

A TEMPLE AT HERMIONE

(PLATES 46-48)

AS far back as I can remember, Rhys Carpenter and archaeology have been synonymous. When, by an unexpected turn of events, I began to study archaeology at Bryn Mawr, nothing could have seemed as fitting or as alluring as the prospect of courses with Dr. Carpenter. His ingenious wit, at once startling and convincing, held his students spellbound through lectures in a variety of subjects, and sent us on each inspired in her own direction. It is therefore a special privilege for me to present here a paper intended to further the knowledge of "Ancient Architecture," as one of the fields to which he has made many a fresh and important contribution.

Extending eastward from the modern town of Hermione in the southern Argolid, a rocky promontory known as the Bisti rises from the sea and protects the harbor (Fig. 1, Pl. 46, a).¹ It has been thickly planted with pine trees and enclosed by a fence, so that it may be marked as an archaeological site and serve as a park for the local inhabitants, summer visitors, and Boy Scouts. Ancient remains abound, from prehistoric sherds to fortifications of classical and medieval times. Here crowning the eastern part of the ridge are the foundations of one of the most accessible but least known Greek temples. Several times a day the island boats stop on their way to and from Athens, and anyone in Hermione can direct the stranger to the "temple of Poseidon," yet it is ignored by modern guide books and unknown to many scholars.²

EARLIER REPORTS

Pausanias, who seems to have missed very little in his tireless journeyings, visited Hermione on his way across the lower Argolid.³ He enumerated no less than seven temples and sanctuaries on the Bisti, but as is often the case, his brief remarks

¹ In the photograph, the Pron appears in the foreground, the Bisti in the middle distance, and the island of Hydra directly beyond, disappearing behind the nearer island of Dhokos to the right. Cf. Frickenhaus and Müller, "Aus der Argolis," *Ath. Mitt.*, XXXVI, 1911, pl. I. This map shows additional remains, including medieval fortifications, but the scale should be labeled 400 m. rather than 200 m.

² Professor Spyridon Marinatos, Inspector General of the Archaeological Service of Greece, has given me permission to make this study of a building first investigated by Professor Alexandros Philadelphus on behalf of the Archaeological Society of Athens; for this permission I am most grateful. That I was able to undertake the work is due to the generous encouragement and assistance of Professors Michael H. Jameson and Thomas W. Jacobsen, under whom I participated in the 1965, 1967 and 1968 excavations at Porto Cheli in the Hermionid, conducted by the University of Pennsylvania and Indiana University. Photographs on Plates 46 and 47 are used here through the courtesy of Professor Jameson.

³ Pausanias, *Description of Greece*, II, 34, 9-11. See below, p. 184.

have led to disagreement and discussion rather than positive identification.

Much later, in the nineteenth century, Leake identified the area of the town of Kastri with that of Hermione and mentioned the remains of a temple "at the extremity corresponding to that of Neptune."⁴ Curtius soon after described the "pavement of a temple more than a hundred feet long, built of cut blocks of gray stone with white veins, in irregular sizes."⁵ "Immediately behind" it, he saw another ancient pavement eighty feet long, and remarked that this was a convenient source of building material for the local inhabitants. About 1870, Bursian described the site

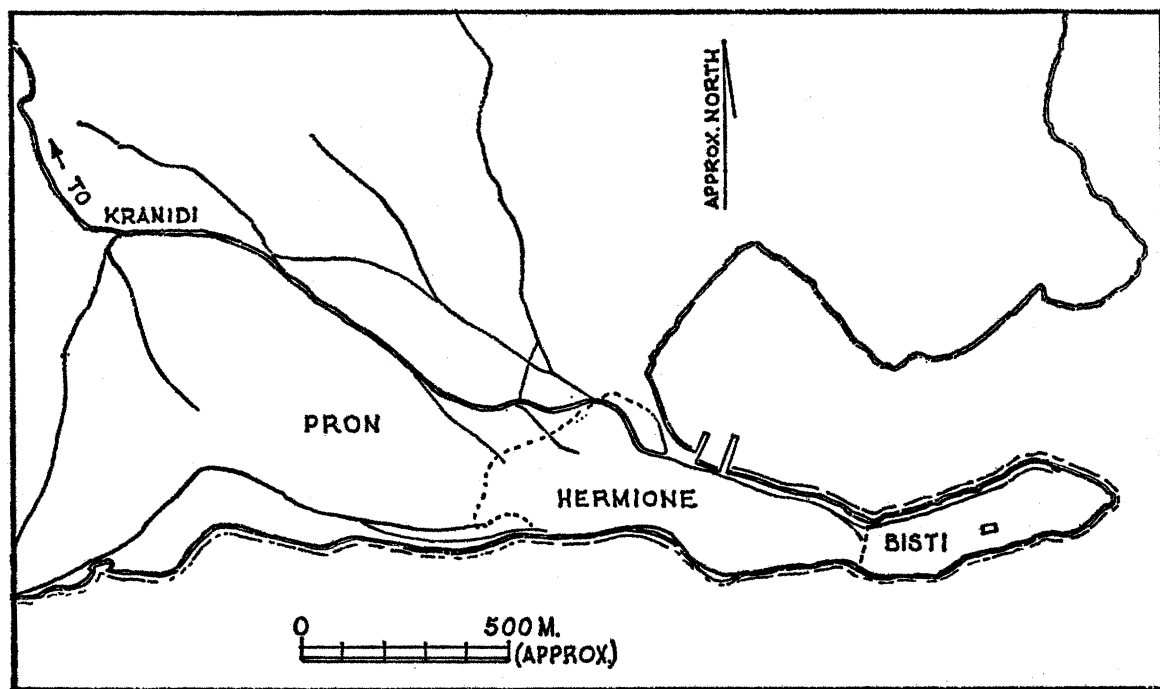


FIG. 1. Map showing Location of the Temple on the Bisti

in much the same words, adding the figure of 38 feet for the width of the foundation, but made no mention of the second pavement "behind" the first.⁶ Frazer at the turn of the century repeated Curtius' description almost verbatim, though of course in translation, and incorporated Bursian's dimension for the width, giving rise to grave doubts that he ever visited the site himself.⁷

In 1909, Philadelphus reported on investigations which he had made on the promontory.⁸ He had spent much of his time on the medieval walls and towers which

⁴ W. M. Leake, *Peloponnesiaca*, 1846, p. 281.

⁵ E. Curtius, *Peloponnesos*, II, 1852, pp. 457 f.

⁶ C. Bursian, *Geographie von Griechenland*, II, 1868-1872, p. 96.

⁷ J. Frazer, *Pausanias's Description of Greece*, III, 1898, p. 293.

⁸ *Πρακτικά*, 1909, pp. 172-181.

were constructed of ancient blocks. His report gives the measurements of the stereobate as 33 by 29 meters, and describes the temple as entirely covered by fallen blocks except for the center. In the course of the task of clearing the site, which took many days, he found traces of the apse of a Christian church, and many architectural fragments of Byzantine style. Finally, the report mentions two large column drums northeast of the temple in the wall which encircles the promontory at the waterline. The drums had been used in repairs of Byzantine date. Other fragments of large drums were found in the village.

No further investigations or publication of the temple have been made, but Michael H. and Virginia B. Jameson included the site in their survey of the area in 1950.⁹ They identified the exposed blocks as the euthynteria of the temple of Poseidon, and gave the principal measurements and a brief description of the masonry. They were unable to identify any trace of Curtius' 80 foot pavement. Professor Jameson's continuing interest in the temple prompted the suggestion that the remains be published as they are, even though a proper study must wait for excavation, and he has kindly written a historical note which appears at the end of this article.

STATE OF THE REMAINS

At the present time, the area inside the peristyle foundations has been filled level with the tops of the blocks and a row of pine trees planted down the middle (Pls. 46, b, 47, a). Therefore, armed only with a new broom and basic measuring equipment, and valiantly assisted in various ways by all the members of my family, I recorded all the blocks which appeared to be in situ in August 1967 and were not covered by more than a heavy layer of pine needles. Some few were covered at least in part by earth too compact to be removed without digging and have been indicated accordingly on the plan (Fig. 2).¹⁰

The blocks shown on this plan constitute the top course of the foundation. Most of them are in place, both on the lines of the peristyle and those of the cella and cross-walls; some few are missing or dislodged on the long sides. In a few places where the present ground level is lower, it can be seen that there are blocks below this course, but they are apparently not continuous and probably occur only in places where the bedrock drops away (Pl. 47, b). The vertical face slopes outward from the

⁹ V. B. and M. H. Jameson, *An Archaeological Survey of the Hermionid*, 1950, an unpublished paper for the American School of Classical Studies at Athens.

¹⁰ The plan shows all the blocks which are in place or only slightly dislodged. Two on the south side are shown with dashed lines because they were tipped at too great an angle to include in the basic survey which was severely limited by time, and were added from notes and photographs made in 1968. Other similar blocks lie in the gaps on the north side, and to the north and south of the temple (Pls. 46, b, 47, a). Presumably, some might be restored to their original positions. The plan shows the location of all cuttings and changes of surface level which were noted, as well as major breaks in the surface. Variations in wear, finish and so forth are not shown, but noted in the text. Of the medieval church, in the interest of clarity only the traces of the apse are indicated.

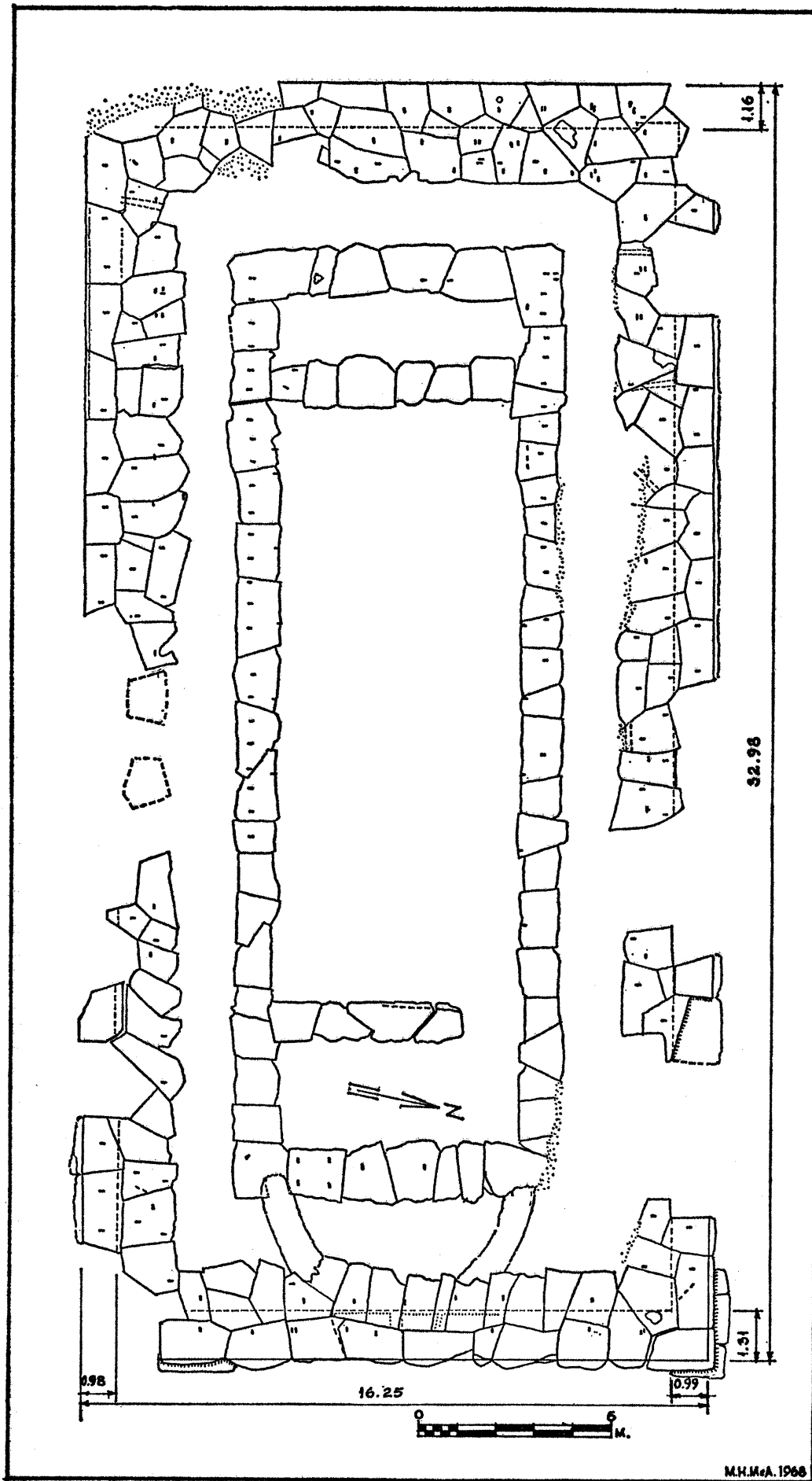


FIG. 2. Actual State Plan

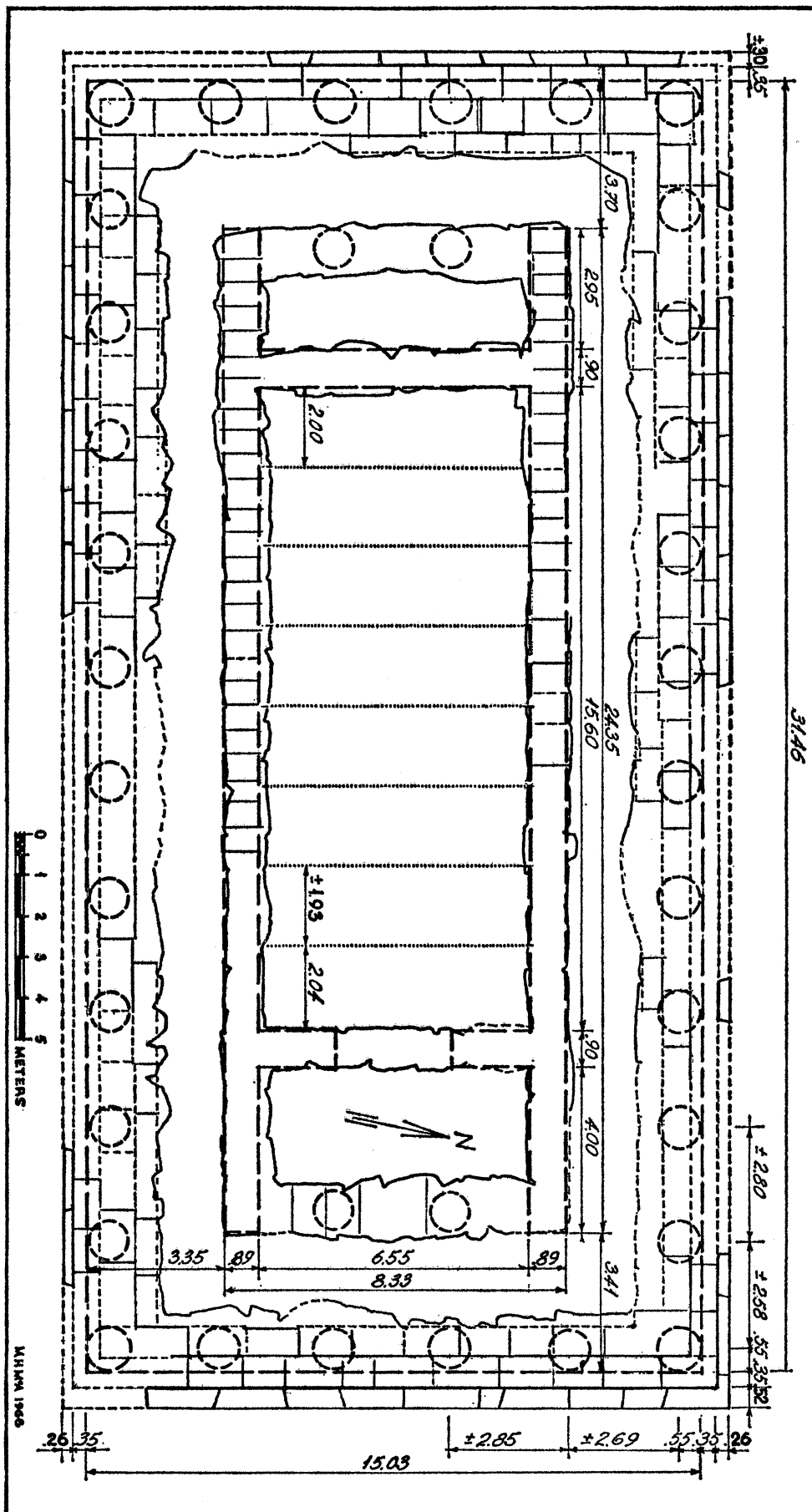


FIG. 3. Hypothetically Reconstructed Plan

well-defined top edge, and, except for the irregular band along this edge, is rough and bulging, projecting as much as 0.30 m. The blocks are irregular in size as well as shape, but are very closely set in polygonal fashion, using both straight and curving lines. To ensure a perfect fit, the edges of the blocks are bevelled with a toothed chisel; a narrow, smooth band frequently forms a border for the point-dressed surface (Pl. 48, a).

The peristyle foundation is composed of large blocks, most of them at least a meter in one dimension and often as much as two. They are laid in a broad band two or three blocks deep; no attempt was made to keep the inside edge even. The lines of the long walls and the crosswalls of the cella are marked by foundations one block wide, at a slightly higher level than those of the peristyle (Pl. 46, b).¹¹ The cella blocks are slightly smaller, generally trapezoidal in plan, and the inner and outer edges both form somewhat irregular lines. Finally, at either end there is a foundation that presumably supported columns in antis. These are also one block in width; in size, the blocks are closer to those of the peristyle foundation and equally irregular.

There were no clamps in the foundation. This is in accord with general practice, clamps being reserved for the courses above ground which lacked the buttressing of the earth or gravel filled in about the foundations. Thus clamps would be used in the fifth century B.C. in the lowest course of the krepidoma, generally referred to as the euthynteria, which was largely if not entirely above ground, and formed a bonded ring that would not spread under the superposed weight of the temple. At Hermione, the foundation is also the euthynteria; it is now partly exposed and probably was so in antiquity, but the architect apparently trusted to the bonding effect of the polygonal construction, and justifiably, for the joints in much of the preserved portion are as tight as when they were first made.

What of the krepidoma and superstructure? Every clue, every suggestion must be wrung from the foundation, which was apparently swept clear of overlying blocks to make way for the church, if not before. For some distance on all sides of the temple, the ground is littered with broken rocks, none much bigger than a cabbage, and used nowadays by the Boy Scouts who whitewash them to ornament the area when they camp there (Pl. 47, a). These are all gray limestone, nor did a brief search discover any with a worked surface. Marble chips abound, particularly at the west end, but the scraps of finished pieces are all of window grilles and revetments for the church.¹²

¹¹ For a similar variation in level, see for example the temple of Athena Pronaia at Delphi, *Fouilles de Delphes*, II^{2A}.

¹² Philadelphus wrote of limestone column drums built into the medieval fortifications (*op. cit.*, p. 177). I have not seen them myself, but would caution that in order to move large blocks of stone for military construction, the Venetians, at least, often shaped them into rough drums which could be rolled to their new destination. Such an attempt may account for the nearly circular block which lies just south of the temple near the east end (Pl. 48, b). What might at first appear to be an unfinished drum reveals on its present under surface the level change found on the top of the foundation course (see below, p. 175); probably the original joint surface was partly curvilinear.

More than half a century has gone since Philadelphus described the wall on the Bisti as constructed "almost entirely of ancient Greek blocks," including rectangular plinths from isodomic walls, statue bases, votive stelai and all sorts of architectural pieces from ancient buildings.¹³ What has happened to these we do not know, but can guess that the inhabitants of modern Hermione, at least until the introduction of concrete and cinder block, like the Kastriotes of Curtius' time, found here a "convenient source of finished building stone."

FOUNDATION SURFACE

However, a study of the foundations reveals various traces of the superposed course of blocks. The edge of the peristyle foundation is worn and smooth, where it has been most weathered, and therefore presumably projected from under the next course (Pl. 48, c). It is not possible to measure this projection very accurately, but it appears to be 0.26 m. on the north and south sides, about 0.30 m. at the west and 0.52 m. at the east. In addition a raised band 0.09 m. wide occurs along the edge for a short stretch of the south side (Pl. 48, c); this band shows the marks of a toothed chisel and is, perhaps, an incompletely removed protective surface, being below the adjacent ground level in ancient times as it is today. The outer part of the peristyle foundation has been dressed down to provide a true bed for the succeeding course, resulting in a roughly bevelled change of level as much as 0.045 m. high on the north side, and disappearing entirely on a large stretch of the south. The line where this change takes place presumably indicates the position of the back of the outer row of blocks, which would have been 0.73 m. deep on the north side, about 0.69 m. on the south, 0.86 m. on the west and 0.79 m. on the east. The line is continuous and parallel to the edge except at the northwest corner where it jogs outward.¹⁴

At the east end of the peristyle foundation, the center blocks show a special treatment not preserved elsewhere in the building (Pl. 48, d). The surface has been lowered slightly within a band 0.09 m. wide, which runs just outside the line of level change, and returns more or less at right angles in a band approximately twice that width, on the axis of the foundation, and again further north, the effect being much that of a horizontal anathyrosis in three panels, each over a meter wide. The tooling appears to be identical with that found all over the surface of the foundation, except that the surface at the east end outside the apse is somewhat more worn.

¹³ *Op. cit.*, p. 173.

¹⁴ The measurements given above and the line shown on the plan (Fig. 2) are for the sharply drawn edge of the upper surface. The measurement of the lower outer bed would be one or two centimeters narrower depending on the dimensions of the bevel. Similar preparation for outer step blocks may be seen at the temple of Apollo at Eretria and the temple of Athena Pronaia at Delphi (see below, p. 180, note 20).

CUTTINGS

Although there are no cuttings for clamps, there are many for pry bars. These are 0.045 m. to 0.07 m. in length, about 0.02 m. in width and no more than that in depth. They occur with considerable regularity, at right angles to the outer edge of the foundation, in a double or triple row under the peristyle, one row under the cella walls (Pl. 48, a). Others at the inner edge of the cella wall foundations are probably not pryholes (see below, pp. 178, 182). Apparent gaps in the series are usually to be found where the cutting would coincide with a joint, but all pryholes are conspicuously absent on the eastern half of the cella wall foundations and on those for the crosswalls. Occasionally two or even three appear together. Another series on the peristyle foundations is oriented parallel to the edge and runs between the two inner rows of those at right angles to the edge.

There are no dowel holes, although there are several groups of cuttings which resemble them. These are from 0.07 m. to 0.095 m. in length, 0.015 m. in width, and 0.05 m. in depth, and occur arranged lengthwise in a series, spaced about 0.08 m. apart.¹⁵ In three cases they occur at or very near the edge of the block, in the other two cut across the middle in an apparently meaningless diagonal. In all probability, they are preliminary cuttings made prior to splitting a large block into more manageable pieces. Two such attempts must have been ruled unnecessary, two far enough from the actual cleavage to miss the dressing of the joint surface, and the last not removed by subsequent dressing because it is not on a joint surface but the outer face of the cella foundation.

RECONSTRUCTION OF BOTTOM STEP

Now, with these changes in surface and various pryholes in mind, certain conclusions can be drawn about the krepidoma. The regularity of the cuttings as well as the straight line at the change of level shows clearly that the construction above the foundation employed approximately uniform rectangular blocks, probably clamped together, though not doweled, at least in the lowest course. The bottom step had an outer row of blocks 0.69 m. to 0.86 m. deep depending on the side of the temple, with an average length of about 1.30 m. (Fig. 3). The pryhole used to shove each of these blocks tight against the preceding one lies toward the outer corner of the free end, permitting the diagonal shifting of the block both along the row and inwards, without the use of an exposed cutting at the front (Fig. 4).

The second row of pryholes must be associated with a second row of rectangular blocks, the depth of which is indicated by those cuttings parallel to the face of the

¹⁵ These occur on the second block from the east on the north side (3 cuttings), the eighth from the north on the east side (4 cuttings), the third existing block from the east in the secondary row on the south side (2 cuttings), the fifth cella block from the west on the north side (3 cuttings), and the second cella block from the west on the south side (4 cuttings).

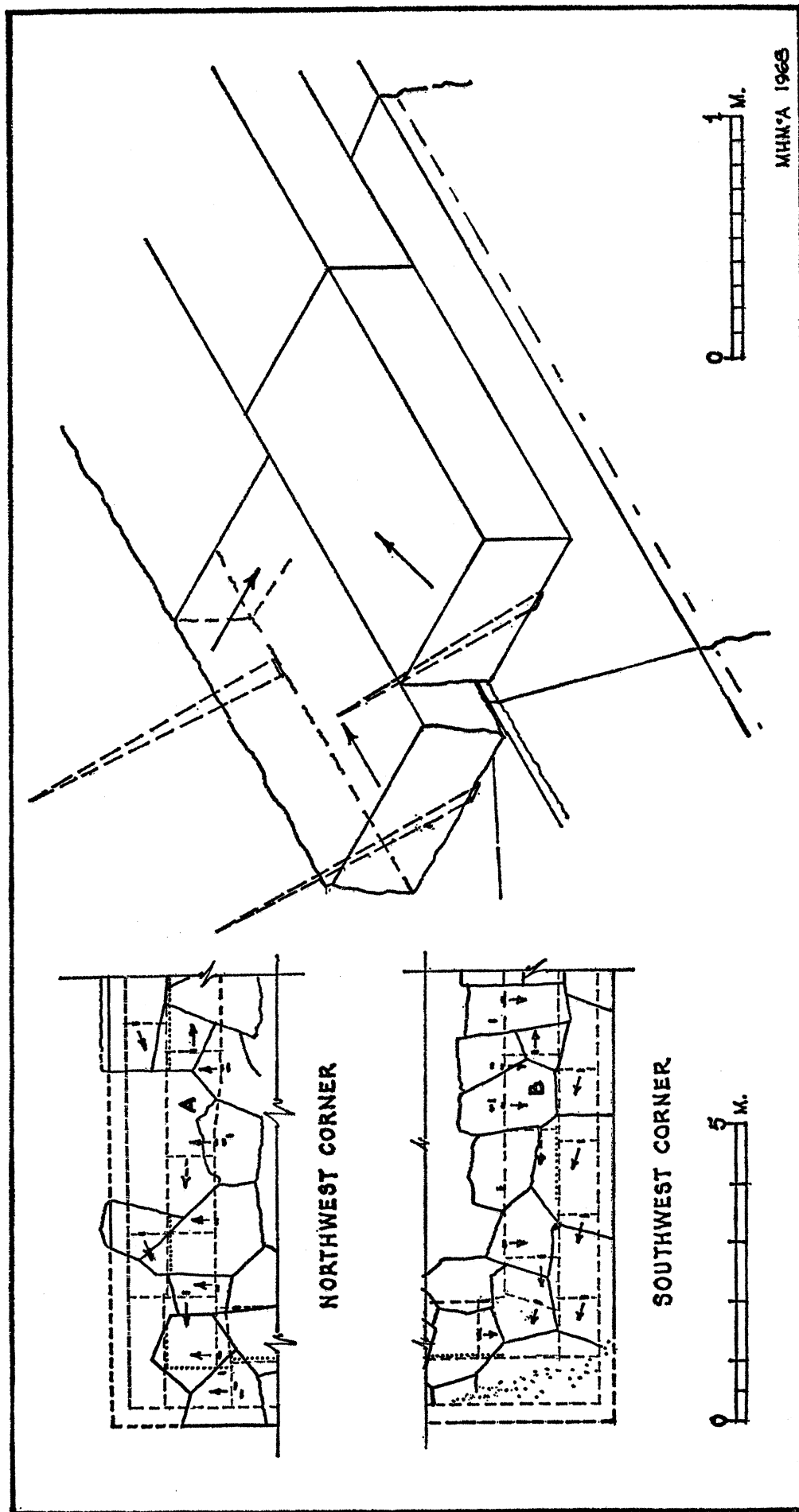


FIG. 4. Diagram of Method of Laying Blocks, as indicated by Pryholes

foundation which served to push them tight against the outer blocks. Here the end pryholes are also somewhat nearer the outside, while those at the back are away from the free end of the block. This arrangement makes it possible to shift the block diagonally against those already in position (Fig. 4, schematic diagram). There are no dowel cuttings to show which was the free end, and these pry cuttings could have been used to shift in either direction, but the lengthwise and transverse cuttings at opposite ends are sufficient to show that the masons followed the general practice of laying the corner blocks first. It is even probable that the last-laid block in the inner row of the long sides can be identified by the double pryholes (Fig. 4, blocks A, B); these blocks could not be set in as closely by rollers or lifting apparatus. At the west end it is perhaps the one between the second and third columns from the north (Fig. 3). There is only one lengthwise cutting at the east end. The innermost row of pryholes was presumably also set somewhat forward of the centerline of the blocks. However, these innermost blocks were the narrowest of all; they seem to have been omitted entirely at the east end and in some places must have actually overhung the foundation and rested in part on the fill between the peristyle and cella.

Finally, it may be noted that no care seems to have been taken to stagger the joints of the three rows, making the use of clamps advisable if not essential.¹⁶

The principal pryholes in the cella wall foundations run in a single line placed somewhat toward the outer face. Their spacing indicates that the blocks were only half as long as those under the peristyle, averaging 0.60-0.70 m. This is the depth dimension of the outer rows, and perhaps these blocks were laid as headers. They would have overhung the outer face, which does not follow as nearly a true line as the inner. A second row of cuttings, probably not pryholes, occurs at the inside face of the foundation. These are spaced approximately three times as far apart as the outer ones, with one short interval on the south side. The abrupt cessation of the main series of pryholes and their almost total absence from the crosswalls suggests a half-completed course, or at least a change of technique, perhaps after a pause in the construction process.¹⁷

As for the wider foundation at the east entrance, there are a few pry cuttings which suggest a row of stretchers, but they peter out at the north end, even if we allow for the use of convenient joints. At the west entrance, there are only two pryholes, parallel to the face of the foundation, and in line with the last cutting on

¹⁶ The blocks of the lowest step course have been shown on the plan (Fig. 3) with solid lines where their size is indicated by the level change or pryholes, or where joints presumably served instead of cuttings. Where a reasonable assumption could be made, further blocks are shown in dashed lines. The strict orientation of the cuttings suggests that the blocks were rectangular, but the uneven alignment of the cuttings (and the "anathyrosis" at the east end, Fig. 2 and p. 175 above) show that they were perhaps somewhat less regular than they appear on the plan.

¹⁷ It is startling to realize that we have no definite evidence that the building was completed. We must assume that it was on the basis of the column drums reported by Philadelphus.

the south cella wall foundation. Because almost all the pryholes are oriented with or across the axis of the temple, it is perhaps worth noting three diagonal ones: at the southwest corner of the peristyle (second row), at the southeast corner of the cella, and on the southernmost block of the rear crosswall foundation.

TRACES OF THE CHURCH

The shallow "channels" in the surface of the foundation must be ascribed to the interior arrangements of the Byzantine church (Pl. 48, e). There is one on the south side at the west end; three more are on the north side, all in the western half, running casually across the upper level of the blocks. The lengthwise "channel" in the middle of the north side appears to be the same type; presumably the church extended north and south beyond the line of the apse to the full width of the foundation. Other remains of the church, besides the stumps of apse wall (Pls. 47, b, 48, d), are irregular paving in the area of the pronaos, and re-used blocks and slabs in the area of the west porch (Pl. 48, e), one of which shows a pivot hole for the door. A narrow cutting on the west side of the east crosswall is probably also late work; on the northernmost preserved block the surface has been lowered 0.007 m., the line continuing on the next block, though the change in level is not measurable. There is no apparent explanation for such a cutting in the temple; in the church, it may indicate the position of the iconostasis.

POLYGONAL CONSTRUCTION

Before we can speculate on the probable arrangement and dimensions of the temple, it is necessary to determine the period if not the approximate date, for purposes of comparison, and for this we have no better guide than the masonry technique, specifically the polygonal construction. Martin terms such foundations "exceptional" and "archaic," and cites a number of examples where the blocks are roughly fitted, the shapes remaining much as they came from the quarry: the temple at Assos, the temple of Athena Pronaia at Delphi, some of the archaic structures at Samothrace, and the temple of Athena on Thasos.¹⁸ To these may be added the older temple of Dionysos at Athens and the Telesterion at Eleusis. More care in fitting the blocks together is shown in the Peisistratid temple of Athena on the Acropolis at Athens, especially in the peristyle foundation, the Old Bouleuterion in the Athenian Agora, the late archaic temple of Apollo at Eretria, and the retaining wall for the temple terrace at Brauron, while the closeness of the joints at the Eleusinion and Peisistratid Olympieion at Athens are comparable to that at Hermione, although the blocks are considerably more regular in shape. Martin also mentions later structures where a foundation trench was haphazardly filled with stones, topped by a layer more carefully arranged so that it has the appearance of polygonal construction: the Tholos at Athens, the

¹⁸ Martin, *Manuel d'architecture grecque*, I, 1965, p. 318.

Palaestras at Delos.¹⁹ Other later examples are the fifth century B.C. temples of Apollo at Bassae, of the Argive Heraion and of Nemesis at Rhamnous.²⁰

In the light of these examples, the foundations at Hermione appear to be archaic, especially in the use of curvilinear joints, but perhaps more specifically late archaic in the sophistication of the masonry technique. With this as a working hypothesis, we may look for other mainland temples of this period, which are about the same size, as guides to a suggested reconstruction. Available and in good condition are the temple of Athena Pronaia at Delphi (hereafter called Delphi), stylobate 13.25 x 27.464 m., 510-500 B.C. and the temple of Aphaia at Aigina (called Aigina), stylobate 13.77 x 28.815 m., 500-490 B.C.²¹ The Peisistratid temple of Athena on the Acropolis at Athens (525-515 B.C.) may be helpful though larger (stylobate 21.30 x 43.15 m.),

¹⁹ *Idem*, with references to *Hesperia*, Suppl. IV, 1940, pp. 48-49, *Délos*, XXV, p. 83.

²⁰ My references for these examples of polygonal foundations:

Assos: Clarke and others, *Assos*, 1902-1921, II, 1921, p. 141.

Temple of Athena Pronaia, Delphi: *Fouilles de Delphes*, II^{2A}, 1922.

Samothrace: Lehmann, *Samothrace: A Guide to the Excavations and the Museum*, 1955.

Thasos: *C.R.A.I.*, 1912, pp. 211 ff., fig. 8. The temple was first identified as that of Apollo Pythios. The photograph shows masonry much superior to the rating given by Martin (note 18).

Temple of Dionysos, Athens: Dörpfeld und Reisch, *Das griechische Theater*, 1896, fig. 1.

Telesterion, Eleusis: Noack, *Eleusis*, 1927, pl. 3.

Peisistratid temple of Athena, Athens: Wiegand, *Die archaische Poros-Architektur der Akropolis zu Athen*, 1904, fig. 72 (plan); Travlos, *Πολεοδομική Ἑξέλιξις τῶν Ἀθηνῶν*, 1960, fig. 17 (photograph).

Old Bouleuterion, Athens: *Hesperia*, VI, 1937, pp. 134 f.

Temple of Apollo, Eretria: Schefold, "Die Grabungen in Eretria im Herbst 1964 und 1965," *Antike Kunst*, IX, 1966, fig. 5. The same plan appears in *Archaeology*, XXI, 1968, p. 274; a photograph lent me by Professor Jameson indicates that the joints, at least in the central part of the northeast side, are closer than the plan would suggest.

Brauron: *Ἔργον*, 1959, p. 18, fig. 20.

Eleusinion, Athens: *Hesperia*, XXIX, 1960, pp. 336 ff. Mr. John Travlos kindly supplied me with a photograph. Professor Homer Thompson dates the Eleusinion temple about 490 B.C.

Olympieion, Athens: Welter, "Das Olympieion in Athen," *Ath. Mitt.*, XLVII, 1922, pl. VIII. Mr. Travlos supplied additional photographs.

Bassae: Suggested by Professor W. B. Dinsmoor.

Argive Heraion: Waldstein, *The Argive Heraeum*, 1902, pl. XVI. Note also the earlier temple, pl. VIII, where many of the stylobate blocks are wedge-shaped, and have no foundation other than the terrace paving.

Temple of Nemesis, Rhamnous: Orlandos in *B.C.H.*, XLVIII, 1924, pl. VIII, fig. 1.

²¹ Delphi: see note 20; dates as given by Dinsmoor, *The Architecture of Ancient Greece*,³ 1950, table facing p. 340, supported by Gruben, *Die Tempel der Griechen*, 1966, p. 89. Aigina: Furtwängler, *Aigina, das Heiligtum der Aphaia*, 1906; D. Ohly (*Arch. Anz.*, 1966, p. 516) gives a date of 510 B.C. for the start of the temple, Dinsmoor (*ibid.*) 495-485 B.C.; Gruben (*op. cit.*, p. 112) gives 500 B.C. for the start, with a detailed discussion in *Ath. Mitt.*, LXXX, 1965, pp. 170-208. The dates of these temples are much disputed; I do not propose to become involved in controversies here, but merely to establish a place for the Hermione temple in the sequence. Any claims to more exact dating at Hermione should be postponed in the hope that excavation may give some direct evidence.

but the temple of Apollo at Delphi is not only much larger but of quite different proportions.

PROPOSED RESTORATION

Yielding now to the irresistible temptation to reconstruct at least the krepidoma, it may be remarked that the number of steps in archaic temples varies from one at Athens, where the Peisistratid stylobate rests directly on the foundation, to two at Delphi and three at Aigina, which also has a true fifth century euthynteria in canonical fashion. At Hermione, there must have been at least two courses above that now preserved because the blocks carried on the specially leveled bed would not be wide enough for the stylobate: the columns would hardly have rested partly on the less well bedded inner row (Fig. 5). On the other hand, more than one intermediate step

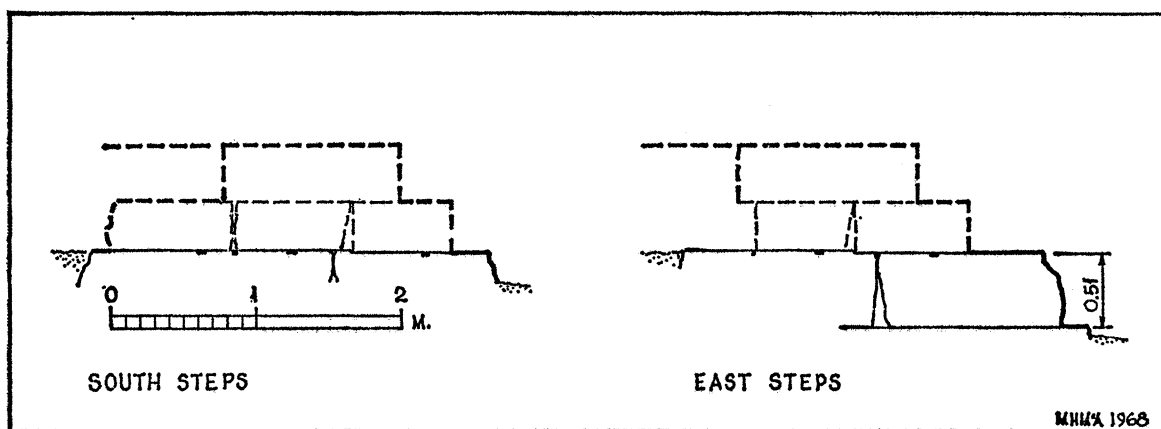


FIGURE 5

would bring the peristyle columns too close to the end of the cella walls.²² If, therefore, we restore two steps in the manner of the Delphi model (shown in heavy dashed lines in Fig. 3), the resulting proportions are remarkably close to those at Aigina. Because they are only suggested theoretically, the restored dimensions are shown in italics, except for the set-back of the lower step, which is taken from the line of weathering on the foundation blocks.²³ For comparison, Aigina which is slightly smaller has the following dimensions at the east end: a) face of stylobate to face of anta, 3.375 m.; b) face of anta to crosswall, 4.435 m. The corresponding dimensions at the west end are a) 2.835 m. and b) 3.145 m. The cella at Aigina measures

²² In a Doric temple, which location if not date would virtually require this to be, the anta is generally expected to stop short of the second column on the side, its outer face aligning approximately with the axis of the second column on the front.

²³ The set-back for the second step is an average figure for a temple about this size: Athena Pronaia 0.37 m., Aigina 0.355, 0.346 m.

6.458 x 13.445 m.²⁴ The pronaos and opisthodomos have been increased at the expense of the porches and cella, changes which generally indicate a later date. The suggested column spacings for Hermione follow the archaic scheme with wider intervals on the front than on the sides, contracted at the corners. The corner columns might have been enlarged; they are shown somewhat exaggeratedly so on the plan.²⁵

Within the cella there is nothing to be seen now but a row of pine trees. However, along the inner edge of the cella wall foundations where they would have projected beyond the upper courses, there is a series of marks indistinguishable in form from the pry cuttings. Although the series is not complete on either north or south, taken together there are more than enough to show that they line up across the cella, dividing it into six equal parts with slightly larger spacings at either end. These must indicate the center lines for interior supports, perhaps a double row of seven columns; two stories, as at Aigina, are suggested by their necessarily small size.²⁶

There was no ramp for the temple at Hermione, nor are there any signs of an altar; excavation east of the foundation might reveal some clue, perhaps rock cuttings, as a monumental structure is not unexpected even if an early date is correct. Six small blocks perhaps to be associated with the temple appear to form the bottom course of a polygonal wall at the west end of the foundations (Pl. 47, a). The wall runs parallel to the north side, about in line with the lowest step; a single block near the southwest corner may mark a corresponding wall on the south side (Pl. 46, b). The outer faces are carefully finished; it has been suggested that these blocks belong to a peribolos west of the temple, but their date is by no means certain.²⁷

We do not know when or how the temple was destroyed. Plutarch in listing the depredations of pirates about the year 67 B.C. includes several temples of Poseidon elsewhere, but at this location only “τὸν ἐν Ἑρμιόνη τῆς χθονίας νεών.”²⁸ Although the association of this temple with that of Poseidon has been questioned because of the liability of Pausanias to varying interpretations, the Chthonian sanctuary was

²⁴ For the source of the dimensions of temples elsewhere than at Hermione, see above p. 180, note 20.

²⁵ Note that the three temples taken as comparanda are all hexastyle with twelve columns on a side. Further, the ratio of width to length of the stylobate is 1:2.073 for Delphi, and 1:2.093 for both Aigina and the restored temple at Hermione. It seems most likely that the Hermione temple also had twelve columns. The probable closeness of the stylobate ratio to that of Aigina gives an added reason to assign the Hermione temple to the same period, but that is part of another story. Cf. Dinsmoor, *Architecture of Ancient Greece*,³ pp. 337 ff. for ratios of other temples.

²⁶ It is tempting to explain the larger end spaces by restoring corresponding pilasters on the crosswalls, as the excavators have suggested for the late archaic temple of Apollo at Eretria (see above, p. 180, note 20), but there is no apparent sign of this in the foundations. The extra mark on the west end of the south wall remains a mystery. The corresponding marks are missing at the west end on the north side; the extra mark may have been for other interior arrangements or merely a false start.

²⁷ Jameson, *loc. cit.*

²⁸ Plutarch, *Life of Pompey*, XXIV, 5.

clearly further west. Does this mean the temple was already in ruins? Of the temple of Poseidon, Pausanias uses the word *ἱερόν* without further description.²⁹ Certainly by the time the Byzantine church (of unknown date) was built, the only part of the structure worth using was the foundation; the apse and door pivot hole show that the remains of the krepidoma must have been cleared away, presumably to be used as raw building material. The church was apparently destroyed under the Turks, perhaps in order to use the blocks again; the nineteenth century travellers on the whole ignore its existence.

The variation in dimensions reported for the temple is puzzling. The length of "over a hundred feet" (Curtius, Bursian and Frazer) or 33 meters (Philadelphus) agrees with the latest measurements of 32.98 meters (108' 2½"). However, the width of 38 feet (Bursian and Frazer) is only 11.58 meters and suggests that the debris which Philadelphus found on the site obscured the actual dimensions. On the other hand, the width of 29 meters given by Philadelphus is so extraordinary for a 33 meter temple that it must be a typographical error; it obviously has no relation to the actual remains. The mysterious 80 foot pavement Frazer describes "immediately behind" ("unmittelbar dahinter" writes Curtius) is more easily justified as it corresponds very closely to the length of the cella walls (24.50 meters or 80' 4½"), one of which might have seemed to be "behind" the peristyle foundation.

SUMMARY

On the promontory east of the modern town of Hermione in the southern Argolid there are the largely complete remains of a temple foundation. It is of local gray limestone, 16.25 x 32.98 m., in large well-fitted polygonal blocks. The plan is probably to be restored as hexastyle with twelve columns on a side, on a platform with two steps; the cella had both pronaos and opisthodomos and probably a double row of seven columns, or pairs of superposed columns, in the interior. The masonry technique and proportions of the suggested restoration place the temple a little after that of Athena Pronaia at Delphi in the line of architectural development, and before the temple of Aphaia at Aigina, which it greatly resembles. The Hermione temple lacks the regularity of the one at Aigina, the fifth century features of three-step-and-euthynteria krepidoma, ramp, and deeper pronaos and opisthodomos. It is therefore probably to be dated at the close of the sixth century B.C. Subsequently, both the temple and the church built on its foundation were destroyed and the blocks carried off for use elsewhere; no trace of the superstructure has been identified at the site.

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PHILADELPHIA

²⁹ Pausanias, II, 34, 10.

HISTORICAL NOTE

The narrow, rocky peninsula on which the temple was built runs for over a kilometer east from the base of the hill called in antiquity Pron. In Pausanias's time the peninsula was thought to be the site of the earlier city while the contemporary city lay on the slopes of the Pron. He speaks of the coast (ἀκτὴ) as running out to the Poseidion (II, 34, 9) and subsequently (11) identifies the headland (ἄκρα) as that "on which is the sanctuary of Poseidon." The eastern half of the peninsula was separately fortified in the middle ages,¹ and in antiquity must have been dominated by the building on its highest level whose remains are the subject of this article. It has generally been identified with the Poseidion. Philadelphus, however, preferred to locate the sanctuary at the very tip of the peninsula and to take this temple to be that of Athene.² Indeed, Pausanias lists the sanctuaries on the peninsula in the following order: "that of Poseidon, at the beginning of the promontory (ἐπὶ τῆς ἀκτὸς τῇ ἀρχῇ) and then, as one moves up (ἐς τὰ μετέωρα) from the sea, the naos of Athene and alongside it the foundations of a stadium . . . , another small hieron of Athene . . . , a temple for Helios and another for the Charites, and for Sarapis and Isis, and periboloi of large, unworked stones within which they carry on secret rites to Demeter (10)." While Philadelphus's identification is possible, it is easier to suppose that the most prominent building on the eastern half of the headland was used by the periegete as his landmark rather than a structure at the very tip which, in view of the space available, would have been considerably smaller. Nor is it easy to see how a stadium could have been located alongside of our temple. But this location, as can be seen from Plate 46, a, is thoroughly suitable for a sanctuary of Poseidon.

That view of the site, with the Bisti stretching out toward the island of Hydra (ancient Hydrea) may also be revealing in another connection. How did the small city of Hermione pay for a sizable temple in the late archaic period? In 524 B.C. exiled opponents of Polykrates from Samos exacted 100 talents from the Siphnians. With this money, though perhaps not all of it, the Samians purchased the island of Hydrea from the Hermionians and handed it over to the Troizenians for safe-keeping when they went off to Kydonia in Crete.³ There is no arable land to speak of on the island and its chief value was for herdsmen or as a base for fishermen and pirates.⁴ The peraia of the island was Troizenian territory, probably before the acqui-

¹ See *Ath. Mitt.*, XXXVI, 1911, pl. I the scale of which needs to be doubled; Kevin Andrews, *Castles of the Morea (Gennadeion Monographs, IV)*, Princeton, 1953, plan XXVII, one of a series of Venetian plans made between 1685 and 1715.

² See note 8, *supra*. The use by Pausanias of *hieron* rather than *naos* for the Poseidion need not signify a smaller building but here perhaps a considerable precinct rather than a single structure. The cult of Poseidon is attested by an inscription for a priest, Aurelios Charixenos, of the second or third century after Christ (*I.G.*, IV, 716).

³ Herodotos, III, 58-59.

⁴ On Hydra, see *Hesperia*, XXVIII, 1959, pp. 116-117.

sition of the island itself.⁵ A round tower of ashlar blocks of limestone, whose remains lie about 1 km. east of the present-day village of Thermisi, may have been near the ancient boundary on the Hermionian side (it is on the eastern slope of a ridge). Troizen was considerably more populous than Hermione⁶ and could perhaps have made more use of the island. The transfer of Hydrea from Hermione to Troizen with money provided by the Samian exiles could have been mutually advantageous, whereas one can not imagine two neighboring Greek states amicably transferring territory between each other.

With her population a fleet was not in question for Hermione. Improvement of her city walls around the steep promontory and across its base would not have consumed much of the money received. Even allowing for generous distributions to the citizens it seems obvious that the city would have wanted to honor the gods, and who would be more appropriately honored with the proceeds of the sale of the island than the god of the sea?

We know little about the cost of building at this time. The contemporary Alkmaionid temple at Delphi cost 300 talents and the Delphians themselves had difficulty in raising their quarter share.⁷ The Delphic temple covered a little less than three times the area of our building,⁸ which agrees well enough with the sum of money available. Unfortunately the question is complicated by the cost of transportation for building materials. It has been estimated that the fourth century temple of Asklepios at Epidauros would have cost three times as much as it did if its transportation costs had been the same as for the fourth century temple at Delphi.⁹ We do not know where the building materials for our temple came from as we do not know what materials were used above the foundations, nor the degree to which the temple was adorned with sculpture. However, relatively little terracing would have been needed in comparison with Delphi. In any case, we can be sure that the sale of Hydrea provided more than enough money for the building of this temple in the late sixth century and that such an expenditure would have been most appropriate.

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⁵ Cf. Hekataios of Miletos, *F. Gr. Hist.* I, F. 124 (*ap.* Steph. Byz., *s.v.* Ὑδρέα); Bölte in *R.E.*, *s.v.* Hermion, col. 837; Pausanias, II, 34, 6 and 12 (on the border).

⁶ At Salamis there were three ships from Hermione and five from Troizen (Herodotos, VII, 43); at Plataia, 1000 Troizenians compared to 300 Hermionians (Herodotos, IX, 28, 4). The probably welcome settlement of Tirynthians at Halieis in the southern part of the Hermionid early in the fifth century B.C. also suggests a small population at Hermione. Cf. Bölte, *R.E.*, *s.v.* Halieis; Svoronos, *Journ. int. d'archéol. numism.*, X, 1907, pp. 13 ff.; Young, *Expedition*, V, 1963, pp. 2-11; Δελτ., XVIII, 1963, Χρονικά, p. 74, XXI, 1966, Χρονικά, pp. 148-151.

⁷ Herodotos, II, 180; cf. V, 62. There has been disagreement on what the 300 talents were to cover and on how much the Alkmaionids contracted to build. Cf. Homolle, *B.C.H.*, XXVI, 1902, pp. 597 ff.; de la Coste-Messelière, *B.C.H.*, LXX, 1946, pp. 271-287. Herodotos, at least, believed that the Alkmaionids undertook all the building (V, 62, 3).

⁸ Cf. W. B. Dinsmoor, *The Architecture of Ancient Greece*,³ p. 339: the fourth century temple at Delphi, 21.68 m. by 59.18 m. (almost identical in plan with its predecessor, pp. 91-92). For Hermione the comparable measurements are 16.25 m. by 32.98 m.

⁹ Cf. R. S. Stanier, *J.H.S.*, LXXIII, 1953, pp. 70 ff.



a. Hermione from the West



b. South Side of Temple, looking East

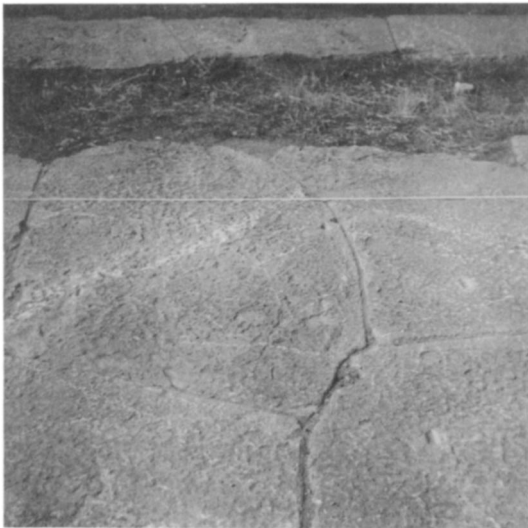
MARIAN HOLLAND MCALLISTER: A TEMPLE AT HERMIONE



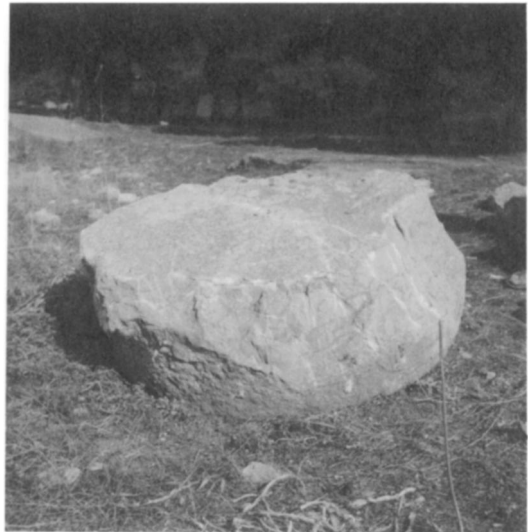
a. North Side, looking East



b. East End, looking North



a. South Peristyle and Cella Foundations, near Center



b. Overturned Foundation Block



c. South Peristyle Foundation, looking East



d. East End, looking South



e. Channel at Southwest Corner of Peristyle, Small Block belongs to Church Paving