

THE TEMPLE OF ARES AT ATHENS

A REVIEW OF THE EVIDENCE

(PLATES A, 1-7)

IT is the intention of this article to present the significant material remains now known of the temple of Ares in the Athenian Agora and to point such conclusions as present themselves.¹ The previous publication by William B. Dinsmoor contains all that need be said on the question of identification of the foundations.² Because the building had been transplanted to the Agora in the first century B.C. and then thoroughly destroyed by the Herulians and later vandals, the site itself has little to offer now in the way of information. The evidence for the reconstruction is largely supplied by a few blocks and many fragments which have been found scattered over the entire area of the ancient Agora and even as far afield as the Theater of Dionysos and the modern Nike Street. It was therefore inevitable that additions and corrections to the first interpretations would be made as more material was uncovered or identified. Indeed, the number of fragments now known is more than three times the number known to Dinsmoor.³ As long as any part of the Agora area remained to be excavated,

¹ I wish to express my appreciation to Homer A. Thompson for the opportunity to study this material, and to John L. Caskey for permission to begin the work as a project in fulfillment of the requirements of membership in the American School of Classical Studies. The Fulbright Program, by extending my junior fellowship a second year specifically for this project, enabled me to make a thorough study of the material at first hand in the years 1951 to 1953. On many occasions, Mr. Gorham P. Stevens and Mr. John Threpsiades expressed their friendly interest through helpful suggestions. I do not believe that there is anyone on the staff of the American Excavations in the Athenian Agora who did not assist me in some way in this work, but my especial thanks are due to Alison Frantz and Lucy Talcott who took much of the onus of arranging the mass of newly catalogued material. The photographs are the work of Alison Frantz with the exception of Plate 7, e, which was taken for me by Linda Witherill. The drawings are made from my measurements with the exception of Plate A, which is based almost entirely on measurements and preliminary drawings made by John Travlos and Figures 11, 13, 16, 18, 19, which were drawn by M. R. Jones from his own measurements. Throughout the course of the project, Mr. Travlos supplied instruction and encouragement; without his continued interest, these results would scarcely have been forthcoming.

² *Hesperia*, IX, 1940, pp. 1-52 (hereafter Dinsmoor). I would like to acknowledge the great assistance afforded me by this scholarly article not only as a source of information but as a pattern of method. For references to the temple in ancient authors, see further the section on Ares in R. E. Wycherley, *The Athenian Agora*, III, *Literary and Epigraphical Testimonia*, Princeton, 1957.

³ The catalogue numbers of pieces assigned to the temple of Ares at the time this study was made in 1953 ran through A 2393 and I 5183. By 1957, additional fragments assigned to the temple ran up to A 2643. Numbers with the prefix A (Architecture) or I (Inscription) are from the Agora Excavations catalogue; those with the prefix EM are from the Epigraphical Museum at Athens.

Hesperia, XXVIII, 1

it seemed wise to postpone the restudy of the subject. However, now that the excavations have been carried down everywhere at least to levels preceding the destruction of the temple, there is little likelihood that much significant new evidence will be found.⁴ It is possible, if not probable, that blocks and fragments will continue to be identified from locations well outside the present American excavations, but it seems unwise to wait upon such eventualities when we are already able to present what must surely be the main mass of the material that we may ever expect to recover.

The new fragments and blocks have been assigned to the temple of Ares on a basis of comparison with those pieces found in the immediate vicinity of the foundations. Aside from the style and scale, the resemblance is found in the material, a highly crystalline marble of the Pentelic type, often strongly veined with gray-green chlorite; this mineral is especially obvious on fractured surfaces as the veins form natural lines of cleavage. Workmanship and finish are important criteria, when the piece is well enough preserved to study them. Finally, the mason's letters when they occur are so characteristic that they have often served as the final determining factor.⁵

THE TEMPLE FOUNDATIONS ⁶

Little more can or need be added to the account of the temple foundations given in the earlier report.⁷ The reader may be reminded, however, that the foundation platform was set down into bedrock and that it consisted of five courses of large, re-used poros blocks resting on a packing of broken stone about one foot thick (Pl. 2, a). Some of this packing had been examined in the original exploration of the building in the hope that it might yield evidence for the date of the transplanting of the temple. At that time nothing later than the fourth century B.C. was found in the packing. In 1951 a little more of the packing was taken up and from it was recovered a terracotta bowl of a type familiar from other deposits in the Agora and datable, through comparison with them, to the latter part of the first century B.C. or to the early first century after Christ (Pl. 2, d).⁸ This is in keeping with the Augustan date indicated for the rebuilding of the temple by the mason's marks on its marble blocks.

The further exploration of the foundation pit also brought to light beneath

⁴ It is, of course, recognized that part of the ancient Agora lies under the Athens-Piraeus railway and the houses just beyond; the possibility of any excavation in this region is too remote to be worthy of consideration, in spite of the fact that the foundations of the temple lie not far from the railway.

⁵ See below, p. 47 for the discussion of these letters.

⁶ The sections concerning the foundations, altar and terrace have been contributed by H. A. Thompson, who supervised their excavation and conservation.

⁷ Dinsmoor, pp. 5-8.

⁸ P 21280. From under the north edge of the temple foundation. H. 0.121 m.; diam. 0.31 m. Fragmentary but with profile complete. Black glaze, much worn.

the north edge of the temple a Mycenaean chamber tomb (LH II-III), one grave of the Protogeometric period and traces of a second.⁹

In order to preserve the surviving remains of the temple foundations and to facilitate the proper maintenance of the area, the place of the temple platform has been outlined with ancient blocks, filled in with broken stone and surfaced with crushed rock (Pl. 1). On the platform thus restored have been laid out the marble blocks from the superstructure of the building.¹⁰

TEMPLE TERRACES AND ALTAR

Subsequent exploration to the east of the temple has led to the complete clearance of the foundations of an altar which was barely suspected at the time of the original study, and also to the discovery of terraces.¹¹

The temple was bordered by broad low terraces to north and east (Pls. A, 1). No trace of terrace or enclosure wall has been found to south or west where, in any case, the higher levels would have rendered a terrace unnecessary. The width of the north terrace was 7.50 m. at the east end of the temple, 6.75 m. at the west end; the east terrace measured 8.25 m. in width. The middle part of the east terrace, over the width of the temple, was paved with Hymettian marble; this paving was certainly carried eastward across the north end of the altar and possibly also across its south end. Elsewhere the terraces were presumably surfaced with clay.

The best preserved part of the terrace walls is at the northeast corner of the sanctuary. Here the wall is built of large, re-used blocks of hard gray poros similar to many in the foundations of the temple proper. Two courses, each 0.48 m. high, remain in place at this point; a third course would have been required to bring the terrace floor to the appropriate level. In the line of the north terrace wall farther to the west nothing has survived except a few remnants of a packing of field stones employed where the ground proved soft; the westernmost traces fall just short of the Great Drain. Of the eastward projection of the east terrace there remain a couple of fragments of marble from the packing for its pavement and an impression in the earth for a bounding wall along its north edge.

The paving between the temple front and the altar is now attested only by a number of miscellaneous ancient blocks set down in the earth filling as bedding for marble slabs; working chips of Hymettian marble indicate the material of the paving.

⁹ *Hesperia*, XXI, 1952, pp. 93 f., 107; XXIV, 1955, pp. 187-219.

¹⁰ No mortar has been used in this restoration, any part of which can readily be dismantled if necessary. The photograph, Plate 1, was taken July 2, 1953; detailed photographs of the foundations as originally exposed are available in the Agora files.

¹¹ For earlier references to the altar cf. *Hesperia*, IX, 1940, p. 7; XX, 1951, pp. 56-58; XXI, 1952, pp. 94 f.; C. G. Yavis, *Greek Altars*, Saint Louis, 1949, p. 192.

The levels imply a gentle downward slope from south to north, enough to ensure the escape of rain water. At the middle of the east front of the temple are remains of more massive underpinning, clearly for supplementary steps leading up into the temple. One surviving block, of re-used poros, and a pillaged foundation trench show that the overall dimensions of the stair were 1.30 x 4.70 m.

There can be little doubt that the level of the paving dropped between the line of the east terrace wall and the altar. So much is indicated by the fact that the top of the ancient earth filling and the underpinning for paving slabs lie 0.30 to 0.40 m. lower along the west front of the altar than immediately in front of the temple. In the section (Pl. A) this difference is made good by a couple of steps. The pavement across the north end of the altar sloped down eastward, but the gravelled area to the east of the altar rose again gently toward the Panathenaic way. The low level of the altar, which appears so unsatisfactory in the section, is possibly to be explained on the hypothesis that the altar was re-erected before the new level of the temple was finally established.

The drain which issued from the orchestra of the Odeion ran northward between the temple and the altar.¹² Over the length of the altar the course of the drain was shifted westward some 1.50 meters and was thus brought into the line of the east terrace wall of the temple. Both to north and south of the altar the drain consisted of a rectangular terracotta channel.¹³ Beneath the marble paving between altar and temple it was of more substantial construction. Its side walls were here made of poros blocks, bedded in places on a layer of curved tiles of the type used in vaulting; impressions of heavy stone cover slabs remain in the earth along the drain. The channel measured inside *ca.* 0.45 m. wide and *ca.* 0.80 m. high, large enough, that is, to permit the passage of a man for clearing or repairing.

The bend in the course of the Odeion drain clearly implies the previous existence of the altar. It has been argued in earlier studies, however, that the laying out of the Odeion preceded the transplanting of the temple of Ares.¹⁴ We may suppose, therefore, that the line of the drain was originally straight but that it was adjusted at the time when the altar was transplanted.¹⁵

The altar lies at an interval of *ca.* 10 m. from the temple. The axes of the two structures almost exactly coincide. Of the altar foundations there remain in place two courses and an isolated block of a third course. Great damage has been done

¹² *Hesperia*, XIX, 1950, p. 78.

¹³ Immediately south of the altar the drain channel has been pillaged. To the north some of the terracotta pipes remain in place; they were covered by a miscellaneous assortment of tiles and marbles, among them several fragments of an archaic marble sima; *Hesperia*, XXI, 1952, p. 97.

¹⁴ *Hesperia*, XIX, 1950, p. 97.

¹⁵ It is worth noting that curved vaulting tiles identical with those used as bedding for the sidewalls of the drain were similarly employed beneath the north terrace wall of the temple. There can be no doubt, therefore, that the terrace wall is contemporary with the stone-built part of the drain.

by the intrusion of two storage pits of the Byzantine period and a well of Turkish date. The material, as far as preserved, consists of large, re-used blocks of soft creamy poros, similar to many in the foundations of the temple proper. One of these blocks, in the east side of the altar, exhibits on its outer face 16 shallow vertical flutings within a deeply drafted border (Pl. 2, e). The two lowest courses were entirely below ground level. The third course, no doubt the euthynteria, retreated *ca.* 0.30 m. from the edge of the second; the position of its east face was fixed by a scratched line, elsewhere it is given by the dressing of the bed. This course, although of poros in the core, was presumably of marble toward the outside.

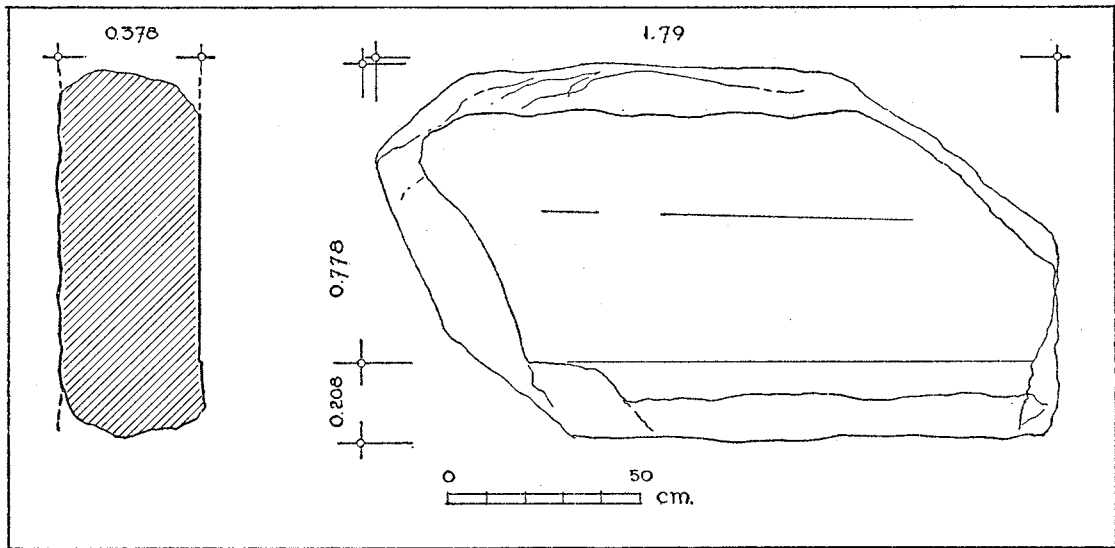


FIG. 1. Altar Orthostate A 1652.

The overall dimensions of the altar as measured on the euthynteria were *ca.* 5.62 x 8.30 m. It will be observed on the plan that its foundation is in two parts: an eastern portion 3.80 m. wide intended no doubt for the podium of the altar and a western part, 2.12 m. wide and 7.00 m. long, for stairs. The width of the western part implies a considerable number of steps, and this in turn means that the podium of the altar rose high. Six steps comparable in tread and riser with those on the great marble altar to the east of the Metroon¹⁶ would bring the top of the podium to the same level as the stylobate of the temple; this relationship may, indeed, have been intended and is a possible alternative explanation for the low setting of the altar.

A battered orthostate of Pentelic marble (A 1652) which was found above the southeast corner of the foundation may derive from the altar proper (Fig. 1, Pl. 2, c). Top, bottom and both ends are broken away; only the smooth dressed front and the

¹⁶ *Hesperia*, II, 1933, pp. 140-148. Steps about 0.30 m. high and 0.32 m. wide.

rough back are original. The present dimensions, 0.378 x 0.986 x 1.79 m., indicate that in its original form the block was large. A projection of 0.005 m. at the bottom of the dressed face apparently marks the top of the concave curve of a base cyma reversa moulding. At a distance of 0.375 m. from this fascia on the plane surface there is a lightly incised straight line of uncertain purpose.¹⁷

Among the miscellaneous pieces of stone and marble used as underpinning for the pavement between altar and temple are fragments from at least four orthostates of Hymettian marble carved each with a round shield in relief. The best preserved piece (I 6634) is illustrated in Figure 2 and Plate 2, b. The simple cornice is inscribed in shallow lettering 0.04 m. high:]OHNA[.¹⁸ On none of the other fragments is the cornice preserved. It will be observed that the slab is much thicker below than above. The underside is well dressed as a resting surface, the edges as joint surfaces; the top is finished so rough that it is unlikely to have carried any additional member. The front face of the slab is finished all over with the toothed chisel; the back face is rough picked; in the lower right corner a deficiency in the stone was made good by means of an inset patch.

Since there is nothing to suggest that the shield slabs were set between posts or columns, and since the inscription appears to have run continuously, we may suppose that the slabs were set edge to edge so as to form a parapet. On the surviving pieces, to be sure, there is no trace of clamp or dowel, but the greater thickness at the bottom would have assured a fair degree of stability. The circumstances of finding make it likely that the slabs were somehow associated with the altar on its earlier site and a row of shields would, of course, have been an appropriate theme in a sanctuary of Ares.

Mention may be made of several monuments that stood in the environs of the altar, although not all of them were directly associated with the cult.

In the open angle at the southwest corner of the altar are six blocks from the lowest course of a base which overrides, and so must postdate, the foundations of the altar (Pls. A, 1). All the surviving blocks are re-used and, apart from one of conglomerate, all are of hard gray poros. The bedding for the second course, now missing, measures 2.35 x 2.65 m. Nothing of the superstructure has been found.

¹⁷ On and around the altar were found several fragments of sculpture carved in high relief in Pentelic marble; four female torsoes and several heads both male and female (*Hesperia*, XXI, 1952, pp. 94 f., pl. 22). The standing height of the figures may be calculated as between 0.85 and 0.90 m. The style of the sculpture points to a date close to that of the temple and its first-rate quality strengthens the likelihood of the association. Since the scale of the figures seems great for either metopes or inner frieze and since the weathered condition of the surface argues against an attribution to the pedestal of the cult statue, the altar has been suggested as the source of the reliefs. This connection must be regarded as very problematic, however, and the matter requires further intensive study.

¹⁸ One is tempted to restore [*A]θηνα[ῖοι]. There is no trace of a central dot in the first preserved letter, but in view of the sketchy nature of the lettering the dot may have been omitted through carelessness.

To the southeast of the southeast corner of the altar are three poros blocks from the lowest course of another large monument (Pls. A, 1). An impression in the earth to the west marks the place of other, now missing, blocks. The overall dimensions

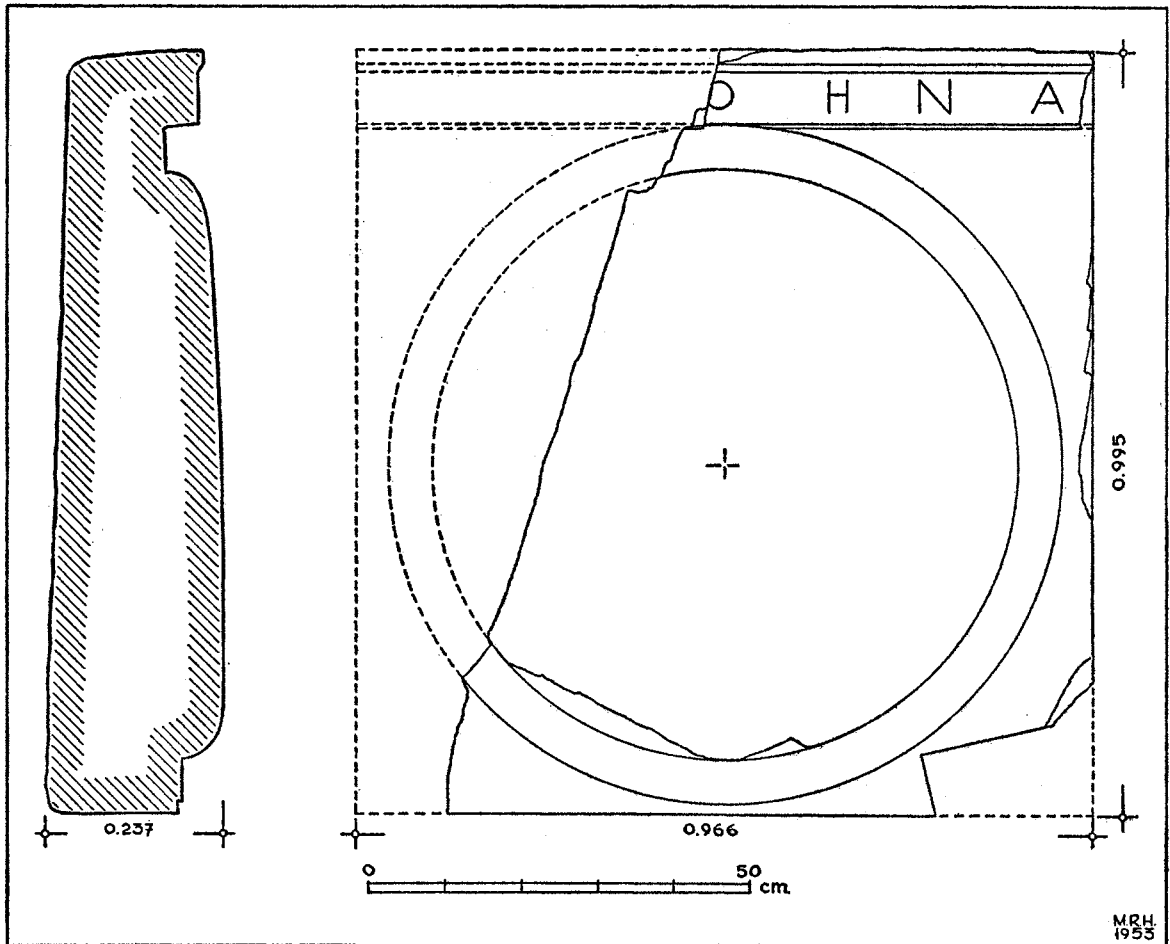


FIG. 2. Shield Block I 6634.

may be calculated as *ca.* 2.10 x 2.40 m. Again, the superstructure has completely vanished.

North of the altar, and close to the stone water channel that bordered the Panathenaic Way, is a small altar of Hymettian marble re-used as a hitching block¹⁹ (Pl. A). In its second use the altar was turned upside down, bedded to its full depth

¹⁹ *Hesperia*, XXI, 1952, pp. 96 f. The block measures 0.56 x 0.78 m. and 0.49 m. deep. Around its original lower edge is a cyma reversa base moulding. The profile of the moulding and the quality of the workmanship would suggest a date in the fourth century B.C. for the making of the altar.

in the earth and fitted with a massive iron ring in its top. Such arrangements are known elsewhere for the fastening of sacrificial animals so that it is tempting to connect this one with the Altar of Ares. The association is made unlikely, however, by several considerations. The block lies outside the clearly defined limits of the sanctuary and agrees in orientation with the water channel rather than with the altar. Its top lies low, moreover, and was probably buried beneath the rising road metal before the transplanting of the Altar of Ares. If, therefore, the hitching block served an altar it must have been one other than that of Ares.

Finally, for the sake of completeness, reference should be made to a still earlier monument that rose outside the northeast corner of the temple terrace (Pls. A, 1). The stepped foundation of this monument was built of hard gray poros and measured *ca.* 2.40 m. square. Parts of the two lowest steps remain at the northwest corner.²⁰ Along the north side of the original foundation are poros bedding blocks for two later monuments which were set close against the first; one of them was secured to the lowest step of the original by means of a clamp. The material, workmanship and low level of the original structure would indicate for it a date in the fifth century B.C. Its purpose is obscure, unless, indeed, as previously suggested,²¹ it carried one of the herms known to have stood in the northern part of the square. However that may be, there can be no question of the importance of the monument inasmuch as its presence clearly dictated a bend in the Panathenaic Way at this point and in the bordering water channel; this in turn was one of the factors that determined the placing of the temple and the altar.

A whole grove of monmuent bases has been brought to light by the more recent exploration to the south, west and north of the temple.²² These appear to have had no relation to the temple except insofar as they attest the prominence of the northwest corner of the square, a consideration which may have contributed to the choice of this area as the new site for the temple.²³

²⁰ The bottom step is 0.44 m. high, 0.18 m. wide, the second 0.30 m. high and 0.32 m. wide. On top of the second step are the weathered traces of a third. A sinking (0.17 x 0.18 m.) in the top of the second step at the northwest corner of the third step is now filled with a packing of poros as though some small monument had once stood here but had later been removed. Compare the stump of a marble post, probably a herm, in the similar base farther to the east, *Hesperia*, XXI, 1952, p. 102.

²¹ *Ibid.*, p. 96.

²² *Hesperia*, XXII, 1953, pp. 42-47.

²³ One more monument base, published in the previous discussion of the foundations (Dinsmoor, p. 7), may be specially recalled to the reader. It overlies the temple foundations at their southeast corner, and apparently was set immediately against the south face of the temple euthynteria; the upper course of the foundation has been cut back to make room for the monument. As the foundation pit of the temple is too irregular to permit of exact measurements, this cutting provides the only fixed point in locating the precise position of the temple superstructure; its evidence, taken in conjunction with the calculated width of the temple, showed that the axis of the temple was virtually identical with that of the altar.

KREPIDOMA

If the interpretation of the mason's letters, proposed below, is correct, there are several identifiable blocks from the euthynteria and lowest step course, but not a single example of the second step or stylobate.²⁴ This is an unfortunate but understandable circumstance as the upper blocks would have been the first to be plundered. The lower face of the euthynteria has been left rough; presumably the finished grade line lay against this surface, which was meant to be seen at least in part (Fig. 3, Pl. 3, a).²⁵ The top is flat and polished only in front of the setting line which marks the position of the next course.²⁶ The blocks were doweled to the foundations in the usual manner; the dowel hole is accompanied by a cutting for the prybar with which the block was adjusted. The blocks have a cutting for a double T clamp at either end. The dowel cutting for the block of the next course occurs midway in the length of the euthynteria block in each case, showing that the second step course broke joints at the centers of the blocks below. The pry holes to be associated with these dowel holes occur at the extreme rear edge. The presence of an additional pry hole on A 215 (Fig. 3) is apparently accidental, though the cutting is as carefully made as the one in the usual position. There is a slight smoothing of the surface along the right-hand edge of the block as though to receive the one above it; however, as there is no reason to suppose that any of the successive courses had joints so nearly aligned, this cutting may belong to some subsequent period of use.

The corner blocks of the euthynteria course were almost certainly the first to be laid; it can be determined, from the mason's letters and dowel holes, that at least four blocks were laid inward from the left corner on the front, and five, not including the corner blocks, from the left and right corners on the north side.²⁷

The blocks of the third and lowest step course retain their protective surfaces on both tread and riser (Figs. 3, 4, Pl. 3, b);²⁸ that on the tread 0.325-0.339 m. wide.

²⁴ See below, pp. 47-54, where the mason's letters are discussed in full. There are identified at present six different euthynteria blocks, four of which are nearly complete, and five step blocks, three of which are more than half preserved.

²⁵ The special finishes on the krepidoma blocks are discussed in detail below, p. 46.

²⁶ The setting line occurs from 0.156 to 0.160 m. behind the finished face. The blocks are 0.580-0.618 m. wide, 1.339-1.348 m. long (averaging 1.3435 m.), and 0.303-0.309 m. high. The dowel hole at the end of the block lies 0.143-0.395 m. behind the finished face, the one in the upper surface 0.332-0.440 m. from the face.

²⁷ See below, p. 53. Here and throughout this article "right" and "left" are relative to a point of view outside the temple.

²⁸ See below, p. 46. The blocks are 0.354-0.359 m. high at the back, 0.709-0.766 m. wide; the three which are preserved full length are 1.339, 1.344 and 1.3455 m. long. The projecting surface on the tread adds another 0.013-0.016 m. in height. The setting-line for the second step is 0.399-0.408 m. back from the finished face. The hole for the dowel which held A 248 itself in place is 0.190 m. back of the finished riser, the upper dowel holes 0.495-0.505 m. from the riser.

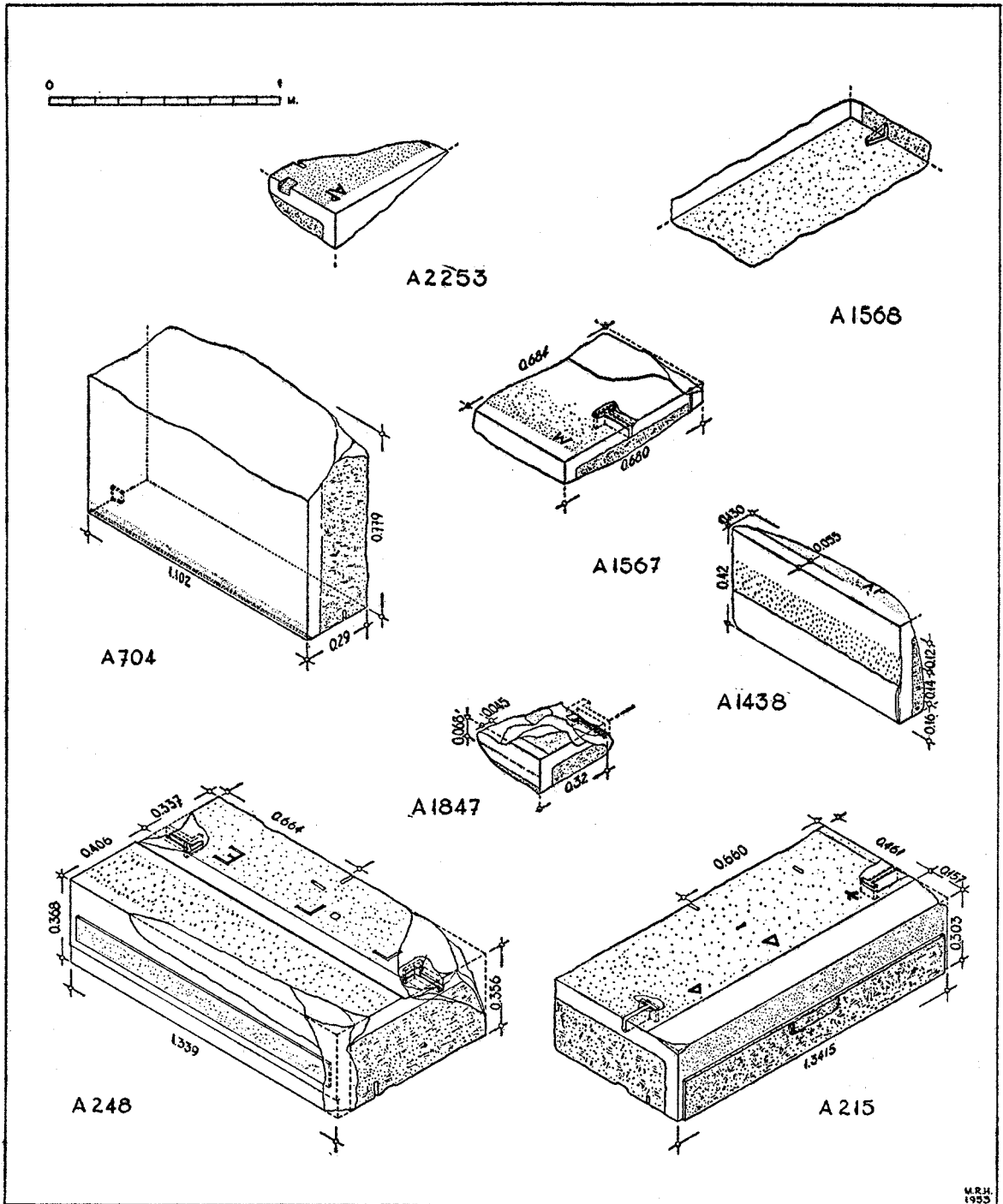


FIG. 3. Wall and Step Blocks.

M.R.H.
1953

Behind the setting line for the second step course, the surface is characteristically somewhat rougher. The dowel holes in this surface occur about midway in the block, and are accompanied by one or more pry holes, at least one of which in each case is at the rear edge of the block. Only one block (A 248) is sufficiently well preserved

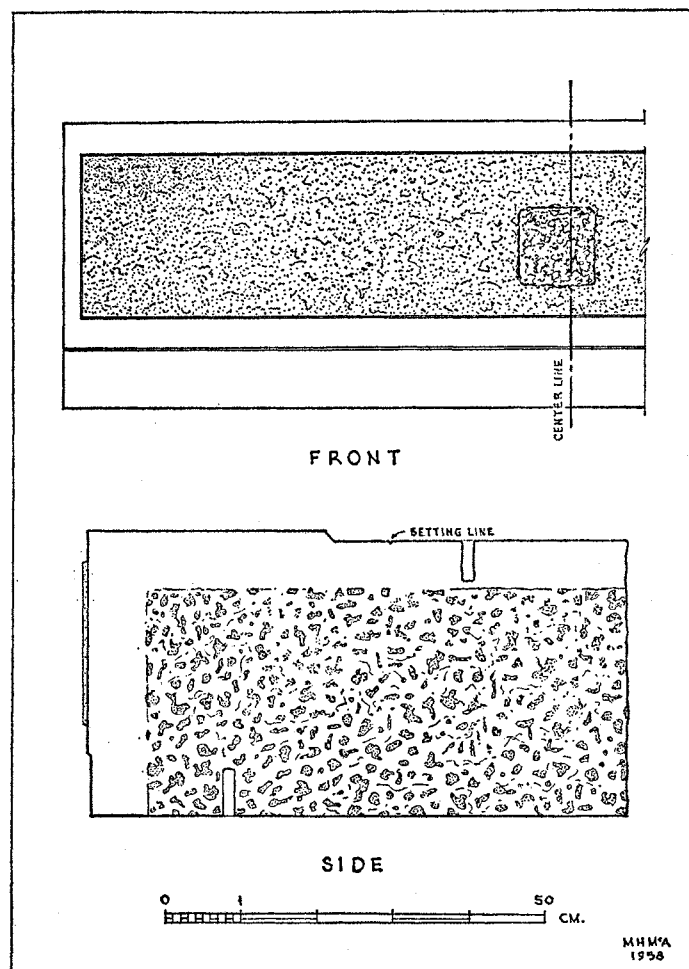


FIG. 4. Restored Typical Step Block.

to show on the end surface, at the lower edge, the cutting for the shifting bar by which it was adjusted to the euthynteria below. The corner blocks were again laid first; the first ten blocks on the front were all laid from the left, while on the north, the left-hand series ran no further than the fourth euthynteria block.

Of the second step course not a single fragment has been identified; presumably it was treated in the same way as the one below, and was again laid from the corners

inward.²⁹ We know even less of the stylobate course. The number of columns restored suggests that there were twenty-three blocks in the side series and eleven on the ends. Further we may suppose that they were set back so that the tread on the second step was equal to that on the third.

COLUMNS OF THE PERISTYLE

The evidence available at this time is clearly insufficient for any but the most theoretical discussion of the appearance of the columns.³⁰ Various fragments demonstrate that the tops and bottoms of the drums were worked in the usual manner: a square cutting was made at the center for the empolion block and surrounded by a narrow zone rough picked and somewhat lower than the main area of the polished joint surface. Figure 5 shows this arrangement on the bottom of a capital fragment, which has in addition the usual beveled relieving surface (hypotrachelion) at the outer edge.³¹ A small fragment of an arris (A 2241) shows that the bottom drum had on its lower surface the customary relieving band 0.02 m. wide.

²⁹ In the third step course, the ninth block on the front, as indicated by the letter I (A 1758), shows that the block above it was also laid from the left corner.

³⁰ There are only four complete drums which have been associated with the temple (Pl. 3, c-e; see also below pp. 51-53). One is now lying south of the Theater of Dionysos; to judge from the late cuttings, it was removed from the Agora for use as a millstone. The second is A 2257, found near the east end of the foundations. The third drum, hereafter referred to as the Hephaisteion drum, was found to be appropriate to that temple in size and workmanship and was incorporated in the reconstruction carried out in 1937 by the Greek Department of Restoration (A. Orlandos, *Ἀρχαίον τῶν Βυζαντινῶν Μνημείων τῆς Ἑλλάδος*, II, 1936, pp. 207-216). It is now the bottom drum in the north pronaos column of the Hephaisteion. The tell-tale letters on its upper surface and its original finding place in the northwest part of the Agora indicate that it belongs to the temple of Ares. The fourth drum (A 2643) which Dinsmoor (p. 23, note 52) described as "west of the 'Valerian Wall'" was rediscovered immediately to the south of the Stoa of Attalos when a marble pile was shifted in the summer of 1956. It now lies on the foundations of the temple of Ares with A 2257. I have not seen it myself, but the measurements given in the text were obligingly supplied by reliable sources at the Agora Excavations. The pair of letters on its top as well as its size confirm the identification of the drum, in spite of its battered condition, again partly due to use as a millstone. In addition to the four more or less complete drums, there are seven catalogued fragments and at least as many more identified but uncatalogued. These fragments for the most part are small and do not contribute anything to the argument. Fragments of capitals have been catalogued, and one of an abacus.

Dinsmoor has drawn heavily on the similarity of the temple of Ares to the three "sister" temples, i. e. the Hephaisteion and the temples at Sounion and Rhamnous. Comparisons between the temple of Ares and the Hephaisteion are both natural and easy, as they are so close together not only in location but in size and date, factors which have more than once made it difficult to be sure to which one some fragments should be assigned. The reader is urged to follow Herbert Koch's publication of the Hephaisteion (*Studien zum Theseustempel in Athen*, Berlin, 1955; hereafter Koch), especially the illustrations, in studying the findings set forth here.

³¹ This drawing is a restoration made from a fragment (A 1845 b) which, while far from complete, gives all the information indicated.

The arc of each of the twenty flutes was drawn from three centers (Fig. 5, A 1437): at the capital, the radii are apparently based on a unit equal to half the straight line distance between the arris centers; the outer quarters have a radius of one unit, the center quarters of three. The two-thirds point on the principal radius is determined by an arc of two-unit radius drawn from the inside corner of the arris, and the principal center and depth of the flute are found from this point. The fragment A 2009 shown in Figure 5 is from somewhere about the middle of the column. The center part of the flute has flattened out, while the curve outward to the arris has become more pronounced; unfortunately, no fragment of sufficient size has been identified as belonging to a bottom drum, so that only one limit of the progression is known.³²

The evidence for the capitals is scarcely better than that for the shafts. Although there are a good number of fragments which preserve the annulets and even the beginning of the echinus, there is only one which gives the top of the curve (Pl. 4, e). This piece (A 600) is too small to be used in calculating the radius at the top of the echinus and therefore there is no way of determining the height of the capital. It is not even very easy to restore the height on the basis of comparison, because there is considerable variation in proportion from building to building even at the same period. Taking as a basic proportion the relation of the diameter at the necking joint to the height from this joint to the top of the echinus, we find the temple of Ares capitals, when compared with the Hephaisteion, the Parthenon, and the Propylaea, would be variously restored as 0.329, 0.29, and 0.253 m. in height.³³ Presumably, the correct figure would be somewhat lower than 0.329 m. because of the later date, but how much lower is difficult to judge. If the same architect designed both the Hephaisteion and the temple of Ares, as seems likely, a somewhat more conservative profile and higher capital would be expected, unless the architect had been influenced by the progressive tendencies of the Parthenon.³⁴ Figure 6 shows the profile of A 600 in relation to that of A 1845 *c* according to the proportions of the Hephaisteion; the lower part of the profile has been restored from A 1773.

A plaster cast of A 1845 *c* was found to fit with surprising accuracy all the

³² For other instances of three-center construction of flutes in fifth century Athenian Doric architecture, see Penrose, *An Investigation of the Principles of Athenian Architecture*, London, 1888, Chap. VII, pl. 21; *Hesperia*, VI, 1937, p. 26, fig. 14. For the probable dimensions of the columns, see below, p. 52.

³³ Figures based on Stuart and Revett, *The Antiquities of Athens*, 2nd ed. by William Kinnard, 1825, Vol. II, Chap. 1, pl. XI, Chap. 5, pl. XLV; Vol. III, Chap. 1, pl. IX. Unfortunately, a figure for Sounion was not available.

³⁴ Dinsmoor, p. 47.

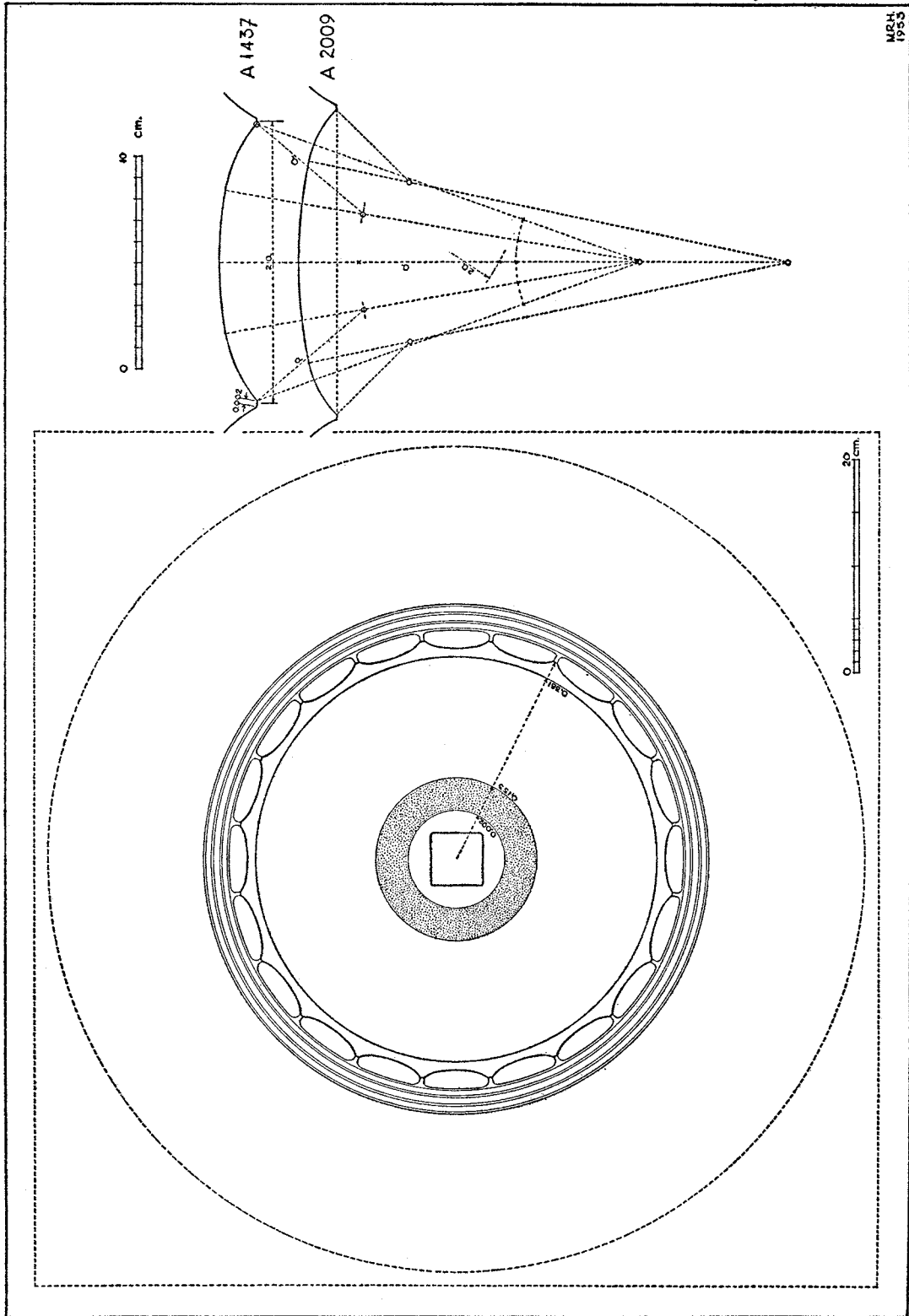


FIG. 5. Restored Plan of Capital and Diagram of Flute Construction.

capital fragments except A 192 (Fig. 6).³⁵ It can be seen at a glance that the annulets of the latter are relatively higher, and measurement shows that they are actually wider as a group as well as of slightly different profile. The similarity is so great

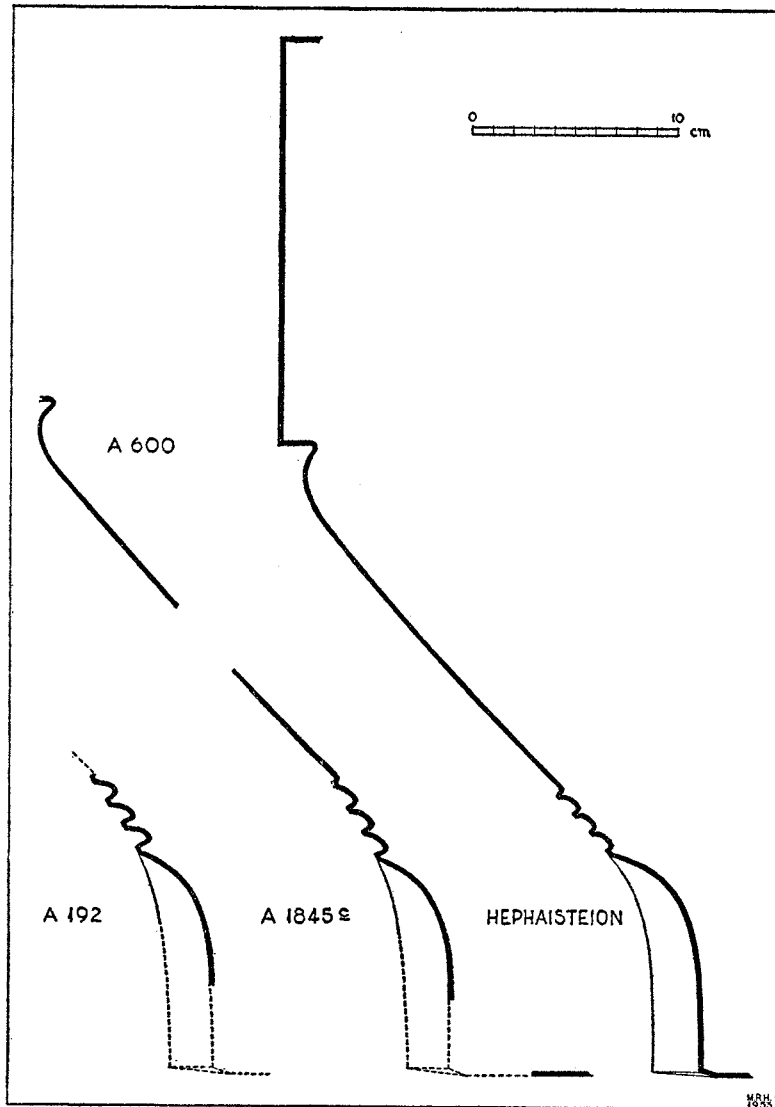


FIG. 6. Profiles of Capitals from the Temple of Ares and the Hephaisteion.

in all other respects that it is almost certain that this fragment belongs to the temple of Ares; perhaps it is part of the capital of the corner column.

³⁵ The lower surface is preserved only toward the center of this piece. The drawing shows the bottom restored from A 1773.

The only remnant of an abacus is the fragment I 2704, on which part of the top surface is preserved with the letter Θ , presumably the first of a pair, and a bit of the finished surface at the side. The identification of the use of the fragment as an abacus is confirmed by the relieving surface along the edge.

EPISTYLE

Four epistyle fragments are known, three of which are illustrated in Figure 7.³⁶ A 1792 is the end of a corner block, from the southeast or northwest angle. Part of the

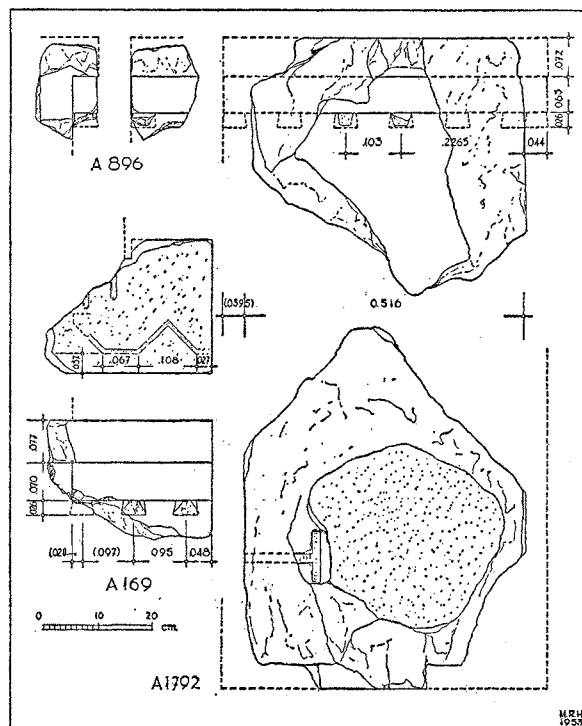


FIG. 7. Epistyle Blocks.

face is preserved on both front and return, tilting inward slightly as it rises. The preservation of part of the joint surface gives the thickness of the outer epistyle just below the regula as 0.516 m. from the front face to the anathyrosis. At the spacing set by the two fragmentary guttae, the regula on the end would have been $5(0.103) + 0.041 = 0.556$ m. wide. The corner triglyph A 64 has been restored as 0.555 m. and the corner mutule on A 238 as 0.554 m. wide, both of which support this theoretical dimension.³⁷ Presumably the sixth gutta was cut on the adjoining epistyle block, a

³⁶ For a photograph of A 169, see Dinsmoor, p. 11, fig. 6 c.

³⁷ See below, pp. 21, 24 and Figs. 10, 12.

device clearly demonstrated on the Parthenon.³⁸ However, as Dinsmoor has pointed out, the fragment A 896 is from the end of an epistyle block, and shows the finished end of the regula just one millimeter back from the joint surface.³⁹ Normally, the joint would occur somewhere about the middle of the regula, as is shown by the fragment A 169.⁴⁰ The special situation found on A 896 could occur only at the corner, specifically the northwest or southeast. The fragment clearly is not a part of A 1792, but must come from the corresponding member at the opposite corner of the temple. It would appear to indicate a different solution of the same problem;

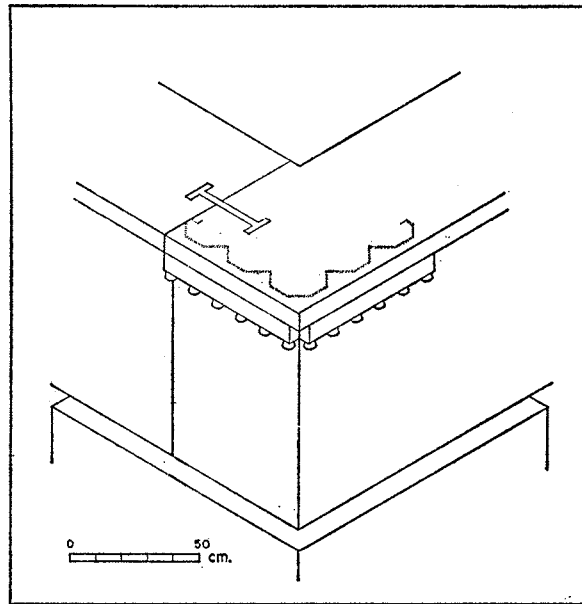


FIG. 8. Regula and Corner Jointing of Epistyle.

this time, the corner block was cut L-shaped, so that all six guttae would then be on the same piece (Fig. 8). This somewhat more expensive system was used at all corners on the Hephaisteion.⁴¹ That the corners were not necessarily treated all in the same way is easily seen in the case of the Parthenon, where, with each corner block L-shaped, the joint comes just after the sixth gutta except at the northeast corner, where the joint is between the third and fourth.⁴²

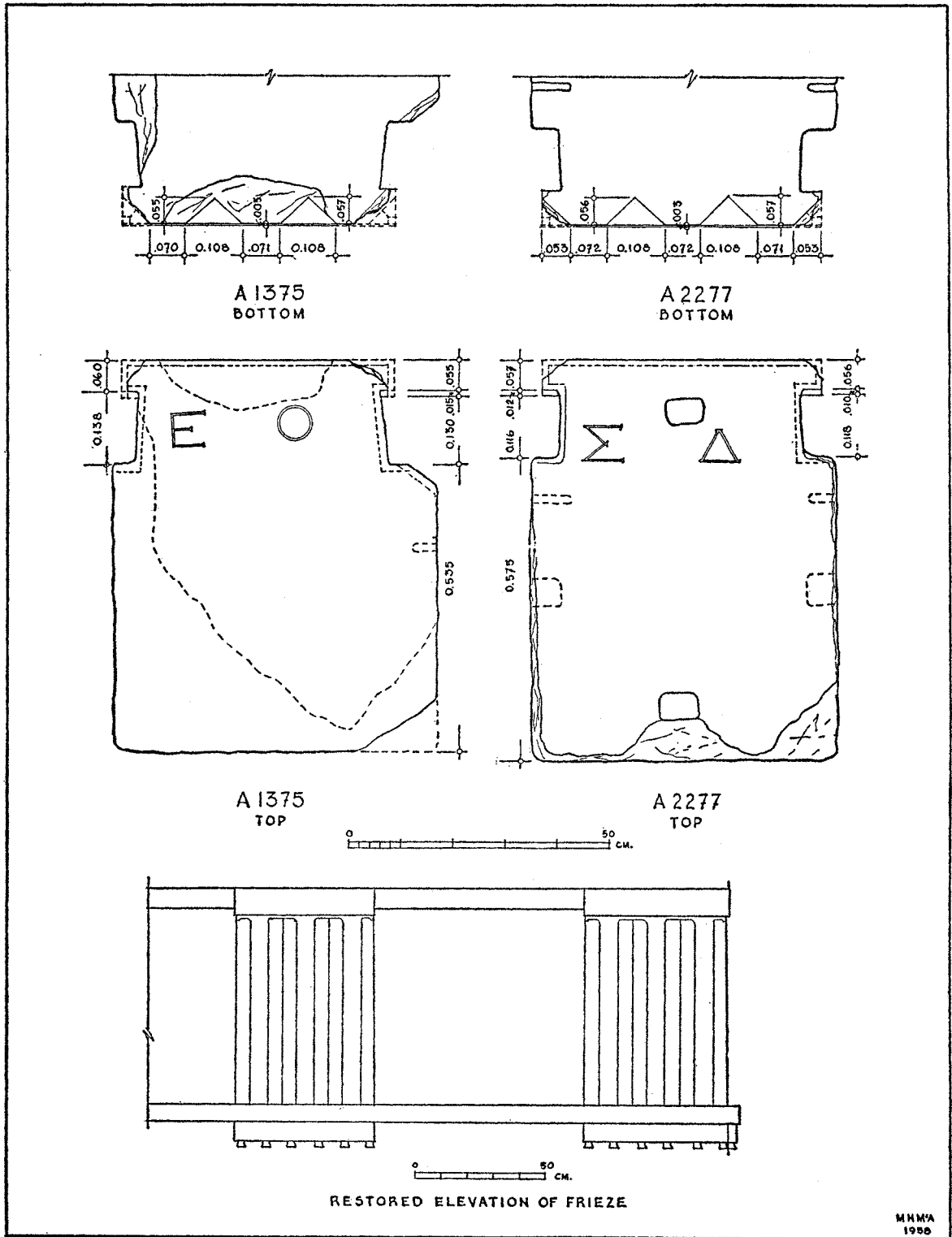
³⁸ Penrose, *op. cit.*, pl. 7.

³⁹ Dinsmoor, p. 27.

⁴⁰ The taenia and regula on A 169 measure 0.077 and 0.070 m. in height respectively; those on A 896 and A 1792 measure 0.072 and 0.065 m.

⁴¹ Koch, pp. 53, 173, fig. 35.

⁴² Cf. Penrose, *op. cit.*, Chap. II, Sec. 2, pl. 6. This information results from a special check by C. W. J. Eliot. Penrose shows the corners to be different, but indicates the southwest corner as jointed between the fourth and fifth guttae; the others he indicates alike, that at the northeast corner specifically shown with a joint between the fifth and sixth guttae.



M.H.M.A.
1950

FIG. 9. Triglyphs and Reconstructed Frieze.

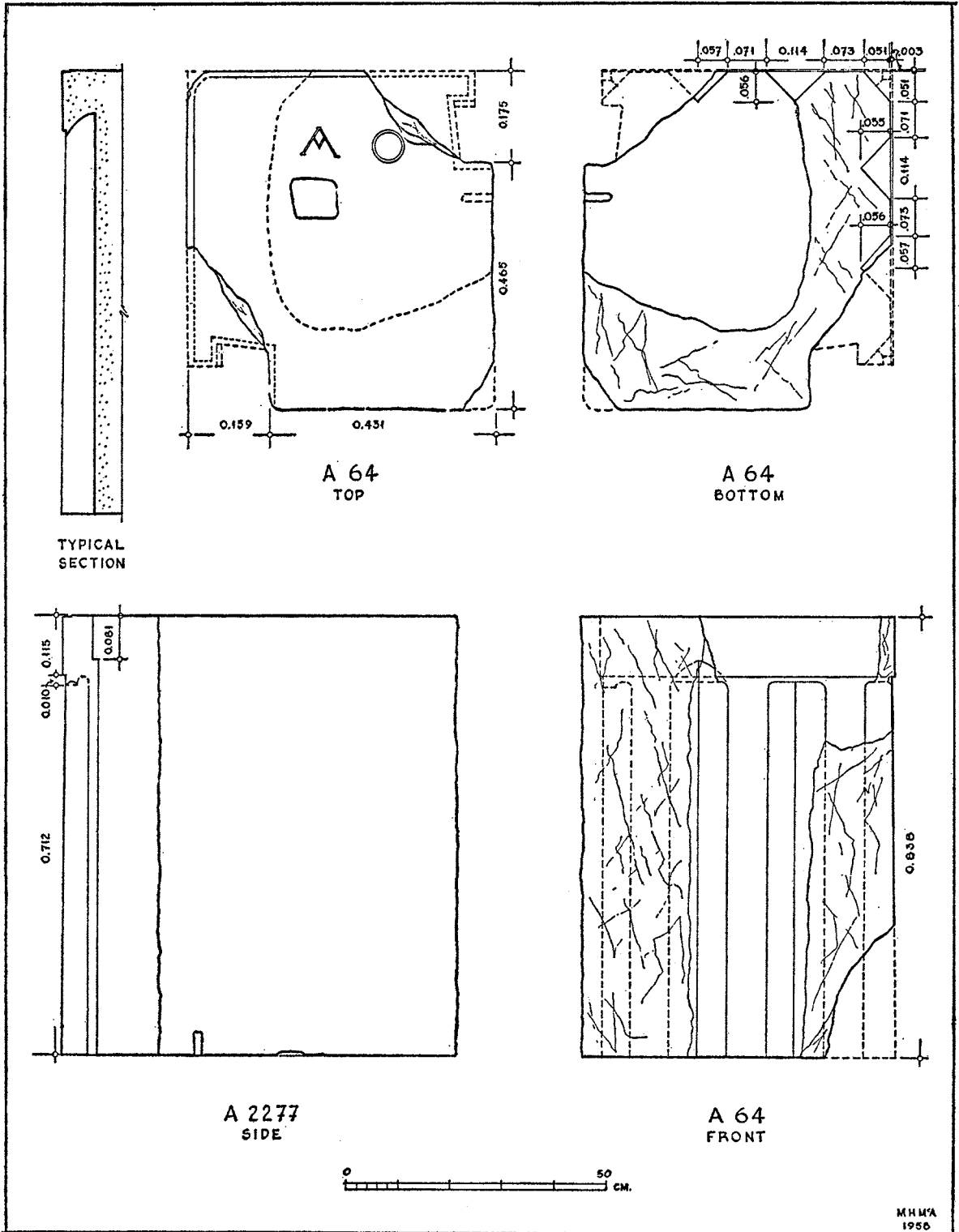


FIG. 10. Triglyphs.

Only one fragment of the epistyle backers is known (A 258), with the crowning taenia and part of the face below it. The taenia is 0.12 m. high, projects 0.02 m. from the face, and slopes outward an additional 0.002 m. as it rises. The face below slopes outward toward the bottom, like that of the epistyle, at a rate of one millimeter in fourteen centimeters. There is a relieving band along the top of the front edge, and part of a dowel hole 0.20 m. back from the fascia. No letters are preserved, nor is there any indication from this, or the epistyle fragments, of the original height of the course.⁴³

FRIEZE

There are three triglyphs almost perfectly preserved, and several fragments besides, but only the complete ones need come into the general discussion.⁴⁴ They are 0.837—0.838 m. high with a fascia of 0.115 m.; the face of each glyph slants outward until at the bottom it is in line with the fascia. The three best preserved blocks are marked $\Sigma\Delta$ (A 2277, Figs. 9, 10, Pl. 4, b), EO (A 1375, Fig. 9), and AO (A 64, Fig. 10), the last being from a corner.⁴⁵ These letters would indicate that the blocks were the eighteenth on the north flank and the first and fifth on the rear.⁴⁶

A 2277 shared the fate of the column drums for it bears cuttings for use in a mill, but by some chance was either never used or used only for a short time as it shows little sign of wear. Lead remains in the two large cuttings in the top front and back, presumably for adaptation to the mill. There are also two dowel and two shift holes, a pair on either side at the bottom. These might be taken as evidence that the triglyphs were set before the metopes, but this is not necessarily the case. The dowel cuttings are well back of the cuttings for the metopes allowing plenty of room for leading even with the metopes in place. An additional bit of evidence in this matter comes from the epistyle fragment A 169 (Fig. 7): on the top there is a clear outline of the superposed triglyph, made by the characteristic small pits found on this marble when water has been allowed to stand on a relatively protected surface, in this instance, under the relieving band at the front edge of the triglyph. Within this outline are two parallel cuttings, not for a letter as Dinsmoor proposed, but for prying the metope into place.⁴⁷ In this case, the metope was clearly set in position

⁴³ See below, pp. 56-58.

⁴⁴ In addition to the three complete triglyphs, five fragments have been identified, none of which can be measured with millimeter accuracy. These are A 747, A 1376, A 1650, A 1852, and A 1867.

⁴⁵ Photographs of A 64 are given by Dinsmoor, p. 2, fig. 1.

⁴⁶ See below, pp. 48-51.

⁴⁷ Dinsmoor, p. 27.

against one triglyph before the next triglyph was laid, rather than dropped from above between two doweled triglyphs.

A 1375 is largely broken away around the lower edges; only one dowel cutting remains. There is no dowel cutting in the top for the geison.

The corner triglyph (A 64) has a large dowel cutting in the top; the anchoring of the corner geison block, an enormous one, would be particularly important as the triglyphs do not seem to have been clamped either to the metopes or to the backers.⁴⁸ Dinsmoor supposed this cutting to be Roman in date,⁴⁹ but if this dowel was a late addition, the original system must have been an exceedingly casual one. Similar cuttings occur on the corner geison blocks of the Hephaisteion which conceal any others that might be in the triglyphs beneath them.⁵⁰ Dr. Thompson has examined these dowel holes recently and believes them to be fifth century despite the pour channels. The glyphs of the corner triglyphs average a greater width (0.185 m.) than those of the other two (0.179 m.); the variation in total depth among the three blocks is probably not significant.

Four fragments of metopes have been identified by the letters on the tops.⁵¹ The cap in each case is 0.081 to 0.083 m. high, and projects 0.015 to 0.018 m., agreeing with the cuttings on the known triglyphs (Fig. 11). The average thickness of the slabs is 0.099 m., the caps 0.116 m. A 1815 is sufficiently preserved to show a cutting in the back 0.11 m. from the top, and exactly like a horizontal dowel hole. Its use is uncertain; perhaps it was used for lifting rather than for bracing the block.

None of these fragments, nor the single piece from the bottom of a metope (A 1833), are sufficiently preserved to say whether they were sculptured or not, nor are the letters much help in determining which positions they held, as three of the metope fragments show only the letters which indicate the side of the temple.⁵² The fourth (A 1815) is marked $\Gamma\Delta$, the letters somewhat closer together than usual, but presumably so grouped because there were only two used; this would be either the second or third metope on the north flank, depending on whether the metope series was separate from that of the triglyphs. So far, no sculpture has been identified as a reasonable candidate for an Ares metope.

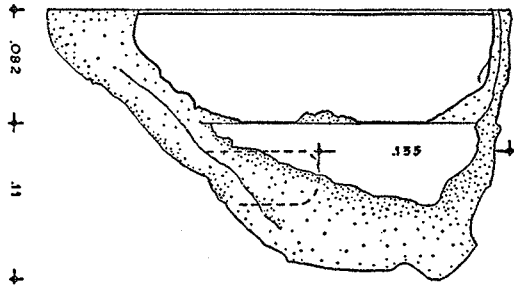
⁴⁸ On the Parthenon, the geisa are not always doweled to the triglyphs, but variously to the metopes, metope fillers, and frieze backers as well. However, the triglyphs are all clamped to the metope fillers and frieze backers. See Durm, *Die Baukunst der Griechen (Handbuch der Architektur, 2nd part, vol. 1)*, 3rd ed., 1910, fig. 144, p. 171.

⁴⁹ Dinsmoor, p. 2.

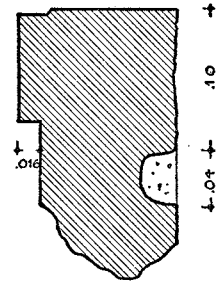
⁵⁰ Koch, pl. 42.

⁵¹ A 1790, A 1815, A 2098, A 2099. The measurements used in the text are those which I took in 1953.

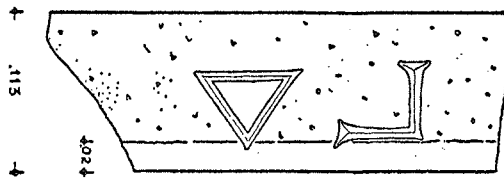
⁵² See below, p. 51. A sixth fragment (A 2633), preserving the cap but no letters, was catalogued in 1956, and is said to agree in dimensions.



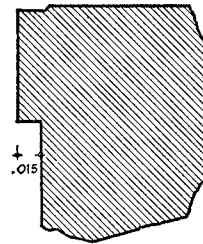
ELEVATION OF A 1815



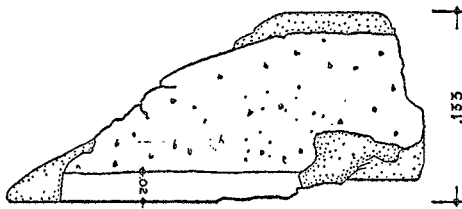
SECTION OF
A 1815



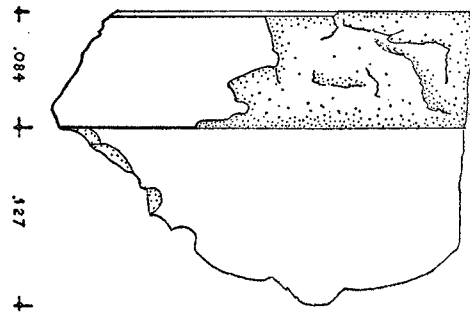
PLAN OF A 1815



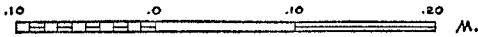
SECTION OF
A 2633



PLAN OF A 2633



ELEVATION OF A 2633

SCALE OF  .10 .0 .10 .20 M.

1958
M. R. JONES

FIG. 11. Metope Fragments.

GEISON

The corner geison block A 238 has now been doweled together and partly restored in concrete; in it are incorporated a number of fragments previously catalogued with separate numbers.⁵³ Dinsmoor has already pointed out many of the interesting features of this block, but they may be reviewed here with profit. The top was cut to receive the end of the raking geison; the slope is given by the sima bed and the inner

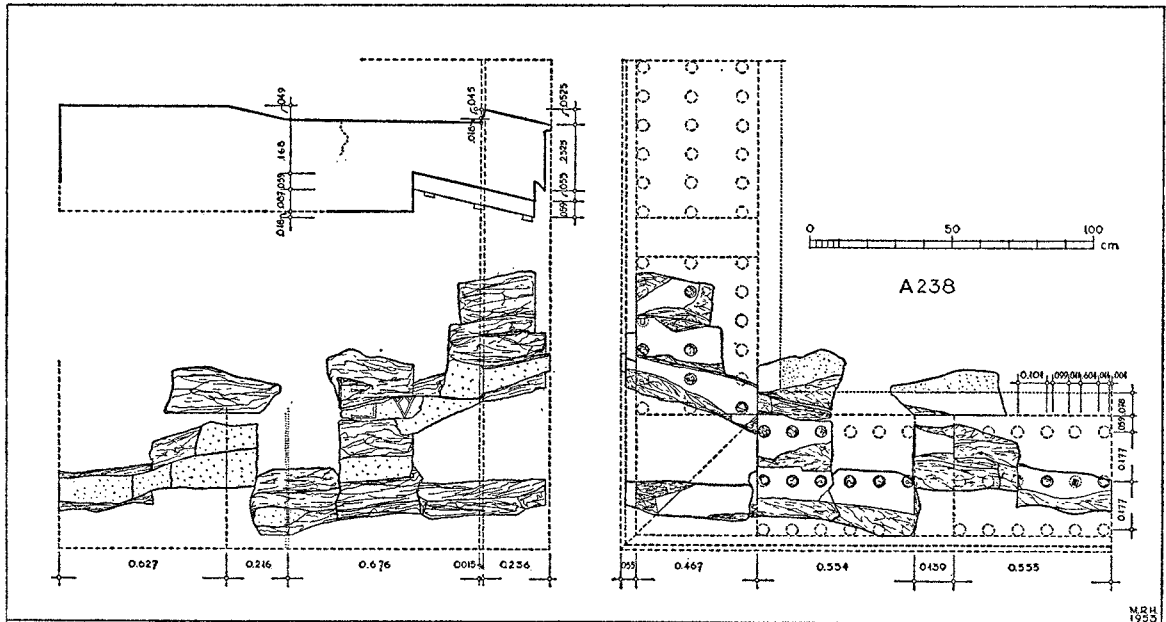


FIG. 12. Corner Geison A 238, Restored.

part of the cutting, both of which were parallel to the soffit of the flank geison at a pitch of nearly 1:4, almost exactly the "standard" pedimental pitch. The bed of the cutting is not horizontal but continues to slope down slightly. Its extent along the flank cannot be determined from the available evidence, but probably occupied most if not all of the length of the block.⁵⁴ The mason's letters *AE* are off-center, possibly because of the curious cutting immediately adjacent to them; the purpose

⁵³ See Dinsmoor, p. 19, fig. 9. Additional drawings are given here, showing the fragments as they were assembled and reconstructed (Fig. 12, Pl. 4, a). The joining and doweling of the fragments was difficult owing to the fact that even fifth century workmanship was not always impeccable; this is particularly true of the soffits of the mutules where it was not easy for the mason to achieve a plane surface, much to the trial of the mender. In addition to the pieces now incorporated in the reconstructed geison A 238, there are fourteen fragments of the horizontal geison, none of the raking. Six of these fragments are parts of mutules, sometimes too small to preserve more than one gutta.

⁵⁴ On the Hephaesteion, the cutting continues to the joint.

of this hole is not clear as only one side is preserved. It may have been used in lifting the block. The mutules are not identical in width; the one next to the corner is 0.554 m. wide, the other 0.555 m. The 0.139 m. via between is very probably of more than standard width, as Dinsmoor suggests, especially as it is now clear that the corner triglyph was wider than the others; there are as yet no other viae known which are preserved in full width. Two of the guttae were replaced in antiquity, at the time of the original construction or when the temple was moved. In one case the tenon remains although the gutta has been broken cleanly away.⁵⁵

Two large fragments, one from the inner face (A 1812), the other with only the back of the mutule soffit (A 1939), are all the significant remains of the flank geison (Figs. 13, 14).⁵⁶ They do not join and so do not reveal the width of the whole block, but it is still possible to reconstruct the arrangement of the top. The sima bed was presumably cut on a slope exactly like that begun on the corner block. The bed of the roof beam was horizontal and continued to within 0.252 m. of the inner face, at which point it was cut down 0.088 m. to receive the ceiling beam. The width of the bed indicates that this was one of the major beams at the side of the east or west porch.⁵⁷ A small hawksbeak ran along the top of the inner face (Fig. 14).⁵⁸ The inner fragment has a cutting for a T-clamp on the higher of the top surfaces, centered 0.127 m. back from the beam cutting. The clamp in the outer fragment is 0.123 m. in from the fascia below the mutule; next to it toward the interior of the block, at the top of the vertical joint surface, is a horizontal groove that may have been used to manoeuvre the block into position; there is a regular shift cutting below it at the bottom of the block. There is no evidence as to the location of any dowels.

PEDIMENT

The top of the geison along the front of the temple was 0.043 m. higher than on the flank. This added thickness Dinsmoor⁵⁹ has taken to indicate a strengthening of the pediment floor with a view to the support of the sculpture; no further evidence

⁵⁵ It is a continual source of wonder to me that the Athenians could consider dismantling and re-erecting a building the blocks of which would ordinarily have required protective surfaces until they were in their final positions.

⁵⁶ A 1939 is too low to be part of the front horizontal geison, which had a raised pedimental floor, and the sloping top surface indicates the bed of the sima. A 1812 is preserved to a minimum width of 0.80 m., too wide for the epikranitis, and is the same height (0.32 m.) as the fragment from the outside. Note that the inner part of the flank geison in the Hephaisteion is cut in a separate piece, Koch, pl. 46.

⁵⁷ Cf. Koch, pls. 48, 50.

⁵⁸ The height is given by the epikranitis fragments A 1779 and A 1812 a, while the profile of the moulding was taken from A 1868.

⁵⁹ P. 31.

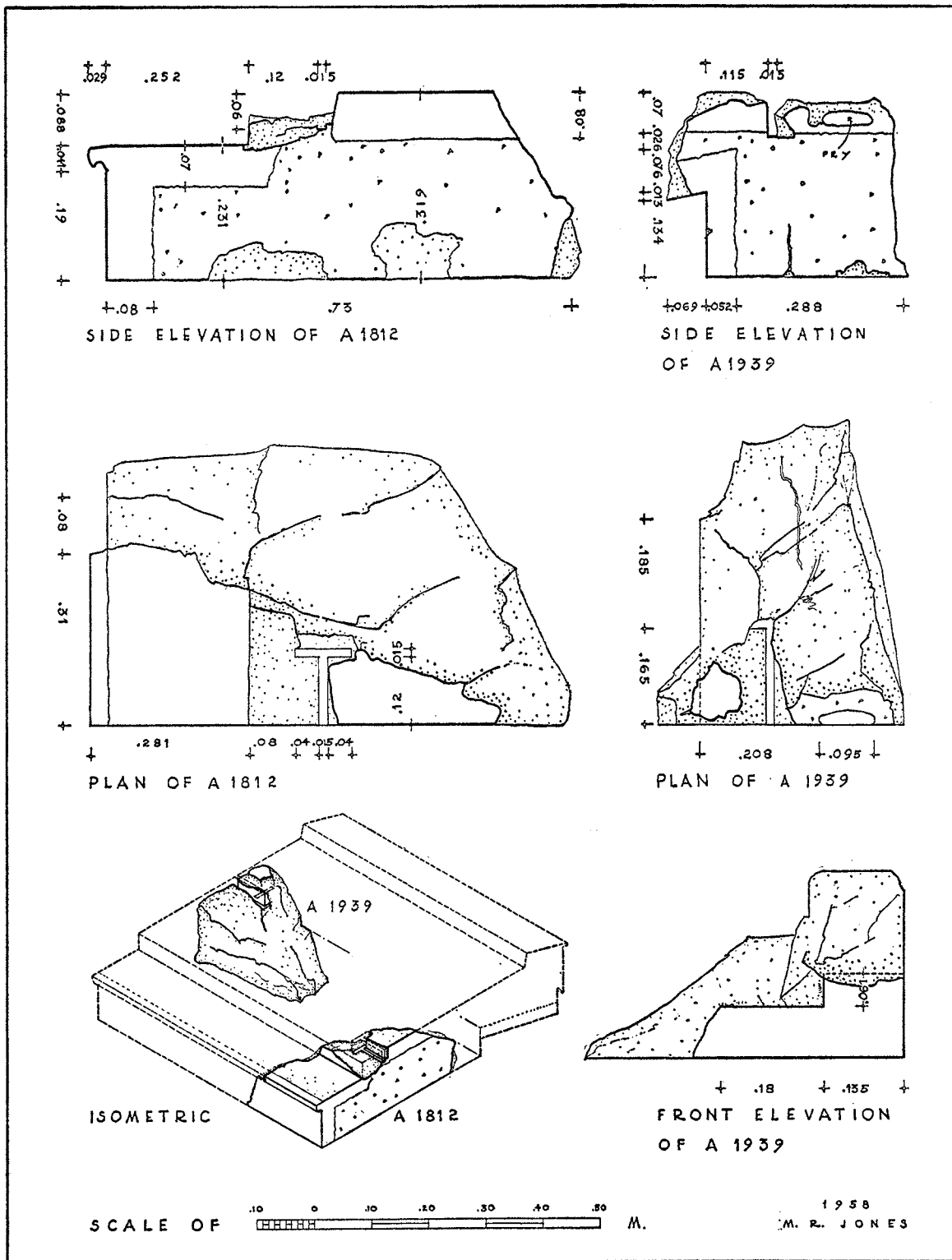


Fig. 13. Flank Geison Block.

has been found for the existence of such decoration. The only additional information regarding the pediment might come from A 260, a part of a tympanum block, presumably from the one next to the angle (Fig. 15).⁶⁰ The face is smooth picked but not polished; the back is only roughly finished and is drilled with two small holes 0.04 and 0.012 m. in depth. Near the bottom is a small patch, a smooth area, representing the maximum projection of the rough face; it was apparently finished off

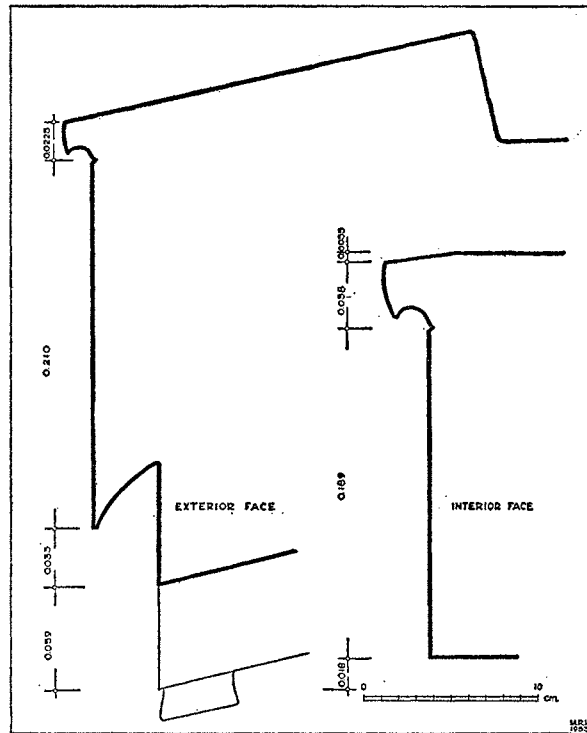


FIG. 14. Geison Profiles.

when the block was fitted into place, and sets the width of the course at 0.313 m. The upper surface is smooth picked in the manner customary in this building.⁶¹ The bottom is also treated in the usual way, with a toothed chisel; the surface at the inner edge has spalled off. The pitch, and therefore the pedimental slope in general, is 1:3.95. A small T-clamp cutting is partly preserved in the top, set in a plane parallel

⁶⁰ Very likely the angle piece was cut on the first block of the raking geison, as on the Hephaisteion and elsewhere. A 260 was found near the New Bouleuterion and as it gives no clue to the total size of the pediment, it should not be too definitely associated with the temple of Ares.

⁶¹ See below, p. 45.

to the bottom, that is, horizontal; the clamp presumably tied the marble facing block to a poros backer.

SIMA

The sima has been very fully discussed in the previous publication.⁶² The examples from the Hephaisteion are almost identical with those from the temple of Ares; the former have perhaps a millimeter less in height and in the width of the

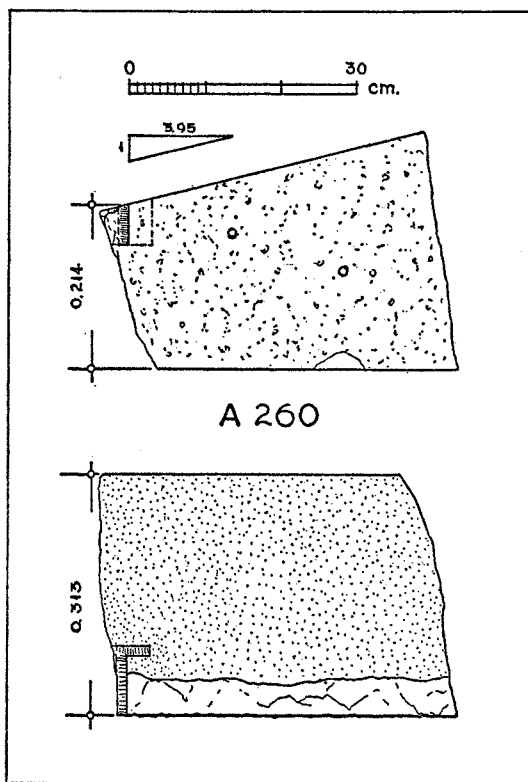


FIG. 15. Tympanum Block.

palmette design unit, although it is difficult to be sure when there are only four or five examples of each for comparison. Since Dinsmoor's writing, one additional lion's head has been discovered (A 1853), the muzzle entirely broken away (Pl. 4, c). The locks seem to be very similar to those of A 700, and the water channel through it has the same smooth finish.⁶³

⁶² Dinsmoor, pp. 32 ff. The reader's attention is called to the error in the legend of fig. 12; it is the raking sima that has a right angle at the lower edge.

⁶³ Dinsmoor, p. 35, fig. 13.

ROOF

Three fragments of cover tiles of the Pentelic type of marble, found in the vicinity of the temple foundations, may possibly be associated with the building (Fig. 16).⁶⁴ The low arch of the under side is cut away at the lower end to fit over the next cover tile. A 1871 gives the full width of the tile as 0.212 m. The length is not preserved in any example, nor is there any identified fragment of a pan tile.

For comparison in Figure 16 are shown three from among several fragments of marble roof tiles found in a context of the third century after Christ a few meters to the north of the Hephaisteion (A 2682-A2684); in all probability they derive from that building and may be presumed to have been dislodged as a result of damage done at the time of the Herulian sack in A.D. 267.⁶⁵

A 701, the base for a corner akroterion, is fully discussed and illustrated in the previous publication.⁶⁶ The figure of a young girl, apparently a central akroterion, has been connected with the temple more recently; it was found in excavating for the line of the Athens-Piraeus Railway in 1891 and is now in the National Museum in Athens (No. 1732).⁶⁷

WALLS

The total evidence for the appearance of the toichobate course is found in two fragments, A 1847 and A 1438 (Fig. 3). The first is an outer corner of a block, the front, end and part of the top surfaces preserved, with about half the clamp cutting; the center-line of the T-clamp is 0.32 m. back from the face. Only the upper part of the front surface is finished; a pitted weathering line 0.068 m. down from the top indicates the position of the paving slabs against it. The top is finished with a smooth band along the front edge; a setting line 0.045 m. back marks the position of the orthostate.

The inner part of the toichobate is represented by the other piece. Here the smooth surface of the face extended at least 0.12 m. down from the top. The block was re-used as a doorsill with this side uppermost and is so worn that the relative level of the interior paving is no longer determinable.⁶⁸ The top surface is polished as

⁶⁴ A 1689, A 1855, A 1871, all recovered from marble piles near the temple. The dimensions used in Figure 16 are taken from Mr. Jones' measurements. It may be noted that according to these figures, the Hephaisteion roof tiles are almost exactly the same size as those from the temple of Ares; the latter were possibly the narrower of the two.

⁶⁵ For other fragments of marble roof tiles attributed to the Hephaisteion, cf. Koch, p. 66, figs. 61, 64.

⁶⁶ Dinsmoor, p. 36, fig. 14.

⁶⁷ It has been published in this new connection by P. N. Boulter, *Hesperia*, XXII, 1953, pp. 141-147, pls. 47, 48.

⁶⁸ The block shows the cutting for the bottom pivot of the door and the arcs made by the door itself; these later marks are omitted in the drawing in order to avoid confusion.

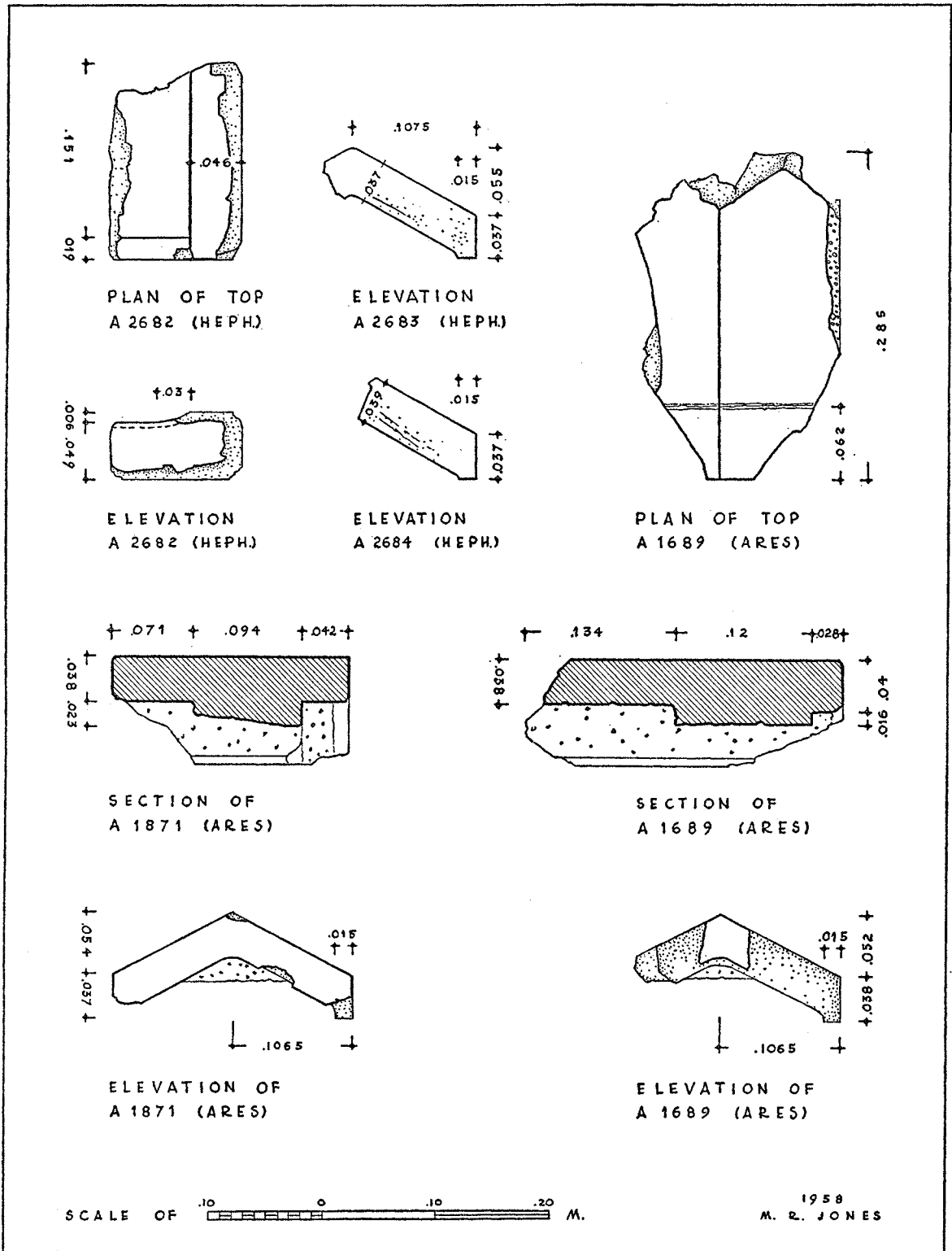


FIG. 16. Roof Tiles.

far back as the partially preserved setting line, 0.055 m. from the edge. On this upper surface, the mason's letters appear unusually close to what was the inner face; presumably the inner orthostates were removed first and the letters were cut while the outer orthostates were still in place.

The outer orthostates, as demonstrated by A 704, were 1.102 m. long and about 0.29 m. thick (Fig. 3).⁶⁹ This is somewhat less than half the thickness of the wall. A one millimeter relieving surface 0.02 m. wide runs along the front of the bottom surface. At one end there was a dowel cutting, in this particular case at the right. At the other end of A 704 is a similar cutting, but it is not parallel to the front face nor is the top of it horizontal. It appears to have been for a *paragomphos* or preliminary dowel.⁷⁰ Unfortunately, the height of the orthostate is not fully preserved, but it must have been more than 0.80 m.

Quite a number of plinths are preserved, though no single one is complete.⁷¹ A 1567 (Fig. 3) and A 2114, which measure in width 0.680-0.684 m. and 0.678 m. respectively,⁷² are polished on both faces. The lower surface is tooled smooth and the upper is picked with a polished band at each outer edge. The ends of the blocks are finished with anathyrosis at the top and sides. The blocks were clamped together with T-clamps approximately at the center of the joint. Every example which is sufficiently preserved shows a channel of V-section on one of the vertical anathyrosis bands at each joint, usually at the inside face (Pl. 7, b, c, f).⁷³ In no case is the full

⁶⁹ The weathering pits along the lower edge of the face show that the only known orthostate fragments, A 704 and A 1817, were both from an exposed face of the wall; it is probable, if not certain, that the orthostates did not remain in place long enough after the destruction of the roof to acquire such marks on the inside face.

⁷⁰ An even clearer example is to be found on a wall block, A 1568 (Fig. 3) discussed below, p. 32.

⁷¹ Twenty-eight fragments have been catalogued as wall blocks, but it is possible that a few of these are unidentifiable parts of other members.

⁷² The increase in width toward the middle of A 1567 is unexplained; it is produced entirely by the inner face, which is not at right angles to the vertical joint. It cannot be demonstrated that the difference between the two blocks is due to batter, because the "course" letter is missing in both cases. A comparison with the 0.76 m. thick walls of the Hephaisteion suggests to Dr. Thompson that thinner walls were used in the temple of Ares, possibly because interior columns were part of the original scheme.

⁷³ Average width of channel 0.011 m.; average distance from face 0.046 m. Similar cuttings appear on the wall blocks from the Hephaisteion; see *Hesperia*, Suppl. V, pp. 101-104, where their probable function has been explained as channels for lead "weatherstripping." It is clear from the presence of mason's letters on several of the blocks now under discussion that the examples cited here belong to the temple of Ares. It is also clear from the position of these letters, which must have been invariably near the outer face, that the channels were generally next to the inner face. The exceptions are A 1749, the channel of which is extremely rough as though it were a mistake and never finished, EM 3056 and A 2114. A 1749 is marked Δ , the other two AP. It is possible that all three were mistakes, but some such irregularities have been noted by Dinsmoor in the

height of the block preserved, but the length may be taken from the orthostate A 704 which measures 1.102 m.⁷⁴ This, however, does not agree with A 1874, a fragment from the upper part of a wall block, preserving part of the top, face and both ends (Pl. 7, f). The length is only 0.91 m., the top is tooled all over in a rougher fashion than usual, without a smooth band at the edge, and the face is finished with a picked surface. This treatment is particularly obvious in the middle and at the right end, but the limits are not clear; at each end there is a vertical channel on the anathyrosis band adjacent to this face. There are no cuttings to give additional information. It is tempting to assign this inconvenient block to the Hephaisteion; the interior faces of most of the wall blocks there are treated in a similar fashion.⁷⁵ However, the Hephaisteion plinths which are in place measure according to their particular locations 0.24, 0.848 and 1.25 m. in length. It is not even possible to fit this piece into the missing pronaos and opisthodomos walls. If the block does belong to the temple of Ares, it may be a partial replacement of some broken plinths; any positive conclusions in regard to a position in the temple require more exact information on the lengths of the walls than we now possess.⁷⁶

There is a special cutting worthy of mention on A 2253, a fragment from an outside upper corner of a wall block (Fig. 3). Just in front of the half-preserved clamp-cutting is a neatly made notch, allowing a shifting bar to be used on the adjacent block. The fact that these cuttings are not common suggests that the usual method was to apply the bar to the bottom of the block, and would be abandoned only when it became impractical, as in the case of the last member of a course, which would have been inserted from above. If this cutting was made by the original builders, as it would appear, and the shift hole opposite could have been located by probing, it may have served to show their successors which of the blocks in the course was the last-laid, undoweled one, and made it easier to "unravel" the row of invisibly doweled plinths.⁷⁷ However, there is no assurance that such cuttings were limited

Hephaisteion. There the channels normally occur next to the inner face; the exceptions are found in the eighth course of the opisthodomos crosswall, and the sixth and eighth courses of the pronaos crosswall where they abut the north flank wall. No explanation has been offered for this variation.

⁷⁴ An approximate length may be calculated from the position of the dowel cutting on top of three of the blocks, assuming that the joints broke evenly at the centers of the plinths of the course below. (The adjacent pry hole is not preserved in any of the examples, so that the alternate measurements including the five centimeter length of the dowel hole are also given.) A 263: 0.477-0.527 m., A 1428: 0.537-0.587 m., A 1982: 0.475-0.525 m. from the joint to the center of the block, resulting in the total lengths of 0.954-1.054, 1.074-1.174, and 0.950-1.050 m. respectively. Taking the maximum of the first and last and the minimum of the second, we arrive at an average length of 1.059 m., within five centimeters of the length given by the orthostate.

⁷⁵ *Hesperia*, Suppl. V, pp. 94 ff.

⁷⁶ See below, p. 63.

⁷⁷ The re-cut clamp-cuttings on the step blocks show that the work of the later period is often difficult if not impossible to distinguish from the earlier.

to "key blocks." The cutting already described on the end of the flank geison block A 1939 is similar.⁷⁸

A more unusual cutting is found on the lower surfaces of A 1568 and A 704 (Fig. 3). What would appear at first glance to be an ordinary dowel hole is seen on closer examination to be set at a slight angle, the top sloping downward as it goes in. These are almost certainly cuttings for *paragomphoi*, a term applied by Orlandos to

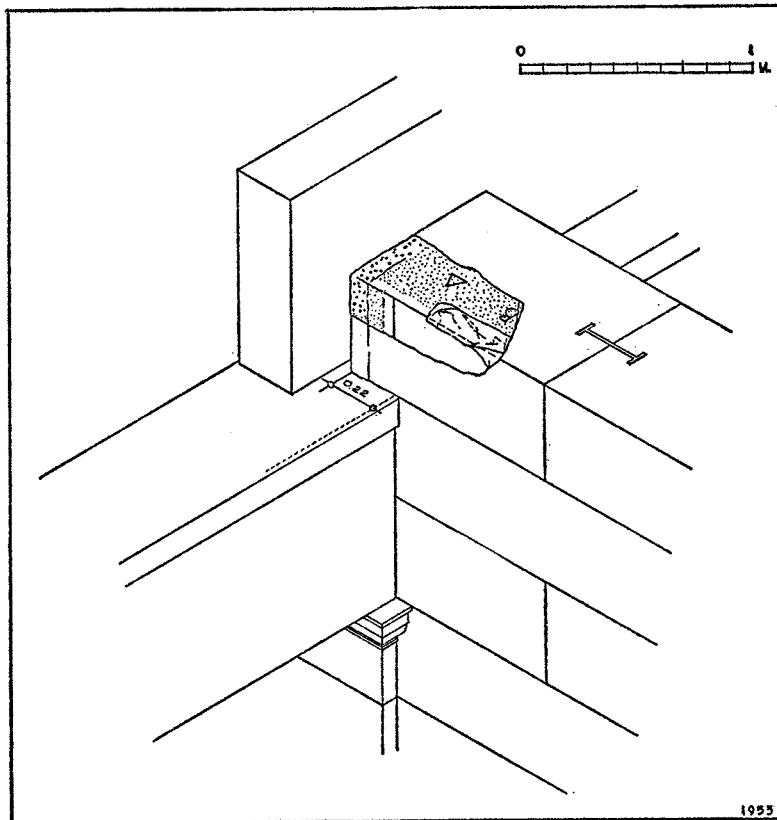


FIG. 17. Restoration of Block I 5183 above the Northeast Anta.

the wedge-shaped preliminary dowels used on wall blocks of the Parthenon.⁷⁹ The cuttings on these fragments from the temple of Ares were made presumably to allow for dowels of this kind which held the preceding blocks tightly in position.

The end of wall block I 5183 was left unfinished because it was set into some part of the superstructure (Fig. 17). Only two letters are preserved, but these are somewhat closer together than is customary, suggesting that the block was a short one. The middle letter **B** tells us that we are dealing with the second course from the top; the Δ indicates the north side of the building. The only possible position for such a block is at the northeast corner above the anta; the unfinished end would be covered

by the backers of the frieze (Fig. 17). This means that the frieze must have been carried across the peristyle at the east end. The same arrangement was used on the "companion" temples at Rhamnous and Sounion, and an exactly similar block exists in the Hephaisteion (Pl. 5, b).⁸⁰ The absence of any clamp in I 5183 is due to its position against the lower half of the two-course frieze. That it was not even clamped to the frieze backer beside it may be explained by the narrowness of the backer, which must have measured close to the 0.22 m. indicated by the joint surface on I 5183. The block in the Hephaisteion which corresponds to the member immediately below the one under discussion has been cracked by the clamp which fastened it to the epistyle, but there is no sign of any such stress in the course above.

The fragment A 2251 would be taken at once for a wall block were it not that the letters AΘ are only 0.08 m. apart.⁸¹ The Θ, however, supports the identification because nowhere else would there be six or more courses. The explanation may be that as this is the first in the row (A) it is the half-length block in the cross wall where it meets the long wall. This position is suggested rather than one in the long walls because there are no short blocks in the long walls of the Hephaisteion; the blocks at the end are cut in one with the antae.⁸²

A wall block fragment A 2635 may be assigned as one of those which received the crosswall blocks (Fig. 18, Pl. 7, a). A smooth interior face is preserved for a distance of 0.445 m. from the joint, which is complete with anathyrosis and part of a T-clamp cutting. The remainder of the inner surface shows a very slightly recessed anathyrosis, somewhat roughly cut and against which the crosswall block would have been set; the block is broken at the cutting for the clamp to the crosswall. A pry hole on the top surface indicates that the next course was jointed in line with the inner face of the crosswall.

A comparison with the Hephaisteion reveals that there the crosswall blocks were recessed in every other course, the alternate ones having neatly smoothed anathyrosis bands flush with the finished wall; the recesses are deep enough so that a roughly tooled surface was adequate.⁸³ In the case of the fragment now assigned to the temple

⁷⁸ See above, p. 24.

⁷⁹ I am indebted to Mr. John Travlos for identifying these cuttings and calling my attention to the article by Orlandos, *A.J.A.*, XIX, 1915, pp. 175-178, where other examples of the fifth and even sixth centuries are cited. No explanation is offered for the failure to remove the preliminary dowels after the final ones were leaded in place, although their presence made it necessary to cut away the adjacent block to fit over the *paragomphos*.

⁸⁰ Note that the exposed part of this block is only about two-thirds of the normal length.

⁸¹ For a photograph, see Dinsmoor, p. 38, fig. 15.

⁸² See Koch, pl. 46. The length of the walls was probably not very different in the two buildings, although there is nothing to prove it. See below, p. 63. The shortest exposed lengths (0.24 m.) of the wall blocks in the exterior walls in the Hephaisteion occur next to the east antae.

⁸³ See Koch, pl. 12 b.

of Ares, it would seem that even the courses with anathyrosis made use of a slight recess, possibly to permit the interior face to be polished back somewhat after erection. There is even a suggestion of a ridge at the edge of this face that bears out the idea

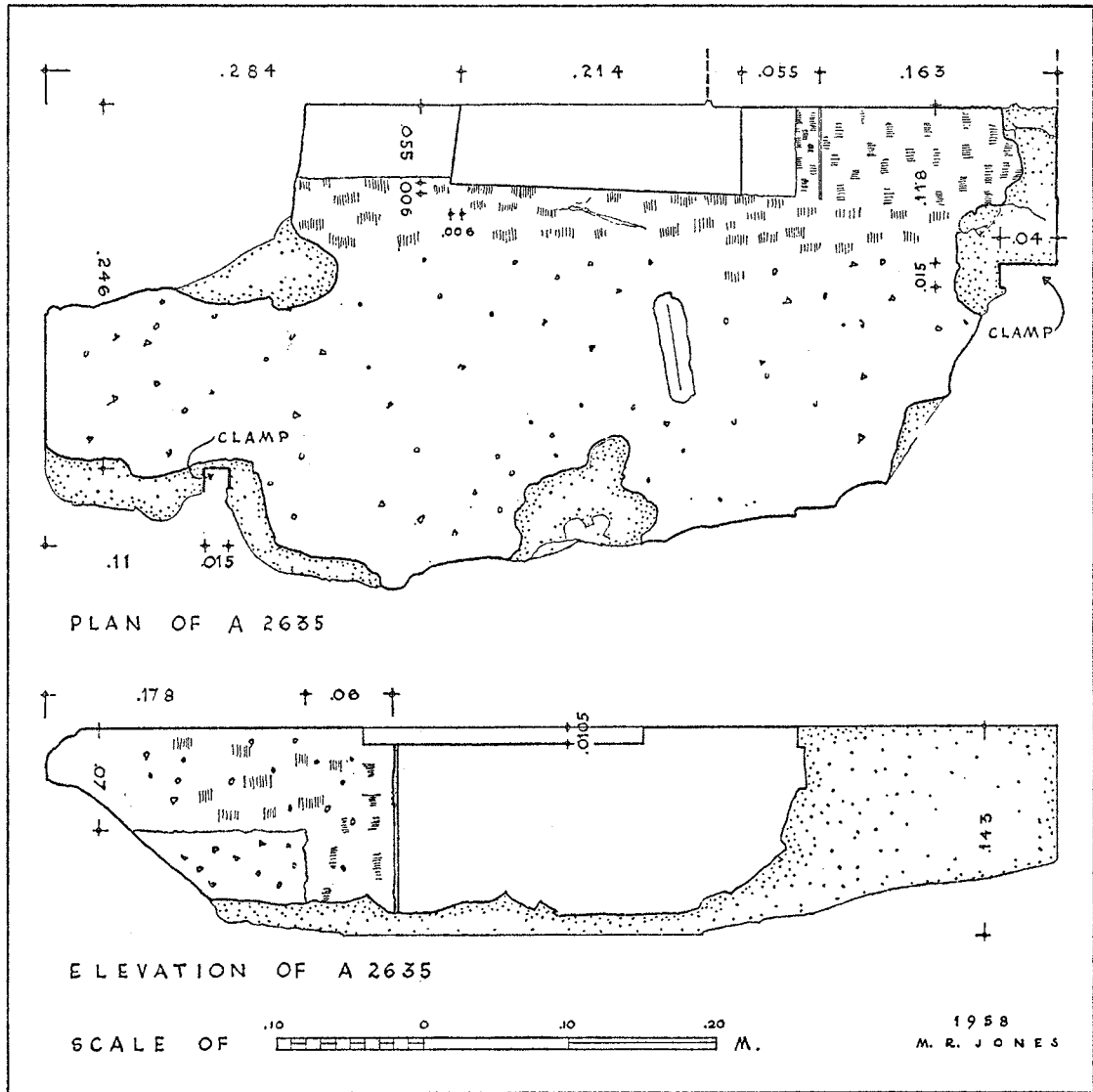


FIG. 18. Crosswall Block.

of such final touches. That the crosswall course above A 2635 rested on it and was more deeply recessed is suggested by the presence of the smooth horizontal joint band on the top of this fragment; the band continues for some centimeters beyond the end of the polished face as though to match the corresponding band which must have

been cut on the crosswall block. The scratched line on the top surface at this point does not appear to be a setting line, but may have been marked across the joint to assist in accurate re-assembly. A very neatly cut and polished recess for a patch at the front edge may have been necessitated by prying the courses apart in the dismantling process, but the workmanship is so similar to that of the horizontal joint surface that it was more probably made to repair a mishap during the original construction.

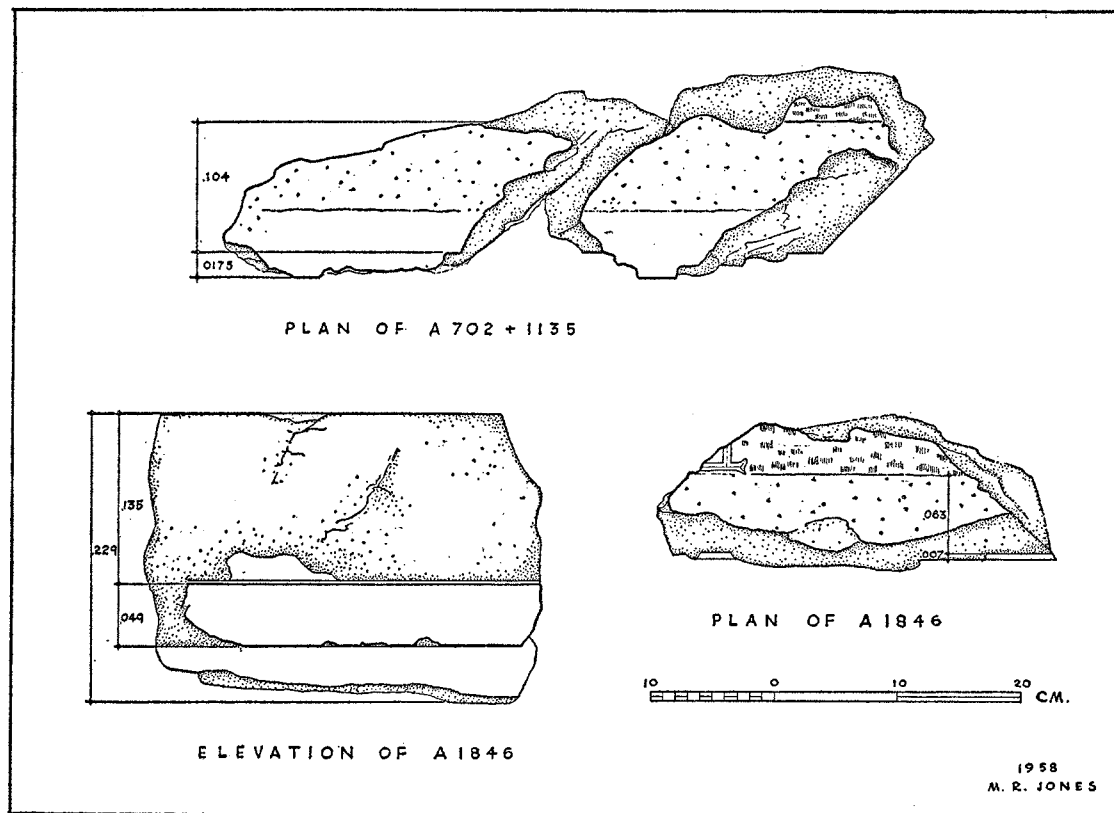


FIG. 19. Epikranitis Fragments.

It is, of course, disappointing that the outer part bearing the letters is not preserved, but as it is the inner part which allows the position of the block to be determined, the letters would be of much less interest by themselves. Assignment to the temple of Ares depends on the assumption that the T-clamp in the long wall was not centered, as its position on a line 0.301 m. from the inner face is about four centimeters short of what we might expect. Such an off-center position would be structurally sound in countering the effect of the tie to the crosswall. The smooth inner face shown on this fragment may indicate only the treatment of the pronaos or

opisthodomos walls, rather than that of the interior. The centerline of the clamp to the crosswall is about 0.245 m. from the edge of the finished inner face.

ANTA CAPITALS

A 702, proposed by Dinsmoor as an anta capital, was found to join A 1135,

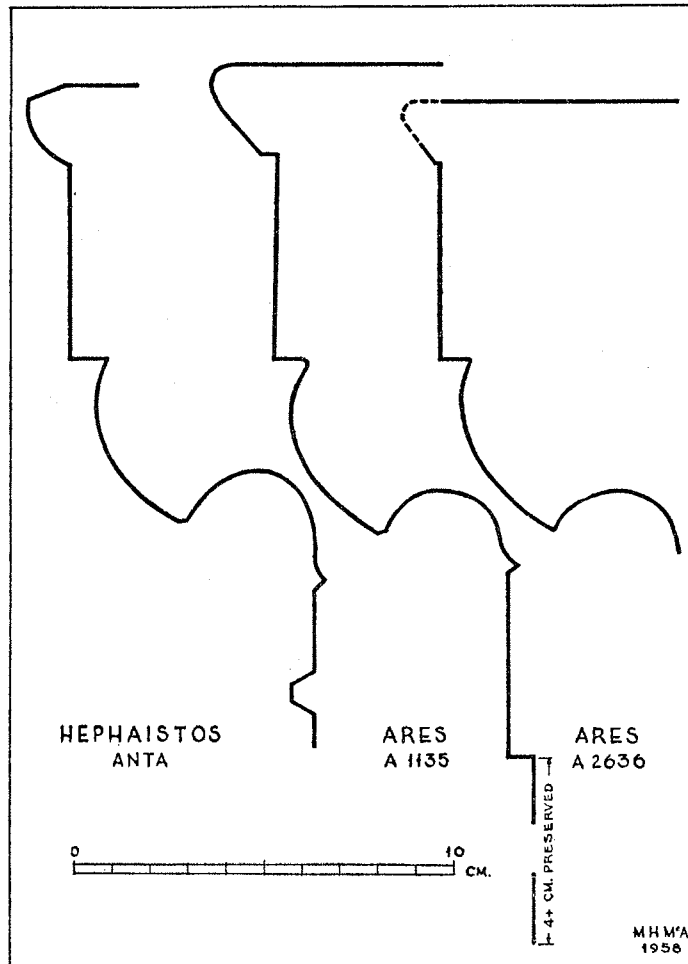


FIG. 20. Anta Capital Profiles.

resulting in a moulding length of 0.48 m. (Fig. 19).⁸⁴ This new addition has an end-joint mitered at forty-five degrees, adding another 0.09 m. to the overall length of the fragment. The miter is for an interior corner (Pl. 4, d).

⁸⁴ Dinsmoor, p. 39. There are four fragments of this moulded course: A 601, A 702, A 1135, and A 1846, the second and third now being joined. The mouldings of the first are preserved for a distance of 0.225 m. from a right-angle joint surface. On the top of A 1846, there is the upper left-hand corner of a letter, probably Π.

Another moulded course, represented by A 2636, was assigned to the temple of Ares in 1956 (Fig. 20).⁸⁵ There are remains of an ovolo, a fascia and the upper part of a hawksbeak; near the left edge of the fragment, the undercut portion of the hawksbeak shows the mitered return for the outside corner. The scale is very slightly under that of the A 1135 series. Here in this second moulding we have a substitute candidate for the anta capital.

The A 1135 series is troublesome to assign. The mitered joint proves that the moulding comes from an interior but it seems too elaborate for the cella itself. A possible position is the epistyle course inside the east porch. In the Hephaisteion a somewhat simpler moulding of quite different profile here runs under the frieze and continues around on the backers of the exterior epistyle. Another location would be at the top of the frieze. However, this would drastically reduce the height available for sculpture, and would definitely preclude the assignment to the frieze of the figures found by the temple altar.⁸⁶ A less probable suggestion is the course immediately below the ceiling in the pronaos, but the elaboration of this course is usually confined to a small hawksbeak. The extraordinary similarity of the profiles and the generally large scale of the two mouldings point to their assignment to the same building, even though I have been unable to discover a parallel case.

EPIKRANITIS

The regular exterior epikranitis, represented by A 1779, A 1788, A 1868, and A 2256, is extremely close to that of the Hephaisteion, except that it is 0.232 m. in height rather than 0.207 m.⁸⁷ Fragments which preserve only the hawksbeak moulding are hard to assign, as a good deal of the course is missing or damaged on the north side of the Hephaisteion. Above the columns, in both buildings, the inner face of the geison, a separate block in the Hephaisteion, is cut to match the course at the top of the wall. The Hephaisteion epikranitis still shows traces of a painted fret pattern on the face of the blocks under the crowning hawksbeak;⁸⁸ some of the blue color is well preserved on a fragment in the Agora collection (A 2334). The same treatment, which is also found on the Parthenon, was probably used on the temple of Ares.

⁸⁵ The profile of the Hephaisteion anta capital shown in Figure 20 is taken from Shoe, *Profiles of Greek Mouldings*, pl. LVII. The profile of A 1135 was taken from a plaster cast, while that of A 2636 was made from a drawing by M. R. Jones. The great similarity of the three will be more apparent when compared with other contemporary hawksbeaks; cf. Shoe, *loc. cit.*

⁸⁶ See above, p. 6, note 17.

⁸⁷ For profile, see Fig. 14. The height is confirmed by the fragment of the inner part of a flank geison, A 1812. A 1788 has part of a Θ preserved on the top surface.

⁸⁸ Published by Stuart and Revett, *op. cit.*, vol. III, Chap. I, pl. X. Cf. Koch, figs. 81, 82.

CEILING

A large section of marble beam (A 2388) is still cemented in place as part of the Late Roman Fortification, formerly called the Valerian Wall; another (A 2389) lies beside it (Pl. 5, d).⁸⁹ They were used in the tower near the southwest corner of the Library of Pantainos. Immediately north of this tower in the western face of the

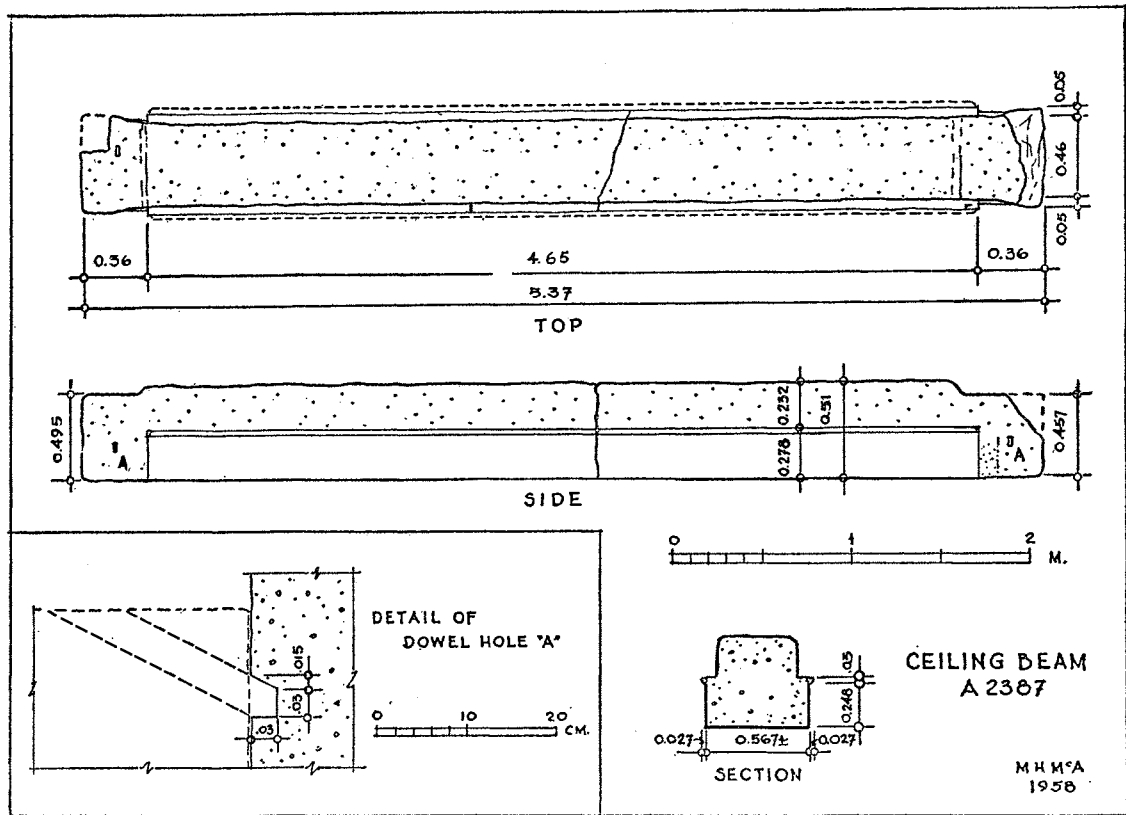


FIG. 21. Ceiling Beam.

wall itself, there is a complete beam (A 2387) laid on its side with its soffit exposed; it is now broken at about the mid point and a crack of a centimeter or so separates the two halves (Fig. 21). Allowing for this slight gap, the length between the cuttings for the interbeam blocks is 4.65 m. within a few millimeters. The beams are all three 0.278 m. high with a central rib which rises an additional 0.19-0.215 m. The crowning

⁸⁹ Dinsmoor, pp. 39-40. These beams appear in *Hesperia*, IV, 1935, fig. 20. A 2387 shows in the nearer section of the wall to the right of the two workmen; the soffit appears in the fourth course from the top. The other two pieces lie more to the south, at right angles to each other at the right side of the picture.

ovolo, 0.045 m. high, is protected by a relieving surface (Fig. 22). The widths of the beams vary: A 2387 measures 0.567 m. across the soffit, A 2388, 0.563 m. and A 2389 only 0.544 m.⁹⁰ This range is not surprising when the beams of the Hephaisteion east porch are studied in comparison: there the widths run from 0.541 to 0.568 m. and the intervals between them from 0.836 to 0.880 m., though here some allowance must be made for the spreading of the joints throughout the upper part of the temple.⁹¹ The dimensions of the Hephaisteion beams fall roughly into two groups, averaging 0.544 and 0.565 m. in width, and are apparently symmetrically arranged; if there is some subtle purpose in this scheme, it is not apparent to this author. In any case, the beams from the Late Roman Fortification seem to represent two categories also, 0.565 and 0.544 m. in width, an astonishing coincidence. These cannot belong to the Hephaisteion, or at least the complete one cannot, as it is too long even for the east porch where the beams are of course fully preserved.⁹² The only other major candidate for the temple of Ares is the fragment A 705, already rejected by Dinsmoor as too large (it is 0.334 m. high) and of inferior workmanship, although it was found very near the foundations.⁹³

The butt end of these beams, where preserved, is unfinished and continues about 0.36 m. beyond the mitered end of the moulding. The complete beam A 2387 shows that the two ends were not alike: at one end the top has been cut down over the last 0.45 m. as though to receive an upper course, the total height here measuring 0.457 m.; on the coffer bed immediately adjacent there is the top of a letter, either Π, Γ, or Ε, but there are no cuttings for dowels or clamps. Beyond the end of the moulding and the "anathyrosis" for the interbeam block, the beam widens until at the end it is equal to the finished beam without the two projecting mouldings. The other end has been cut down to a height of 0.495 m. for the last 0.36 m.; the "notch" cutting away half the end was presumably made to fit the Late Roman Fortification. On either side, there is a vertical cutting (Fig. 21, A) set about 0.18 m. back from the end of the moulding; these cuttings are three centimeters deep and one wide, but the top slopes at a forty-five degree angle from a height of four and a half centimeters at the face to three at the back. A smoother finish which appears at one side of the rough end shows that the adjoining interbeam block was only 0.10 m. or so in width

⁹⁰ These dimensions may vary a millimeter or so in the length of the beam.

⁹¹ Proceeding from south to north, these soffit widths are 0.374, 0.541, 0.566, 0.562, 0.546, 0.563, 0.568, 0.544, and 0.374 m., the two end beams naturally being narrower. The dimensions recently published by Koch, pl. 48, do not agree with these which were taken in the east peristyle in 1952. As there has been no opportunity to check the measurements again, I have retained my own figures. Were Koch's measurements to be used for the end beam soffit in the restored drawing (Fig. 23 and below p. 62), the second row of coffer slabs would come more nearly over the anta as in the Hephaisteion.

⁹² Whether it fits the temple of Ares depends on the dimensions derived below, p. 60.

⁹³ Dinsmoor, p. 40, note 82.

and can have had nothing to do with these cuttings. It is possible that they received wedges, as their unusual form would indicate, which, with the aid of rough filler blocks, held the beams at fixed intervals (Fig. 21).^{93a} The interbeams could then be dropped in place, without any need for clamps.

These cuttings also occur on the butt end of A 2389; traces of a letter on the adjacent coffer bed may be taken as part of an H, N, or Z. There are no dowel holes on either A 2388 or A 2389. The absence of letters elsewhere on these three beams may very well be due to poor preservation; a great deal of the moulding was knocked off, either accidentally, or, in the case of A 2387, to permit the block to be set on its side. If there was only a single letter on each, it must have referred to the position of the beam itself, rather than to that of the coffer slabs. The final dressing of the bed for the coffers should indicate something about the length of these slabs, but the only complete interval apparent is one of 1.81 m. from the end of the moulding on A 2387, slightly less than the length of two slabs, each two coffers long.⁹⁴

Eight other fragments of beams have been catalogued among the pieces taken from the Late Roman Fortification. Some of these retain "shadows" of the egg and dart originally painted on the ovolo.

The interbeam blocks in the same group have been described carefully by Dinsmoor, including those which were "cut down" from major beams, A 2130 and A 2133.⁹⁵ They may be sorted by width into four groups, averaging 0.1805, 0.160, 0.143, and 0.107 m.⁹⁶ The rough backs, especially in this last group, are not necessarily vertical, but may slope either in or out. The height where preserved averages 0.278 m., matching that of the major beams. Four of the fragments have dowel holes, 0.061-0.133 m. behind the nose of the ovolo and parallel to it; they are placed 0.045-0.15 m. from the end of the beam, which continues about two and a half centimeters beyond the bevel of the moulding.⁹⁷ The letters N or Z, B and 'B are found on three of them (A 2121, Pl. 5, e; A 1379 a; A 2123, Pl. 7, d) between the dowel hole and the end of the block, and similar marks presumably occurred on the others, the ends of which are not preserved. These letters are like the ones on the major beams; they are not strikingly like the mason's marks found on the other blocks of the temple of Ares, but are rather more casual. The reader is reminded that the coffer slabs and coffer lids of the Hephaisteion were lettered in the original construction. The letters on our

^{93a} See above p. 32 for discussion of *paragomphoi*.

⁹⁴ See below, p. 43.

⁹⁵ Dinsmoor, p. 40, points out that these raised beams cannot have belonged to the Hephaisteion, increasing the probability that the whole group belonged to the temple of Ares.

⁹⁶ There are two, four, two and three examples in each of these groups respectively.

⁹⁷ A 2131, A 2120, A 2121, A 1379 a. The holes are 0.040-0.045 m. long and about 0.015 m. wide. In the Hephaisteion, the dowel holes are at right angles to the line of the beam (Pl. 5, a).

blocks, while less carefully made, may likewise date from the first erection of the building, in which case they would have obviated any subsequent lettering.⁹⁸

No trace of the peristyle beams has been identified; the fragments which are too small to be definitely assigned were found with the other pieces, and in all probability are from the same part of the building.

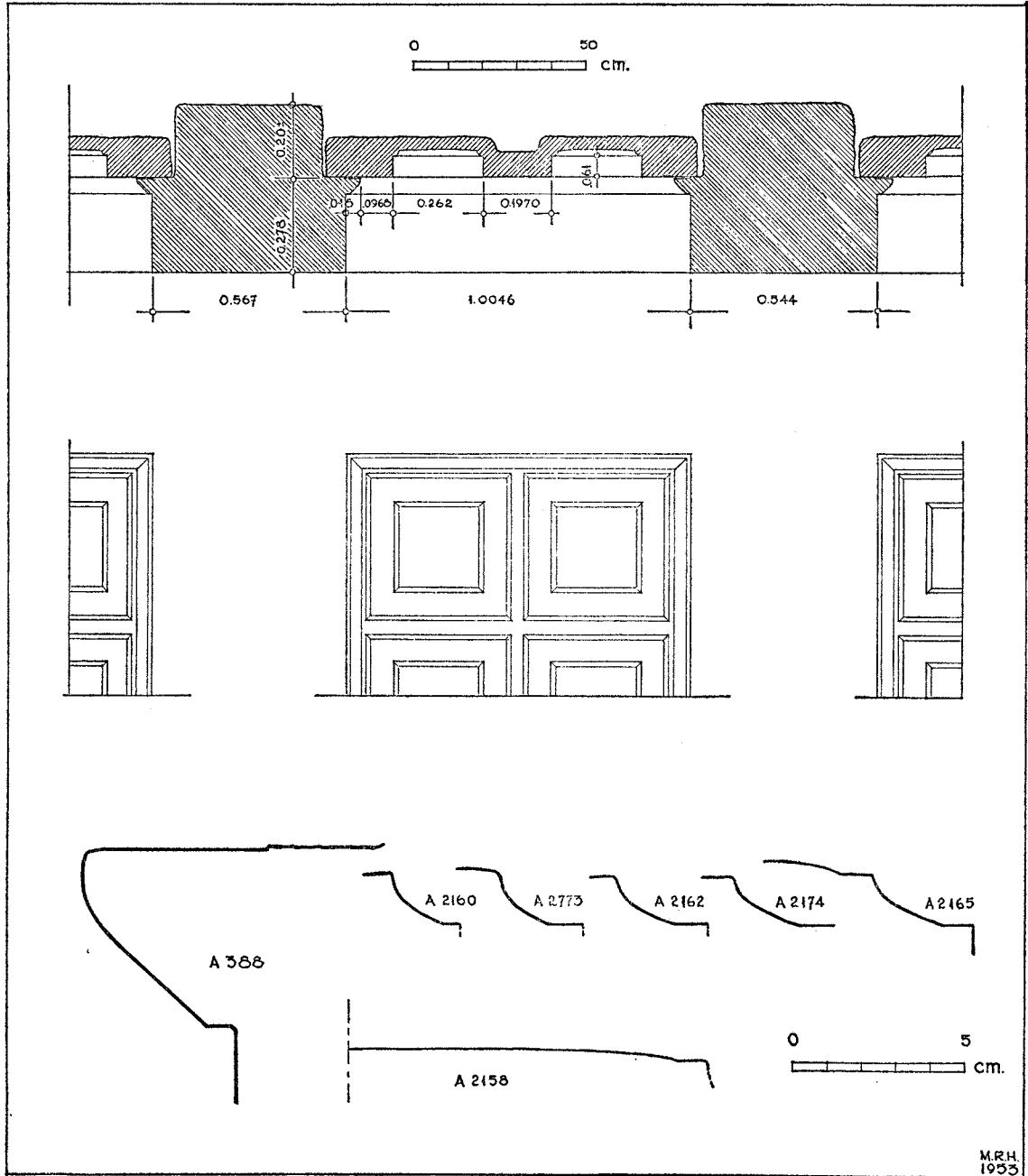
More than eighty fragments from the coffered ceiling slabs have been catalogued, all from the fill of the Late Roman Fortification.⁹⁹ The dimensions of the separate elements vary a millimeter or so, but the total dimensions keep very close to an average. The greatest disparity is to be seen in the ovolo which borders the vault of the coffer, both in its width and its profile (Fig. 22). This moulding is in such an awkward position to carve that the whole vault of the Hephaisteion coffers was cut as a separate lid (Pl. 5, a). Consequently, it is not necessary to suppose that all but the finest of these fragments are late replacements; they may have been made by less skilful workmen for a lenient foreman. There are, however, a few fragments (A 2181 a, b, and c) which are so coarse in line and rough in finish that they must be late repairs if they belong with the others, as their scale and location in the Late Roman Fortification suggest (Pl. 6, b).

The upper surface of the slabs was left rough, but channels were cut on the line of the cross rib and above the central rib, from the crossing to the joint with the next slab; although these channels are only some four centimeters deep, they would have reduced the weight considerably. The thickness of the coffer vaults is not uniform, but varies from 0.012 to 0.017 m., the measurement being taken at the center.

There is another group of slabs which has been associated on the storage shelves

⁹⁸ The system used cannot be determined from so few examples, nor will reference to the Hephaisteion clarify it, as there are no letters on those beams, as far as I know. The letters on the Hephaisteion coffers are somewhat neater than those on the Ares ceiling beams, but are still far from having the precision of the later letters on the other blocks from the temple of Ares. The uncertain date of the letters on the beams destroys the value of the 'B' in the discussion of the marking of extra blocks in the later period.

⁹⁹ These fragments have been described by Dinsmoor. From a careful study of all of them, it seems that the average width of the central rib is 0.1970 m. rather than 0.195 m. and the spacing is 0.458 m. on centers, as preserved on A 2137 a, but here we are splitting millimeters (Pl. 6, c, erroneously labeled b). This piece demonstrates that the slabs were two coffers long at least; A 2137 b which is a central rib preserves the joint surface, one full side of the astragal frame for one coffer, and the corner of the next, showing that the slabs were at least two coffers wide. They were probably two by two or even two by three, if an odd number were required. The setting mark, which would have been aligned with the ovolo of the beams, is preserved in three cases at a distance of 0.015, 0.016 and 0.0165 m. outside the sunken astragal, giving a distance between the ovolos as seen from below of 0.9146 m. for a slab two coffers wide, and a beam spacing of 1.549-1.572 m., depending on which of the soffit widths is in question. A two-coffer slab would be 0.916 m. long with an additional ten centimeters or so at the end. The probable spacing is discussed below in connection with the calculated dimensions of the temple, p. 62.



M.R.H.
1953

FIG. 22. Ceiling Details.

with those just described.¹⁰⁰ However, these are of such poor workmanship that it is difficult to believe that they could have been made even as Augustan replacements. The astragals are wide (0.021 m.) and so are the ovolos (0.047 m.), but the coffers are only 0.2215 and 0.224 m. across in the two cases where the width is preserved. With the exception of A 1750 where the coffers are "framed" in the manner of the fragments from the Late Roman Fortification, there is only a single astragal on the rib; this is the system used on the Hephaisteion blocks, but here the outer astragal continues straight across the rib astragal, instead of being "mitered" at the meeting point.¹⁰¹ Taking 0.021 m. for the astragal, 0.081 m. for the band between the astragal and the coffer, and 0.223 m. for the coffer itself, a slab two coffers wide would measure 0.833 m. between the outer edges of the astragals, while the pieces already assigned to the temple of Ares average 0.8835 m. over the corresponding distance. It is possible that these clumsy fragments were replacements in the west porch of the temple, but it is preferable to suppose that they belong with A 705 which Dinsmoor has assigned to an "unknown building of later date."

A far more plausible candidate for the Roman repair work may be found in A 1813, which is of the same scheme but of far better craftsmanship.¹⁰² Here the coffer is only 0.205 m. across with an ovolo 0.055 m. wide; the dimension between the outer lines of the astragals on a slab two coffers wide would be 0.853 m.¹⁰³ There is a similar fragment lying in the cella of the Hephaisteion which would measure about 0.812 m. over the corresponding distance. It is to be noted that this type of slab with a comparatively small coffer and wide ovolo moulding is the one regularly found on the Hephaisteion; these blocks are perhaps to be associated with that building rather than with the temple of Ares.

COLOR AND ORNAMENT

A number of the fragments have traces of the original applied color, either where the dye has penetrated the marble, or more rarely where the paint itself is preserved. In some instances the color cannot be determined at all, but it is still possible to make out the decorative pattern. The paint sometimes leaves a "shadow" on the marble giving the design in silhouette; at other times, especially on the sima, one color has proved more weather-resistant than another, and the variation in the surface of the

¹⁰⁰ These are A 1750, A 1751, A 1849, A 2117, A 2187, A 2189, A 2190; with the exception of A 2187 which was found on the slopes of the Areopagus, and A 2117 of unknown provenience, they were all found in the vicinity of the temple of Ares foundations, most of them at the west end.

¹⁰¹ For the Hephaisteion coffers, see *Hesperia*, Suppl. V, p. 111, fig. 42.

¹⁰² This was also found to the west of the foundations of the temple of Ares.

¹⁰³ Depending on their position, the Hephaisteion coffers measure 0.805-0.857 m. between the outer lines of the astragals. See also G. P. Stevens, "Ceiling of the Theseum," *A.J.A.*, XV, 1911, pp. 18-23.

marble reveals the original scheme. Thus it is possible to make out the lotus and palmette on the sima, the egg and dart on the ovolo of the ceiling beams, and the elaborate decorations of the coffers.¹⁰⁴ Dinsmoor has described these in such detail that it is unnecessary to do more than add a few notes here.

The epikranitis as preserved has no trace of paint or pattern, but was almost certainly similar to the one in the Hephaisteion, as has been mentioned above (p. 37). Neither is there any trace on the moulded course of the A 702 + A 1135 series. The more protected undersurface of the geison is the only part of the exterior order to retain any color. The fascia below the mutules appears to have been red, as was the via, and the face, side and soffit of the mutules blue, probably with white or gilt guttae. The vertical space between the mutules was clearly a different color from the red fascia below it, but its own color is not preserved.

By far the greatest amount of actual paint is to be found on the coffer fragments; they must have been thrown into the fill of the Late Roman Fortification very shortly after the destruction of the temple, so that they were never exposed to the weather (Pl. 6). The rays on the blue vault of the coffers, spreading out from a red ring, were probably left without color like the central spot, or may have been painted with a thin yellow wash with which the lioness is drawn on the "lintel" from the Agora excavations.¹⁰⁵ Three stripes border the blue: a red one on the edge of the vault, and a blue and a green one on the flat band just above the ovolo. In places, the red was apparently applied over the blue and appears purplish. The egg and dart pattern on the ovolo has a green background with red darts and blue eggs, outlined in gray bands which may have been yellow wash. On one fragment, there was a minute piece of black pigment on the band around the dart. The bead and reel below the ovolo now appears gray on a red ground. The astragals on the ribs are decorated with similar grayish beads and reels on a blue ground, and bordered by an inner red and outer green stripe on both sides; the red occasionally appears purplish, either from contact with the blue or from the darkening of age. The extreme edge of the panel as it appeared from below was certainly red, but it is not clear whether the surface of the ribs was painted. A part of a coffer from the Hephaisteion (A 2183, Pl. 5, c), similarly decorated, appears dark gray between the coffer and the sunken astragal; this broad expanse could hardly have been gilded, and supports the theory that whatever now appears gray was black or a neutral yellow in color. In almost every case, the design would be served best by a light tone on these areas.¹⁰⁶ There is no

¹⁰⁴ Dinsmoor, pp. 32-34, figs. 11, 12; p. 40; pp. 41-42. For Hephaisteion parallels, see Stuart and Revett, *op. cit.*, III, Chap. I, pls. X, XI, XII.

¹⁰⁵ *Hesperia*, VIII, 1939, p. 221, fig. 17; XXIII, 1954, p. 172, frontispiece (color).

¹⁰⁶ It is interesting to note that there are traces of cement on this Hephaisteion fragment, cement of the kind used in the Late Roman Fortification, showing that the temple shared the damage, at least to a small extent, which was so generally suffered by the buildings of the ancient

evidence for the use of gold on such an extensive scale, but certain parts of the pattern may have been picked out with it.

Though sometimes covered by a dark crust, the colors remain extremely fresh and vivid underneath. They are very near to primary shades: a bright ultramarine blue, vermilion, and an astonishing pure emerald green. Unlike the other parts of the temple, the ceiling retains most color in the blue areas, in some cases suggesting a second coat somewhat clumsily added, perhaps at the time the building was re-erected. The paint is powdery in appearance (Pl. 6, d) and flakes off only too easily. There is a striking contrast to the paint samples from the Hephaisteion on the ceiling fragment A 2183 (Pl. 5, c) and epikranitis A 2334; here the paint has a smooth, hard surface, the blue standing out in relief now that the other pigments have generally disappeared.¹⁰⁷ The difference is presumably due to the use of a different substance as a base for the paint.

SURFACE FINISHES

Without in any way departing from the expected, the finishes man-made and otherwise on the various blocks are so individually characteristic that they serve to support the identification of many of the fragments as belonging to the same structure. Even more important is the assistance they provide in determining just where the fragment was used.

The vertical joint surfaces are treated with standard anathyrosis: a smooth but unpolished band six to eight centimeters wide borders the sides and top, while the rest of the area is left rough, but not much recessed (Pl. 7, b, f). Occasionally, a smooth patch on the rough area shows that the high spots projected too far and had to be polished down when the block was laid. The top surface has a smooth band at the face, while the rest is very lightly picked (Pl. 7, a). The upper side of the ceiling members was left rough as they carried nothing; the tops of the geisa show heavy pitting, which indicates the retention of rainwater, kept from the drying sun by the roof. The sloping surface which carried the sima is surprisingly rough, although the bottom of the latter is smooth.

The under surfaces were regularly finished nearly smooth with the long parallel strokes of a toothed chisel. Normally, there is no smooth band on the bottom surface, unless the block projects as do the geisa. In some parts of the building, a narrow depressed relieving strip replaces the smooth band on either upper or lower surface. Any part of a block which is concealed, and does not make close contact with its neighbor, is usually very rough (Pls. 4, b, 5, d). The joint surfaces of the column

Agora. See *Hesperia*, XVIII, 1949, p. 268, where Thompson contended that the Hephaisteion was badly damaged in A.D. 267, its ceiling and roof burned and at least part of the sculpture thrown down.

¹⁰⁷ The rounder and narrower astragal also is characteristic of the Hephaisteion pieces.

drums have been described already; the bottom drum had a relieving surface at the lower edge and the abacus one at the upper.

In addition to these standard finishes, there are some on the exposed surfaces which are apparently ornamental. The most obvious instances are the protective surfaces on the krepidoma which seem to have been left intentionally. The euthynteria has a rough projection over the lower half of the riser, often with clear traces of the boss at the center (Fig. 3, Pl. 3, a); the upper part is treated as a picked panel within a narrow border. This scheme is derived from the practice of setting the euthynteria course half above and half below grade. The finished band at the vertical joint facilitated the exact setting of the blocks. At Sounion, it may be noted, the architect tried a different arrangement, removing the protective surface completely and marking its position with a picked panel, suggesting that the entire height of the course was expected to show above grade (Pl. 7, e). The Hephaisteion euthynteria blocks were finished off smoothly in the upper half of their faces and those at Rhamnous were never finished at all, but, like other parts of the temple, retain their "construction" surfaces.¹⁰⁸

The rough surface remains on the riser of the bottom step as a heavily picked panel, sometimes with a central boss projecting 0.003-0.006 m. from the finished surface which appears as a narrow border on bottom and sides and as a slightly wider fascia above (Fig. 4). The lower edge of the finished surface is beveled back another seven or eight millimeters to a continuous fascia, which runs across the face of the block from joint to joint (Figs. 3, 4, Pl. 3, b). The tread, unlike the euthynteria which was perhaps considered too narrow for such a treatment, also retains the protective surface, and is heavily stippled, in a sort of "non-skid" manner, within a smooth border that is beveled at the rear to the "final" level of the top surface. At Sounion, the treads were polished smooth, although, on the lower and middle steps, the outer part of the tread was slightly higher than the inner. At Rhamnous, on the other hand, there is no sign of any protective surface on the treads of the apparently unfinished step blocks, but the stylobate retains a "rim" along the outer edge and a rough raised rectangle between the columns.¹⁰⁹

Elsewhere in the building, a very lightly roughened surface may be noted on the taenia of the epistyle backers; it is possible that this was done to make paint adhere more easily, but other areas which still show traces of color, as this does not, were polished smooth. One or two fragments may indicate that the interior walls were treated with the stippling so much discussed in connection with the Hephaisteion: A 1776, A 1851 (Pl. 7, c), A 1874 (Pl. 7, f) and A 2253. The first two are small

¹⁰⁸ *Pace* Plommer who states that the top 0.04 m. and vertical bands at the joints at Rhamnous are polished, the rest of the area stippled, *B.S.A.*, XLV, 1950, p. 96.

¹⁰⁹ *Ibid.*, p. 98.

pieces, hardly more than chips, showing anathyrosis on the ends, with channels. A 1776 now has a virtually smooth face, but it appears to have been picked originally within a smooth margin about three centimeters wide. A 1851 has a smooth and slightly depressed band bordering a lightly picked surface; the channel which parallels this face shows that it could not have been intended for the bottom of the block, as it would at first appear. There is, of course, nothing to prove that these pieces did not come from the Hephaisteion.¹¹⁰ A 2253 on the other hand bears the unmistakable letters HAP (Fig. 3). The face seems to have been lightly stippled inside a band 0.095 m. wide at the top and 0.055 m. at the side.

The most problematic of the group is A 1874, which has been discussed at some length on page 31. Irregular picking may be seen on the face, especially toward the right side; the limits are not clear and the surface is evidently much worn (Pl. 7, f). The pits and dashes are coarser than on the preceding examples. The block would be a natural candidate for the Hephaisteion, but its length defies all attempts to find a place for it there; where so much of the building is preserved, it is possible to supply the rest with little chance of error, and there seems to be no position for a block 0.91 m. in length.

MASON'S MARKS

Above the level of the foundations of the temple, every block which is sufficiently preserved carries on its upper surface two or three well-cut letters. The ceiling beams are the only known exceptions. Certain characteristics show the letter types to be of the early Roman period, agreeing well with the late first century B.C. rebuilding of the temple (Fig. 3).¹¹¹ It has always been supposed that they were cut on the blocks as the building was dismantled in order to facilitate re-assembly. Letters serving the same purpose occur on the Great Marble Altar in the Athenian Agora and on the altar of the temple of Apollo at Delphi.¹¹² A somewhat similar use is found in original construction in the frieze of the Athenian Treasury at Delphi, the Great Altar and an entire Ionic temple at Pergamon, and the steps of the Middle Stoa in the Athenian Agora.¹¹³ However, it cannot have been often that so large and complicated a structure was completely dismantled and re-erected; the complexity of the marking system has no parallel to the author's knowledge.¹¹⁴

¹¹⁰ They were both recovered from marble piles in the vicinity of the foundations of the temple of Ares.

¹¹¹ See above, p. 2.

¹¹² *Hesperia*, II, 1933, pp. 144-145 and *Fouilles de Delphes*, II, 1, A, pp. 125 ff.

¹¹³ *Fouilles de Delphes*, II, 1, B, pp. 35-36; *Altertümer von Pergamon*, III, 1, pp. 19-20, IV, pp. 58-62; *The Athenian Agora, a Guide to the Excavations*, 1955, p. 77.

¹¹⁴ The second century B.C. Ionic temple at Pergamon was completely labelled in every part as far as it is possible to determine, but as the building was considerably smaller than the Temple

The temple of Ares letters are well formed and carefully cut; traces often remain after much of the surface has been worn away through re-use. The size is in general conditioned by the size of the block, the height of the letters ranging from 0.04 m. on a metope (A 1790) to 0.09 m. on a step block (A 248). At the same time, there is considerable variation in letter height even among blocks of one category, as though two or three men had been working simultaneously, each at his own scale. The letters appear to be more or less evenly spaced across the top of the block, or rather across that part which would have been exposed by the removal of the superposed course. In some cases where there are only two letters,¹¹⁵ they are set closer together and more or less centered. They are *always* cut as near to the outer edge as possible, and in such a way that they could be read right side up by anyone *inside* the building. Consistency on this score was very important. The re-builders apparently tried to use the old clamp cuttings wherever possible; these could not be expected to be exactly centered and would not have matched properly if, for example, some of the wall blocks had been reversed. The letters provided the simplest key to the proper position. We may imagine scaffolding erected for the purpose of dismantling the temple, erected *inside* the line of the columns and *inside* the walls. A man standing on this staging would not only prefer to cut the letters right side up, but on the far side of the block rather than immediately against his chest. Usually the letters are just within the smooth band at the face joint; the notable exceptions to this rule are the toichobate blocks (Fig. 3, A 1438). Here the letters were cut as soon as the inner row of orthostates was removed and so they appear on the inner half of the top surface.

In interpreting the system used by the re-builders, one must bear in mind that it had to be readily understood by the ordinary workman to be of full value. Every block had to be marked clearly and unmistakably to make the work go quickly. In order to identify the exact position of each, there were three factors to be considered: the side of the building, the course, and the horizontal position within the course. It is reasonable to suppose that these are represented by the three letters present on many of the blocks.¹¹⁶ Those which had only two letters, such as the triglyphs, are immediately identifiable by their shape; no letter was required to indicate the course.

The euthynteria blocks present the best basis for the study of the system, because

of Ares, only two letters at most were necessary for any one block, corresponding to the first two on the blocks from the temple of Ares. The advantage of the Athenian system, in which the series are separate for each side of the building, is that operations could proceed on all sides at once. The continuous series used at Pergamon would become unwieldy and inconvenient on so large a scale.

¹¹⁵ For this general discussion, the designation AP is considered as one "letter."

¹¹⁶ Dinsmoor has already proposed this general interpretation, p. 17. The additional material now at hand, however, does not fit his specific indications. Various complications in the original solution can be eliminated by a rearrangement based on the new material.

they may be identified by their distinctive surface treatment and yet were considered sufficiently like the other step blocks to merit three letters. Six blocks or parts of blocks have been identified:

A 146	E $\Delta\Delta$	A 249	- Δ O	A 625	$\Delta\Delta$ E
A 215	$\Psi\Delta\Delta$	A 620	- Δ -	A 2393	E--

It is immediately obvious that the middle letter Δ must signify the course, as it is the only one common to all; it designates the euthynteria as the fourth course of the krepidoma.¹¹⁷ By analogy, the other five step blocks belong to the third course:

A 248	$\Gamma\Gamma$ E	A 1791	- Γ -	A 2101	I $\Gamma\Delta$
A 1758	I Γ E	A 1814	$\Gamma\Gamma$ -		

Not one of the wall blocks so far identified is preserved entire. Fragments are known with a letter at the right or left end, and occasionally a block may be sufficiently preserved to show a letter in the middle as well. It is not assuming too much to suppose that all these blocks also had three letters each.¹¹⁸ Considering all the examples where the position of the letters can be determined, and bearing in mind that it is the middle letter which is omitted when only two are used, we find that in the first position thirteen different letters appear:

A (A 64, A 238, A 1025, A 2251), B (A 2257, Hephaisteion drum¹¹⁹), Γ (A 248, A 1814, A 1815), Δ (A 625, A 699, A 1424, A 2643), E (A 146, A 1375, A 2393, Theater of Dionysos drum¹¹⁹), Θ (A 263, A 747, I 2704), I (A 1758, A 2101), Λ (A 2254), M (A 1428, A 1567), Π (A 1436), P (A 1495), Σ (A 2277), Ψ (A 215).

This series is so long that it could have served only to indicate the position of the blocks within their various courses. It will be seen that the wall courses probably contained alternately twenty and twenty-one blocks on a side; the antae might have been marked in end series.¹²⁰ The stylobate seems to have had twenty-three in the flank series, the second step and euthynteria twenty-four, and the third step either twenty-

¹¹⁷ The blocks would be "numbered" most naturally from the top down, as they were uncovered in the process of demolition.

¹¹⁸ The assumption also is made that the order of the letters on the blocks was the same throughout the building, although the blocks may have been marked as a series running either from left to right or from right to left. See below, pp. 53-54. Any variation would complicate unnecessarily a system intended to make the work as simple and straightforward as possible.

¹¹⁹ See above, p. 12, note 30.

¹²⁰ See below, p. 63.

three or twenty-five.¹²¹ This last course is the only one, with the possible exception of the *sima*, which could have required more than the standard number of letters in the alphabet. If the waterspouts occurred on alternate blocks of the *sima* course, they might have been marked in a separate series.¹²²

In the third place on the block, only four designations appear;^{122a} these may be taken at once to stand for the four sides of the building:

¹²¹ See Dinsmoor, p. 16 and p. 12 above. The cutting on the top of A 215 might suggest a short block of less than half the usual length inserted in the third step course near the corner, to avoid making an especially long corner block. There would then have been twenty-five blocks in the flank series. If A 215, marked Υ, belongs next to the corner, in a course of twenty-four not including the corner blocks, it would seem that some extra symbol must have been used earlier in the series. Actually, there is nothing to show that the extra block in the third step course, if any, was not third from the corner, and A 215 beneath it twenty-third in a normal alphabetical sequence.

¹²² Not enough examples are known from the temple of Ares to say with any certainty that only twenty-four symbols were used, or what system, whether of double letters or letters with some additional mark, was used where more than twenty-four letters were needed. Of course, any blocks marked with some symbol such as stigma or koppa, occurring earlier in the alphabetical sequence and consequently in more places throughout the building, would have numerically a much greater chance of survival than would a rare twenty-fifth block, with for example a double alpha.

There are a few instances on record at this period or earlier of the use of letters to denote a series without quantitative value; most of the cases known are architectural in nature, serving a purpose similar to that of the letters on the temple of Ares blocks. Unfortunately, it is not always possible to determine the full sequence, or even enough of it to be sure what order of the alphabet was used. Many of the letters used on architectural blocks were paired on either side of a joint; the fact that the order of the alphabet was employed was a convenience, but not necessary to the success of the system. The marking of the ceiling slabs and coffer lids on the Hephaisteion depended on just such matching of symbols, only a few of which are strictly alphabetical (*A.J.A.*, V, 1901, pp. 40 ff.). The series employed on the Ionic temple at Pergamon is one of twenty-five letters, the extra one being a □ inserted in the sixth place. M. N. Tod in his discussion of Athenian numeral systems (*B.S.A.*, XLV, 1950, pp. 126-139) does not mention any non-quantitative usages. Sterling Dow, however, in his comments on Tod's work (*A.J.A.*, LVI, 1952, pp. 21-23) implies that the Athenians were accustomed to such a use of the alphabet, in the basic series of twenty-four letters, and that this use occurred simultaneously with that of the well-established acrophonic quantitative system. Dow gives two examples. The first is the labeling of the ten subdivisions of the tribal groups of the *dikastai* with the letters A-K without any stigma. The second example is in a quotation from Aristotle (*Ἄθ. Πολ.*, 63) where he speaks of the eleven *dikastic* courts as lettered by allotment, τὰ στοιχεῖα ἀπὸ τοῦ ἐνδεκάτου, τοῦ λ. These instances suggest that even after the establishment of the Milesian alphabetical numerical system, whenever there was a question of a non-quantitative series, the Athenians would have employed the twenty-four letter alphabet. Therefore, for the purposes of this article we will assume such a series, and suppose that some system of doubled letters or added marks was used if the basic twenty-four were exhausted. I hope to discuss this point more thoroughly elsewhere in connection with a general study of mason's marks.

^{122a} A single example of Θ (column drum A 2257) has been intentionally omitted here; an explanation is suggested below, p. 53. While the meaning of the letters on the drums is a moot point, if it does not disprove the general argument, it may be deferred to avoid confusion.

AP (A 1438, A 1923, A 2098, A 2099, A 2114, A 2249, A 2252, A 2253, EM 3056, I 2562, I 3526)

Δ (A 146, A 215, A 1749a, A 1790, A 1815, A 2100, A 2101, A 2277, I 5183)

E (A 238, A 248, A 625, A 1758, A 2643, Hephaisteion drum)

O (A 64, A 249, A 1375, Theater of Dionysos drum)

As these letters clearly do not form any alphabetical sequence such as has been established for the course and the place within the course, there is a possibility that they are the initial letters of descriptive words, presumably those in common use by the workmen.¹²³ If these words are taken to be *ἀριστερά*, *δεξιά*, *εἴσοδος* and *ὀπίστερος*, they will be found to be entirely consistent with the existing remains.¹²⁴

The corner triglyph (A 64) marked AO and the corner geison (A 238) marked AE show that the corner blocks were included in the series at the ends of the temple in these courses, and undoubtedly in the rest of the building as well, as the number of symbols or letters needed would thus be at a minimum.¹²⁵ The triglyphs were probably marked in a series separate from the metopes; although this cannot be proved, it seems to follow from the fact that there would be twenty-three triglyphs and twenty-two metopes in a side series.¹²⁶

The evidence for the marking of the columns is highly unsatisfactory. Of the four drums identified at this time (above, p. 12, note 30) the first shows two letters widely spaced: EO (Pl. 3, d). Between these letters where a third would be expected, there is a large cutting made when the drum was re-used in a mill. The second is inscribed BΘ (Pl. 3, e). The letters are not exactly centered and the surface to the right of the Θ has been worn away to an additional depth of three millimeters, so that there may have been a third letter originally; it is impossible to say definitely either yes or no. The third drum can now be studied only from photographs (Pl. 3, c) and from notes in the record of the Agora excavations, made at the time of the reconstruction.¹²⁷ The letters are BE with a blank space where the third letter might be.

¹²³ See the Athenian Treasury at Delphi, where the letters are used both in alphabetical series and to give the first two letters of the ordinates (*Fouilles de Delphes*, II, 1, B, pp. 35-36).

¹²⁴ Note that Pausanias in describing the Parthenon pediments writes: *ἐς δὲ τὸν ναὸν ὃν Παρθενῶνα ὀνομάζουσιν, ἐς τοῦτον εἰσιούσιν ὅποσα ἐν τοῖς καλουμένοις ἀετοῖς κείτα, πάντα ἐς τὴν Ἀθηνᾶς ἔχει γένεσιν, τὰ δὲ ὀπισθεν ἢ Προσειδῶνος πρὸς Ἀθηνᾶν ἐστὶν ἔρις ὑπὲρ τῆς γῆς* (I, xxiv, 5). Pausanias very rarely uses compass directions. It is clear that they were not sufficiently familiar to the average workman, who would prefer the simple "left" and "right," "entrance" and "rear"; the Erechtheum building inscriptions employ compass directions but always add an additional reference to some near-by landmark. The crosswall blocks were probably marked like the columns *in antis*, below p. 53.

¹²⁵ Dinsmoor, p. 31, read the geison letters as AΓ, but an additional joining fragment supplies the bottom bar of the E (Fig. 12).

¹²⁶ The reconstruction of the temple as hexastyle with thirteen columns on the flanks is fully discussed and sufficiently proved by Dinsmoor, p. 9.

¹²⁷ E. Vanderpool, who examined the block at the time it was moved to the Hephaisteion, seemed very doubtful in 1953 that any letter would have escaped detection.

It is difficult to judge the condition of the surface other than that it seems to be worn. The fourth drum, mentioned by Dinsmoor, bears the letters ΔE , still legible despite the poor preservation of the surface. The description sent from Athens makes no suggestion of a third letter.

In view of the system used on the wall blocks of the temple of Ares, we might reasonably expect to find three letters on each drum. Considering that the euthyteria course was not thought sufficiently individual to be identified without a course letter, the difference in diameter between one drum and its neighbor seems too slight to permit rapid re-assembly. However, there must also have been some way of correctly aligning the sections of each flute. The simplest method would have been to make a "strike mark" across the joint, and it is not inconceivable that its form varied enough from joint to joint to identify the proper succession of drums, even as pairs of letters were used on either side of the joints on the interior epistyle of the Parthenon, and in many other cases. That no such mark has been found may well be due to the battered condition of all four drums, since we may suppose the marks would have been made as inconspicuous as possible.

The slight variation which does exist in the dimensions of the drums provides further proof that neither of the letters indicated vertical position. The top and bottom diameters of the four drums, as nearly as they can be measured from inside of flute to inside of flute, are 1) 0.99-1.02 m., 2) 0.85-0.885 m., and 3) 0.91-0.95 m., with only the top diameter of 4) 1.032 m. available. Their present heights are 1) 0.745 m., 2) 0.797 m., 3) 0.78 m. and 4) 0.70 m. The slope of the sides of number four is given as 0.005 m. in 0.40 m., or a diameter increase of 0.00875 m. in its preserved height, so that the bottom diameter may be reconstructed as a minimum of 1.09 m. The rate of increase in diameter is 1) 4.03%, 2) 4.39%, 3) 5.13%, and 4) 1.25%; it is not really possible to detect any entasis in these battered examples.

If, for the purpose of a rough calculation, we may discount any entasis and assume seven drums of approximately equal height in each column as in the Hephaisteion, it is possible to locate the general level of each drum. One of the various fragments of the capitals provides the neck diameter of 0.83 m. Using an approximate lower diameter of 1.074 m., the diameters at the joints will be found to be 0.83-0.864-0.900-0.935-0.970-1.005-1.040-1.074 m.¹²⁸ The increase in each case is 0.03486 m.

Adding 0.05 m. to obtain the full diameter, the first drum at 1.04-1.07 m. would appear to fit almost exactly in the seventh or bottom interval in this series. The second example at 0.90-0.935 m. fits perfectly into the third interval. In the third case, the measurements are just a little small for the ideal fifth interval. However, the

¹²⁸ For the derivation of the lower diameter figure, see below, pp. 56 ff. This is the full diameter including the arrises, which project approximately 0.025 m. beyond the center of the flute. The theoretical lower diameter seems substantiated by the evidence of the drum from the Theater of Dionysos, which may have lost a few millimeters over the centuries.

fourth lies completely outside the series, and appears to be the bottom drum of a corner column, the diameter of which should be about two centimeters larger than that of the standard.

Returning once more to the marking letters, 1) EO, 2) BΘ, 3) BE, 4) ΔE, it will be seen at once that they cannot be interpreted to read 1) seventh, 2) third, 3) fifth, and 4) seventh. The next assumption is that they stand for the series number and the side of the building, as do the two letters on the triglyph blocks. E and O are entirely acceptable as indicating the front and rear respectively, but Θ would seem to be a misfit. However, there are presumably four columns whose position cannot be described by the system proposed thus far; these are the two between the antae at either end of the temple. They might be considered as the seventh and eighth in the end series, or they might have some special letters. In this case, Θ immediately suggests some word connected with *θύρα*, and as there were two columns in this position, B also suits this proposal.

If, however, the first letter on each drum is taken to indicate the specific column, a discrepancy is immediately apparent. The fourth drum should be marked AE or ZE (?) in order to indicate a corner position.¹²⁹ There is a conflict here between the theoretically calculated dimensions and the interpretation of the letters, at least in the case of the column drums, which still remains to be resolved.

A study of the dowel and pry holes on the step blocks shows the order in which they were laid, which, taken with the marking letters, indicates the direction in which the alphabetical series ran.¹³⁰ The blocks sufficiently preserved in the euthynteria course are A 146 (EΔΔ) doweled at the right end but supporting a block doweled from the left; A 215 (ΥΔΔ) doweled at the left and carrying a similar left-end doweled block; A 625 (ΔΔE) doweled at the right and carrying a right-end doweled block; A 2393 (E --) doweled at the right but probably carrying a left-end doweled block.¹³¹ It was the usual practice to lay the corner blocks first. A 146 was laid in a series which ran from left to right and should have been near the end of its row, as its label "fifth on the right" indicates. A 215 is the twenty-third on the right or north side, and its cuttings show that it was near the right or northwest corner. A 625 was fourth on the front, near the left or southeast corner, and A 2393 was a

¹²⁹ If the fourth drum is marked ΔE as Dinsmoor and Harrison read it, the letters do not fit with my designation as a corner column drum. However, the calculations of size, which follow Dinsmoor's outline, will not admit a drum as large as this in the regular run. His statement that the size was right was based on a bottom diameter twice the width of the triglyph, and this is twice the width of the corner triglyph but not that of those in the regular series.

¹³⁰ Dinsmoor has already pointed this out (p. 15), citing the blocks A 146, A 215 and A 248. The discussion is repeated here to incorporate the new material identified since the publication of his article. "Right" and "left" are in reference to a position outside and facing the temple.

¹³¹ Only the right half of the block is preserved; it shows half the dowel hole at the broken edge, but no pry holes.

fifth block also near a left corner. From this it appears at once that the course series ran from left to right as the building was faced; we may imagine the foreman walking along the steps "chalking" the letters to be cut by the workmen.

The blocks sufficiently preserved in the bottom step course are A 248 ($\Gamma\Gamma E$) doveled at the right and carrying a right-end doveled block; A 1758 ($\Gamma\Gamma E$) presumably doveled at the right end and carrying a similar block; A 1814 ($\Gamma\Gamma -$) doveled at the right; A 2101 ($\Gamma\Gamma\Delta$) with the bottom broken away but carrying a block doveled at the left. A 248 then is third on the front near the left corner; A 1758 is ninth on the front and still laid from the left corner, although there were at most only eleven blocks in this series; A 1814 is a third block near a left corner. This course therefore was marked from left to right in the same way.

Conversely, the southwest corner triglyph A 64 is marked AO and the northeast corner geison A 238 is marked AE, each first in a series which apparently ran from left to right viewed from inside the building. At this level, the foreman like the workmen would have been standing on scaffolding inside the building; presumably, this point of view was maintained until the building had been dismantled to the level of the krepidoma, when it became more convenient to walk about on the terrace outside the temple.

RESTORATION OF THE DIMENSIONS OF THE TEMPLE

This is the material evidence that is known today: a few blocks at one end of the Augustan foundations, and some two hundred thirty odd fragments of the superstructure, whose total volume would hardly equal that of two columns. Nevertheless, as Dinsmoor has shown, it is possible to estimate and calculate enough from even less than this to arrive at a fair conception of the original dimensions of the temple. Such are the measurements used in the reconstructed plan and sections, Figures 23, 24. There are many reasons why they cannot be fully trusted. First and foremost, the facts are too few; the blocks now known are often very much worn or battered. In the second place, most of the estimates are based on comparisons with the Hephaisteion, the temple of Poseidon at Sounion, and the temple of Nemesis at Rhamnous. While these four have much in common, they are by no means identical, and the one at Rhamnous is markedly smaller, a point which must inevitably have had some influence on design.^{131a} The proportions are seen to vary from one to the next, and all four are quite individual in detail, either from the change in fashion or the desire of the architect to improve on his previous work. It is impossible to say whether the temple of Ares, which comes after them in point of time, is closer to the conservatism of the Hephaisteion with its heavy entablature, or to the progressive tendencies of the

^{131a} Dinsmoor, p. 47, dates the four temples as follows: Hephaisteion 449-444 B.C., Sounion 444-440 B.C., Ares 440-436 B.C., Rhamnous 436-432 B.C.

temple of Poseidon with its unusually tall, slender columns. Apparently, the temple of Ares represents some median position; for this reason, averages take on some significance. If it is borne in mind that the third and fourth decimal places are due only to such averages and that even the second is derived from a very few examples, these figures may perhaps be of use as a basis for rough comparison with other ancient monuments.

There is no reason to question or even to review Dinsmoor's arguments for the number of columns, thirteen on the sides and six on the ends; he has clearly demonstrated that the foundations will not reasonably fit anything else.¹³² However, there are various points in his further calculations which are either disproven or confirmed by the new material now at hand.

To reconcile the difference between the dimensions which he calculated from triglyph A 64 and those reached from the step blocks, Dinsmoor proposed three solutions. The first was that the column spacings were narrower on the flanks than on the ends; this was considered a poor answer because of the resulting discrepancy between the projections of the foundations beyond the entablature on the front and flank. Now that more of the step blocks have been recovered, it is clear that the blocks were of the same length on the ends and sides of the two lower krepidoma courses, and presumably the column spacings followed suit.¹³³

The second solution was that the step blocks 1.345 m. in length, and the column spacing of 2.690 m. derived from them, were exceptional and occurred only at the corners. Dinsmoor points out that this angle contraction is insufficient and suggests duplex contraction. However, the assignment of step blocks of this length to middle positions in the courses now rules out this possibility also.¹³⁴

The third solution, that the spacing of 2.772 m. was an exceptional one, as it was derived from corner fragments, is now demonstrated to be correct by a study of the widths of the triglyphs.¹³⁵ The new triglyphs A 1375 (EO) and A 2277 ($\Sigma\Delta$) may be reconstructed as 0.536 and 0.537 m. wide (Fig. 9), within a possible error of two millimeters, while the corner triglyph A 64 (AO) as reconstructed measures 0.555 m.

¹³² Dinsmoor, p. 9.

¹³³ In the euthynteria course, A 625 ($\Delta\Delta E$), fourth on the front, is 1.3445 m. long, while A 215 ($\Psi\Delta\Delta$) and A 146 ($E\Delta\Delta$), twenty-third and fifth on the north, are 1.3415 m. and 1.349 m. respectively: probably they were all intended to be the same, about 1.345 m. In the next course, A 248 ($\Gamma\Gamma E$) and A 1758 ($I\Gamma E$), third and ninth on the east, measure 1.339 m. and 1.3455 m., while A 2101 ($I\Gamma\Delta$), ninth on the north, is 1.344 m. long, averaging 1.343 m., hardly a significant difference. (The variant spacings proposed by Dinsmoor were 2.772 m. on the front and 2.690 m. on the flank.)

¹³⁴ Dinsmoor, p. 23, arrived at the conclusion that these blocks were of normal length.

¹³⁵ Dinsmoor remarked, p. 28, "the triglyph proportions in the temple of Ares seem unduly heavy."

on both faces (Fig. 10).¹³⁶ The width of the mutule next to the corner is 0.555 m. as against 0.554 m. at the corner itself, and these may both be augmented.

Beginning again from the new measurements, the following rough dimensions may be given: the end frieze would be $2(0.555) + 9(0.537) + 2(3/2)(0.555) + 8(3/2)(0.537) = 14.052$ m.¹³⁷ The side frieze would then be $14.052 + 14(0.537) + 14(3/2)(0.537) = 32.847$ m. The foundations, which were measured at the time of their excavation by Travlos as 17.00-17.40 m. by 36.40 m., would project 1.474-1.674 beyond the line of the frieze on the flanks and 1.7765 m. at the ends, a maximum difference of 0.3025 m. This difference is not significant, especially when viewed in the light of the generally casual nature of subsoil work in the Stoa of Zeus and other Athenian buildings.

Working with greater accuracy, the triglyph spacing or half-intercolumniation should equal the average length of the step and euthynteria blocks and so may be set at 1.344 m.¹³⁸ Then the mutules would be spaced at 0.672 m. on centers and the normal via would be $0.672 - 0.537 = 0.135$ m. wide.¹³⁹ The corner via of A 238 is 0.004 m. wider; if this augment applied to two viae, the end metope would be widened 0.008 m. Assuming that the width of the epistyle was twice that of the outer epistyle block A 1792, an approximate figure may be substituted in the angle distortion formula $1/2$ (Epistyle width—Triglyph width).¹⁴⁰

Enough of epistyle block A 1792 remains to show that the face slopes at a rate of *0.007 in 0.24* (Fig. 7), but the height must be determined in order to find the total width. Now the triglyphs are known to be 0.838 m. high and the geison mean height 0.344 m., taken from the top of the drip mold and pediment floor, as preserved on A 238. We may continue to follow Dinsmoor's example and approximate the height of the epistyle by considering the proportions of the Doric order. The lower

¹³⁶ Dinsmoor gives 0.554 m. for this last figure, *ibid.*

¹³⁷ Two corner triglyphs, nine regular triglyphs, and the metopes between, assuming the triglyph equal in width to two-thirds of a metope and the corner metopes proportionally increased.

¹³⁸ In order to remind the reader that much of the following discussion is theoretical, and while probable is not susceptible of proof, italic type is used for the figures derived from actual measurements.

¹³⁹ The only via preserved in its full width is that on the restored block A 238 (Fig. 12) which measures 0.139 m. A 2313 is preserved to a minimum width of 0.124 m.

¹⁴⁰ Dinsmoor, p. 14, uses a theoretical epistyle width equal to $1/2.638$ of the column spacing, a proportion averaging those found at the Hephaisteion and at Sounion. (Formulas and proportions are based on this article unless otherwise noted.) Such a proportion here would give an epistyle width of 1.019 m. for a column spacing of 2.688 m. The formula for the angle distortion is quoted by Dinsmoor from Koldewey and Puchstein, *Griechische Tempel in Unteritalien*, p. 198. "Angle distortion" is the horizontal adjustment necessary to bring in the axis of the corner column from its normal position under the triglyph axis as far as the axis of the epistyle on the return, and is produced by the expansion of the corner metope and triglyph, the inward inclination of the corner column, and the "angle contraction" or reduction of the corner intercolumniation.

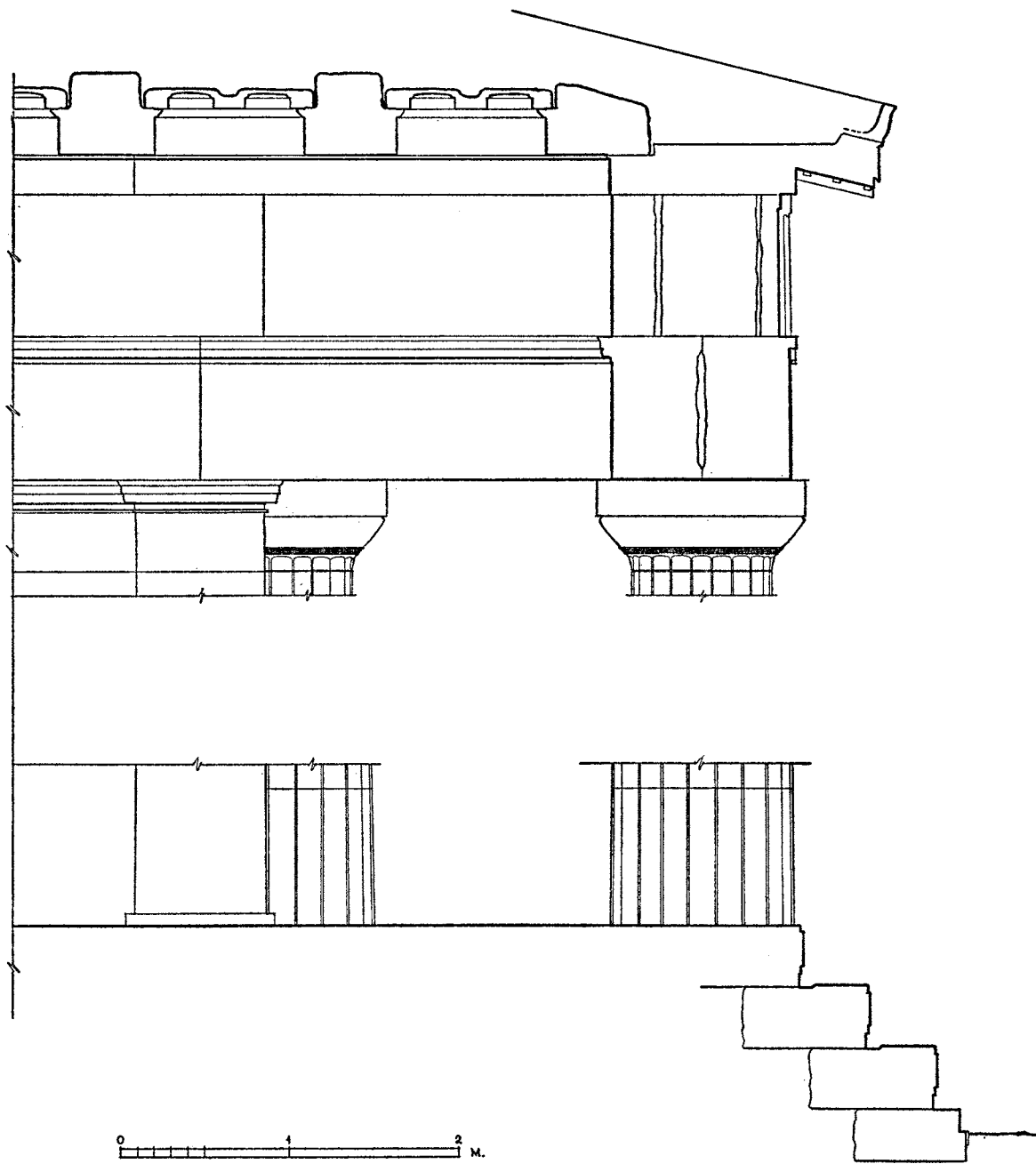


FIG. 23. Restored Section through East Porch.

diameter of the columns, derived from the new triglyph width should be $2(0.537) = 1.074$ m., assuming that the lesser triglyph measurement 0.536 m. may be due to wear on the surface. By comparison with the proportions of diameter to height used in the Hephaisteion, at Rhamnous, and at Sounion, the temple of Ares columns would be 5.612-5.776 diameters or 6.027-6.203 m. high.¹⁴¹ The height of the entablature may be estimated at about one-third the column height: 0.350:1 in the Hephaisteion, 0.332:1 at Sounion, and 0.335:1 at Rhamnous. That of the temple of Ares should be between the extremes of 2.001 and 2.171 m. Subtracting the known heights of the triglyph and geison, we arrive at 0.819-0.989 m. for the epistyle, based ultimately on the new triglyph.¹⁴²

If the same proportion of epistyle to total entablature height was held for all three temples, as it is 0.836:2.000 at Sounion and in the Hephaisteion, then the height of the epistyle in the temple of Ares would be 0.849 m.¹⁴³ The figure does not seem unreasonable in view of the slightly larger foundations of the Ares temple.

Subtracting 0.163 m. for the taenia, regula, and guttae, the outer epistyle block, with a measurable pitch of $0.007/0.24$, may be calculated to be 0.020 m. wider at the bottom than it is just below the regula, or 0.536 m., virtually the same as the width of the triglyph. The distortion would be $1/2 (1.072 - 0.537) = 0.2675$ m. The angle contraction at about $1/15$ of the column spacing ($1/6$ of the column diameter) would be 0.179 m. If the inclination of the columns at the corners was 0.04 m. as in the Hephaisteion, the remaining adjustment of $0.2675 - 0.179 - 0.04 = 0.0485$ m. would be applied to the corner triglyph and metope: 0.018 m. of this belongs to the triglyph ($0.555 - 0.537$), and the final 0.305 m. to the metope. Given 0.139 m. for the width of the second as well as the first via, $0.554 + 0.139 + 0.555 + 0.139 = 1.387$ m. for the first triglyph and metope; the latter would then be equal in width to $1.387 - 0.555 = 0.832$ m. If the other metopes were 0.305 m. narrower, the front frieze would be $2(0.555) + 9(0.537) + 2(0.832) + 8(0.8015) = 14.019$ m. wide, and the flank $14.019 + 14(0.537) + 14(0.8015) = 32.774$ m. The foundations would project 1.49-1.69 m. on the flanks and 1.81 m. on the ends; the maximum discrepancy of 0.32 m. is slightly greater than that which was estimated above.

Reversing the calculations and beginning with the theoretical entablature height

¹⁴¹ The average height of the surviving drums is 0.774 m. Assuming that there were seven in a column, we may multiply by this figure and add an approximate 0.50 m. for the height of the capital (Fig. 6), to arrive at a column height of 5.918 m. Allowing for the wear on the column drums, this is not far off. Indeed, if the maximum preserved height is used, it will result in a figure of 6.079 m. It may also be noted, in comparing the drums to the theoretical measurements of the columns, that the largest drum of the regular series has a diameter of 1.07 m. at the bottom, when allowance is made for the missing flutes. See above, p. 52.

¹⁴² Compare the figure of 0.836 m. proposed by Dinsmoor, p. 21, on the grounds that exactly this dimension was used at Sounion and in the Hephaisteion.

¹⁴³ Epistyle : Geison + Triglyph + Epistyle :: 0.836 : 2.000.

of $0.847 + 0.838 + 0.344 = 2.029$ m., we find that the columns, if between 2.856 (Hephaisteion) and 3.012 (Sounion) times this figure, would be 5.795-6.111 m. high, based on the theoretical epistyle height. The proportion of the column height to the lower diameter is 5.612:1 in the Hephaisteion, 5.776:1 at Sounion, giving 1.033-1.058 m. for the temple of Ares. The diameter 1.074 m., derived from the triglyph and supported by the material remains, would exceed these limits, if it were supposed that the relative proportions were actually the same as in either of the other temples. However, the changes from the Hephaisteion to the temple at Sounion, in favor of a lighter entablature and somewhat exaggeratedly tall columns, would seem to be continued in a modified form in the temple of Ares. For instance, if we suppose that the Sounion entablature-to-column-height proportion was maintained, the columns would be about 6.1 m. high as we have seen, or about 5.69 diameters.

Dinsmoor gives the excess of the open space between the columns over diameter at an almost constant 0.49 m.¹⁴⁴ The smaller spacing of 2.677 m. derived from the frieze [$2(0.537) + 2(0.8015)$] would leave $2.677 - 1.074 = 0.529$ m. as compared with 0.545-0.547 m. at the Hephaisteion, 0.475 m. at Rhamnous, and 0.436 m. at Sounion. The greater spacing of 2.688 m., derived from the step blocks and probably more reliable, would give an excess of 0.540 m. The different results reached by these two approaches would indicate that the temple of Ares had widely spaced columns like the Hephaisteion, but that, as might be expected in accordance with the general trend of the Doric style, the entablature had been lightened in relation to the intercolumniations. If we may accept the lower diameter of 1.074 m., the proportion of this diameter to the entablature is less than that of the Hephaisteion or of Sounion. The four temples seem strikingly similar in this as in other respects; the proportion would be in each: Hephaisteion 1:1.95, Sounion 1:1.92, Ares 1:1.89, Rhamnous 1:1.95-1.90.¹⁴⁵ This sequence might be interpreted as indicating that the entablature of the temple of Ares had been lightened in comparison with the notably heavy one of the Hephaisteion, but that the column diameter had not followed suit to the extent found at Sounion, nor had the intercolumniation been as much reduced in proportion.

The dimensions, theoretical and otherwise, which have been derived here are summarized in the following table:

¹⁴⁴ P. 22.

¹⁴⁵ These figures, like the proportions of column height to lower diameter, are taken from Dinsmoor, *The Architecture of Ancient Greece*, the Chronological List of Greek Temples, facing p. 340.

¹⁴⁶ The angle spacing is equal to the normal axial spacing minus the assumed angle contraction of 1/15 of this normal spacing, and minus the increment in diameter of the corner column, taken at a nominal two centimeters by comparison with the Hephaisteion.

3 axial spacings (@ 2.688 m.)	= 8.064 m.
2 angle spacings (@ 2.489 m.) ¹⁴⁶	= 4.978
2 angle column radii (@ 0.547 m.) ¹⁴⁷	= 1.094
2 stylobate projections (@ 0.0475 m.) ¹⁴⁸	= 0.095
4 step treads (@ 0.395 m.)	= 1.580
2 euthynteria projections (@ 0.157 m.)	= 0.314
	<hr/>
Width of krepidoma	= 16.125 m.
7 axial spacings (@ 2.688 m.)	= 18.816
	<hr/>
Length of krepidoma	= 34.941 m.
Foundation projections — ends	= 0.73 m.
— flanks	= 0.44-0.64 m.
Height of the euthynteria	= 0.303 m.
Height of 3 steps (@ 0.356 m.)	= 1.068
Height of columns	= 6.100
Height of epistyle	= 0.847
Height of frieze	= 0.838
Height of geison to top of hawksbeak	= 0.3065
Height of sima	= 0.225
	<hr/>
Height of temple to cornice	= 9.6875 m. or
more properly about 9.7 m.	

It is now possible to return to the ceiling beam A 2387 to see how it will fit with the reconstructed plan.¹⁴⁹ Assuming that it stretched from the front epistyle to the anta, it should determine the position of the anta in relation to the columns of the peristyle. The exposed length of the beam measures 4.65 m. Adding to this half the epistyle width 0.536 m. gives the distance of the anta face from the axis line of the end columns as 5.186 m. One angle spacing (2.489 m.) plus one normal spacing (2.688 m.) is the distance of the axis of the third column on the flank from this same end axis: 5.177 m. This would mean that the face of the anta was approximately in line with the axis of the third column, an arrangement used at both ends of the Parthenon. It is highly unlikely, however, that the cella of the temple of Ares was preceded by four columns prostyle, and such a deep porch would otherwise be most unusual.

There is an additional point against such an arrangement: it has already been shown that, at one end of the building at least, a frieze continued across from the antae

¹⁴⁷ The angle column radius is increased by a nominal one centimeter by comparison with the Hepaisteion.

¹⁴⁸ Normal for temples of the later fifth century B.C. (Dinsmoor, p. 24).

¹⁴⁹ See above, pp. 38 ff.

to the side columns.¹⁵⁰ Since the axis of the epistyle carrying such a frieze must have coincided with the axis of one of the peristyle columns, the beam and the frieze are mutually exclusive. Nor would it be reasonable to relegate either a special frieze or an extra large porch to the rear end of the temple. There is one other possible position for the beam, and that is in the pronaos. The span over the pronaos of the Hephaisteion is

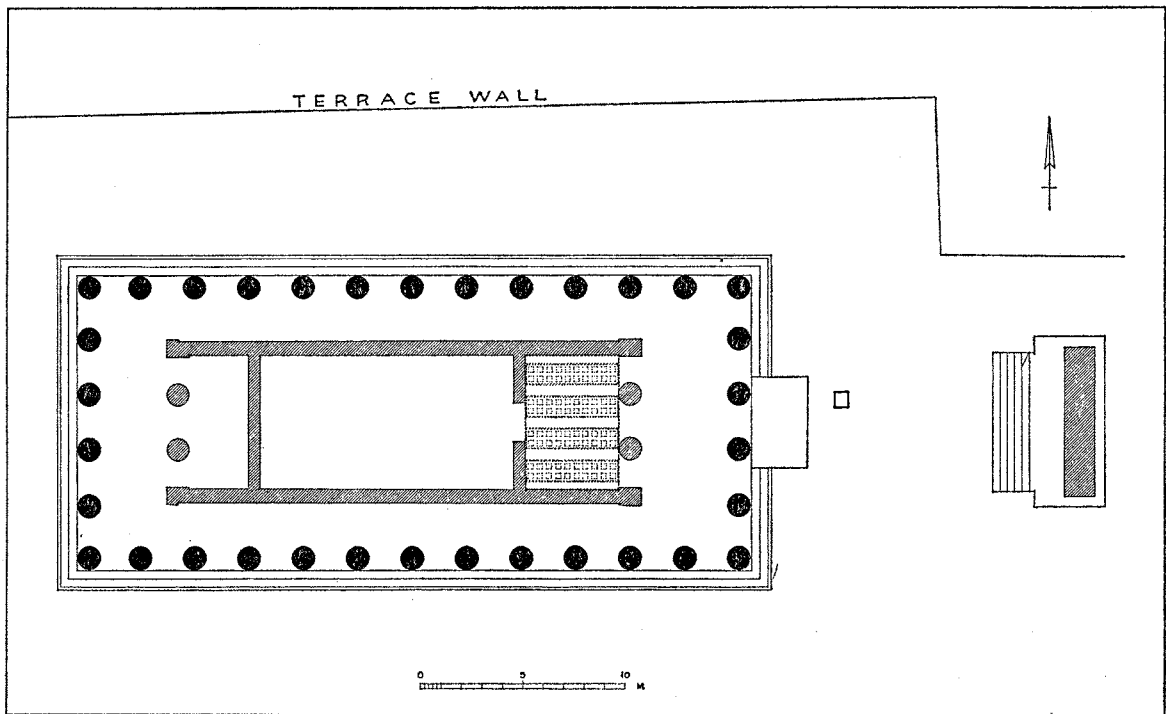


FIG. 24. Restored Plan.

almost identical with that over the east porch, as the result of an attempt on the part of the architect to modernize the shape of the cella.¹⁵¹ The temple of Ares foundations have the same unusually great proportion of length to width; might there not have been an even deeper pronaos in the third building of the series?¹⁵²

If, as seems likely, the group of ceiling fragments from the Late Roman Fortification belong together, a position over the main entrance is certainly an appropriate place for such an elaborate decoration. The area is comparatively small, and

¹⁵⁰ See above, p. 33.

¹⁵¹ At the level of the epistyle, the pronaos span is 3.962 m.; the east porch is 3.97 m. as measured by J. Travlos 22 June 1954.

¹⁵² Hephaisteion 1:2.318; temple of Ares approximately 1:2.2. Dinsmoor in *The Architecture of Ancient Greece*, the Chronological List of Greek Temples, facing p. 340 gives 1:2.313. The theoretical krepidoma dimensions on p. 60 yield 1:2.167.

well separated from the peristyle ceilings, which may have been composed of coffers of the simpler Hephaisteion pattern. It is even possible that gold would be used in a special and limited case such as this would be. Although there is nothing to determine the exact width of the pronaos, it may be of interest to consider just how many coffers there would have been.

Ten coffers 0.458 m. on centers minus the distance between one pair of astragals (0.035 m.) gives a length of 4.545 m. between the outside lines of the astragals at each end.¹⁵⁸ The beam length 4.65 m. minus the 0.045 m. nosing at each end gives a total for the coffer slab length of 4.56 m. This allows a margin theoretically only 0.0015 m. at each end; the fit is tight, but not impossibly so.

The three beams which are preserved are 0.567, 0.565 and 0.544 m. in width. Placing the narrow one in the center and adding four double coffer panels 0.9146 m. wide, eight nosings of 0.045 m. each, and two side beams of the width used in the Hephaisteion east porch (0.374 m.) yields a total width for the pronaos of 6.4424 m. Adding 0.34 m. on either side for half the wall width, the distance between the two center lines would be 7.2224 m. Judging by the Hephaisteion, where the inner projection of the anta beyond the face of the wall is greater than the outer, the distance between the axes of the antae would be slightly less, possibly 7.20 m.

The distance between the axes of the second and fifth columns on the front of the temple would be $3(2.688) = 8.064$ m. On the Hephaisteion, the measurements are 6.952 m. between anta axes and 7.753 between the axes of the second and fifth columns. The proportion of this triple column spacing to anta spacing would be 1:0.893 for the temple of Ares, and 1:0.897 for the Hephaisteion, again suggesting that the proportions of the later temple were extremely close to those of the earlier.

For the end peristyles, assuming an end-beam soffit of 0.374 m. similar to that on the Hephaisteion, and a span of 13.042 m. between the centerlines of the north and south colonnades, one may restore nine beams as in the Hephaisteion. Although there is no evidence for the size of the beams, the dimensions of those restored to the pronaos may be tried in the east porch, as shown in Figure 23. Alternating those of 0.065 m. and 0.045 m. width, and spacing them equally, the interval between beams works out to be 0.88 m. \pm , just over the 0.85 m. averaged in the Hephaisteion. It has been seen that the Ares coffers average 0.8835 m. between the outside lines of the astragals, and that an unassigned group measures 0.833 m. over the same distance. We may suppose that a third set of coffers belongs here, or that those without trace of setting lines were set here like those of the Hephaisteion with the astragal immediately next to the moulding of the supporting beam, or that the unassigned slabs were used in this part of the ceiling, with a space of about 0.019 m. between beam moulding and astragal. The second choice has been shown in Figure 23; the work-

¹⁵⁸ See above, p. 41, note 99 and Fig. 22.

manship on the unassigned group is so poor that it can have been used only as a replacement at best.¹⁵⁴

While the original surfaces correspond in every way to the dimensions of the other beams, the two which Dinsmoor noted as sawed are in their present form too narrow to be used in the end peristyles.¹⁵⁵ It must be supposed that this was indeed their original location, but that in rebuilding the temple, they were cut down for use elsewhere, perhaps as interbeam blocks above the frieze or behind the pediment.

One end of the cella wall may be fixed in plan by the frieze which spanned from anta to third column; the other may only be approximated by comparison with the three "sister" temples. In the Hephaisteion, the west face of the west anta is approximately half way between the second and third columns, proceeding from west to east; at Sounion, the anta face is just in front of the third column, and at Rhamnous, between the second and third columns. The length of the wall then is equal to eight or eight and a half column spacings plus half the width of the pronaos epistyle. We may approximate this distance as $8(2.688) + 0.50 = 22.004$ m. or $8\frac{1}{2}(2.688) + 0.50 = 23.348$ m. of which at least two meters would be anta blocks. The length of the only known orthostate block A 704 at 1.102 m. would indicate about eighteen or twenty regular blocks in a course, but there is no way of knowing the length of possible short blocks at either end. The reader may recall that a series letter as high as P or "seventeen" is preserved on wall block A 1495.

The position of the crosswall at the entrance of the cella has been suggested by the assignment of the known ceiling beams to the pronaos. The length of 4.65 m. added to approximately half a meter for the epistyle half-width would set the face of the crosswall 5.15 m. back from the axis of the third column. The centerline of the wall would be very nearly on the axis of the fifth column, presumably making the cella slightly shorter than that of the Hephaisteion.¹⁵⁶

These are the positions of the walls shown on Figure 24. The position of the rear wall and even its existence, as well as the interior arrangement of the cella, are entirely conjectural, but we may suppose them somewhat similar to those of the Hephaisteion.

There are, of course, many questions which remain to be answered. The chances are few that many additional fragments of the temple of Ares will be discovered, but comparison with other temples yet to be excavated may shed some further light on

¹⁵⁴ Dimensions are purposely omitted from the restored section and plan, as they are largely theoretical. See p. 39, note 91.

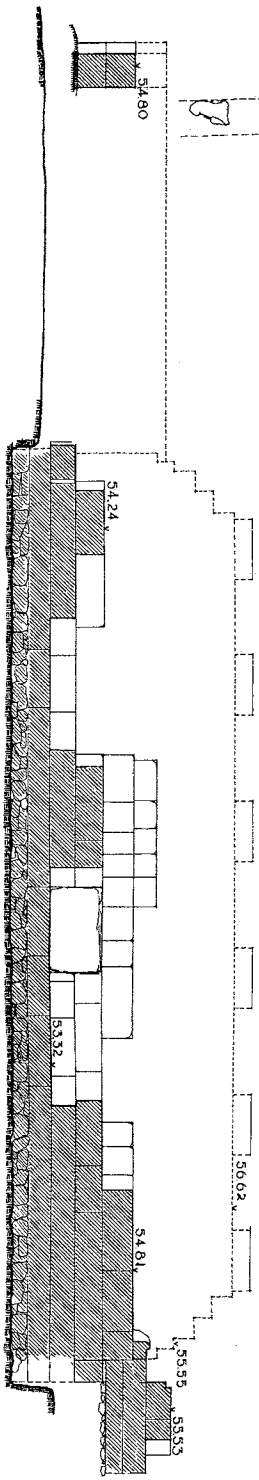
¹⁵⁵ Dinsmoor, p. 40.

¹⁵⁶ At Sounion, the axis of the pronaos wall and that of the fifth column are virtually the same. At Rhamnous, the inner face of the wall lines up with the front face of the fifth column. See *B.S.A.*, XLV, 1950, pls. 7, 8, 9.

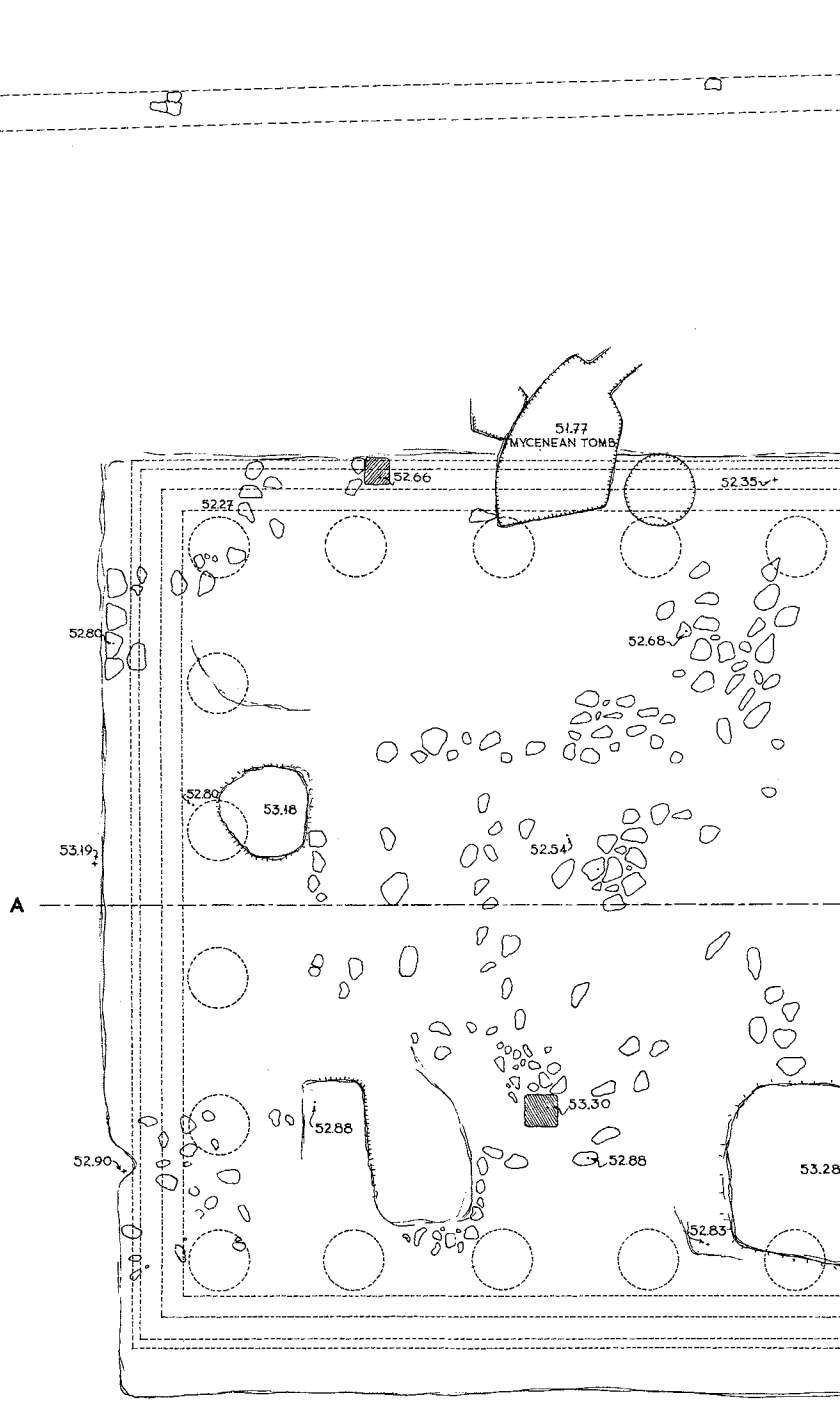
these few remains. That dark question of the original site stands to gain most from further exploration. Indeed, until such a time, there can only be conjectures on this point. One school of thought would place the temple on the Areopagus, another where the Roman Agora now stands. There are reasons for and against both theories, but few facts. Above all it should be stressed that there must have been a compelling reason for the transference of a large and elaborate temple from the sacred ground where it had stood for four hundred years. Here is an intriguing problem which will be high on the list of those scholars who continue to fill in the plan of the classical city of Athens.

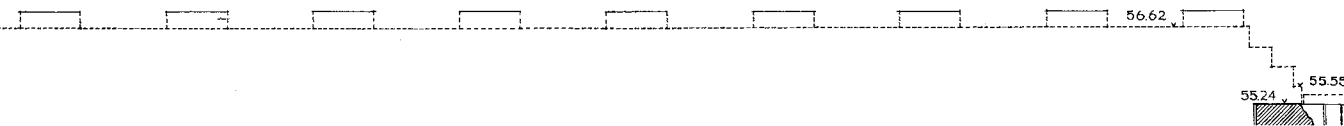
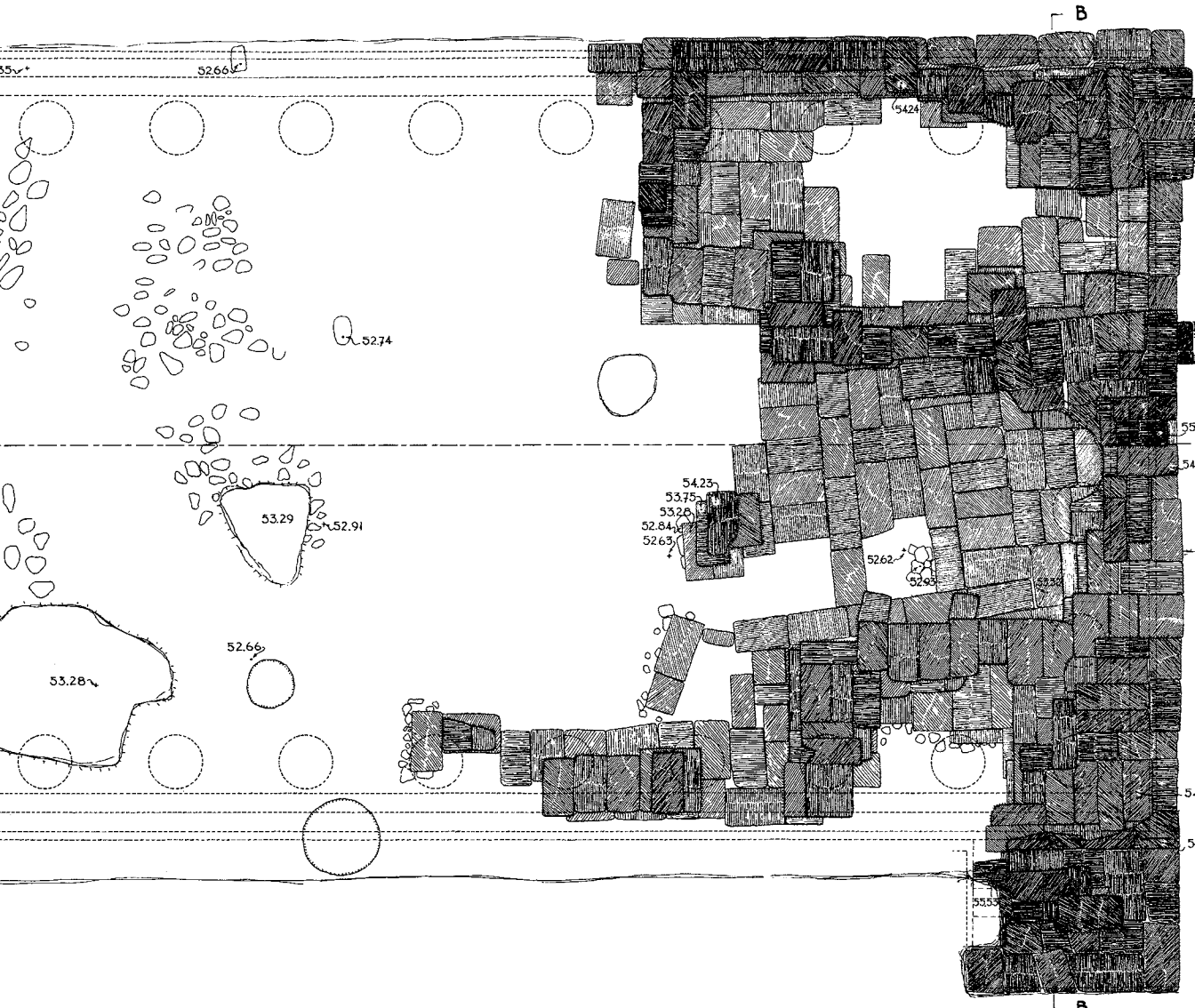
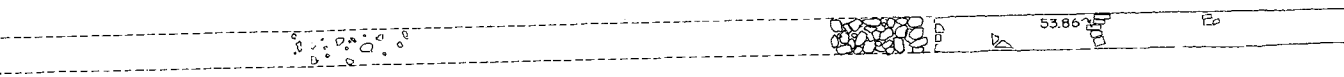
MARIAN HOLLAND McALLISTER

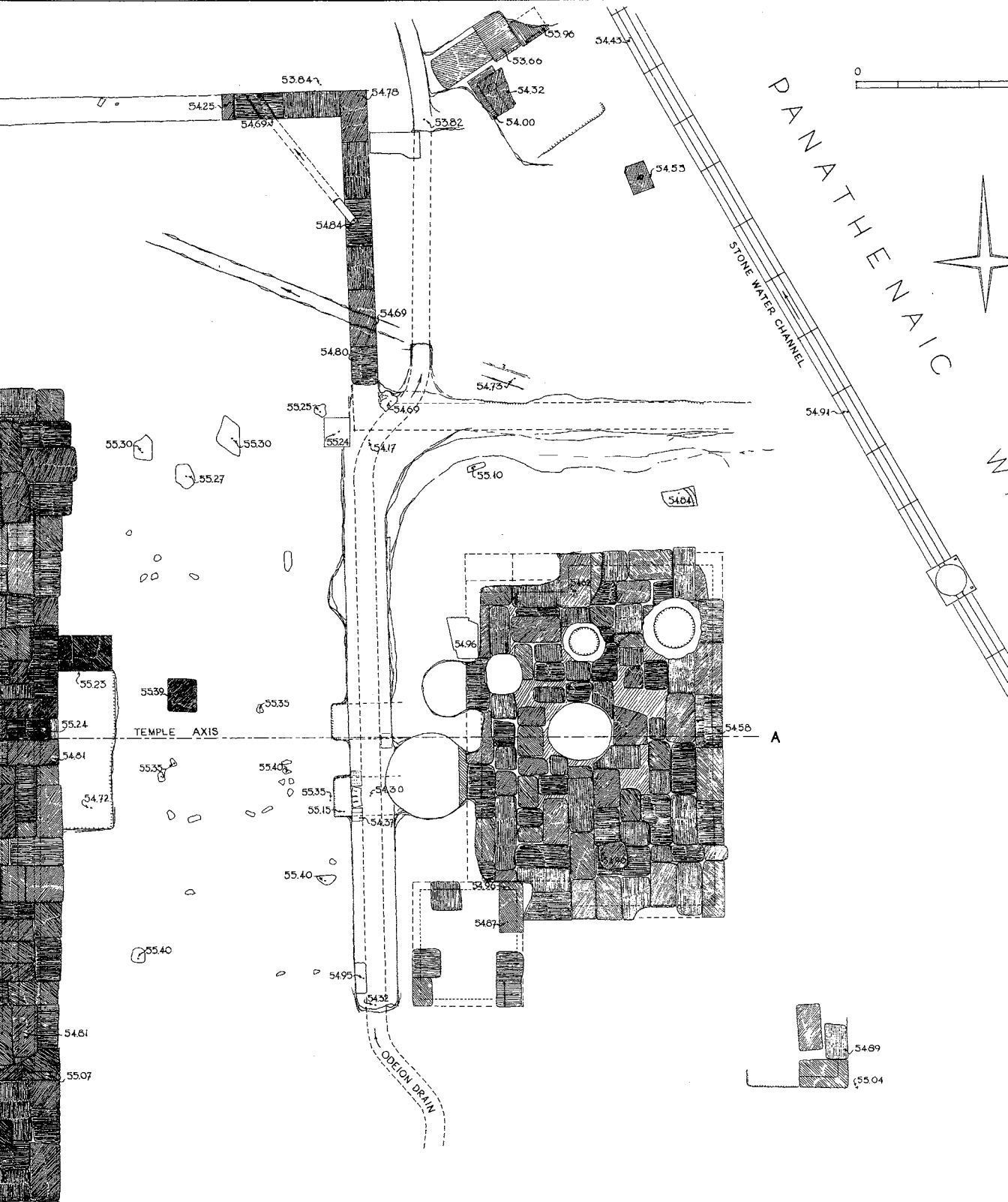
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SECTION B

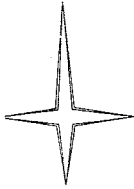
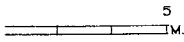






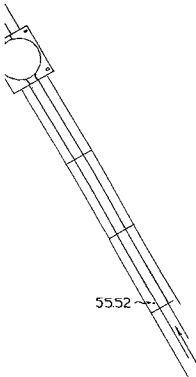
AXIAL SECTION A-A

PLATE A



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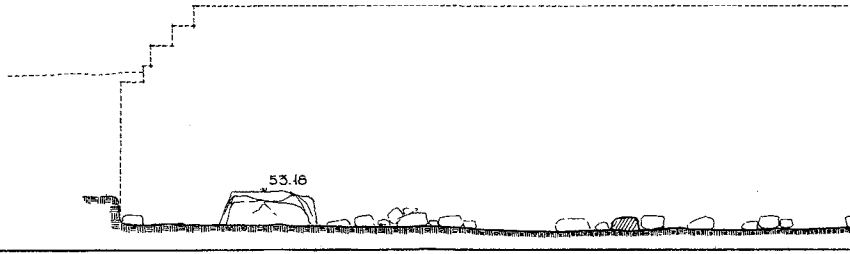
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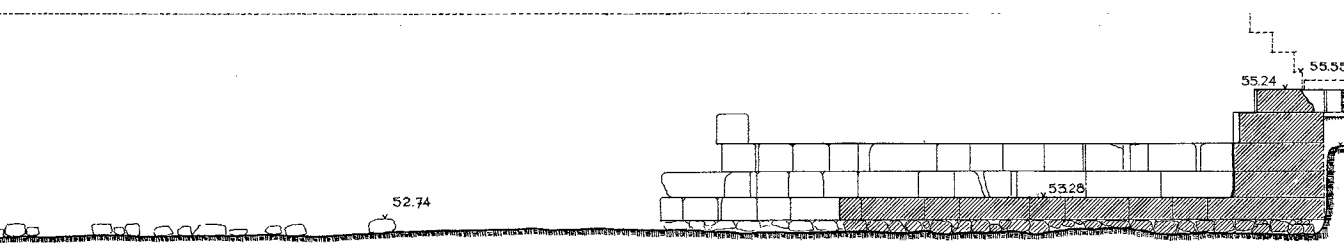


√ A-A

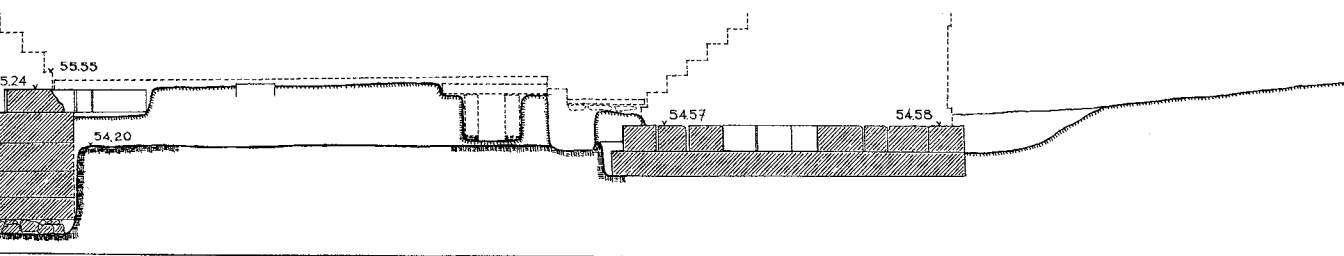


TION B-B



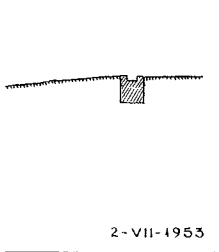


PLAN AND SECTIONS OF THE EXISTING REMAINS OF THE TEMPLE OF
MARIAN HOLLAND McALLISTER: THE TEMPLE OF ARES. A REVIEW OF THE



TEMPLE OF ARES

VIEW OF THE EVIDENCE



2-VII-1953



Temple and Altar of Ares from the Northeast

MARIAN HOLLAND McALLISTER: THE TEMPLE OF ARES. A REVIEW OF THE EVIDENCE



b. Shield Block I 6634



e. Altar Foundation Block



a. East End of Foundations



c. Altar Orthostate A 1652

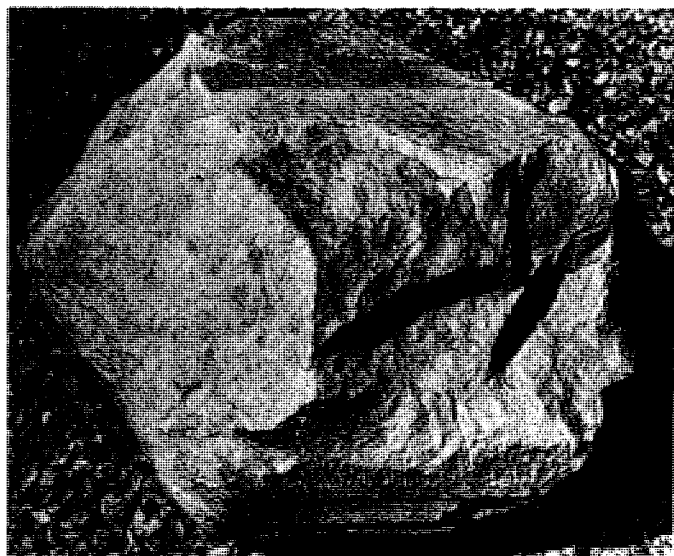


d. P 21280

MARIAN HOLLAND McALLISTER: THE TEMPLE OF ARES. A REVIEW OF THE EVIDENCE



a. Euthynteria Block A 215



b. Step Block A 1719



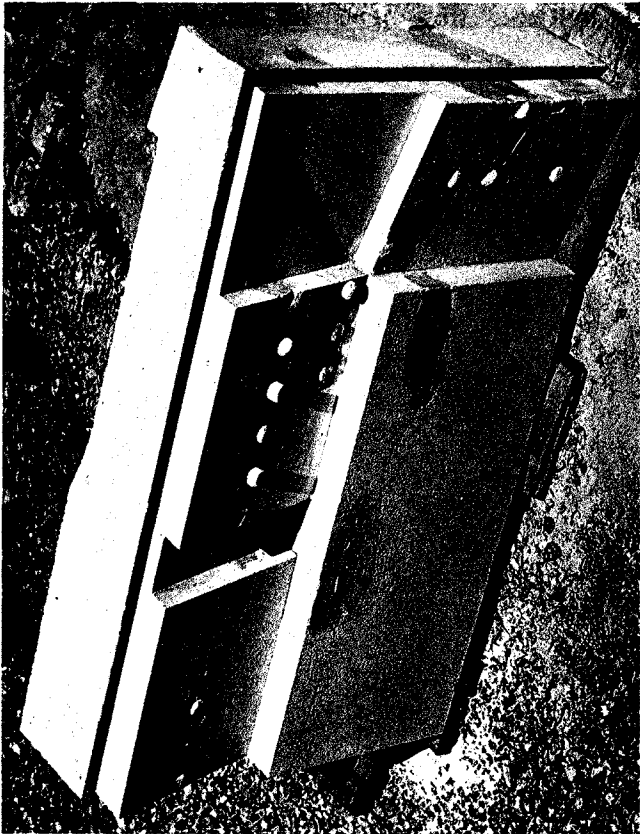
c. Hephaisteion Drum



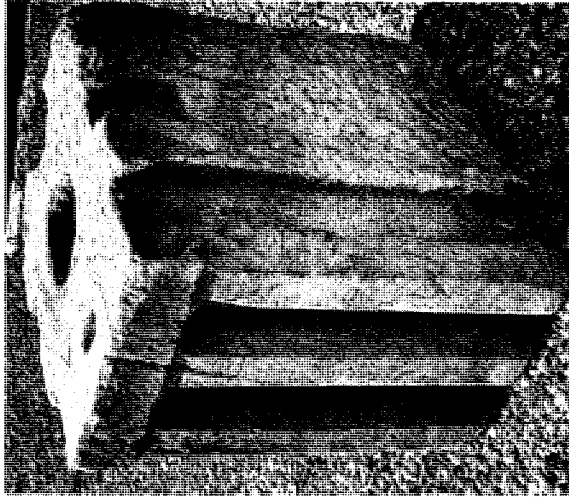
d. Theater of Dionysos Drum



e. Column Drum A 2257



a. Restored Geison Block



b. Triglyph A 2277



c. Lion Spout A 1853



d. A 702 + 1135

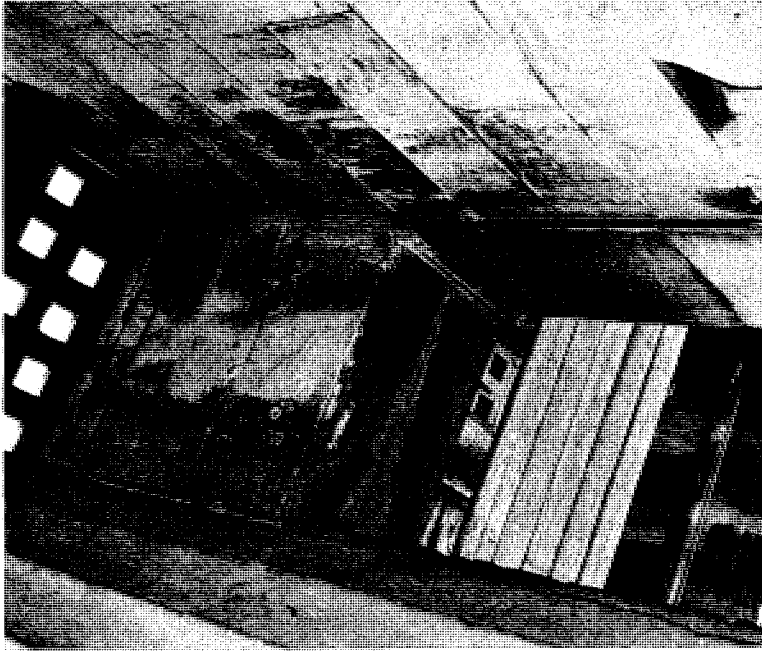


e. Capital Fragments A 600 and 1845 c

MARIAN HOLLAND McALLISTER: THE TEMPLE OF ARES. A REVIEW OF THE EVIDENCE



a. Hephaishteion, Ceiling of South Peristyle



b. Hephaishteion, Northeast Anta



c. Hephaishteion, Coffers A 2183

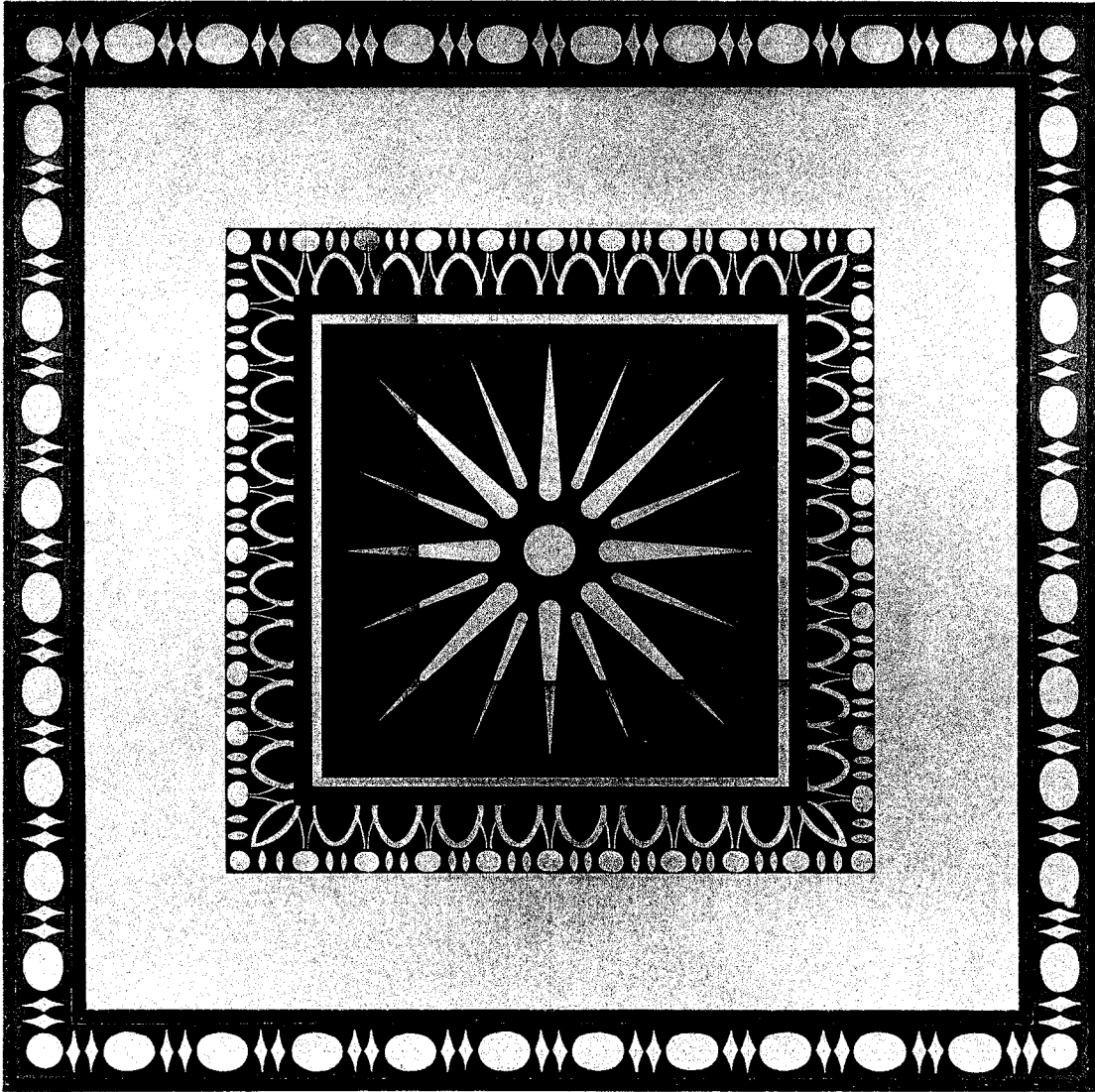


d. Temple of Ares, Ceiling Beam A 2389



e. Temple of Ares, Interbeam Fragment A 2121

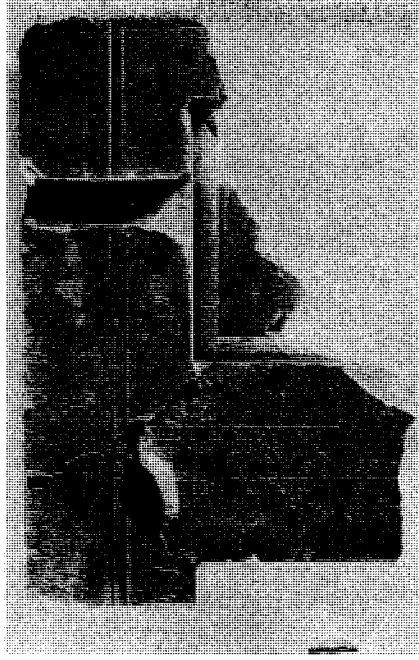
MARIAN HOLLAND McALLISTER: THE TEMPLE OF ARES. A REVIEW OF THE EVIDENCE



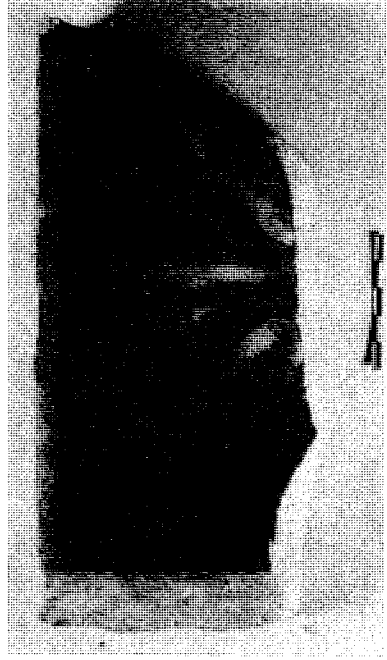
a. Restored Cella Coffin



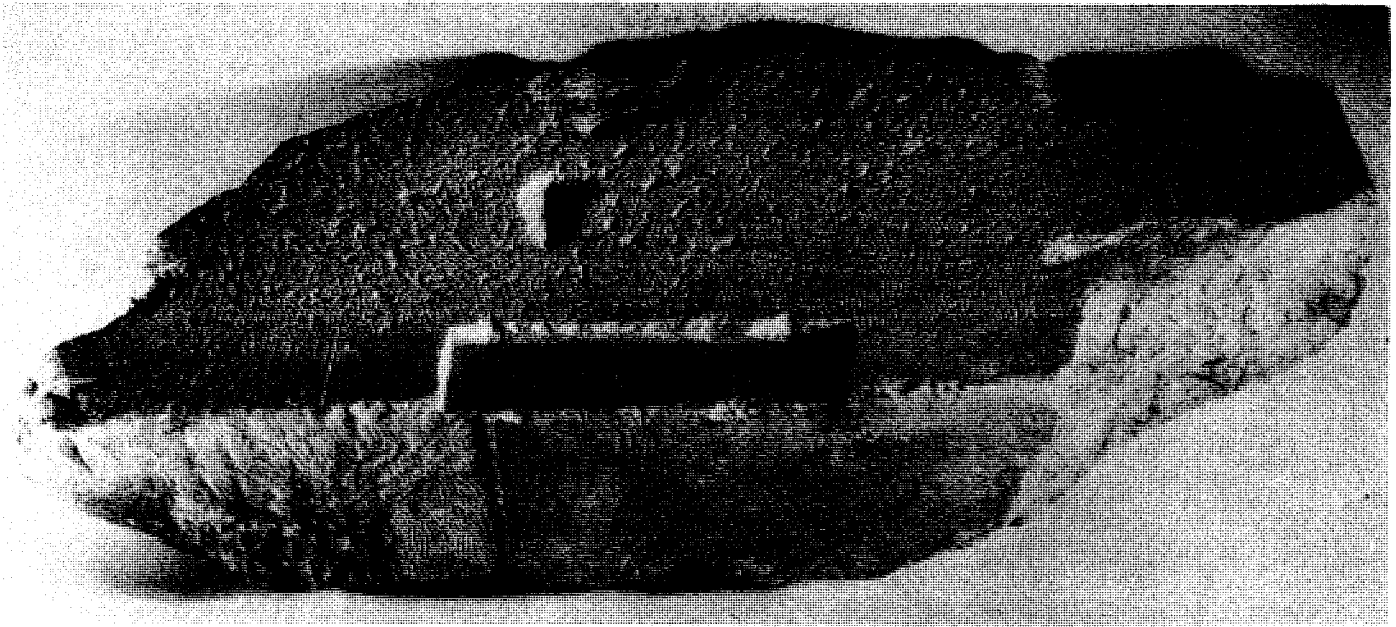
b. Coffin Fragment A 2181 a



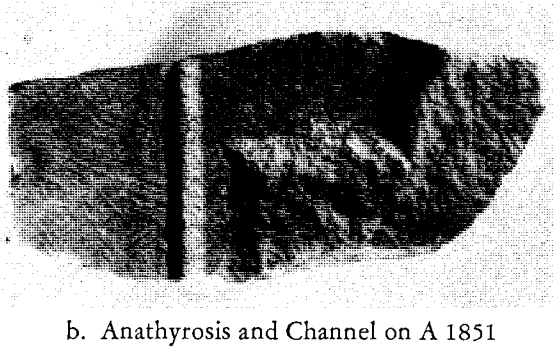
c. Coffin Fragment A 2137 b



d. Painted Coffin Vault A 2157



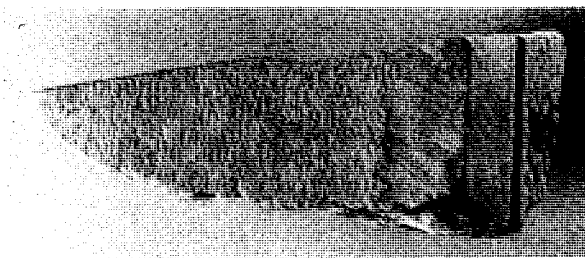
a. Wall Block A 2635



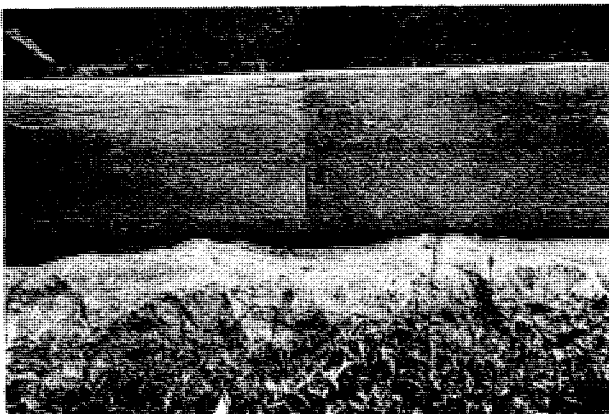
b. Anathyrosis and Channel on A 1851



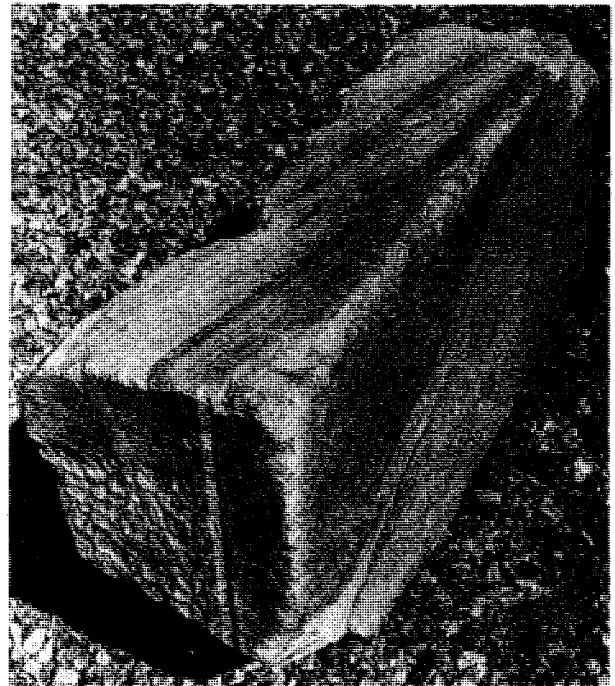
d. Beam Fragment A 2123



c. Stippled Face of A 1851



e. Euthynteria Course of the Temple at Sounion



f. Stippled Block A 1874