. 8 ff.

[145] *Hesperia*, VI, 1937, pp. 1 ff.

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persistence in maintaining that our Temple of Apollo is, as he originally supposed, the Stoa Basileios and that it is of the sixth century before Christ.

Without going into the many other possible objections, I would point out that Dr. Dörpfeld's arrangement is completely invalidated by chronological impossibilities. Anyone who will examine the evidence presented in " Buildings on the West Side of the Agora " with an open mind and with even the slightest regard for archaeological method will scarcely refuse to believe that our Temple of Apollo is of the second half of the fourth century before Christ, our Metroon of the second century before Christ. On the site of our Temple of Apollo there is no trace of a building, to say nothing of a stoa-like building, between the destruction (by the Persians) of the early apsidal temple and the construction of the present building. Yet both epigraphic and literary references demand a Stoa Basileios in the late fifth and early fourth century. It is equally necessary to have a Stoa of Zeus in the same period. Yet on the site of our Metroon before the second century there existed no building which by any stretch of the imagination could be called a Stoa. No less pressing is the difficulty raised by the wall paintings which were certainly done by Euphranor in the Stoa of Zeus in the neighborhood of 362 B.C. They were extensive in scale and were almost certainly done *al fresco*. To have moved them from one building to another, even granting the existence of the two buildings, was a task that would have appalled, perhaps baffled the ancient technician, if not the modern historian.

Prof. Picard has argued persuasively in favor of assigning our New Bouleuterion to the Mother of the Gods as her temple. The three south rooms of our Metroon he would call the Bouleuterion; the Boule would hold its meetings in the porch in front, and the rooms themselves would be used for the storage of records, for the cult places proper to the Bouleuterion, and for the reception of certain known works of art. The great north room of the Metroon would become the Prytanikon, the domestic headquarters of the prytaneis.[146]

Prof. Picard's reason for installing the Mother in our New Bouleuterion is that she craved a temple-like cult place, and among the available buildings she would have been satisfied by none but this, which, according to Prof. Picard, has the plan of a temple and has an altar in front, i. e., to the south. From a consideration of our restored plan alone one might be excused for supposing that the remains could have been interpreted as those of a temple facing south. But a glance at the plan of the actual remains and at the photographs should convince one that the most striking structural feature of the building as it has survived is the extraordinarily broad foundation along the east side, an expensive piece of construction utterly useless in a temple of any normal scheme but perfectly adapted to the restoration of an auditorium such as we had proposed. As for the " altar " to the south of the building, we must apologize for not having worked over it more thoroughly before making the earlier

[146] *Rev. Arch.*, XII, 1938, pp. 97 ff.

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report. Closer examination (p. 102) shows clearly that the remains are to be restored not as an altar but as a fountain!

Against the identification of our New Bouleuterion as a bouleuterion Prof. Picard holds that it is too advanced in type for a period when the cities of old Greece had no such large and elaborate assembly halls. This argument will lose much of its force if one will recall for a moment the Peisistratid Telesterion in Eleusis, the Periclean Odeion in Athens, or even the Cleisthenic Old Bouleuterion in the Agora: all roofed assembly halls with greater capacity than our New Bouleuterion and with interior arrangements satisfactory to their function. It is quite incredible that the Athenian Boule, a large body meeting daily, should not by the end of the fifth century have provided itself with a meeting place at least as well suited to its purpose as was, for example, the Telesterion at Eleusis. The plan of our building is, indeed, as Prof. Picard points out, strikingly like that of the Bouleuterion at Miletos. Yet that "hellenistic" type of council house must have had a beginning and, until we have positive evidence to the contrary, its origin may with greater plausibility be sought in some of the cities of Old Greece that were more noted for their rich political life than in the cities of Asia. Prof. Picard also finds our New Bouleuterion too small for the five hundred councillors. Our calculations suggested a capacity of just over five hundred. However that may be, the interior area of this building, 314 sq. m., compares favorably with the 254 sq. m. of the porch of the Metroon where Prof. Picard would have the Boule meet.

In favor of identifying the south part of our Metroon as the Bouleuterion, Prof. Picard urges its similarity in plan with the Bouleuterion of Olympia. It would seem extremely dangerous, however, to compare a completely new creation of the Hellenistic period designed (?) for the frequent meetings of a large political body with a building which was a gradual agglomeration chiefly of the sixth and fifth centuries and intended for the seasonal meetings of a body of unknown number. One of the principal reasons which leads Prof. Picard to place the Bouleuterion in our Metroon is his desire to find adequate shelter for the statues and paintings known to have been displayed in the Bouleuterion. His solution, however, creates difficulties more serious than those it was intended to solve. Two of the paintings, viz., that of the Thesmothetai by Protogenes and that of Kallippos by Olbiades, are, as Prof. Picard admits, undoubtedly of the early third century before Christ. Since they were, as Prof. Picard contends, on the wall and so pressumably frescoes, he arbitrarily dates our Metroon in the early third century, a hundred and fifty years earlier than the date indicated for that building by abundant and conclusive evidence.

Since the appearance of the "Buildings on the West Side of the Agora," the tiles from the arsenals of Pergamon have been published.[147] They prove to be remark-

[147] A. von Szalay and E. Boehringer, *Pergamon* X, *Die hellenistische Arsenale* (Berlin and Leipzig, 1937), pp. 39 ff. and p. 56.

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ably close in shape and in their stamps to the series of tiles found around our Metroon and stamped as " sacred to the Mother of the Gods." The stamped Pergamene tiles come from Arsenals III-V, which are of the late third and second century before Christ. In view of this similarity, I have now no hesitation in assigning our tiles to the original construction of our Metroon and indeed should count them one more indication of Pergamene influence in that building. Our Metroon is dated by its architectural style and by pottery from around its foundations to the third quarter of the second century before Christ, a date which fits perfectly the Pergamene evidence for the date of the tiles. That these tiles come from our New Bouleuterion may be counted as impossible since they are too late in style for either of its periods and since they are quite different from the small scraps of tiles found in the construction débris around that building. Though both buildings may have been officially included in the sanctuary of the Mother, it is quite clear from both literary and epigraphic usage that in everyday practice the one building was called the Bouleuterion, the other the Metroon. Hence, when the tile-maker stamped his products as sacred to the Mother, he undoubtedly intended them for her proper sanctuary, i. e., our Metroon.

For the identification of the Metroon, the order of reference in Pausanias' narrative should be in itself conclusive. The sequence in his account is Temple of Apollo, Metroon, Bouleuterion, and Tholos. To one moving south from the Temple of Apollo, our New Bouleuterion was little if at all visible above the great bulk of our Metroon, and it was accessible from the Temple of Apollo only by the indirect north entrance. The natural order of the traveller's approach and mention is that indicated in " The Buildings on the West Side of the Agora," pp. 205, 214, viz., Temple of Apollo, our Metroon, our Bouleuterion, Tholos. The same conclusion follows inevitably from Arrian's placing of the statues of the Tyrannicides (*Anabasis*, III, 16, 8): ---*ἐν Κεραμεικῷ* ---, *ᾗ ἄνιμεν ἐς πόλιν, καταντικρὺ μάλιστα τοῦ μητρῴου*. There would have been little point in referring the statues to a building that was all but invisible.

On the identification of the Prytanikon I need not dwell. The desirability of making available the house-like scheme of the north room of our Metroon for the domestic needs of the prytaneis will not in itself prove that the building was used by the prytaneis. The evidence for fixing the site of the Prytanikon has been fully presented by Eugene Vanderpool in *Hesperia*, IV, 1935, pp. 470 ff. Seldom has the student of Athenian topography been favored with such abundant and specific evidence for the identification of any monument. That evidence places the Prytanikon conclusively in the immediate vicinity of the Tholos.[148]

[148] In the case of the other buildings of the west side and of the Hephaisteion, the identification of which has been disputed, it may be noted that the progress of the excavations tends only to confirm the conclusions presented in " The Buildings on the West Side of the Agora." See the review by T. L. Shear of W. Dörpfeld, *Alt-Athen und seine Agora*, II, in *Classical Weekly*, XXXIII, 1940, pp. 195 f.

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I. CHRONOLOGICAL INDEX

(The dates are approximate)

Date	Event	Page Reference
B.C.		
Neolithic period to 700	Habitation attested by ceramic remains	3
Last quarter of 8th cent. into second quarter of 7th cent.	Regular burials in Cemetery to south of Tholos	*Hesperia*, Suppl. II, p. 11
Beginning of 7th cent.	Building A erected	3
	Cemetery enclosed	7
Third quarter of 7th cent.	Building A and Cemetery enclosure wall collapse	7
End of 7th to early 6th cent.	Latest (children's) burials in Cemetery	*Hesperia*, Suppl. II, p. 11
Early 6th cent.	Building B erected and used	8
	Building C erected	8
Third quarter of 6th cent.	Building D erected	12
	Buildings F, G, H, I erected	15, 28; 19; 18, 24; 33
Early last quarter of 6th cent.	Building C damaged and repaired	15
	Building D abandoned and area between Buildings C and F levelled	15
	Buildings C and F joined by new enclosure wall	15
	Building E erected	12
Last quarter of 6th cent.	Main line of Great Drain laid and adjoining area levelled	106
510–500	Old Bouleuterion built	27
	North wing of Building F demolished	27; 33
	Building J erected	34
	Boundary Stone of Agora set up	107
490–480	Enclosure wall of Cemetery rebuilt	38
	Building K erected	38
	Polygonal retaining wall built behind Boundary Stone and along south side of road	107; 110
480–79	All the buildings of the area seriously damaged by the Persians but speedily repaired	33, 38; and *passim*
470	Tholos erected	44; 126
	Tholos Kitchen, Period I	73

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Date	Event	Page Reference
B.C.		
460	Slight damage to Tholos attested by broken pottery	126
420	Well in Tholos enclosure dug, used for a few years, and abandoned	95
End of 5th cent.	Large building to south of Tholos erected	111
	Work begun on New Bouleuterion	132
	Tholos and Kitchen seriously damaged by fire	48; *77*; 128
Beginning of 4th cent.	Tholos rebuilt and Kitchen repaired	48; *77*; 128
	North wall of Tholos enclosure moved northward	87
	New Bouleuterion completed, with change in plan	86
	Square base set in middle of Tholos	46
Second quarter of 4th cent.	Local damage in Tholos attested by broken pottery	132
Middle of 4th cent.	Two wells dug to west of Tholos,—failures, changed into cisterns	98
Third quarter of 4th cent.	Kitchen of Period II	*77*
	Fountain erected in street to east of Bouleuterion Propylon	103
Late 4th to early 3rd cent.	Kitchen damaged and temporarily abandoned	135
	Local disturbances inside Tholos	59; 134
	Second fountain in area of Bouleuterion Propylon	104
Late first quarter of 3rd cent.	Porch and Propylon added to New Bouleuterion	87
	North enclosure wall of Tholos precinct rebuilt	87
	Kitchen of Period III	*79*
	Second cistern system to west of Tholos completed	98
	Poros drain laid to east of Tholos	88
	Fountain placed against front of Bouleuterion Propylon	105
Ca. 234/3–230/29	First record of sacrifices to Artemis Boulaia by the prytaneis	*Hesperia*, Suppl. I, No. *27*
Early 2nd cent.	West Branch of Great Drain built as a covered channel	111

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Date	Event	Page Reference
B.C.		
182/1	First mention of Artemis Phosphoros in prytany decrees	*Hesperia*, Suppl. I, No. 55
Middle of 2nd cent.	Middle Stoa of Agora erected	113
	Metroon built	*Hesperia*, VI, 1936, p. 192
86	Buildings and monuments in this area suffer in the siege by Sulla	135
	Tholos and Kitchen seriously damaged but soon repaired	84; 135
	Cistern system to west of Tholos abandoned	101
	West Branch of Great Drain damaged	121
Middle of 1st cent.	Area of Tholos neglected	121
	Two successive terracotta drains laid to east of Tholos	90
Period of Augustus	Fountain House built in Bouleuterion Square	102
	Course of West Branch of Great Drain shifted	113
	Doric Propylon built to southeast of Tholos	114
	Tholos precinct enlarged and new walls built to south and southeast	87
	Porch of Tholos built and necessary changes made in the Tholos drain	56
	Fountain installed in Tholos precinct	96
	Fountain in Bouleuterion Square demolished	103
	Screen wall erected around Bouleuterion Square	103
	Exedra erected in Tholos precinct	94
A.D.		
Mid 1st cent.	Mosaic floor laid in Tholos	62
	Well dug in old cistern to southwest of Tholos	101
Early 2nd cent.	Interior columns of Tholos removed and roof rebuilt	58
Time of Hadrian (?)	Marble-slab floor and marble revetment placed in Tholos	63
Early 3rd cent.	Plants dedicated to the Phosphoroi	138
	West Annex added to Tholos	84
	Marble-slab floor repaired with mosaic	64
267	Tholos and its neighbors seriously damaged in sack of city by Herulians	136

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Date	Event	Page Reference
A.D.		
Early 4th cent.	Tholos rebuilt	136
Beginning of 5th cent.	Tholos damaged and abandoned	136
	Metroon repaired	137
	Common tables of prytaneis removed to rebuilt Metroon (?)	137
Beginning of 6th cent.	Private (?) house built above Tholos precinct	121
Last quarter of 6th cent.	Private (?) house damaged by fire and rebuilt	124
7th cent.	Private (?) house abandoned	125
8th to 10th cents.	Area desolate	137
10th to 20th cents.	Spasmodic habitation	137
1933–39	Excavation and exploration of the area	1

II. GENERAL INDEX

Akroterion of Tholos, 70[47].
Alexander of Pallene, father of Olympos, 138.
Altar, of Artemis Boulaia, 139 ff.; of Pythian Apollo, 110; of the Twelve Gods, v addenda; to the east of the Metroon, v addenda; round marble, 47; presumed, in Bouleuterion Square, 149.
Amphora handles, 101[79], 120.
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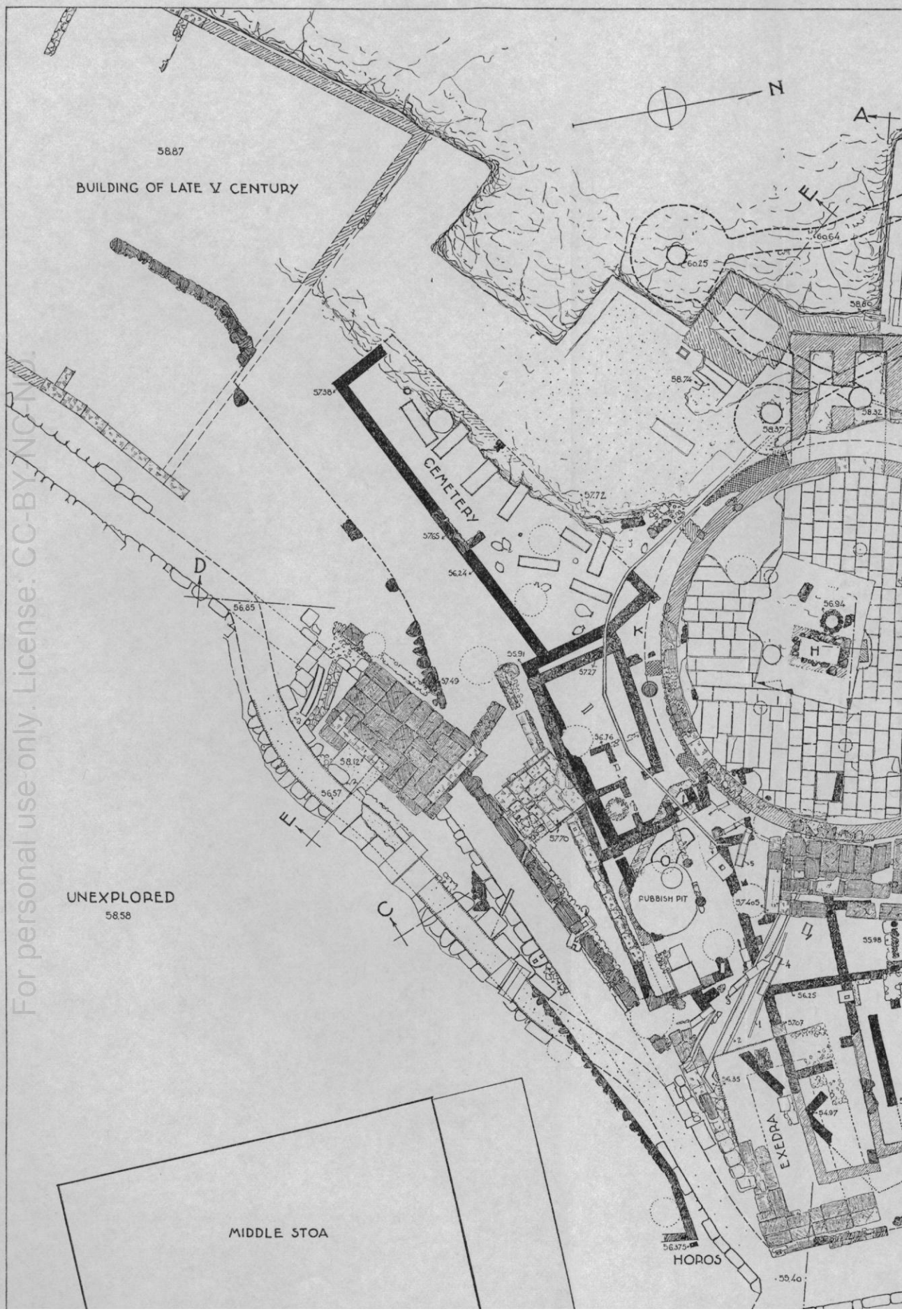
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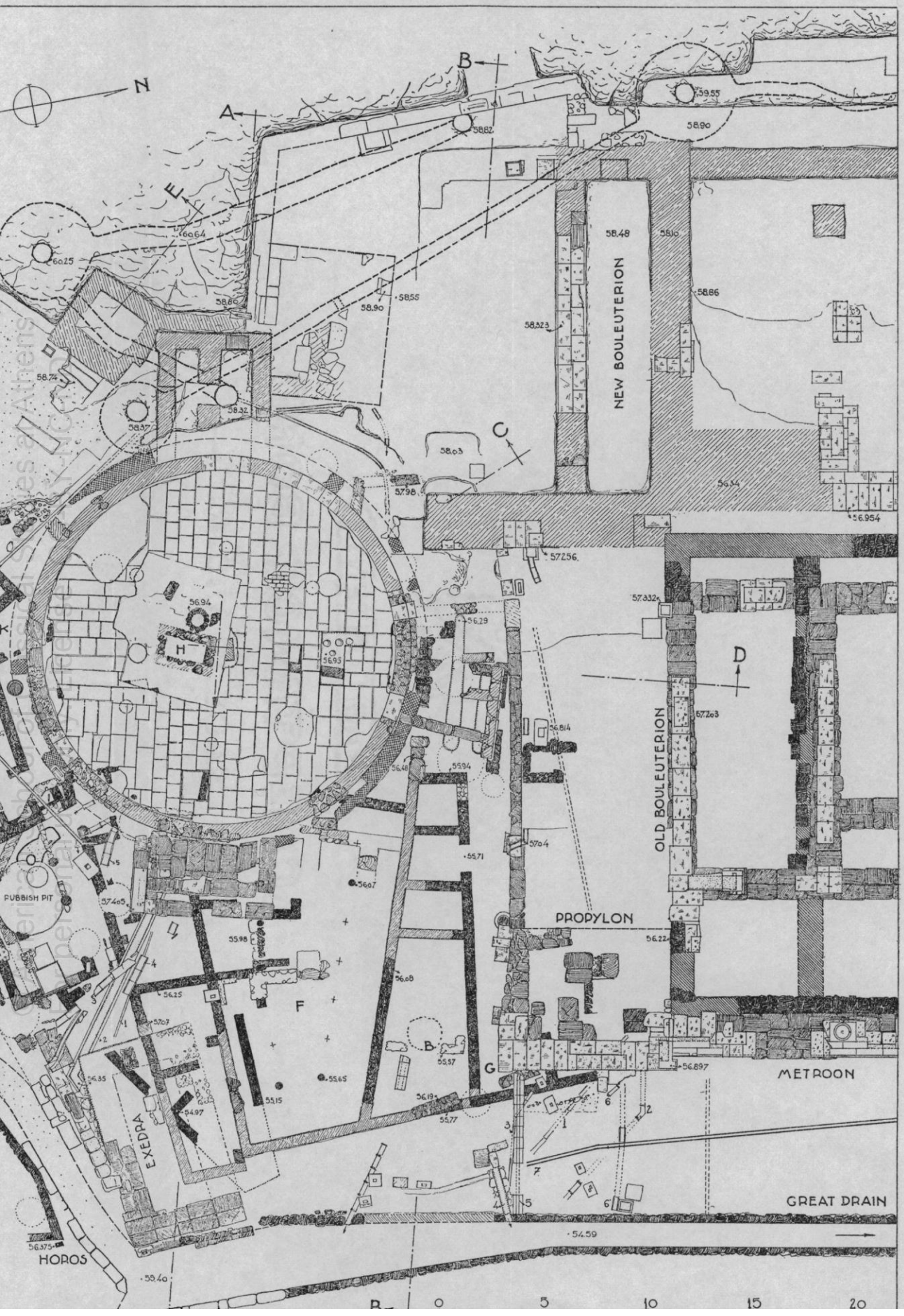
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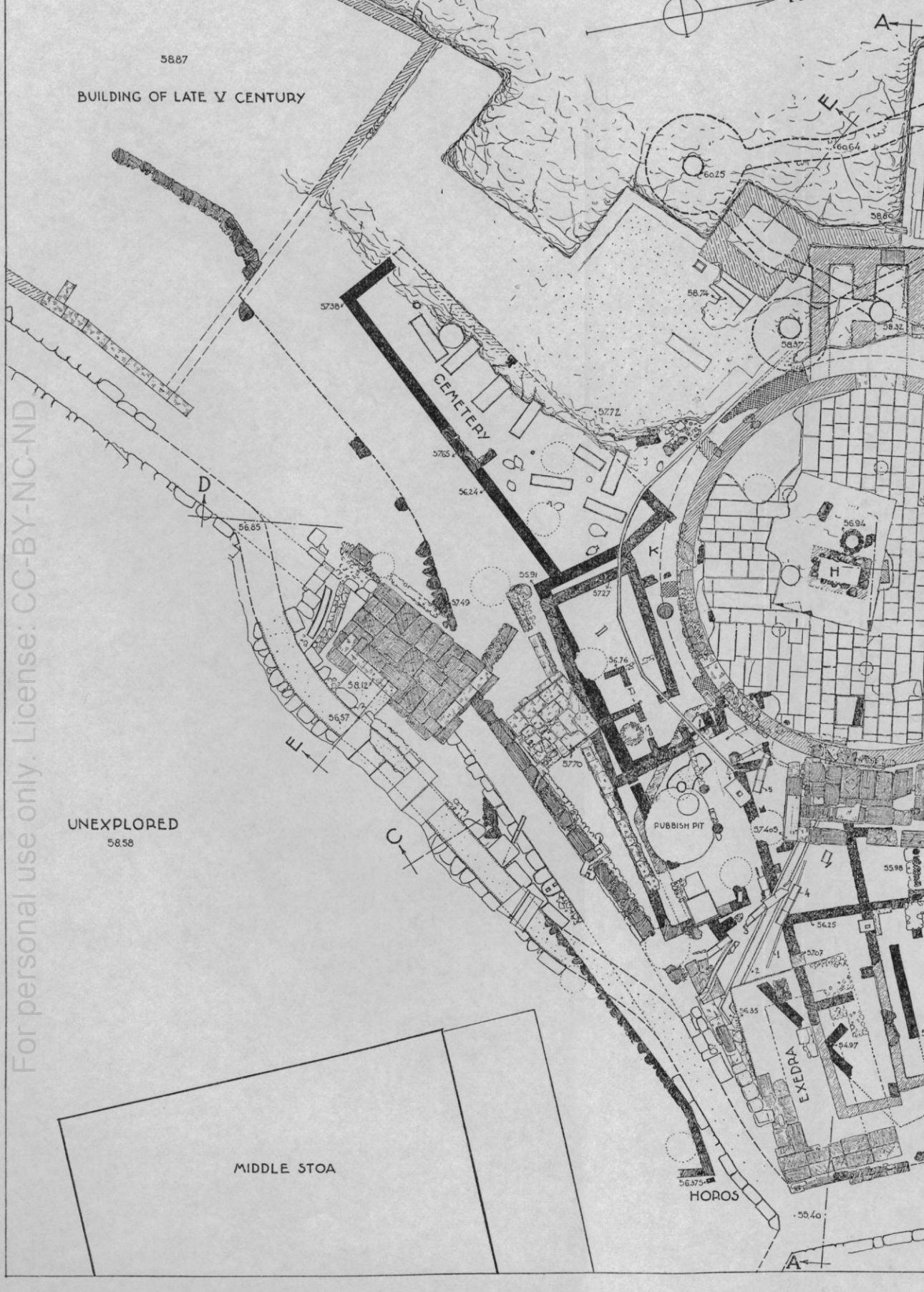
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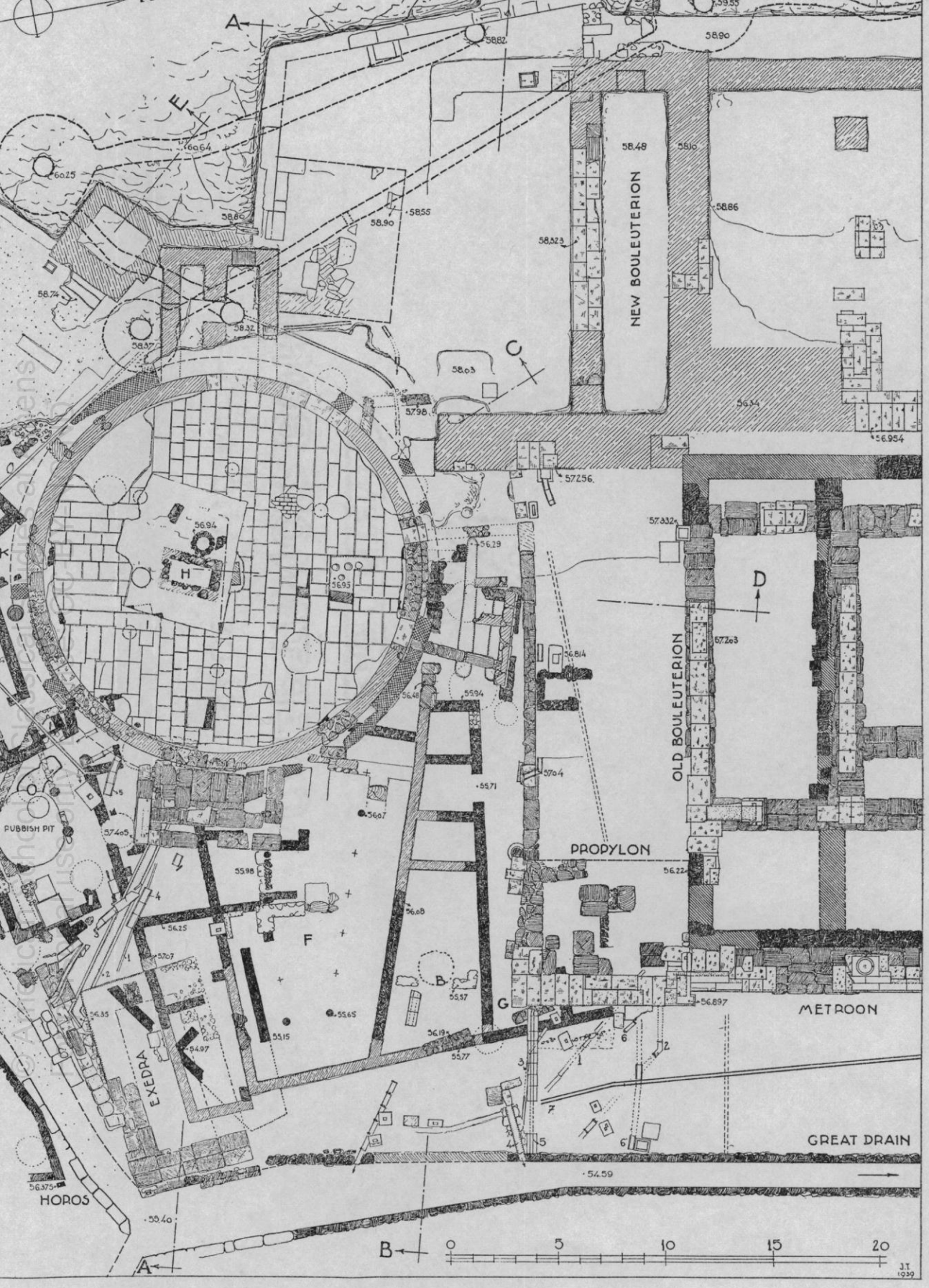
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N
A
B
C
D
E
NEW BOULEUTERION
OLD BOULEUTERION
PROPYLON
METROON
GREAT DRAIN
EXEDRA
HOROS
RUBBISH PIT
F
G
H
K
59.55
58.90
58.82
60.64
60.25
58.48
58.10
58.86
58.55
58.90
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PLATE I. Plan of Tholos and Environs, Actual State. 1:250. Ce
For Restored Plans See Figs. 62 and



nvirons, Actual State. 1:250. Cemetery and Building A in Solid Black.
Restored Plans See Figs. 62 and 63

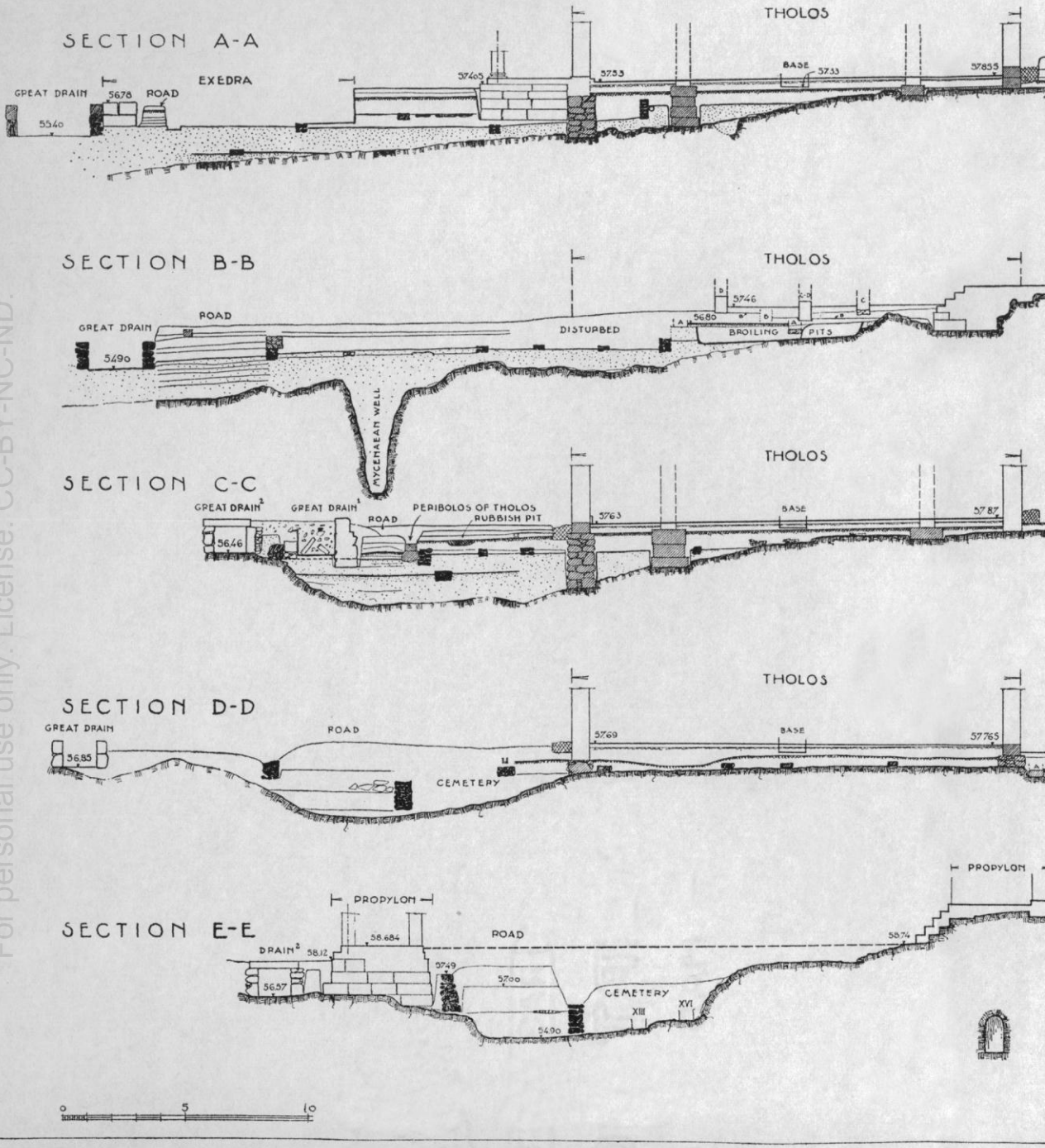


PLATE II. Sections through Area of Tholos. 1:250

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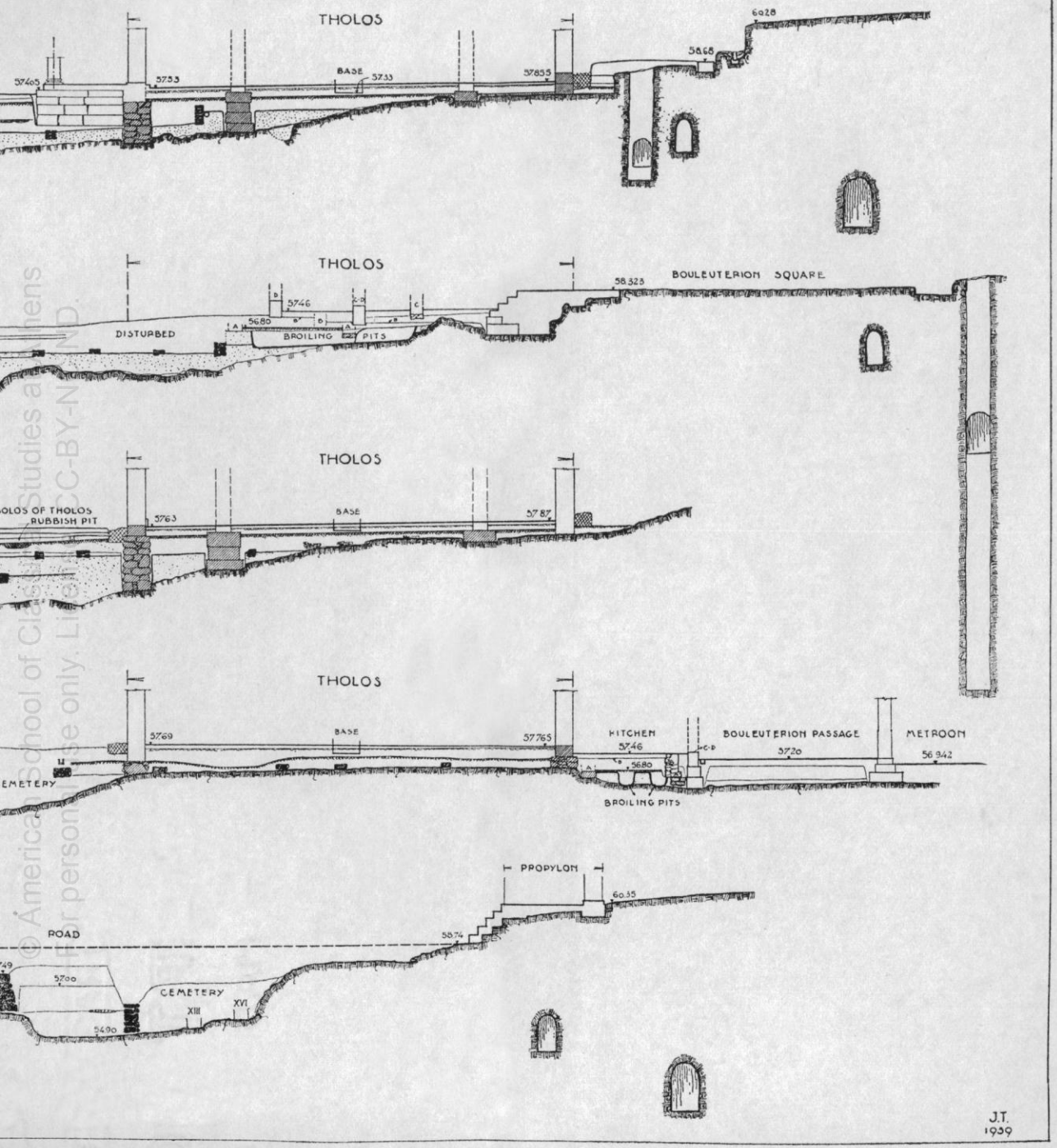


PLATE II. Sections through Area of Tholos. 1 : 250

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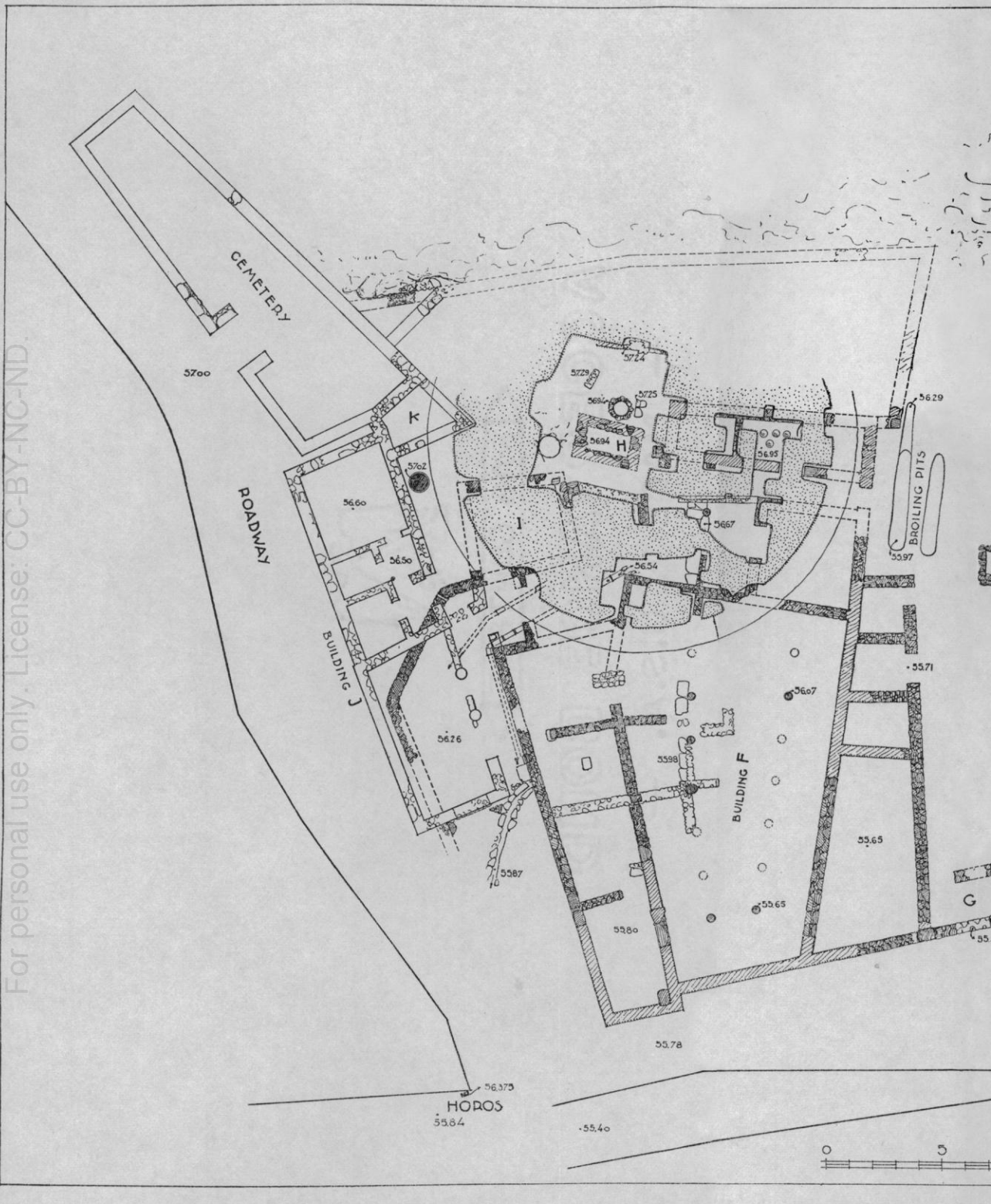
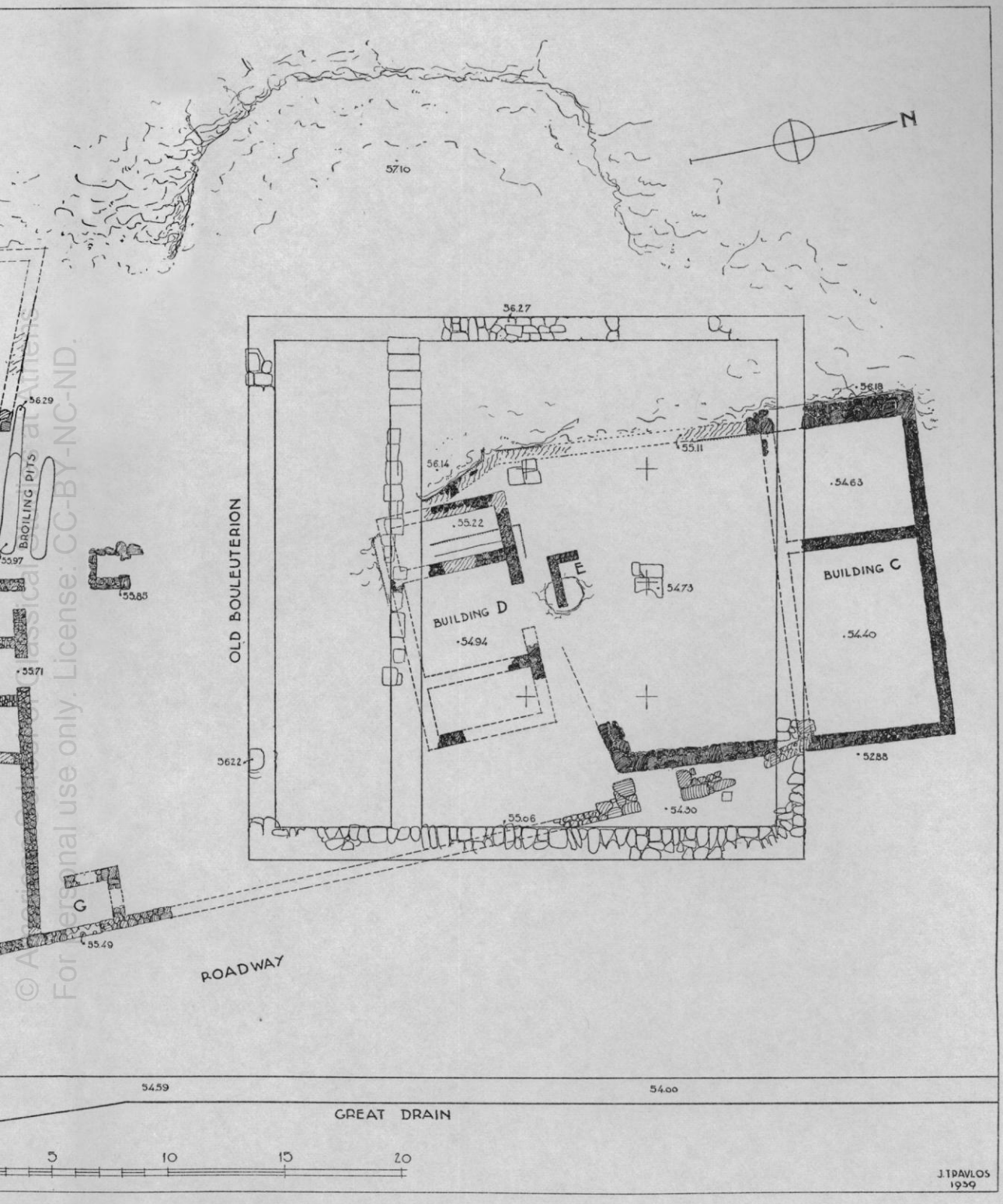


PLATE III. Plan of Area of Tholos, Buildings of Sixth Century, Actu

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ntury, Actual State. 1:250. For Restored Plans See Figs. 13 and 32